Applicability of cable theory to vascular conducted responses

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2012 Experimental Biology

April 21 – 25, San Diego Convention Center, San Diego, CA

SPONSORS:
American Association of Anatomists (AAA)
The American Physiological Society (APS)
American Society for Biochemistry and Molecular Biology (ASBMB)
American Society for Investigative Pathology (ASIP)
American Society for Nutrition (ASN)
American Society for Pharmacology and Experimental Therapeutics (ASPET)

www.experimentalbiology.org
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M. Jackson, Director, FASEB OSMC
J. Kearney, Exhibits Manager, FASEB OSMC
OFFICE LOCATIONS * HOURS * TELEPHONE NUMBERS

AAA .............................................................. 619-525-6220
San Diego Convention Center, Room 10
Saturday – Tuesday, 7:30 AM – 5:00 PM
Wednesday, 8:00 AM – 12:00 PM

APS .............................................................. 619-645-6940/6941
San Diego Marriott Marquis & Marina, La Jolla/La Mesa
Saturday – Tuesday, 8:00 AM – 5:00 PM
Wednesday, 8:00 AM – 3:30 PM

ASBMB ........................................................ 619-525-6226
San Diego Convention Center, Lobby 6A
Sunday – Wednesday, 8:00 AM – 5:00 PM

ASIP .............................................................. 619-525-6222
San Diego Convention Center, Room 18
Saturday – Tuesday, 8:00 AM – 5:00 PM
Wednesday, 8:00 AM – 12:00 PM

ASN .............................................................. 619-321-6513
San Diego Hilton Bayfront, Room 302
Saturday – Tuesday, 9:00 AM – 1:00 PM; 3:00 PM – 6:00 PM
Wednesday, 8:00 AM – 11:00 AM

ASPET .......................................................... 619-645-6988
San Diego Marriott Marquis & Marina, Rancho Sante Fe 3
Saturday, 12:00 PM – 4:00 PM
Sunday – Tuesday, 7:00 AM – 6:00 PM
Wednesday, 7:00 AM – 12:00 PM

AV HEADQUARTER OFFICE ......................... 619-525-6215
San Diego Convention Center, Room 19
Friday, 7:00 AM – 5:00 PM
Saturday – Wednesday, 6:00 AM – 6:00 PM

CAREER RESOURCES
San Diego Convention Center, Hall D
Saturday – Tuesday, 8:00 AM – 5:00 PM
Wednesday, 8:00 AM – 12:00 PM

CHILD CARE .................................................. 619-525-6209
San Diego Convention Center, Hall E
Saturday, 8:00 AM – 6:00 PM
Sunday – Tuesday, 7:00 AM – 7:00 PM
Wednesday, 7:00 AM – 6:00 PM

EXHIBIT MANAGEMENT .............................. 619-525-6201
San Diego Convention Center, Hall A
Thursday – Tuesday, 8:00 AM – 5:00 PM

EXHIBITOR REGISTRATION ......................... 619-525-6200
San Diego Convention Center, Lobby B
Friday – Tuesday, 8:00 AM – 4:00 PM

HOUSING DESK ............................................ 619-525-6211
San Diego Convention Center, Lobby B
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday, 7:00 AM – 5:00 PM

INFORMATION DESK ................................. 619-525-6211
San Diego Convention Center, Lobby B
Saturday – Wednesday, 9:00 AM – 6:00 PM

INFORMATION
Marriott Hall Registration Desk (North Tower)... 619-645-6950
Marina Registration Desk (South Tower)......... 619-645-6921
Meeting Management Desk, Marriott Hall
Saturday – Wednesday, 8:00 AM – 5:00 PM

INFORMATION .............................................. 619-321-6552
San Diego Hilton Bayfront, Room 502
Meeting Management Desk,
Saturday – Wednesday, 8:00 AM – 5:00 PM

LOST AND FOUND ........................................ 619-525-6204
Meeting Management Office
San Diego Convention Center, Lobby D

MEETING MANAGEMENT OFFICE ............... 619-525-6204
San Diego Convention Center, Lobby D
San Diego Convention Center, Hall E
Saturday, 10:00 AM – 4:00 PM
Sunday – Tuesday, 7:30 AM – 5:00 PM
Wednesday, 7:30 AM – 12:00 PM

REGISTRATION INFORMATION .................. 619-525-6610
San Diego Convention Center, Lobby D
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday – Tuesday, 7:00 AM – 5:00 PM
Wednesday, 7:00 AM – 3:00 PM

SPECIAL FUNCTION/COMMITTEE
MEETING INFORMATION ............................. 619-525-6204
Meeting Management Office, Lobby D

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Meeting Management Office, Lobby D

SPEAKER PRACTICE ROOMS
San Diego Convention Center, Room 11B........... 619-525-6216
Saturday – Wednesday, 7:00 AM – 6:00 PM

San Diego Convention Center, Room 21............ 619-525-6217
Saturday – Wednesday, 7:00 AM – 6:00 PM

SAN DIEGO CONVENTION CENTER
111 West Harbor Drive, San Diego, CA 92101
Main #: 619-525-5000

SAN DIEGO MARRIOTT MARQUIS & MARINA
333 West Harbor Drive, San Diego, CA 92101
Main #: 619-234-1500

SAN DIEGO HILTON BAYFRONT
1 Park Boulevard, San Diego, CA 92101
Main #: 619-564-3333

See last page of program for hotel map and telephone numbers for overflow hotels.
REGISTRATION
San Diego Convention Center, Lobby D

Hours
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday –Wednesday, 7:00 AM – 5:00 PM

SATELLITE REGISTRATION
San Diego Marriott Marquis & Marina, Marriott Hall – Registration Desk

Hours
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday, 7:00 AM – 5:00 PM

Fees
Sponsoring/ Participating Society Member $425
Retired Society Member $135
Nonmember $575
Graduate Student Member $85*
Graduate Student Nonmember $105*
Undergraduate/High School Student Free**
High School Teacher Free**

One day registration is not available.

Categories
*Graduate Student (including all Society student members)
Students must have a department head or research advisor certify student eligibility. If registering at the meeting, bring a student ID card or a letter signed by your department head. “Student” will be indicated on your badge. Postdoctoral fellows, hospital residents, interns, and laboratory technicians do not qualify as students and must pay the full member or nonmember rate.

**Undergraduate Students, High School Students and High School Teachers
Participants must register on-site. For eligibility, bring a student or teacher ID or a letter signed by your supervisor (e.g., department head, research advisor, principal or teacher).

Guest Registration
Spouses and other non-scientist family members who wish to see a family member’s presentation may pick up a guest pass at a participating Society office or the Meeting Management Office. The guest pass only allows admittance to the one session where the family member is speaking. The guest pass does not include admission to the exhibits, scientific sessions, or social activities.

Cancellation and Refund Policy
To cancel and receive a refund for registration, the badge, receipt and a cancellation letter requesting a refund of the registration fee must have been received by March 23, 2012. After March 23, 2012 there are no refunds.

Exhibitor Registration
Company representatives and guests of exhibitors may register at the Exhibitor Registration Desk in Lobby B of the San Diego Convention Center. Registration will be open Friday – Tuesday.

Press Registration
Press badges will be issued from the EB Press Office, located in the San Diego Convention Center, Hall E, to members of the working press and freelance writers bearing a letter of assignment from an editor. Representatives from allied fields (public relations, public information, public affairs, etc.) may register in the registration area as nonmembers. Contact Suzanne Price for information at media@faseb.org.

SOCIETY TICKETED EVENTS
The following special Society activities have been planned and may require a fee in addition to the Experimental Biology 2012 registration fee.

AAA Social Event
20th Annual AAA Awards Banquet & Reception –
Tuesday, April 24, 2012
The American Association of Anatomists cordially requests the pleasure of your company at the 20th Annual AAA Awards Banquet on Tuesday, April 24, 2012. The Banquet—from 7:00 PM to 10:00 PM at the Marriott Hotel—will feature a cocktail reception, dinner, & presentation of AAA awards. Tickets are $66 and will be available for purchase online via the AAA website (www.anatomy.org). Tickets will not be sold on-site at the meeting.
APS Social Event
The American Physiological Society will be celebrating its 125th Anniversary during the Experimental Biology 2012 meeting. As part of the celebration, APS will be holding a number of social events in conjunction with the meeting. APS registrants are encouraged to participate in these social events. EB attendees expressing interest in physiology are also invited to attend.

The Opening Ceremony and Walter B. Cannon Lecture on Saturday, April 21 at 5:30 PM is free of charge. However, there is a charge for the following events: (1) APS 125th Anniversary Beach Party on the North Embarcadero on Saturday, April 21, 7:00 PM – 10:00 PM and (2) APS 125th Anniversary Closing Party on Wednesday, April 25, 6:30 PM – 10:00 PM.

Please sign up for these events when registering for the meeting by checking the boxes on the registration form. The charge for each event will be $15.00 in advance/$25.00 on-site.

ASN Social Event
Luncheon for ASN Fellows and 50-Year Members
Join ASN in celebrating the accomplishments and achievements of our past and present Fellows and 50-Year Members over lunch at the Annual Meeting. This luncheon will follow a presentation honoring the newly inducted 2012 ASN Fellows. All members are invited to attend; guests are permitted. Ticket fees are as follows: $45.00 for members and $35.00 for non-members. All newly inducted Fellows will receive free registration. Additional details will be posted at www.nutrition.org.

ASBMB Social Event
Attendees interested in the following ASBMB organized activities may sign up while registering for the EB2012 meeting. Fees are noted below and event registration will close when fully subscribed. Details of these and other ASBMB events will be posted at www.asbmb.org/meeting2012.

ASBMB Graduate/Postdoctoral Professional Development Program – Saturday, April 21
This program will be held on Saturday, April 21, 9:00 AM – 3:30 PM. Event registration includes lunch: $25 ASBMB members; $35 all other EB registrants. ASBMB Travel Award recipients do not have to register for this event.

Professional Development Workshop for Students, Postdocs and Junior Faculty, sponsored by the ASBMB – Tuesday, April 24
This workshop will be held on Tuesday, April 24, 12:30 PM – 1:30 PM. Event registration includes lunch: no cost for ASBMB members; $20 all other EB registrants.

ASBMB 5K Fun Run and Walk – Sunday, April 22
Fun Run/Walk will be held rain or shine on Sunday, April 22 at 7:00 AM. The entry fee includes a T-shirt: $25 for ASBMB members; $35 for all other EB registrants.

BADGE PICK UP
Badges were not mailed in advance. Badges and programs may be picked up on-site at the registration counters located in the San Diego Convention Center, Lobby D. Lost or forgotten badges can be replaced at the Replacement Badge Counter in the Convention Center Registration Lobby for $5. In addition, the program was not mailed in advance and can be picked up on-site at the Publications Counter located in the San Diego Convention Center, Lobby D.

NOTE: Badges must be worn at all times in the San Diego Convention Center. You will not be allowed access into the Exhibit Hall or scientific sessions without a badge. Children under the age of 16 are not required to wear a badge but must accompanied by a registered attendee.

CHILD CARE/Camp EB, Hall E
Camp EB welcomes children ages 6 months – 17 years. Children participate in age-appropriate activities including arts and crafts, active games and much more in a safe, nurturing environment. Meals are not included in the camp fees. Parents can send or bring lunch to the center. Note: For the safety and security of your child(ren), EB/ACCENT has the right to refuse care to any child based on space availability and appropriateness. EB/ACCENT also has the right to refuse care to any child unable to adapt to group situations or whose presence or behavior may disrupt the program or endanger the health or safety of other children. ACCENT staff does not administer medication. Any child who is ill will not be admitted to the center.
COAT CHECK/LUGGAGE STORAGE
San Diego Convention Center, Hall E
Facilities for luggage storage and coat check will be available Friday through Wednesday. The coat check can store your bag(s) and coat(s) for the day for $2 per item. Please do not bring luggage to the meeting rooms.

CONFERENCE PHOTO CONSENT
When you registered for Experimental Biology 2012, you affirmed agreement to allow the official Experimental Biology photographers to record your participation and reproduce your likeness in publications, online, etc.

DRINKING POLICY
A number of social activities have been planned where alcoholic beverages will be offered. The Experimental Biology participating Societies, the San Diego Convention Center, San Diego Marriott Marquis & Marina, and the San Diego Hilton Bayfront, encourage responsible drinking of alcohol. Alcohol will not be served to anyone under the age of 21. Please be prepared to show photo identification. Alcoholic beverages are allowed only in specific areas and must not be taken out of those immediate areas.

E-POSTERS AND POSTER PICK UP
San Diego Convention Center, Lobby D
Please visit the Mira Digital Publishing desk in Lobby D to upload your PDF poster file. If you ordered your poster for on-site delivery by Mira Digital Publishing, your poster can be picked up in Lobby D. Following the meeting, all registered attendees will be able to access the posters online through the e-poster link on www.experimentalbiology.org.

EXHIBITS
San Diego Convention Center, Exhibit Halls A-D
Exhibits will be open 9:00 AM–4:00 PM, Sunday–Tuesday. See pages 425–493 for the complete list of exhibiting companies and products. Your visit to the exhibits may be customized by building an itinerary online at www.experimentalbiology.org/content/exhibits.aspx. Click on the Exhibit Floor Plan and login as a guest. Admission to the Exhibits is by official badge only. Children under the age of 16 accompanied by a registered adult are permitted access to the Exhibit Hall without a badge during show hours. Children are not permitted in the Exhibit Hall during setup or dismantle hours.

EXHIBITOR WORKSHOPS
Exhibitor Workshops provide exhibiting companies the opportunity to talk about new product lines and services in an educational format, much like a session, and offer audience interaction and informal discussion beyond the Exhibit Hall. Exhibitor Workshop descriptions, times and locations are listed on pages 494–497.

FAMILY ROOM/WOMEN SCIENTISTS’ LOUNGE
San Diego Convention Center, Hall E
The family room and women scientists’ lounge will be open during registration hours. The lounge will have tables, chairs and a private area. The lounge is intended to provide a quiet environment where babies may be nursed, and where children can be taken for a break.

FOOD AND BEVERAGE
Concessions will be open in the Exhibit Hall during exhibit hours, Sunday – Tuesday and in the Sails Pavilion Sunday – Wednesday. The food service offers continental breakfast, hot foods, sandwiches, salads, light snacks and beverages. A number of concessions will also be open on Saturday – Wednesday offering a variety of “grab and go” foods.

HOUSING INQUIRIES
San Diego Convention Center, Lobby B
A San Diego housing bureau representative will be located in the registration area Friday–Sunday to manage hotel questions and concerns. After Sunday, please refer your questions to the Meeting Management Office located in Lobby D.
INTERNET ACCESS
EB Lounge
San Diego Convention Center, Exhibit Halls A-D
Internet kiosks will be provided for checking email.

Wireless Access
San Diego Convention Center, Sails Pavilion and Lobby A - H
Wireless internet access will be available in the San Diego Convention Center Sails Pavilion and Lobby A - H, courtesy of EB, to all registered attendees. The free service will only be available in these areas. Attendees who wish to use the service should bring their own laptop computer (with a wireless 802.11/a, g, or n network card installed). To access the Internet, open your browser and access the SSID (wireless network identified) to “EB2012”. You will need to set your network card to use the DHCP. Technical support will not be provided at the meeting. Please configure your wireless connection before coming to the meeting. Remember to consider the security implications of using the wireless network and protect your laptop accordingly. For assistance, please call ext. 5500 from any house phone.

MESSAGE CENTER/LITERATURE TABLES
San Diego Convention Center, Lobby C
The message center and literature tables will be located in Registration Lobby. Registrants can check for messages and post fliers advertising social events or upcoming meetings. Exhibitors are not permitted to display materials on the literature tables.

POSTER PRESENTATIONS
San Diego Convention Center, Exhibit Halls A-D
Poster viewing and display hours are Sunday and Monday, 7:30 AM – 6:00 PM and Tuesday, 7:30 AM – 4:00 PM. Presentation times for each author are listed at the beginning of the session in the daily program. Your poster board number is the alpha/numerical listing next to your abstract number.

San Diego Convention Center, Sails Pavilion
Poster viewing and display hours for Wednesday are 7:30 AM – 5:30 PM. Presentation times for each author are listed in the EB2012 Daily Program and the Late-Breaking Program.

Poster Presentation Policy
Presenters must hang their posters no later than 7:30 AM on their day of presentation.

Presenters are expected to be at their poster boards during the assigned session presentation time, as designated by each society.

Posters must remain on display all day.

Posters that do not remain on display all day during their assigned day may, at the discretion of the programming society, be ineligible for awards.

Recording (photographing, audio taping or videotaping) any presentation/session is PROHIBITED, except by an EB-authorized agent or by first authors who want to photograph their poster presentation.

Please do not leave belongings, poster containers, or any materials under the poster boards or in the poster area. EB is not responsible for articles left in the poster area.

PRESS ROOM
San Diego Convention Center, Hall E
The EB Press Room will be open to members of the working press and freelance reporters with credentials. Upon registration, press members will receive all meeting materials as well as a press kit. The EB Press Room will be open Saturday, 10:00 AM – 4:00 PM, Sunday – Tuesday, 7:30 AM – 5:00 PM and Wednesday, 7:30 AM – 12:00 PM. The EB Press Room will include press information from all six sponsoring societies. To reach the Press Room on site, please call 619-525-6214.

PUBLICATIONS
San Diego Convention Center, Lobby D
Program
The program was not mailed in advance to U.S. or International registrants. It can be picked up on-site at the Publications Counter located in the San Diego Convention Center, Lobby D.

Late-Breaking Abstracts and Program Addendum
Registrants will receive a copy of the Late-Breaking Abstract Program and the Program Addendum at the meeting. All late-breaking abstracts are available
online at www.miracd.com/EB2012/Itinerary and as part of the online version of The FASEB Journal at www.fasebj.org. Additional copies of the Program may be purchased at the Publications Counter in Lobby D.

RECORDING
Photographing, audio taping, videotaping any presentation (oral or poster) or exhibit display is prohibited, except by an Experimental Biology authorized agent for official purposes, or by first authors who want to photograph their own poster presentation. You will be asked to leave the session room or exhibit hall if this policy is violated.

RESTAURANT RESERVATIONS AND CITY INFORMATION
San Diego Convention Center, Lobby B
Participants may obtain information about local restaurants and things to do in San Diego at the Visitors and Convention Bureau’s Information counter located in Lobby B.

SPEAKER PRACTICE ROOMS AND SPEAKER INFORMATION
San Diego Convention Center, Room 11B and Room 21
Speakers are not required to bring a laptop! All session rooms will be equipped with a data projector and computer. Bring your presentation on a Windows-readable USB flash drive or CD. We recommend that you bring a back-up presentation format. Please visit our website under general information for instructions on preparing your presentation www.experimentalbiology.org/content/OralPresentationInstructions.aspx.

Speakers should visit the Speaker Practice Room to review and check the compatibility of their presentation at least 4 hours prior to their session. Speakers must arrive in the session room one half hour prior to the scheduled start of the session to allow the technician time to load the presentation onto the computer. Additional audio visual equipment must be requested in advance of the meeting via email at eb@faseb.org or by contacting the Society that programmed your abstract or invited talk.

The Speaker Practice Rooms will be open during the following times:

**Room 11B, Phone: 619-525-6216**
Saturday – Wednesday, 7:00 AM – 6:00 PM

**Room 21, Phone: 619-525-6217**
Saturday–Wednesday, 7:00 AM – 6:00 PM

SPECIAL NEEDS
Registrants with special needs are advised to contact the EB Meeting Management Office at eb@faseb.org prior to the meeting. For on-site inquiries, please contact the Meeting Management Office in Lobby D of the San Diego Convention Center. For specific information on the San Diego Convention Center’s accessibility, contact the Guest Services Department at 619-525-5000. The San Diego Convention & Visitors Bureau staff the Concierge Desk in Lobby B of the San Diego Convention Center. The Bureau is able to provide accessibility information for the local area attractions. For information on San Diego area attractions, contact San Diego Convention & Visitors Bureau at 619-236-1212 or www.visitsandiego.org.

TRANSPORTATION
San Diego International Airport is conveniently located ten minutes from downtown San Diego. It is serviced by 22 major and commuter airlines and receives more than 16 million passengers a year.

**Airport Shuttle Service**
San Diego International Airport (SAN)
Super Shuttle offers service to/from SAN at $8 per person. Please refer to Experimental Biology 2012 when making your advance reservation. Make your reservation online at www.supershuttle.com, Discount Code SXVQN or call 800-258-3826.

**Taxi Service**
The taxi rate from the San Diego Airport to the San Diego Convention Center area is approximately $15.

**Trolley**
The SanDiegotrolley serves the SanDiego metropolitan area with convenient locations marked with a sign and the trolley image. The San Diego Convention Center is on the Orange Line at the Convention Center stop. To obtain schedules and other public transportation information, call Metropolitan Transit System at 619-744-5920 or visit www.sdmts.com.
YOUNG EXPERIMENTAL SCIENTISTS
(Y.E.S.) MIXER
San Diego Marriott Marquis & Marina, Marriott Hall Salon 3
The Y.E.S. Mixer is open to all EB registrants and is scheduled Monday, April 23, 9:00 PM–11:30 PM. You must wear your badge to gain admittance. Dance, relax, network while enjoying complimentary snacks and soft drinks. The EB sponsoring societies encourage responsible drinking for those drinking alcohol. Alcohol will not be served to anyone under the age of 21. Be prepared to present identification.

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Experimental Biology exhibitors offer the best tools and resources available in research today!

Join the exhibitors at 10:00 AM for coffee and 2:00 PM for snacks and learn the latest and greatest from more than 400 companies.
EB-SPONSORED SPECIAL PROGRAMS

EB-SPONSORED SESSION

NATIONAL INSTITUTES OF HEALTH: PROGRAMS AND POLICIES UPDATE FROM INSTITUTES

TUE. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 1A

Chairs: J. Chatham and S. Barman

TEACHING POSTER SESSIONS

SUN.–MON., SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Special poster sessions have been scheduled related to teaching and the use of computers in research and teaching. The posters will be displayed Sunday–Monday from 7:30 AM to 6:00 PM. The poster sessions will cover two areas: 1) Teaching, Learning and Testing in the Biological and Biomedical Sciences; and 2) Computers in Research and Teaching. For further information, see the daily listing pages 141 and 215.

NIH GRANTS SEMINAR WORKSHOP SERIES

CONVENTION CENTER, CAREER CENTER AREA, HALL D

The FASEB Office of MARC and Professional Development Programs in association with the Experimental Biology 2012 (EB2012) Management Committee will sponsor career development seminars and a 3-part NIH Grants Seminar Workshop Series in the EB2012/FASEB Career Center located in Hall D of the Washington Convention Center. There is no fee or pre-registration associated with the workshops and seminars; however, **EB2012 meeting registration is required to participate in all seminars/sessions.** Handouts and resource materials will be provided onsite. Advance seating reservations are **not** required.

Critiquing of CV/resumes and the career coaching/counseling sessions are by appointment and starts at 9:00 AM on Saturday and continues until 12:00 PM on Wednesday. You may sign-up onsite in the EB2012/

FASEB Career Center located in Hall D through Tuesday at 5:00 PM.

NIH Career Development (K) Awards (Sunday and Monday)

SUN. – MON 8:30 AM – 9:45 AM, CAREER CENTER, HALL D

This presentation will focus on the NIH’s Career Development Awards (K) including the most recent K99/00 Pathways to Independence Award (for postdoctoral scientists) and other K awards targeted to individuals with research doctoral degrees (Ph.D. and equivalent) and clinical doctoral degrees (M.D. and equivalent). Among the K awards discussed will be the K01 Mentored Research Scientist Development Award, the K02 Independent Scientist Award, the K22 Career Transition Award, the K08 Mentored Clinical Scientist Development Award, the K23 Mentored Patient Oriented Career Development Award, the K24 Mid-Career patient Oriented Career Award, and K25 Mentored Quantitative Scientist Career Development Award.

The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for beginning investigators.

Scientific Peer Review of NIH Grants: Grantsmanship Part I

SUN. – MON. 10:00 AM – 11:30 AM, CAREER CENTER, HALL D

Presented by Anthony Coelho. Learn what is important to know and understanding about a sponsoring agency’s peer review process. Learn why this understanding peer review can enhance your chances of being funded. This presentation uses the scientific peer review at NIH as an example of what you need to know about peer review at any funding agency and how to use this information in preparation of your grant applications and competing successfully for funding. (Concurrent session.)
Grant Writing for Success: Grantsmanship Part II
Sun. – Mon. 2:00 PM – 3:30 PM, Career Center, Hall D

Presented by Anthony Coelho. This presentation focuses on the principles of successful grant writing including the most common reasons that grant applications fail or succeed. Learn how to make an application meet the needs of the reviewers and the funding agency. Learn how to avoid the need for resubmission. Learn about sponsored agency resources and how to use them in the preparation of your application. (Concurrent session.)

CAREER DEVELOPMENT SEMINARS & WORKSHOPS

Convention Center, Career Center Area, Hall D

The following Seminars and Workshops will be held in the EB2012/FASEB Career Center. There is no fee or pre-registration associated with the workshops and seminars; just walk in and sit down! Critiquing of Resumes is by appointment and starts at 9:00 AM on Saturday and continues until 12:00 PM on Wednesday. Sign up on-site in the EB2012/FASEB Career Center, Hall D. Please note that on Wednesday, April 25th, the Critiquing of Resumes will be conducted between 9:00 AM and 12:00 PM in the Sails Pavilion of the San Diego Convention Center.

Saturday

9:00 AM – Networking: A Required Life Skill; presented by Howard Adams. To succeed in today’s competitive world of work, who you know can be as critical as what you know. Successfully networking, to develop contacts, is a required skill. Networking involves 1) making contacts, 2) establishing cordial relationships, and 3) ultimately bonding to mutually support each other and share information. This seminar explores skills and techniques germane to successful networking. During the session, Dr. Howard Adams will cover the following key topics: 1) Dimensions of Networking; 2) Networking to enhance one’s career/professional development; 3) Networking concerns: How? When? Where? Why?; 4) Tips for Successful Networking; 5) Do’s and Don’ts of Networking. (Concurrent session.)

9:00 AM – Workplace Dynamics I/II Workshop: Gaining Self-Awareness and Communication Skills; presented by Sharon Milgram and Lori Conlan. This experiential and engaging course, rooted in psychological type and the Myers-Briggs Type Indicator assessment, explores themes of self-awareness and self-management. Through exercises, lecture, and small group discussions, you learn about and validate your own type preferences and work and communication styles. We will also focus on the particular challenges of communication, different learning and teaching styles, and the different influencing and interaction styles you encounter in any research group or workgroup.

Understanding yourself and how you deal with people is an important skill that most scientists are not taught. This daylong workshop series provides leadership and self-management skills with examples based in typical lab environments. You can attend one or all of the sessions. Attendees for the entire day will earn a certificate of completion from the NIH Office of Intramural Training and Education.

10:00 AM – Postdocs: What Should You be Looking For and How to Find Them; presented by Andrew Green. Many PhDs just kind of fall into a postdoc, rather than thinking about it from a strategic perspective. Your postdoc is never an end in itself; rather it’s a means to another end whether that goal is a faculty position at a research university, at a small college, or perhaps an industry job. Learn how to find postdoc opportunities that will best prepare you for that next step, and how to use your postdoc experience to facilitate the transition to your next position. (Concurrent session.)

10:00 AM – Talking About Yourself: Interviewing Well; presented by Naledi Saul. In this session, we will help you learn how to interview successfully, by looking at the interview process from employer’s perspective. We will discuss the overall hiring process and the all-day interview format, as well as the steps to prepare for an interview, effectively use the different types of interview questions to both present your skills and experience, and assess the employer’s needs, and criteria to ultimately determine if the position is a good fit for you. (Concurrent session.)
10:30 AM – **Goal Setting, Prioritizing, Time Management**; presented by Howard Adams. Advancing through one career and life depends on that person’s ability to turn dreams, desires and wishes into tangible goals, objectives and milestones. Each individual has the power and responsibility to be both a dreamer and a doer. Success depends on both. This seminar is designed to guide participants through a process that frames dreams, wishes and desires in the context of career and life GOALS. Participants will be guided through critical career and life planning strategies involving time management and setting/prioritizing goals. (Concurrent session.)

11:00 AM – **Beyond the Bench… Preparing for Your Career Transition in the Life Sciences**; presented by Joe Tringali. Is there a way to move your skills from the bench to a related career? There is, assuming one is focused and willing to invest some time in making the switch. We will explore different paths to alternative scientific careers.

1:00 PM – **Workplace Dynamics I/II Workshop: Conflict and Feedback**; presented by Sharon Milgram and Lori Conlan. Rooted in the Thomas and Kilmann Conflict Grid, this interactive workshop provides an accessible framework for conflict management and giving and receiving personal feedback. In small group exercises, participants learn how to have — and even get some practice having — difficult conversations often associated with conflict within the NIH, like leadership struggles and authorship questions.

1:00 PM – **Ten Ways to Get Lucky in the Job Search**; presented by Philip Clifford and John Lombardo. Although it is important to have a plan for your career progression, it is just as important to take advantage of unexpected events along the way. This seminar will suggest specific ways to foster chance occurrences that may influence your job search. We will examine ten practical suggestions to prepare you to make happenstance work positively for you. (Concurrent session.)

1:00 PM – **Professional Development for PhDs**; presented by Andrew Green. Learn to use graduate school to qualify for multiple career paths and to maximize your employability outside of academia. This workshop is most useful to those at least one year from their job search. 1st to 4th year students are especially welcome! (Concurrent session.)

1:30 PM – **Negotiation Strategies for Scientists**; presented by Debra Behrens. The session topics include: The basics of successful negotiation, contexts of gender and culture, leveraging your strengths, handling multiple offers, and closing the deal. (Concurrent session.)

2:00 PM – **Transforming Your CV**; presented by Naledi Saul. In this session, using a successful industry resume/CV as a case study, you will learn the difference between a CV and resume, what should and should not be included in a document tailored for industry jobs, and the best strategies to tailor your document to highlight your skills and experiences. You will also understand when and why to write a cover letter, including content and appropriate format. Bring a copy of your CV/resume or cover letter to work on during the session if you have one (but it is not required to attend the session). There will also be ample time for Q & A. (Concurrent session.)

2:15 PM – **Job Hunting in the Biotech Industry**; presented by Bill Lindstaedt. In this seminar you will learn how to prepare resumes and cover letters for your industry job search. Also, you will learn about job search strategies necessary for success on the biotech/pharma job market along with some tips for interview success and success at the negotiating table after you receive your job offer. After this seminar you will understand how to conduct the four job hunting techniques that comprise a comprehensive job search in the biotech industry. (Concurrent session.)

3:15 PM – **Workplace Dynamics I/II Workshop: Team Skills**; presented by Sharon Milgram and Lori Conlan. This is an experiential workshop that focuses on team tools and group development insights through the experience of real team and group work. This class is intended for anyone who works on or with teams and wishes to have greater skills in facilitating their effectiveness. All participants experience and practice a process for group learning in this class that they can put to use in their work teams whether they are group leaders or members. Lastly, the workshop focuses on spotting the stages of group development and how to help teams through rough spots, conflict, and growing pains.
3:30 PM - **Economics and Your Job Search**; presented by Joe Tringali. *Job Search Economics* is much more than a discussion of salary and signing bonuses. Knowing how the market place will react to your candidacy _before_ you begin your search will help you deliver the best message, negotiate wisely, and make the right decision when you do receive offers. It’s all about supply and demand. (Concurrent session.)

4:00 PM - **Developing Your Core Message/”Elevator Pitch”;** presented by John Lombardo. Your personal statement is a brief spoken statement (30-second mini-abstract) about you that lets people know who you are, what you do well, and what you are looking for. It is a well-prepared answer to the question, “Tell me a little bit about yourself.” A positive personal statement (“pitch”) will enhance your professional presence and stature, boost your self-confidence, and reduce your anxiety. It helps you establish your identity as a professional scientist, and it opens doors for connection and collaboration. This seminar will provide guidance in a safe place to practice and experiment. (Concurrent session.)

4:00 PM – **Global Interview Skills: A Practice Workshop for International Candidates;** presented by Debra Behrens. This session provides practice interview workshop customized for international graduate students. The key topics are: The four central questions _in_ the employment interview, cultural and communication dynamics, the STAR method, and using “small talk” for big results.

**Sunday**

8:15 AM – **Revealing Your Character through Your Resume;** presented by Judy Blumenthal. Recruitment into the job world is a billion dollar industry — in terms of risk. The top mistakes made in recruitment are not skills match, but decisions regarding the candidate’s integrity, honesty, and work ethics — various dimensions of your character. Even decisions on how you might treat potential co-workers and your clients/customers/patients, both verbally and non-verbally, influence the employer’s perception of your character.

In this workshop, you will learn how potential employers define your character and how you can present yourself to encourage the perception to be positive and, you worthy of working for and with them. (Concurrent session.)

8:30 AM – **Developing Your Core Message/”Elevator Pitch”;** presented by John Lombardo. _See description under Saturday’s 4:00 pm listing._ (Concurrent session.)

8:30 AM – **Making the Case for Graduate School;** presented by Howard Adams. Advanced degree level training has emerged as a key requirement for garnering positions of leadership in academia, government, and industry and for careering in today’s workplace. Beyond this, and advanced degree signal scholarship, maturity, and the capacity to do rigorous work; all attributes that can provide an edge in the workplace. This seminar explores graduate education in the context of: 1) a career enhancement strategy; 2) graduate study opportunities and options; 3) how to negotiate the graduate school admission and financial aid process, and 4) placing graduate studies in one’s overall career plans. Key topics: Making the Case for Graduate School, The Value of an Advanced Degree; The GRE Exam; The Application/Admissions Process; Funding for Graduate Work; Putting the Pieces Together (Concurrent session.)

9:00 AM – **Lab Management;** presented by Sharon Milgram and Lori Conlan. This session will help prepare you to be a better manager. Topics covered will be selected personnel, establishing expectations, communicating feedback and building and maintaining morale. This session is intended for upper level postdocs about to run their own lab.

9:30 AM - **Economics and Your Job Search;** presented by Joe Tringali. *Job Search Economics* is much more than a discussion of salary and signing bonuses. Knowing how the market place will react to your candidacy _before_ you begin your search will help you deliver the best message, negotiate wisely, and make the right decision when you do receive offers. It’s all about supply and demand. (Concurrent session.)

10:30 AM – **Sometimes It’s Who You Know: Winning at Networking;** presented by Judy Blumenthal. Networking is a crucial dimension of a job offer; from developing a resume to interviewing to the job offer. What do I take for granted? How do I communicate the right behaviors for the job? How much of the employer’s business do I _really_ have to know? To be
at the right place at the right time, sometimes it takes just one person. But who is this person?

In this workshop, you will learn how to identify and approach the right people to help you obtain a job offer. You will learn essential behaviors that promote your case and that can be used quite favorably. (Concurrent session.)

11:00 AM – Talking about Money: Compensation Negotiation for Scientists Moving into Industry; presented by Bill Lindstaedt. Scientists moving from academia to industry are often confused by the job offer process. What’s the best way to talk about compensation with your future employers? If you ask for more, will they rescind your job offer? In this seminar, you will learn about WHAT is reasonable to ask for, and also HOW you can approach the compensation negotiation process in a way that produces optimal outcomes for you while maintaining positive relationships. (Concurrent session.)

11:00 AM – The Academic Job Search in the Life Sciences: Part 1 – Understanding the Search Process from the perspective of Search Committees and Find Job Announcements; presented by Andrew Green. If you’re sending the same materials to Harvard and Haverford or Cal Poly and Caltech, then at least one if not both search committees will be less than impressed. Academic search committees in the sciences and engineering at small, liberal arts colleges and non-R1 universities have a very different perspective than their peers at major research universities on what makes a strong candidate and desirable colleague. (Concurrent session.)

12:00 PM – Career Skills Blitz; presented by Sharon Milgram and Lori Conlan. These short sessions are designed to give you an overview of the skills required to mount a successful job search. These will be a fast pace, fun-filled way to spend your lunch. Each session will be strictly limited to twenty minutes, and you can choose to come to any of the presentations in the hour. Presenters will give you the highlights of the topics, with ideas on how to follow up with additional resources. You will be able to choose three sessions from the following offerings: 1) Networking and Informational Interviews: Learn how to manage your network including finding people, using social media tools and informational interviewing. 2) Resumes and Cover letters: There are common things needed and a resume and few simple rules for a cover letter. Make this part of your job package shine. 3) Interviewing Tips: Navigate the interview process with ease. 4) Jobs and Training at the NIH: Learn about NIH jobs and training opportunities that could enhance your career. 5) Finding a Career Path: Your dream job does exist. Come map out a plan to determine your career path. 6) Non-bench Careers: Highlights opportunities for PhDs in all sectors; academics, industry, non-profit, and government.

1:00 PM – The Academic Job Search in the Life Sciences: Part 2 – Creating Your Written Application Materials: CVs, Cover Letters, Teaching Portfolios, Etc. This two-part workshop is designed to provide an overview of the Academic Job Search process and help you figure out how to present your credentials, on paper and in person, in the strongest possible manner. You need not attend Part I to benefit from Part II. See description under Sunday’s 11:00 AM listing. (Concurrent session.)

1:00 PM – Ten Tough Industrial Interview Questions; Ten Good Responses; presented by Joe Tringali. You’ve been invited to interview with that drug development company that you’ve always wanted to work for. You’ve soaked up the position description, and are confident in your ability to do the job, as well as answer any/all technical questions during the interview process. The day is yours... until that first question catches you by surprise and your confidence begins to wilt. Be prepared for those non-technical questions that you will almost certainly hear at some point, know why they are asked, and learn what good (if not great) responses to those questions might be in this workshop. (Concurrent session.)

1:30 PM – Ten Ways to Get Lucky in the Job Search; presented by Philip Clifford and John Lombardo. See description under Saturday’s 1:00 PM listing. (Concurrent session.)

1:30 PM – NIH “How To” Series: How to Get a Job in Science Education & Outreach; presented by Sharon Milgram and Lori Conlan. Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by
job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

2:30 PM – Managing Up; presented by Sharon Milgram and Lori Conlan. Participants in this session will learn how to effectively and efficiently communicate their goals and needs to their superiors. Topics include how to have a professional yet frank discussion with your mentor, committee and other superiors, and setting expectations for yourself and your superiors. (Concurrent session.)

3:00 PM – Achieving Your Goals: Goal Setting Strategies for Scientific and Career Success [Interactive]; presented by Bill Lindstaedt. Do you ever promise yourself that you’ll finish that paper, or improve your presentation skills, then don’t quite get around to it? Do you have trouble setting goals…and sticking to them? Survey data has shown that trainees in the biomedical sciences who create and follow a written plan are more likely to reach their research and career goals. In this hands-on workshop we’ll get you started on creating your annual Individual Development Plan (IDP) for completing projects and developing professional skills that you’ll need for success. Through this process, you will learn principles for how to set achievable goals, and strategies for ensuring that you’ll follow through to success. (Concurrent session.)

3:00 PM – The Job Talk; presented by Andrew Green. After months of stressful science, the voice on the other end of the phone says, “We’d like to invite you for an on-campus interview.” You gleefully discuss schedules, airports, and other arrangements until the voice mentions “and of course we’re all looking forward to your Job Talk,” and your stomach begins to spasm in new and creative ways. Answers to your questions about how to structure your presentation, how much detail to include, what level to pitch it (small college vs. university,) what are they really looking from Andrew Green, survivor of the academic job. (Concurrent session.)

3:30 PM – Negotiation Strategies for Scientists; presented by Debra Behrens. See description under Saturday’s 1:30 PM listing. (Concurrent session.)

4:00 PM – Career Decisions: How to Select a Career Path That’s Best for You [Interactive]; presented by Bill Lindstaedt. Do you want to find a career path that you’ll enjoy and find rewarding? Of course! But how do you find such a path? In this interactive workshop you will inventory your skills, interests, and values to consider your current career trajectory. You’ll then learn about how to research the many career path options available to life scientists, and what things to consider as you decide which is the best for you. (Concurrent session.)

4:00 PM – Navigating Graduate Work, Protocol, Milestones, Requirements; presented by Howard Adams. Success in graduate school starts with goal setting and the formulation of an action plan to achieve the desired results – obtaining the degree sought. The graduate study plan should delineate: 1) what is to be accomplished in terms of expectations, degree requirements, and program milestones; 2) action steps that establish priorities for tasks to be completed; 3) process for implementing action steps; and 4) timeframe for meeting program requirements/milestones. Seminar participants will be guided through exercises and provided with templates for developing a graduate program plan. (Concurrent session.)

4:00 PM – NIH “How To” Series: How to Get a Job in Science Policy; presented by Sharon Milgram and Lori Conlan Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

4:15 PM – Making the Connection: The Relationship between the Resume, the Interview and the Job Offer; presented by Judy Blumenthal. The bottom line for any employer is, how will this individual behave on the job? This question is used in writing the job description and throughout the recruitment process. It is therefore imperative that applicants exhibit the right behaviors from the beginning: in writing (on their resume) to the interview (whether by phone or in person), to the final job offer.
In this workshop, you will learn what the essential behaviors are that must be communicated from the very beginning of your job search (the resume) to accepting the job. (Concurrent session.)

Monday

8:30 AM – Successful Behaviors for Winning an Interview; presented by Judy Blumenthal. Eye contact, arriving on time – these are given behaviors for any interview of any type and everyone knows them. The successful behaviors for winning an interview are those that categorize you as a high risk or low risk for the next recruitment step.

In this workshop, you will learn what behaviors are important to exhibit on an interview, and how employers evaluate these behaviors to determine whether or not you are a low risk and move you on to the next recruitment step, or a high risk and don’t. (Concurrent session.)

9:00 AM – NIH “How To” Series: How to Get a Job in Government: Bench; presented by Sharon Milgram and Lori Conlan. Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

9:00 AM – Developing Your Core Message/”Elevator Pitch”; presented by John Lombardo. See description under Saturday’s 4:00 PM listing. (Concurrent session.)

9:00 AM – Ten Tough Industrial Interview Questions; Ten Good Responses; presented by Joe Tringali. See description under Sunday’s 1:00 PM listing. (Concurrent session.)

10:00 AM – NIH “How To” Series: How to Get a Job in Government: Non-Bench; presented by Sharon Milgram and Lori Conlan. Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

10:00 AM – Postdocs: What Should You Be Looking For and How to Find Them; presented by Andrew Green. See description under Saturday’s 10:00 AM listing. (Concurrent session.)

10:00 AM – Sometimes It’s Who You Know: Winning at Networking; presented by Judy Blumenthal. See description under Sunday’s 10:30 AM listing. (Concurrent session.)

10:15 AM – Making the Grade: Job Talk/Chalk Talk; presented by Debra Behrens. Participants learn how to plan, structure and deliver a job talk. The session covers the key elements of the chalk talk, and present a talk that captures the interest of a diverse (faculty, administrators, students) audience. (Concurrent session.)

11:00 AM – Talking about Money: Compensation Negotiation for Scientists Moving into Industry; presented by Bill Lindstaedt. See description under Sunday’s 11:00 AM listing. (Concurrent session.)

12:00 PM – Career Skills Blitz; presented by Sharon Milgram and Lori Conlan. See description under Sunday’s 12:00 PM listing. (Concurrent session.)

1:00 PM – The Industrial Hiring Process: Learn the Nuances, Get the Offer; presented by Joe Tringali. This session will include a discussion of the hiring process for the biotechnology and pharmaceutical industries and how it differs from the academic hiring process. Know your audience, what they want to hear, and give yourself the edge. (Concurrent session.)

1:00 PM – The Right Attitude and Behaviors While Job Searching from the Resume to the Job Offer; presented by Judy Blumenthal. Every person carries within them thoughts, feelings, and emotions that influence the way we are perceived by others, and the way we behave. This interaction (perceptions of others and our behavior) is so very complex, and happens so quickly, that perceptions are not necessarily at a conscious level and therefore opinions about you can be formed before you even have a chance to make any corrections to your attitude or behavior. This is
a serious consequence during the job search, and a consequence we want to do without.

Dr. Blumenthal will teach you how to present yourself in your resume, on the interview, and subsequent follow ups, including the job offer. She will teach you what goes on behind the scenes regarding attitudes and behaviors so that you have more leverage on your side. The end result is a positive consequence increasing the likelihood of job interviews and a job offer. (Concurrent session.)

1:15 PM – Utilizing LinkedIn in the PhD Job Search; presented by Andrew Green. Networking has never been more important in making a successful transition from academia to industry, but most PhDs believe they have limited contacts and feel ill-equipped to utilize this valuable resource. Learn how to use LinkedIn to expand your network and how to best take advantage of the informational interviews that result. (Concurrent session.)

1:30 PM – NIH “How To” Series: How to Continue Your Training at NIH; presented by Sharon Milgram and Lori Conlan. Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

2:00 PM – Achieving Your Goals: Goal Setting Strategies for Scientific and Career Success [Interactive]; presented by Bill Lindstaedt. See description under Sunday’s 3:00 PM listing. (Concurrent session.)

2:00 PM – Talking about Yourself: Interviewing Well; presented by Naledi Saul. See description under Saturday’s 10:00 AM listing. (Concurrent session.)

2:30 PM – Becoming a Mentor; presented by Sharon Milgram and Lori Conlan. As you progress in your scientific career it is likely that you will mentor the next generation of young scientists. Many of you will start with an undergrad or summer intern. This seminar offers tips on how to develop a project for a novice, how to balance your time between your work and your mentee, and basic supervisory skills so both of you with know what to expect out of the experience. (Concurrent session.)

2:30 PM – Revealing Your Character through Your Resume; presented by Judy Blumenthal. See description under Sunday’s 8:15 AM listing. (Concurrent session.)

3:00 PM – Career Decisions: How to Select a Career Path That’s Best for You; presented by Bill Lindstaedt. See description under Sunday’s 4:00 PM listing. (Concurrent session.)

3:45 PM – CV → Resume; presented by Andrew Green. Corporate recruiters are looking for very different evidence of soft and hard skills than academic search committees. Learn how to construct an effective resume that will help potential employers recognize the value you have to offer and strengthen your candidacy for science and non-science jobs outside of academia. (Concurrent session.)

4:00 PM – Fundamentals for Managing the Postdoctoral Experience; presented by Howard Adams. The postdoc assignment is typically a stepping stone to an independent position in academia, government, or industry. This seminar is designed to provide participants with the basic principles, concepts, and protocol for function as a scholar/researcher during the post-doc experience. Participants will be guided through step-by-step information on: 1) Picking the right post-doc position; 2) Establishing meaningful development and professional goals; 3) Communicating needs and expectations to your mentor/supervisor; 4) Setting clear performance benchmarks and tasks completion timelines; 5) Creating a task flow chart to track and monitor performance and progress; and 6) Taking ownership for your career/personal/professional development. (Concurrent session.)

4:00 PM – Job Search in Academia & Industry; presented by Debra Behrens. Are you looking for both academic and nonacademic jobs, but aren’t sure where to start? This workshop provides an overview for successfully navigating the two-track job search. Topics include: Organizing your search, timelines/logistics, researching employers, presenting
your qualifications and criteria for evaluating offers. (Concurrent session.)

4:00 PM – Successful Behaviors for Winning an Interview; presented by Judy Blumenthal. *See description under Monday’s 8:30 AM listing.* (Concurrent session.)

**Tuesday**

9:00 AM – The Job Talk; presented by Andrew Green. *See description under Sunday’s 3:00 PM listing.* (Concurrent session.)

9:15 AM – Making the Connection: The Relationship between the Resume, the Interview and the Job Offer; presented by Judy Blumenthal. *See description under Sunday’s 4:00 PM listing.* (Concurrent session.)

10:00 AM – Navigating Graduate Work Protocol, Milestones, Requirements; presented by Howard Adams. *See description under Sunday’s 4:00 PM listing.* (Concurrent session.)

10:00 AM – Academic Job Search: CVs, Letters, Statements and Start-ups; presented by Bill Lindstaedt. This workshop will present information on how to organize your academic job search, including advice on the various components of an application package. A mock faculty search committee exercise will teach you how to construct or improve a CV. You will then gain tips for writing cover letters, creating statements that will present you in the most positive light possible. Finally, you will learn valuable information about the content and process involved in negotiating for start-up packages. (Concurrent session.)

10:15 AM – Negotiation Strategies for Scientists; presented by Debra Behrens. *See description under Saturday’s 1:30 PM listing.* (Concurrent session.)

10:30 AM – Transforming Your CV; presented by Naledi Saul. *See description under Saturday’s 2:00 PM listing.*

11:00 AM – PhD Negotiation Skills and Strategies: How to Get What You Want and Need; presented by Andrew Green. Everything is negotiable…most of the time! Do you need to develop or refine your negotiation skills? This session covers salary, start up packages, and strategies for getting what you need to be successfully launched in your scientific career. (Concurrent session.)

11:30 AM – Successful Behaviors for Winning an Interview; presented by Judy Blumenthal. *See description under Monday’s 8:30 AM listing.* (Concurrent session.)

1:00 PM – Developing/Writing the Doctoral Dissertation; presented by Howard Adams. This workshop focuses on techniques and strategies for developing and writing a doctoral dissertation proposal. It is structured to walk participants through a step-by-step process for understanding the multi-dimensional competencies and skills required to do doctoral research. The session is designed to be interactive as the facilitator helps participants examine specific component of the dissertation proposal. These include: 1) the problem statement; 2) making the case for a specific research area; 3) literature review; 4) the research design and methodology component; and 5) framing expected outcomes and their significance. (Concurrent session.)

1:00 PM – Making the Grade: Job Talk/Chalk Talk; presented by Debra Behrens. *See description under Monday’s 10:15 AM listing.* (Concurrent session.)

1:00 PM – Achieving Your Goals: Goal Setting Strategies for Scientific and Career Success [Interactive]; presented by Bill Lindstaedt. *See description under Sunday’s 3:00 PM listing.* (Concurrent session.)

1:30 PM – CV→Resume; presented by Andrew Green. *See description under Monday’s 3:45 PM listing.* (Concurrent session.)

2:00 PM – Career Decision: How to Select a Career Path That’s Best for You [Interactive]; presented by Bill Lindstaedt. *See description under Sunday’s 4:00 PM listing.* (Concurrent session.)

2:15 PM – Talking about Yourself: Interviewing Well; presented by Naledi Saul. *See description under Saturday’s 10:00 AM listing.* (Concurrent session.)
2:30 PM – **Beyond the Bench… Preparing for Your Career Transition in the Life Sciences**; presented by Joe Tringali. *See description under Saturday’s 11:00 AM listing.* (Concurrent session.)

3:00 PM – **Leadership Principles for Today’s Professionals**; presented by Howard Adams. As the workplace continues on the path of globalization and international competitiveness, the demand for effective leadership will grow within all employment sectors - government, academia, industry, and nonprofit. Thus, as one lives and works in the 21st century, having effective leadership skills is essential to success and advancement. This seminar explores “task-performance leadership” as a function of a leader getting people to do what he/she wants them to do. It addresses these five core competencies: leadership attributes, understanding change and resistance to change, cultivating relationships, visioning and goal setting from the position of leader, and leading others to achieve desired outcomes. Key topics: 1) Terminology of Leadership; 2) Trends that Challenge Leaders; 3) Competencies of an “All-Star” Leader; 4) “Walking the Walk” of a Leader; 5) Getting Work Done Through Others; 6) Creating the Optimal Leadership Environment. (Concurrent session.)

3:15 PM – **The Right Attitude and Behaviors While Job Searching from the Resume to the Job Offer**; presented by Judy Blumenthal. *See description under Sunday’s 1:00 PM listing.* (Concurrent session.)

3:30 PM – **Job Hunting in the Biotech Industry**; presented by Bill Lindstaedt. *See description under Saturday’s 2:15 PM listing.* (Concurrent session.)

**Wednesday**

Only CV/Resume Critiques, Career Coaching and Counseling Services will be provided in the Sails Pavilion location on Wednesday between 9:00 AM and 12:00 PM.
EXPERIMENTAL BIOLOGY gratefully acknowledges the generous support of the following sponsors:

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SOCIETY HIGHLIGHTS

ANATOMY (AAA)

PROFESSIONAL DEVELOPMENT WORKSHOP: CONNECTING WITH DIFFERENT AUDIENCES: THE ANATOMY OF COMMUNICATION
Sat. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 7B
Chair: D. Evans

PROFESSIONAL DEVELOPMENT WORKSHOP: CLIMBING THE ACADEMIC LADDER: SKILLS NEEDED FOR EACH RUNG
Sat. 10:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 7B
Chairs: R. Pratt and K. Topp

MASTER CLASS: NEURAL INNERVATION OF THE HEART AND ITS ROLE IN PATHOPHYSIOLOGY AND TREATMENT
Sat. 1:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 8
Chair: J. Walker

LANGMAN GRADUATE STUDENT PLATFORM AWARD SESSION
Sat. 1:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 7B
Chair: P. Trainor

EDUCATION RESEARCH PLATFORM AWARD SESSION
Sat. 3:15 PM – SAN DIEGO CONVENTION CENTER, ROOM 7B
Chair: C. Eckel

AAA POSTDOCTORAL PLATFORM AWARD SESSION
Sat. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 7B
Chair: J. Venuti

AACBNC SOCIALIZER (DEPARTMENT CHAIRS ONLY)
Sat. 5:30 PM – SAN DIEGO MARriott MARQUIS & MARINA, MISSION HILLS

WILEY RECEPTION (INVITATION ONLY)
Sat. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, CORONADO

AAA NEW MEMBER WELCOME BREAKFAST
Sun. 7:00 AM – SAN DIEGO MARriott MARQUIS & MARINA, CARDIFF

PLENARY LECTURES
Sun. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 8
Speaker: B. Olsen
Title: Vascular Endothelial Cells as a Source of Multipotent Stem-Like Cells

Speaker: R.L. Drake
Title: Open Minds, Open Opportunities

AAA YOUNG INVESTIGATOR AWARDS SYMPOSIUM
Sun. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 9
R.R. Bensley Award Lecturer: J. Reiter
Title: Tectonics Form a Transition Zone Complex of Ciliopathy Proteins That Regulate Ciliary Composition

C.J. Herrick Award Lecturer: J. Radley
Title: Evidence for a Limbic Cortical HPA-Inhibitory Network and Its Role in Chronic Stress-Induced HPA Axis Hyperactivity
H.W. Mossman Award Lecturer: P. Reddien
Title: The Cellular and Molecular Basis for Planarian Regeneration

AAA Morphological Sciences Award Lecturer: J. Guttman
Title: Knocking E. coli off of Their Pedestals: Understanding the Strategies Microbes Exploit to Generate Morphological Structures during Their Disease Processes

AAA AWARDS BANQUET
TUES. 7:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARriott HALL 4 (NORTH TOWER)

Pick up pre-purchased tickets in the AAA Staff Office (Convention Center, Room 10) before 12:00 PM on Tuesday, April 24. Tickets will not be sold on-site at the meeting.

BIOCHEMISTRY AND MOLECULAR BIOLOGY (ASBMB)

ANATOMY EDUCATION BREAKFAST ROUNDTABLES
(Supported by an educational grant from Elsevier, Inc.)
MON. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 11A
Chair: C. Eckel

KEYNOTE ADDRESS
(Supported by an educational grant from AACBNc)
MON. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 8
Speaker: E. Olson
Title: Heart Making and Heart Breaking: The Molecular Circuitry of Cardiac Development, Disease and Regeneration

FOSTERING PARTNERSHIPS BETWEEN COLLEGES, UNIVERSITIES AND K-12 SCHOOLS WORKSHOP
SAT. 9:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, SANTA ROSA (SOUTH TOWER)
Advance registration required.

AAA BUSINESS MEETING
MON. 6:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 8

AAA STUDENT/POSTDOC POSTERS AND RECEPTION
MON. 7:00 PM – SAN DIEGO CONVENTION CENTER, WEST TERRACE
ASBMB GRADUATE AND POSTDOCTORAL PROFESSIONAL DEVELOPMENT PROGRAM
SAT. 9:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 4 (NORTH TOWER)

Advance registration required for non-ASBMB travel award recipients. All ASBMB Graduate/Postdoctoral and Graduate Minority Travel Award recipients must attend.

POWERING UP! ASBMB ANNUAL MEETING ORIENTATION FOR UNDERGRADUATES
SAT. 11:30 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, ATLANTA ROOM (NORTH TOWER, NEXT TO MARRIOTT HALL 1)

THE BATTLE! ASBMB 16TH ANNUAL UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION
SAT. 1:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 3 (NORTH TOWER)

Advance registration required to compete.

FIND YOUR SUPER MATCH! CAREER SPEED “DATING” FOR UNDERGRADUATES
SAT. 4:45 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, SAN DIEGO BALLROOM A (NORTH TOWER)

ASBMB OPENING LECTURE: HERBERT TABOR/JOURNAL OF BIOLOGICAL CHEMISTRY LECTURESHIP
SAT. 6:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 4 (NORTH TOWER)

Speaker: S. Kornfeld, Washington Univ. in St. Louis
Title: Oligosaccharides as Recognition Molecules — A Coming of Age

ASBMB OPENING RECEPTION
SAT. – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 3 (NORTH TOWER)

Immediately follows Opening Lecture

ASBMB 5K FUN RUN/WALK
SUN. – 7:00 AM – EMBARCADERO (BEHIND HARBOUR HOUSE RESTAURANT, SEAPORT VILLAGE)

Advance registration required. Held rain or shine.

BREKKE FOR NEXT GENS: UNDERGRADUATES’ BREAKFAST WITH KIM ORTH, ASBMB YOUNG INVESTIGATOR AWARD LECTURER
SUN. 7:00 AM – SAN DIEGO CONVENTION CENTER, 11A

Advance registration required.

AVANTI AWARD IN LIPIDS LECTURE
SUN. 8:30 AM – SAN DIEGO CONVENTION CENTER, 6B

Speaker: G. M. Carman, Ctr. for Lipid Res. at Rutgers Univ.
Title: Lipin/Phosphatidic Acid Phosphatase in Lipid Metabolism and Cell Physiology

ASBMB PLENARY LECTURE
SUN. 9:05 AM – SAN DIEGO CONVENTION CENTER, 6B

Speaker: S. L. McKnight, Univ. of Texas Southwestern Med. Ctr.
Title: Metabolic Specialization of Mouse Embryonic Stem Cells

ASBMB AWARD FOR EXEMPLARY CONTRIBUTIONS TO EDUCATION LECTURE
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6B

Speakers: J. G. Voet, Swarthmore Col. and D. Voet, Univ. of Pennsylvania
Title: Content in the Educational Era of Process

ASBMB UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION AWARDS PRESENTATION
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6B

Awards presented during the ASBMB Award for Exemplary Contributions to Education Lecture
ALICE & C.C. WANG AWARD IN MOLECULAR PARASITOLOGY SYMPOSIUM
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6C
Speaker: E. Ullu, Yale Univ. Sch. of Med.
Title: The RNA Interference Pathway from a Trypanosome Point of View

WORKSHOP ON LIPID MAPS LIPIDOMICS TOOLS
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 11A

TEACHING SESSION WITH STUART KORNFELD: MODELING THE MOLECULAR MACHINERY OF THE PROTEIN TRAFFICKING PATHWAY
SUN. 1:30 PM – SAN DIEGO CONVENTION CENTER, 6B

ASBMB-MERCK AWARD LECTURE (2011)
SUN. 2:55 PM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: C. Guthrie, UCSF
Title: The Spliceosome Is a Dynamic RNP Machine

WILL COMBINED MD-PHD TRAINING MAKE ME TWICE AS SUCCESSFUL?
SUN. 3:45 PM – SAN DIEGO CONVENTION CENTER, 1B

ASBMB BUSINESS MEETING
SUN. 6:15 PM – SAN DIEGO CONVENTION CENTER, 11A

WELCOME NETWORKING MIXER
(Sponsored by the ASBMB Minority Affairs Committee)
SUN. 6:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM D (SOUTH TOWER)

BREKKE FOR NEXT GENS: UNDERGRADUATES’ BREAKFAST WITH MERCK AWARD LECTURER, BETTIE SUE MASTERS
MON. 7:00 AM – SAN DIEGO CONVENTION CENTER, 11A
Advance registration required.

EARL & THRESSE STAHDTMAN SCHOLAR AWARD LECTURE
MON. 8:30 AM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: D. Sabatini, HHMI/MIT
Title: Control of Growth by the mTOR Pathway

ASBMB-MERCK AWARD LECTURE (2012)
MON. 9:05 AM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: X. Wang, Natl. Inst. of Biol. Sci., Beijing
Title: Dissecting Cellular Necrosis Pathways

AVANTI YOUNG INVESTIGATOR AWARD LECTURE
MON. 9:55 AM – SAN DIEGO CONVENTION CENTER, 6A

Presented within the symposium, Metabolic Branchpoints/Lipid Channeling
Speaker: P. Espenshade, Johns Hopkins Univ. Sch. of Med.
Title: Fungal SREBPs: Hypoxic Transcription Factors Required for Pathogenesis

LIPID DROPLETS: BASIC WORKING PRINCIPLES WORKSHOP
MON. 12:30 PM – SAN DIEGO CONVENTION CENTER, 11A

EFFECTIVELY COMMUNICATING YOUR SCIENCE, ASBMB PUBLIC POLICY SESSION
MON. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6B

RUTH KIRSCHSTEIN DIVERSITY IN SCIENCE AWARD LECTURE
MON. 2:55 PM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: L. Jones, Univ. of Texas MD Anderson and Univ. of Houston
Title: Changing the Course of America through Mentoring

ASBMB THEMATIC FERMENTATION HOUR
MON. 6:00 PM – SAN DIEGO CONVENTION CENTER, WEST TERRACE (FACING THE BAY)
A networking happy hour for biochemists and molecular biologists.
ASBMB POETRY CONTEST READING
Mon. 7:00 pm – SAN DIEGO CONVENTION CENTER, 6A LOBBY

ASBMB BREWING SCIENCE, “TWEET AND MEET”
Mon. 7:30 pm – MISSION BREWERY, 1441 L STREET

DELANO AWARD FOR COMPUTATIONAL BIOSCIENCES LECTURE
TUE. 8:30 AM – SAN DIEGO CONVENTION CENTER, 6B
Speaker:  B. Honig, HHMI/Columbia Univ.
Title:  Physical Principles Underlying Cadherin-Mediated Cell-Cell Recognition

WILLIAM C. ROSE AWARD LECTURE
TUE. 9:05 AM – SAN DIEGO CONVENTION CENTER, 6B
Speaker:  S. Marqusee, Univ. of California, Berkeley
Title:  Touring the Protein Energy Landscape: The View Depends on Where and How You Look

WORK LIFE BALANCE: A PROFESSIONAL DEVELOPMENT WORKSHOP FOR STUDENTS, POSTDOCS AND JUNIOR FACULTY
TUE. 12:30 PM – SAN DIEGO CONVENTION CENTER, 11A
Advance registration required.

ASBMB YOUNG INVESTIGATOR AWARD LECTURE
TUE. 2:55 PM – SAN DIEGO CONVENTION CENTER, 6B
Speaker:  K. Orth, Univ. of Texas Southwestern Med. Ctr.
Title:  Black Spot, Black Death, Black Pearl: The Tales of Bacterial Effectors

ASBMB WOMEN SCIENTISTS’ NETWORKING EVENT/RECEPTION
TUE. 6:00 PM – SAN DIEGO CONVENTION CENTER, 11A

HERBERT A. SOBER LECTURESHIP
WED. 9:00 AM – SAN DIEGO CONVENTION CENTER, 6B
Speaker:  P. Farnham, Univ. of Southern California
Title:  Using Genomic Technologies to Investigate Transcriptional Regulation in Normal and Cancer Cells

NUTRITION (ASN)
Please see pages 498-520 for a complete listing of the special functions and ancillary functions.

ASN OFFICE AND MEMBER SERVICES CENTER
SAN DIEGO HILTON BAYFRONT, 302
SAT. – TUE. 9:00 AM – 1:00 PM; 3:00 PM – 6:00 PM
WED. 8:00 AM – 11:00 AM

ASN MEMBER AND ATTENDEE LOUNGE
SAN DIEGO CONVENTION CENTER, 30E
SAT. – TUE. 7:30 AM – 5:30 PM
(Supported by Kraft Foods)

ASN BOOKSTORE
SAN DIEGO CONVENTION CENTER, BETWEEN BALLROOM 20D AND CENTER TERRACE
SAT. – TUE. 7:30 AM – 5:30 PM

COUNCIL MEETINGS AND HIGHLIGHTS
(Listed in chronological order.)

Nutritional Sciences Council Business Meeting and Breakfast
SAT. 7:00 AM – SAN DIEGO HILTON BAYFRONT, 310

Medical Nutrition Council Business Meeting
SAT. 1:30 PM – SAN DIEGO HILTON BAYFRONT, 313
International Nutrition Council Business Meeting, Poster Competition and The Kellogg Prize in International Nutrition Research Lecture
MON. 6:00 PM – SAN DIEGO HILTON BAYFRONT, 306

Lecturer: J. Haas
(Supported by an educational grant from the Kellogg Company)

International Nutrition Council Reception
MON. 8:00 PM – SAN DIEGO HILTON BAYFRONT, 308

RESEARCH INTEREST SECTIONS (RIS) MEETINGS AND HIGHLIGHTS
(Listed in chronological order.)

CARIG Annual Symposium
FRI. 1:00 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM C

CARIG/V ARIG Social and Poster Competition
FRI. 6:30 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM B

RIS Chairs Luncheon (By invitation only.)
SAT. 12:00 PM – SAN DIEGO HILTON BAYFRONT, 310

Nutrition Immunology Business Meeting
SAT. 4:00 PM – SAN DIEGO HILTON BAYFRONT, 505

Energy and Macronutrient Metabolism “Hot Topics” Seminar and Business Meeting
SAT. 5:00 PM – SAN DIEGO HILTON BAYFRONT, 304

Joint-Reception and Poster Competition: Dietary Bioactive Components, Nutrient-Gene Interactions, and Vitamins and Minerals
SAT. 5:00 PM – SAN DIEGO CONVENTION CENTER, 20B/C

After the joint reception, each Research Interest Section will hold an individual business meeting, beginning at 7:00 PM.

Community and Public Health Nutrition Business Meeting
SAT. 5:30 PM – SAN DIEGO CONVENTION CENTER, 33C

Experimental Animal Nutrition Poster Competition and Business Meeting
SAT. 6:00 PM – SAN DIEGO CONVENTION CENTER, 24

Energy and Macronutrient Metabolism Reception and Poster Competition
SAT. 6:30 PM – SAN DIEGO HILTON BAYFRONT, 306B

Dietary Bioactive Components Business Meeting
SAT. 7:00 PM – SAN DIEGO CONVENTION CENTER, 25A

Nutrient-Gene Interactions Business Meeting
SAT. 7:00 PM – SAN DIEGO CONVENTION CENTER, 22

Vitamins and Minerals RIS Business Meeting
SAT. 7:00 PM – SAN DIEGO CONVENTION CENTER, 25B

Diet and Cancer Business Meeting, Poster Competition, and Reception
SUN. 12:00 PM – SAN DIEGO CONVENTION CENTER, 33A

Nutrition Education Professional Development and Mentorship Luncheon
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 14A

Nutrition Epidemiology Business Meeting
MON. 8:30 AM – SAN DIEGO CONVENTION CENTER, 33A

Nutrition Translation Business Meeting and Networking Mixer
MON. 12:30 PM – SAN DIEGO CONVENTION CENTER, 33A

Nutrition Education Business Meeting
MON. 5:00 PM – SAN DIEGO CONVENTION CENTER, 33C

Aging and Chronic Disease Business Meeting
MON. 5:30 PM – SAN DIEGO CONVENTION CENTER, 33A

Lactation and ISRHML Business Meeting and Luncheon
TUES. 12:00 PM – SAN DIEGO HILTON BAYFRONT, 310
SPECIAL SESSIONS AND HIGHLIGHTS
(Listed in chronological order.)

Industry Forum
FRI. 5:30 PM – SAN DIEGO HILTON BAYFRONT

Immediately followed by a reception and dinner off-site.

Reception for Partners and Leaders
(By invitation only.)
FRI. 7:00 PM – SAN DIEGO WINE AND CULINARY EVENT CENTER

First-time Attendee and New Member Orientation
SAT. 2:00 PM – SAN DIEGO CONVENTION CENTER, 33C
(Organized by the Membership Committee)

Reception for Membership and University Mixer
SAT. 8:00 PM – SAN DIEGO HILTON BAYFRONT, SAPPHIRE BALLROOM DHLP

Graduate Student Breakfast
SUN. 6:45 AM – SAN DIEGO HILTON BAYFRONT, 304
(Supported by an educational grant from the National Dairy Council)
(Organized by the Student Interest Group)

Presidential Symposium: Nutrition and the Human Gut Microbiome: Seeking a Global Perspective
SUN. 10:30 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20D
(Supported by an educational grant from the Danone Institute International)

Meet the ASN Editors
SUN. 12:45 PM – SAN DIEGO CONVENTION CENTER, 32B
Advanced registration required for this event

Awards Ceremony
SUN. 6:00 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM A/E

Event for Young Professionals and Postdocs
SUN. 7:00 PM – SAN DIEGO HILTON BAYFRONT, 311
(Organized by the Young Professional Interest Group)

Department Heads Breakfast
MON. 7:00 AM – SAN DIEGO HILTON BAYFRONT, 310
(Supported by an educational grant from the Kellogg Company)

Student Interest Group (SIG) Meet the Fellows
MON. 10:30 AM – SAN DIEGO HILTON BAYFRONT, 310

Fellows, 50-Year Members, and Past Presidents Luncheon (By ticket only.)
MON. 11:30 AM – SAN DIEGO HILTON BAYFRONT, 304

E. V. McCollum Lecture
MON. 12:45 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 200
Lecturer: L. H. Allen

Society Annual Business Meeting
MON. 5:30 PM – SAN DIEGO CONVENTION CENTER, 31

Speed Mentoring for Students
MON. 7:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 1
(Organized by the Student Interest Group (SIG) and the Young Professional Interest Group (YPIG))

ASN Journal Reception
(By invitation only.)
MON. 7:30 PM – 9:30 PM – ROY’S RESTAURANT 333 WEST HARBOR DRIVE SAN DIEGO, CA 92101

MINORITY AFFAIRS COMMITTEE MARC TRAVEL Awardees POSTER SESSION AND NETWORKING BREAKFAST
TUES. 7:00 AM – SAN DIEGO CONVENTION CENTER, 33A
W.O. Atwater Memorial Lecture  
TUES. 12:45 PM – SAN DIEGO CONVENTION CENTER 20D  
Lecturer: J. O. Hill  

ARS W. O. Atwater Memorial Lecture Reception  
to follow event at 1:00 PM.  
(Supported by an educational grant from the USDA, Beltsville)  

SATELLITE SYMPOSIA  
(Listed in chronological order.)  

The Global Nutrition Transition: The Role of Lipid Supplementation  
(Organized and supported by Herbalife Nutrition Institute)  

FRI. 8:30 AM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM H  

What Do We Really Know about Whole Foods Digestibility and Energy Values?  
(Organized and sponsored by the Almond Board of California)  

FRI. 1:00 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM G  

Proteins as Beneficial Ingredients in Fortified Blended Foods: What Food Aid Studies Are Needed?  
(Organized and sponsored by Solae, LLC)  

SAT. 6:30 AM – SAN DIEGO CONVENTION CENTER, 30A/B  

GUEST SOCIETY HIGHLIGHTS  
(Listed in chronological order.)  

ASN/ILSI North America Symposium on Energy Balance: A New Paradigm  
Guest Society: ILSI North America  

SAT. 8:00 AM – SAN DIEGO CONVENTION CENTER, 20D  

PhenHRIG 2012 Symposium: The Human Microbiome and Formation of Bioactive Flavonoid Metabolites  
Guest Society: PhenHRIG  

SAT. 1:00 PM – SAN DIEGO CONVENTION CENTER, 30 A/B  

Global Synergies for Food and Health: KNS & Foodopolis (Korean National Food Cluster) Presentations  
MON. 6:00 PM – SAN DIEGO HILTON BAYFRONT, 520  

KNS Korean Scientists Night  
(Supported by Foodopolis)  
MON. 7:00 PM – SAN DIEGO HILTON BAYFRONT, 500  

Clinical Nutrition Update 2012  
(Cosponsored by the Academy of Nutrition and Dietetics)  
TUES. 10:30 AM – SAN DIEGO CONVENTION CENTER, 29A/B  

PATHOLOGY (ASIP)  

BREAST CANCER WORKSHOP: PERSONALIZED MEDICINE & BREAST CANCER  
(Sponsored by the ASIP Breast Cancer Scientific Interest Group)  
(Supported by educational grants from Academic Press, California Breast Cancer Research Program and earlier.org-Friends for an Earlier Breast Cancer Test)  
SAT. 8:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16B  

Chairs: A.G. Rivenbark and W.B. Coleman, Univ. of North Carolina at Chapel Hill
COURSE: PATHOBIOLOGY FOR BASIC SCIENTISTS: CELL INJURY AND INFLAMMATION: NEW RIFFS ON A CLASSICAL SCORE
(Sponsored by the ASIP Education Committee)
SAT. 8:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Chairs: R.N. Mitchell, Brigham and Women’s Hosp. and Martha B. Furie, Stony Brook Univ.

12TH ANNUAL WORKSHOP ON GRADUATE EDUCATION IN PATHOLOGY: GENOMICS AND PERSONALIZED MEDICINE IN THE GRADUATE CURRICULUM
(Sponsored by the ASIP Education Committee)
SAT. 11:30 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, CARDIFF
Chair: R.N. Mitchell, Brigham and Women’s Hosp.

BREAST CANCER SCIENTIFIC INTEREST GROUP NETWORKING AND POSTER SESSION
(Sponsored by the ASIP Breast Cancer Scientific Interest Group)
Sat. 11:45 AM – SAN DIEGO CONVENTION CENTER, ROOM 1B
Chairs: A.G. Rivenbark and W.B. Coleman, Univ. of North Carolina at Chapel Hill

HIGHLIGHTS: GRADUATE STUDENT RESEARCH IN PATHOLOGY
(Sponsored by the ASIP Committee for Career Development, Women and Minorities)
SAT. 1:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 15B

ASIP EXCELLENCE IN SCIENCE AWARD LECTURE
(Presented during: ASIP Highlights: Graduate Student Research in Pathology – 1:30 PM – 4:00 PM)
SAT. 3:35 PM – SAN DIEGO CONVENTION CENTER, ROOM 15B
Awardee: E. B. Lee, Univ. of Pennsylvania
Title: Mechanisms of TDP-43 Mediated Neurodegeneration in ALS and FTLD

ASIP TRAINEE WELCOME RECEPTION
SAT. 4:00 PM – SAN DIEGO CONVENTION CENTER, 15A

ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE
SAT. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Awardee: K. Elenitoba-Johnson, Univ. of Michigan
Title: Lost in Ubiquitination, Found by Mass Spectrometry: Identification of E3 Ligase Substrates Controlling Critical Cellular Events and Cancer

CAREER DEVELOPMENT WORKSHOP AND BREAKFAST: GETTING YOUR DREAM JOB: PREPARING YOUR CV AND MANAGING YOUR INTERVIEW
(Sponsored by the ASIP Committee for Career Development, Women and Minorities)
(Supported by educational grants from the FASEB Minority Access to Research Careers (MARC) Office and the Intersociety Council for Pathology Information)
SUN. 7:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, LAGUNA
12TH ANNUAL CAREER DEVELOPMENT PROGRAM & LUNCH: FUNDAMENTAL BASICS FOR SUCCESS: HOW TO WRITE AWARD-WINNING GRANTS
(Special registration required to attend this event.)
(Sponsored by the ASIP Committee for Career Development, Women and Minorities and the American Association of Anatomists)
(Supported by an educational grant from the FASEB Minority Access to Research Careers (MARC) Office)

SUN. 11:45 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, PRESIDIO 1/2

Chairs: T.A. Reaves, Med. Univ. of South Carolina  
J.S. Reuben, Univ. of South Carolina Sch. of Med. – Greenville

BLOOD VESSEL CLUB: VASCULAR DEVELOPMENT

SUN. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16B

Chair: D.S. Milstone, Brigham and Women’s Hosp.

ROUS-WHIPPLE AWARD LECTURE

SAT. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16B


Title: The Many Roles of VEGF in the Adult

CLUB HEPATOMANIA
(Sponsored by the ASIP Liver Pathobiology Scientific Interest Group)

SUN. 6:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, TORREY PINES 2/3

Chairs: S. P. Mongan and K. Nejak-Bowen, Univ. of Pittsburgh Sch. of Med.

DER SCHADENKLUB – CELL INJURY SCIENTIFIC INTEREST GROUP NETWORKING RECEPTION/PSTER SESSION
(Sponsored by the ASIP Cell Injury Scientific Interest Group)

SUN. 6:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM – SALON E

Chairs: C.C. Yates-Binder, Univ. of Pittsburgh Sch. of Med.and M.S. Willis, Univ. of North Carolina at Chapel Hill

ASIP COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE

MON. 8:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16A

Awardee: A. Ivanov, Univ. of Rochester Sch. of Med. and Dent.

Title: Molecular Engines that Build and Break Epithelial Barriers

STOWELL SYMPOSIUM: TRENDS IN EXPERIMENTAL PATHOLOGY: METABOLISM & CANCER
(Cosponsored by the Italian Pathology Society)
(Supported by an educational grant from the Robert E. Stowell Endowment Fund)

MON. 9:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16A

Chairs: S. Andò, Univ. degli studi della Calabria  
A. Mantovani, Univ. of Milan

LUNCH & LEARN: BEST PRACTICES OF BIOBANKING & SPECIMEN COLLECTION
(Sponsored by the ASIP Education Committee)

MON. 12:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 14A

Chairs: W. Mars, Univ. of Pittsburgh Sch.of Med.,  
T. Sander, Children’s Hosp. of Wisconsin
VETERINARY PATHOLOGY SCIENTIFIC INTEREST GROUP LUNCH/NETWORKING SESSION
(Sponsored by the ASIP Veterinary Pathology Scientific Interest Group)

MON. 12:45 PM – SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Chairs: M. McArthur, Univ. of Texas MD Anderson Cancer Ctr.
E. Whitley, Iowa State Univ.
D. Hutto, Eisai, Inc.
E. Galbreath, Lilly Res. Labs.

ASIP PRESIDENTIAL SYMPOSIUM:
PATHOGEN-HOST INTERACTIONS: PROVOKING AND EVADING THE IMMUNE RESPONSE
MON. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Chair: M.B. Furie, Stony Brook Univ.

ASIP BUSINESS MEETING AND AWARDS PRESENTATION
MON. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Chair: M.B. Furie, Stony Brook Univ.

EXPERIMENTAL PATHOLOGIST-IN-TRAINING AWARD
Recipient: R.M. Sumagin, Emory Univ.

EXPERIMENTAL PATHOLOGIST-IN-GRADUATE TRAINING AWARD
Recipient: J.D. Jones, Tuskegee Univ.

POSTDOCTORAL MERIT AWARD

PREDOCTORAL MERIT AWARDS
Recipients: D.A. Geem, Emory Univ. Sch. of Med.
P.K. Awuah, Univ. of Pittsburgh

EXCELLENCE IN SCIENCE AWARD
Recipient: E.B. Lee, Univ. of Pennsylvania

OUTSTANDING INVESTIGATOR AWARD
Recipient: K. Elenitoba-Johnson, Univ. of Michigan

COTRAN EARLY CAREER INVESTIGATOR AWARD
Recipient: A. Ivanov, Univ. of Rochester Sch. of Med. and Dent.

ROUS-WHIPPLE AWARD

ROBBINS DISTINGUISHED EDUCATOR AWARD

GOLD-HEADED CANE AWARD
Recipient: Frederick F. Becker, Univ. of Texas MD Anderson Cancer Ctr.

ASIP AWARDS RECEPTION
MON. 6:00 PM – SAN DIEGO CONVENTION CENTER, MEZZANINE FOYER

SCIENTIFIC SLEUTHING OF HUMAN DISEASE FOR HIGH SCHOOL TEACHERS
(Sponsored by the ASIP Education Committee)
(Supported by an educational grant from the Intersociety Council for Pathology Information)
TUE. 8:30 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR

Chairs: M.B. Furie, Stony Brook Univ.
K. Nejak-Bowen, Univ. of Pittsburgh Sch. of Med.

NEUROPATHOLOGY SCIENTIFIC INTEREST GROUP LUNCH/NETWORKING SESSION
(Sponsored by the ASIP Neuropathology Scientific Interest Group)
TUE. 11:45 AM – SAN DIEGO CONVENTION CENTER, ROOM 33A

Chairs: C.A. Wiley, Univ. of Pittsburgh Sch. of Med.
C.L. Kolarcik, Univ. of Pittsburgh
ENDOTHELIAL AND EPITHELIAL CONTRIBUTIONS TO HOMEOSTASIS AND THE INFLAMMATORY RESPONSE
(Sponsored by the Inflammation/Immunopathology and Mucosal Pathobiology Scientific Interest Groups)

TUE. 5:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR

Chairs: F.W. Luscinskas, Brigham and Women’s Hosp.
A.S. Neish, Emory Univ.
A. Nusrat, Emory Univ.

PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS (ASPET)

2012 TEACHING INSTITUTE: THE USE OF SOCIAL MEDIA IN PHARMACOLOGY EDUCATION
SAT. 12:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 3

Chair: L. Crespo, Greenville Hosp. Syst.

GRADUATE STUDENT COLLOQUIUM: COMMUNICATION
SAT. 2:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 2

J.S. Fedan, NIOSH, Morgantown, WV
M.J. Seminerio, West Virginia Univ.

ASPET BUSINESS MEETING
SAT. 6:00 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20 D

Awards to be presented:

John J. Abel Award
J. Zhang, Johns Hopkins Univ. Sch. of Med.

Bernard B. Brodie Award in Drug Metabolism
Y. Sugiyama, Univ. of Tokyo

P.B. Dews Lifetime Achievement Award for Research in Behavioral Pharmacology
J.E. Barrett, Drexel Univ. Col. of Med.

Goodman & Gilman Award in Receptor Pharmacology

Pharmacia-ASPET Award for Experimental Therapeutics
A.H. Brodie, Univ. of Maryland Sch. of Med.

Robert R. Ruffolo Career Achievement Award

PHRMA FOUNDATION AWARDS

Award in Excellence in Pharmacology & Toxicology
M.L. Dubocovich, Univ. at Buffalo

Research Starter Grants in Pharmacology & Toxicology
S. Ajit, Drexel Univ. Col. of Med.
P. Ronaldson, Univ. of Arizona

Postdoctoral Fellowships in Pharmacology & Toxicology
U. Chu, Univ. of Wisconsin-Madison

Predoctoral Fellowships in Pharmacology & Toxicology
S. Nowinski, Univ. of Texas at Austin
J. Park, Univ. of California, Irvine
C. Ulrich, Univ. of Nevada, Reno

OPENING AND AWARDS RECEPTION
SAT. 7:30 PM – SAN DIEGO CONVENTION CENTER, CENTER TERRACE
WIP INTO SHAPE NETWORKING WALK
SUN. 7:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MEET AT THE CONCIERGE DESK

DIVERSITY COMMITTEE MENTORING BREAKFAST
SUN. 7:30 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, ANAHEIM

GRADUATE STUDENT – POSTDOC BEST ABSTRACT COMPETITION
SUN. 6:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 3/4

Presenters should arrive at 5:00 PM.

JULIUS AXELROD LECTURE
SUN. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 2

Speaker: E. Sanders-Bush, Vanderbilt Univ. Sch. of Med.

Title: From Farm to Pharm: A Journey with Serotonin

JULIUS AXELROD SYMPOSIUM: NOVEL INSIGHTS INTO THE REGULATION OF SEROTONIN FUNCTION
SUN. 3:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 2

Chair: E. Sanders-Bush, Vanderbilt Univ. Sch. of Med.

P.B. DEWS LIFETIME ACHIEVEMENT AWARD FOR RESEARCH IN BEHAVIORAL PHARMACOLOGY LECTURE
MON 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 2

Speaker: J. Barrett, Drexel Univ. Sch. of Med.

Title: Drugs of Abuse: Behavioral Determinants of Pharmacological Plasticity

BERNARD B. BRODIE AWARD IN DRUG METABOLISM LECTURE
MON. 2:00 PM–CONVENTION CENTER, ROOM 3

Speaker: Y. Sugiyama, Univ. of Tokyo

Title: Drug Transporters: Roles in New Drug Discovery and Development

JOHN J. ABEL LECTURE
TUE. 8:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 2

Speaker: J. Zhang, Johns Hopkins Univ. Sch. of Med.

Title: Spatiotemporal Regulation of Protein Kinases in Living Cells

PAUL M. VANHOUTTE DISTINGUISHED LECTURE IN VASCULAR PHARMACOLOGY
TUE. 4:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 2

Speaker: R.A. Cohen, Boston Univ. Sch. of Med.

Title: Nitric oxide in Metabolic Cardiovascular Disease

DIVISION BUSINESS MEETINGS & MIXERS

BEHAVIORAL PHARMACOLOGY DIVISION

Business Meeting
MON. 5:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 2

No Mixer

CARDIOVASCULAR PHARMACOLOGY DIVISION

Business Meeting
SUN. 5:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 5B

Mixer
TUE. 6:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, SANTA ROSA
DRUG DISCOVERY, DRUG DEVELOPMENT AND REGULATORY AFFAIRS DIVISION

Business Meeting
Mon. 12:15 PM – San Diego Convention Center, Room 5B

Mixer
Mon. 7:00 PM – San Diego Marriott Marquis & Marina, Solana

PHARMACOLOGY EDUCATION DIVISION

Business Meeting
Mon. 5:45 PM – San Diego Convention Center, Room 5B

Mixer
Mon. 7:00 PM – San Diego Marriott Marquis & Marina, Solana

TOXICOLOGY DIVISION

Business Meeting
Tue. 5:45 pm – San Diego Convention Center, Room 5A

Mixer
Tue. 7:00 PM – San Diego Marriott Marquis & Marina, Balboa

ASPET CLOSING RECEPTION
Wed. 6:00 PM – San Diego Marriott Marquis & Marina, Poolside Terrace

DRUG METABOLISM DIVISION

Business Meeting
Mon. 5:45 PM – San Diego Convention Center, Room 3

Mixer
Tue. 7:00 PM – San Diego Marriott Marquis & Marina, Balboa

INTEGRATIVE SYSTEMS, TRANSLATIONAL AND CLINICAL PHARMACOLOGY DIVISION

Business Meeting
Mon. 5:45 PM – San Diego Convention Center, Room 5A

Mixer
Mon. 7:00 PM – San Diego Marriott Marquis & Marina, Solana

MOLECULAR PHARMACOLOGY DIVISION

Business Meeting and Mixer
Mon. 7:00 PM – San Diego Marriott Marquis & Marina, Presidio I/II

NEUROPHARMACOLOGY DIVISION

Business Meeting
Tue. 5:45 PM – San Diego Convention Center, Room 3

Mixer
Tue. 7:00 PM – San Diego Marriott Marquis & Marina, Solana

NEUROPHARMACOLOGY DIVISION

Business Meeting
Tue. 5:45 PM – San Diego Convention Center, Room 3

Mixer
Tue. 7:00 PM – San Diego Marriott Marquis & Marina, Solana

PHYSIOLOGY (APS)

REFRESHER COURSE IN ENDOCRINOLOGY: DIABETIC COMPLICATIONS
Sat. 8:00 PM – San Diego Convention Center, Room 24

WORKSHOP: OVERCOMING THE FEAR OF MAKING YOUR OWN TRANSGENIC AND KNOCKOUT MICE
Sat. 1:00 PM – San Diego Convention Center, Room 27

WORKSHOP: TOOLKIT FOR GENOMIC BIOMARKER DISCOVERY BY PHYSIOLOGISTS
Sat. 3:15 PM – San Diego Convention Center, Room 27
PHYSIOLOGY IN PERSPECTIVE—THE WALTER B. CANNON MEMORIAL AWARD LECTURE
SAT. 5:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A
Title: The Wisdom of the Body Revisited: Tribute to Walter B. Cannon and His Concept of Homeostasis as Applied to Pathophysiology of Hypertension

HUGH DAVSON DISTINGUISHED LECTURESHIP OF THE APS CELL & MOLECULAR PHYSIOLOGY SECTION
SUN. 10:30 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A
Speaker: M. Knepper, NHLBI/NIH
Title: After the Interlude: Cell-Level Systems Biology in the 21st Century

CLAUDE BERNARD DISTINGUISHED LECTURESHIP OF THE APS TEACHING OF PHYSIOLOGY SECTION
SUN. 10:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 27
Speaker: W. Galey, HHMI, Chevy Chase
Title: Reflections on the Teaching and Learning of Science in the Late 20th and Early 21st Centuries

ERNEST H. STARLING DISTINGUISHED LECTURESHIP OF THE APS WATER & ELECTROLYTE HOMEOSTASIS SECTION
SUN. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 24
Speaker: K. Sandberg, Georgetown Univ.
Title: The Female Paradox: Resistance and Vulnerability in Hypertension and Renal Vascular Disease

THE HENRY PICKERING BOWDITCH MEMORIAL AWARD LECTURE
SUN. 6:00 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A
Speaker: M. Liang, Med. Col. of Wisconsin
Title: microRNAs and Systems Molecular Medicine

CARL LUDWIG DISTINGUISHED LECTURESHIP OF THE APS NEURAL CONTROL & AUTONOMIC REGULATION SECTION
MON. 8:00 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A
Speaker: I.H. Zucker, Univ. of Nebraska Med. Ctr.
Title: Sympathetic Nerve Activity in Heart Failure: A Critical Role for Central Angiotensin II Receptors

SOLOMON A. BERSON DISTINGUISHED LECTURESHIP OF THE APS ENDOCRINOLOGY & METABOLISM SECTION
MON. 10:30 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A
Speaker: M.W. Schwartz, Harborview Med. Ctr.
Title: Understanding of Obesity as a Disorder of Energy Homeostasis

HISTORY OF PHYSIOLOGY GROUP BUSINESS MEETING AND LECTURE
MON. 12:25 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, RANCHO LAS PALMAS
Speaker: J.A. Dempsey, Univ. of Wisconsin-Madison
Title: Lessons in Respiratory Physiology from The Oxford:Copenhagen Debate and The three Danish Musketeers
EDWARD F. ADOLPH DISTINGUISHED LECTURESHIP OF THE APS
ENVIRONMENTAL AND EXERCISE PHYSIOLOGY SECTION
MON. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Title: Exercise Only Affects Muscle? Fat Chance

CARL W. GOTTSCALK DISTINGUISHED LECTURESHIP OF THE APS RENAL SECTION
MON. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: M.J. Caplan, Yale Univ. Sch. of Med.
Title: Playing in Traffic: Sorting and Signaling in Renal Epithelial Cells

JOSEPH ERLANGER DISTINGUISHED LECTURESHIP OF THE APS CENTRAL NERVOUS SYSTEM SECTION
MON. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 23

Speaker: S.C. Woods, Univ. of Cincinnati
Title: Peptides, Food Intake and Body Weight: Problems of Interpretation

AUGUST KROGH DISTINGUISHED LECTURESHIP OF THE APS COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION
(Supported by the Novo Nordisk Fndn.)

TUE. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: J.E Hicks, Univ. of California, Irvine
Title: Tales from the Heart: A Comparative and Evolutionary Perspective of the Vertebrate Circulatory System

JULIUS H. COMROE, JR. DISTINGUISHED LECTURESHIP OF THE APS RESPIRATION SECTION
TUE. 10:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: N.R. Prabhakar, Univ. of Chicago
Title: Sensing Hypoxia: Physiology, Genetics and Epigenetics

ROBERT M. BERNE DISTINGUISHED LECTURESHIP OF THE APS CARDIOVASCULAR SECTION
TUE. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Title: Molecular Mechanisms of Hypertension: Redox Signaling, Lipid Rafts and TRPMs

HORACE W. DAVENPORT DISTINGUISHED LECTURESHIP OF THE APS GASTROINTESTINAL & LIVER PHYSIOLOGY SECTION
TUE. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: H.M. Said, Univ of California, Long Beach VA Med. Prog.
Title: Mechanism and Regulation of Intestinal Absorption of Water-Soluble Vitamins: Cellular and Molecular Aspects

APS BUSINESS MEETING
TUE. 6:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 20A
GUEST SOCIETIES HIGHLIGHTS

THE MICROCIRCULATORY SOCIETY

MICROCIRCULATORY SOCIETY LANDIS AWARD LECTURE
SUN. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 23

Speaker: R. N. Pittman, Virginia Commonwealth Univ.

Title: Tales from the Microcirculation: Oxygen Transport and Its Regulation

PHYSIOLOGY InFOCUS:

PHYSIOLOGY IN MEDICINE

SYMPOSIM: PHYSIOLOGY OF OBESITY, CARDIOMETABOLIC DISEASE AND THERAPEUTIC WEIGHT LOSS
SUN. 3:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

SYMPOSIUM: USING PHYSIOLOGY TO TRANSLATE CARDIAC REMODELING AND HEART FAILURE
MON. 3:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

SYMPOSIUM: HYPERTENSION AND CHRONIC KIDNEY DISEASES
TUE. 3:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE LECTURE
WED. 3:30 PM — SAN DIEGO CONVENTION CENTER, BALLROOM 20A

Speaker: O. Smithies, Univ. of North Carolina at Chapel Hill

Title: On Being a Bench Scientist for 50 Years
This activity (“ASIP 2012 Annual Meeting at Experimental Biology 2012”) has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Federation of American Societies for Experimental Biology (FASEB) and the American Society for Investigative Pathology (ASIP). FASEB is accredited by the ACCME to provide continuing medical education for physicians.

The Federation designates this live educational activity for a maximum of 38.5 *AMA PRA Category 1 Credit(s)*™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

CME workbooks will be available in the ASIP Office and the EB Meeting Management Office located in the San Diego Convention Center, San Diego, CA and online CME application forms will be available beginning April 21, 2012 on the ASIP website (http://www.asip.org/mtgs/eb12/cme.cfm). There is a $50 CME application fee, payable upon submission of the online CME application. The deadline for submitting a CME application is June 30, 2012. Should you have any questions, contact the ASIP Education Office (cme@asip.org, 301-634-7130) or the FASEB Office of Scientific Meetings and Conferences (fasebcme@faseb.org, 301-634-7010), both located at 9650 Rockville Pike, Bethesda, MD 20814-3998.

**Sessions Eligible for CME**

The only Society educational component of Experimental Biology 2012 that is eligible for CME credit is the ASIP 2012 Annual Meeting. All ASIP sessions that are summarized on pages lxxx–lxxxi of the Experimental Biology Meeting Book are eligible for CME except:

- Session 51: Breast Cancer Scientific Interest Group
- Session 57: ASIP Trainee Welcome Reception
- Session 146: Der Schadenklub - Cell Injury Scientific Interest Group Networking Reception/Poster Session
- Session 278: Veterinary Pathology Scientific Interest Group Lunch/Networking Event
- Session 280: ASIP Membership Business Meeting and Awards Presentation
- Session 281: ASIP Awards Reception
- Session 400: Neuropathology Scientific Interest Group Lunch/Networking Session
- Session 401: ISAMM Symposium: “Advances in Ultrasensitive RNA In Situ Hybridization”
- Session 406: Inflammation/Immunopathology and Mucosal Pathobiology Scientific Interest Groups: “Endothelial and Epithelial Contributions to Homeostasis and the Inflammatory Response”
- Session 403: National Institutes of Health: Programs and Policies Update from Institutes
- Poster viewing in the Exhibit Hall

**Meeting Objective/Target Audience**

The objective of the ASIP 2012 Annual Meeting at Experimental Biology 2012 is to increase basic and applied pathology knowledge and to provide a forum for the exchange of new research by scientists and investigators. The meeting is designed to support participants’ educational needs in the physician competency area of Medical Knowledge, as defined by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS). At the completion of this meeting, participants should be able to:
• discuss the research underway and/or the current topics relevant to their areas of interest in pathology;
• demonstrate a gained level of knowledge of the methods and techniques being used by researchers and practitioners in this field; and
• utilize information and data that lead to improvements in human health.

This meeting is targeted to graduate students, postdoctoral fellows, research scientists, clinical practitioners, and medical education professionals.

DISCLOSURE POLICY
The Federation has implemented a process where everyone who is in a position to influence and/or control the content of a CME activity must disclose all relevant financial relationships with any commercial interest and any conflicts of interest must be resolved prior to the CME activity. The Federation requires that participants of FASEB-sponsored educational programs be informed of an organizer’s and/or a presenter’s (speaker, faculty, author, or contributor) academic and professional affiliation and the existence of any relevant financial relationship a presenter has with any proprietary entity producing health care goods or services consumed by, or used on patients, with the exemption of non-profit or government organizations and non-health care related companies. The intent of this disclosure is not to prevent a speaker from making a presentation. This policy allows the listener/attendee to be fully knowledgeable in evaluating the information being presented.

Disclosure includes any relationship that may bias the planning of the CME activity or may bias one’s presentation or which, if known, could give the perception of bias. These situations may include, but are not limited to: 1) stock options or bond holdings in a for-profit corporation or self-directed pension plan; 2) research grants; 3) employment (full or part-time); 4) ownership or partnership; 5) consulting fees or other remuneration; 6) non-remunerative positions of influence such as officer, board member, trustee, or public spokesperson; 7) receipt of royalties; 8) speaker’s bureau; 9) other. For full-time employees of industry or government, the affiliation listed in the Program will constitute full disclosure.

Organizing Committee Disclosures
The ASIP Program Committee was responsible for organizing the majority of the Annual Meeting program. In addition, the ASIP Meritorious Awards Committee selected award winners who are presenting lectures at the ASIP Annual Meeting. The Education Committee planned the Pathobiology Course for Basic Scientists: Cell Injury and Inflammation, the 12th Annual Workshop on Graduate Education in Pathology: Genomics, the Lunch & Learn session: Best Practices of Biobanking and Specimen Collection, and the Special Session: Scientific Sleuthing of Human Diseases for High School Teachers. The ASIP Committee for Career Development, Women and Minorities (CCDWM) planned the Career Development Workshop and Breakfast: Getting Your Dream Job and the 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grant Proposals. Several members of these organizing committees indicated a relationship that could be perceived by some as a real or apparent conflict of interest in planning the CME activity. The disclosures have been reviewed and conflicts of interest resolved or managed.

• Elizabeth Galbreath (CCDWM and Meritorious Awards Committees) was an employee of and may receive stock options from Eli Lilly and Company during some of the planning of this meeting and is currently an employee of and may receive stock options from her current employer Amgen.
• Nicholas Lukacs (Program Committee) is the recipient of research grants from Carolus, Centocor, and Johnson & Johnson.
• Satdarshan (Paul) Monga receives consulting fees from ImClone Therapeutics.
• Andrew Neish (Program Committee) received consulting fees from Danone Corporation.
• Jerrold Turner (Meritorious Awards Committee) received consulting fees from Agennix.
Invited Speaker Disclosures

The following presenters in the ASIP oral sessions have indicated a relationship that, in the context of their presentation, could be perceived by some as a real or apparent conflict of interest but do not consider that it will influence their presentation. The disclosures have been reviewed and conflicts of interest resolved or managed. The number following each company name represents the specific relationship from the list above. If an organizer or a presenter is not listed, then he/she did not disclose a relevant financial relationship.

Bhattacharya, J.; Chromocell - 5
Duncan, S.; Primorigen Biosciences - 7
Galbreath, E.; Amgen - 1, 3; Eli Lilly and Company - 1, 3
Garrett, W.; Groupe Danone - 2
Greenbaum, L.; Johnson & Johnson - 3; 9 (spouse employment)
Hogan, M.; IntegenX - 3, 5; Novartis - 2, 5; Genentech - 5; Merck - 5
Lu, S.; Abbott International - 5, 6
Lukacs, N.; Carolus - 2; Centecor - 2; Johnson & Johnson - 2

Madabhushi, A.; IbRis, Inc.- 1, 4; VacuVis, Inc. - 1, 4; Siemens Corporation Research - 2; GE - 2; Riverside Research Institute - 2
Mantovani, A.; Sigma-Tau - 2
Serhan, C.; Resolvyx Pharmaceuticals - 1, 9 (patents); Bayer Health Care - 7, 9 (patents)
Symmans, W.; Nuvera Biosciences, Inc. - 1, 7
Tsongalis, G.; Abbott-Vysis - 2, 5; Primera Dx - 2, 5, 6; Gerson Lehman - 5; Teva Pharmaceutical Industries, Ltd. - 5
Yanik, M.; Entera Pharmaceuticals - 4

Abstract Author Disclosures

None of the authors of abstracts selected for CME-eligible oral presentations/poster discussions have indicated a relationship that, in the context of their presentation, could be perceived by some as a real or apparent conflict of interest. Please note that the viewing of posters in the Exhibit Hall is not a CME activity.
Across Societies – Experimental Biology

6. MARC and Professional Development Programs
72. MARC and Professional Development Programs
73. NIH K Awards
74. Formula for Grant Success: Part I - Scientific Peer Review of NIH Grants
75. Formula for Grant Success: Part II - Grant Writing for Success
194. MARC and Professional Development Programs
195. NIH K Awards
196. Formula for Grant Success: Part I - Scientific Peer Review of NIH Grants
197. Formula for Grant Success: Part II - Grant Writing for Success
331. MARC and Professional Development Programs

Biochemistry and Molecular Biology

1. ASBMB Graduate and Postdoctoral Travel Award Keynote Lecture
2. ASBMB Graduate and Postdoctoral Travel Award Poster Session
17. ASBMB Graduate and Postdoctoral Professional Development Program
18. Powering Up! ASBMB Annual Meeting Orientation for Undergraduates
19. The Battle! ASBMB 16th Annual Undergraduate Student Research Poster Competition
20. Find Your Super Match! Career Speed “Dating” for Undergraduates
85. Brekke for Next Gens, Undergraduate Breakfast with Award Scientist, Kim Orth
105. Will Combined MD-PhD Training Make Me Twice As Successful?
108. Welcome Networking Reception, Sponsored by the ASBMB Minority Affairs Committee
213. Brekke for Next Gens, Undergraduate Breakfast with Award Scientist, Bettie Sue Masters
224. Effectively Communicating Your Science, ASBMB Public Policy Session
234. ASBMB Thematic Fermentation Hour
235. ASBMB Inaugural Poetry Competition Reading
351. Work Life Balance: A Professional Development Workshop for Students, Postdocs and Junior Faculty
359. ASBMB Women Scientists’ Networking Event/Reception

Nutrition

123. Zinc Nutrition: From Discovery to Global Health Impact
238. Health Impact of Whole Grains, Bran and Cereal Fiber
249. Utilizing a Stepwise Procedure to Design Effective Nutrition Education
261. Communication Techniques of Effective Speakers
262. A Nurturing Environment Produces Future Legends: Development of Career through Successful Mentor-Mentee Relationships
371. The Future of Nutrition Research
384. Scientific Career Advancement for Early Stage Investigators

Pathology

132. Career Development Workshop and Breakfast: Getting Your Dream Job: Preparing Your CV and Managing Your Interview
138. 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grants

Physiology

68. Using Social Media to Communicate about Physiology and You
166. Publishing 101: How to Get Your Work Published in APS Journals and Avoid Minefields along the Way
309. Do I Need Another Degree?
440. National Institutes of Health: Programs and Policies Update from Institutes
492. Conflict Resolution: How to Keep Everyone Happy!
503. E-media Tools for the Professional Scientist
Across Societies – Experimental Biology

518. Teaching, Learning and Testing in the Biological and Biomedical Sciences I
519. Teaching, Learning and Testing in the Biological and Biomedical Sciences II
520. Disease Prevention through Education
718. Computers in Research and Teaching
719. Teaching, Learning and Testing in the Biological and Biomedical Sciences III
720. Teaching, Learning and Testing in the Biological and Biomedical Sciences IV

Anatomy
9. Master Class—Neural Innervation of the Heart and Its Role in Pathophysiology and Treatment
13. Pedagogy
78. Gross Anatomy for the Physician Assistant
82. Anatomical Education for Allied Health Care Professionals
200. Anatomy Education Breakfast Roundtables
204. Teaching Innovations in Anatomy I
208. Current Trends in the Anatomical Sciences: How Are We Teaching North American Dental Students?
456. Teaching Innovations in Anatomy II

Biochemistry/Molecular Biology
16. Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop
18. Powering Up! ASBMB Annual Meeting Orientation for Undergraduates
94. Maximizing Institutional Effectiveness
98. Workshop on LIPID MAPS Lipidomics Tools
99. Teaching Session with Stuart Kornfeld: Modeling the Molecular Machinery of the Protein Trafficking Pathway
106. Maximizing Teaching Effectiveness
223. Maximizing Your Marketability
225. Lipid Droplets: Basic Working Principles Workshop
233. Maximizing Your Global Outreach
350. Promoting Concept Driven Teaching Strategies in BMB through Concept Assessment

Nutrition
25. Helpful or Harmful: Soy, Isoflavones, and Cancer Risk
26. Clinical Emerging Leaders Award Competition, Supported by the Medical Nutrition Council
30. Postdoctoral Research Award Competition, Supported by Solae, LLC
38. Graduate Student Research Award Competition, Supported by the Nutritional Sciences Council
111. Utilizing a Multilevel Team Approach: Lessons Learned from the Vitamin D DRI-Setting Activity
123. Zinc Nutrition: From Discovery to Global Health Impact
236. GPEC Forum: Using Interdisciplinary Tools to Evaluate Nutritional Interventions
238. Health Impact of Whole Grains, Bran and Cereal Fiber
249. Utilizing a Stepwise Procedure to Design Effective Nutrition Education
250. Establishing and Evaluating Health Claims for Probiotics
262. A Nurturing Environment Produces Future Legends: Development of Career through Successful Mentor-Mentee Relationships
362. Food and Nutrition Board Update: Not At All Quiet on the Labeling Front, and Remarques about Sodium
384. Scientific Career Advancement for Early Stage Investigators

Pathology
45. Pathobiology for Basic Scientists: Cell Injury and Inflammation: New Riffs on a Classical Score
50. 12th Annual Workshop on Graduate Education in Pathology: Genomics and Personalized Medicine in the Graduate Curriculum
393. Scientific Sleuthing of Human Disease for High School Teachers
Pharmacology and Experimental Therapeutics

60. 2012 Teaching Institute: The Use of Social Media in Pharmacology Education
61. Graduate Student Colloquium: Communication
294. Pharmacology Education Division Programming: Strategies for Pharmacology in Integrated Medical School Curricula: Best Practices for Enhancing Involvement of Our Discipline

Physiology

63. Refresher Course in Endocrinology: Diabetic Complications
65. Overcoming the Fear of Making Your Own Transgenic and Knockout Mice
69. Toolkit for Genomic Biomarker Discovery by Physiologists
164. Innovative Use of Technology for Teaching and Student Assessment in Physiology
171. Claude Bernard Distinguished Lectureship of the APS Teaching of Physiology Section
189. What Do Competencies Have to Do with My Teaching?
295. Assessment of Student Learning and Scientific Teaching
PUBLIC POLICY SESSIONS (OVERVIEW)

Across Societies—Experimental Biology
332. National Institutes of Health: Programs and Policies Update from Institutes

Anatomy
7. Connecting with Different Audiences: The Anatomy of Communication

Nutrition
29. Strategic, Global Approaches to Improve Breastfeeding Rates
111. Utilizing a Multilevel Team Approach: Lessons Learned from the Vitamin D DRI-Setting Activity
122. Food Insecurity and Health across the Lifespan
236. GPEC Forum: Using Interdisciplinary Tools to Evaluate Nutritional Interventions
250. Establishing and Evaluating Health Claims for Probiotics
362. Food and Nutrition Board Update: Not At All Quiet on the Labeling Front, and Remarques about Sodium
371. The Future of Nutrition Research

Pathology
403. National Institutes of Health: Programs and Policies Update from Institutes

Physiology
66. Public Outreach and Animal Research: Toolkit for Investigators
440. National Institutes of Health: Programs and Policies Update from Institutes
SAN DIEGO CONVENTION CENTER

Mezzanine Level
Pharmacology and Physiology Posters, Wed., April 25 (see page 380)
Late-Breaking Posters, Wed., April 25

Complimentary Wireless Access (see page xvii)
Laptop Charging Station
Aqua Level
HILTON SAN DIEGO BAYFRONT

Indigo Level
HILTON SAN DIEGO BAYFRONT

Sapphire Level

SAPPHIRE BALLROOM

A B C D

E F G H

I J K L

M N O P

GREEN ROOM

SAPPHIRE PATIO FOYER

SAPPHIRE PATIO FOYER

SAPPHIRE TERRACE

EXIT

NORTH

SOUTH

410

411

412

402

400
SAN DIEGO MARRIOTT MARQUIS & MARINA

South Tower Level 3
South Tower Level 4

SAN DIEGO MARRIOTT MARQUIS & MARINA

APS Offices

ELEVATOR

LA JOLLA

LA MESA

CORONADO

CORONADO TERRACE

SOUTH TOWER

CATALINA

LA COSTA

NEWPORT BEACH

DANA POINT

MALIBU
SPONSORING SOCIETIES

American Association of Anatomists (AAA)
The American Physiological Society (APS)
American Society for Biochemistry and Molecular Biology (ASBMB)
American Society for Investigative Pathology (ASIP)
American Society for Nutrition (ASN)
American Society for Pharmacology and Experimental Therapeutics (ASPET)

GUEST SOCIETIES

AAA
Brazilian Society of Anatomy (SBA)
Chinese Society of Anatomical Sciences (CSAS)

APS
American Federation for Medical Research (AFMR)
Association of Latin American Physiological Societies (ALACF)
Association of Physiologists and Pharmacologists of India (APPI)
Austrian Physiological Society (APS)
Biomedical Engineering Society (BMES)
Brazilian Society of Physiology (SBFis)
Hungarian Physiological Society (MET)
Kazakh Physiological Society (KPS)
The Microcirculatory Society (MCS)
Physiological Society of India (PSI)
The Physiological Society – UK (TPS)
Sociedad Mexicana de Ciencias Fisiologicas (SMCF)
Société de Physiologie – France (SP)
Society of Experimental Biology and Medicine (SEBM)
Turkish Society of Physiological Science (TFBD)

ASBMB
Division of Biological Chemistry – American Chemical Society

ASIP
American College of Veterinary Pathologists
American Society for Matrix Biology
International Society for Analytical and Molecular Morphology
International Society for Biological and Environmental Repositories
Società Italiana di Patologia/Italian Pathology Society
Society for Cardiovascular Pathology

ASN
American Dietetic Association
American Society of Animal Science
ILSI North America
Korean Nutrition Society
Plant Phenolic and Human Health Research Interest Group (PhenHRIG)

ASPET
Behavioral Pharmacology Society
### Saturday, April 21

<table>
<thead>
<tr>
<th>AM</th>
<th>PM</th>
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</table>
| **connecting w/ Different Audiences: The Anatomy of Communication**  
D. Evans  
8 AM – 10 AM  
Room 7B | **Master Class- Neural Innervation of the Heart**  
J. McBride  
1 PM – 3 PM  
Room 8 |
| **Climbing the Academic Ladder: Skills Needed for Each Rung**  
R. Pratt & K. Topp  
10:30 AM - 12:30 PM  
Room 7B | **Visualizing Complex Biomedical Systems**  
C. Johnson  
1 PM – 3 PM  
Room 9 |
| AAA Graduate Student Platform Award Session  
P. Trainor  
1:30 PM – 3 PM  
Room 7B | **Gross Anatomy for the Physician Assistant**  
J. McBride  
10:30 AM - 12:30 PM  
Room 8 |
| AAA Ed. Research Platform Award Session  
C. Eckel  
3:15 PM - 4:45 PM  
Room 7B | **Vascular Endothelium in Health & Disease**  
B. Olsen  
10:30 AM - 12:30 PM  
Room 9 |
| **Hybrid – Pedagogy**  
S. Marquez & W. Pawlina  
3:30 PM - 5:30 PM  
Room 8 | **Hybrid – Epigenetic Plasticity in Health & Disease**  
F. Domann  
2:30 PM - 4:30 PM  
Room 9 |
| **Digital Imaging**  
S. Zhang  
3:30 PM - 5:30 PM  
Room 9 | **AAA Undergraduate Poster Session**  
4 PM – 5 PM  
Sails Pavilion |
| AAA Postdoctoral Platform Award Session  
J. Venuti  
5 PM - 6:30 PM  
Room 7B | **AAA Young Investigator Awards Symposium**  
5 PM – 7 PM  
Room 9 |

### Sunday, April 22

<table>
<thead>
<tr>
<th>AM</th>
<th>PM</th>
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</table>
| **Plenary Lecture**  
B. Olsen  
8 AM – 9 AM  
Room 8 | **Morphometry & Applied Anatomy**  
R. Halti Cabral  
2:30 PM - 4:30 PM  
Room 7A |
| **Hybrid- Global Positioning Systems Guide Neuronal Migration**  
A. Stranahan  
2:30 PM - 4:30 PM  
Room 7B | **Anatomical Education for Allied Health Care Professionals**  
A. Burrows  
2:30 PM - 4:30 PM  
Room 8 |
| **Hybrid - Epigenetic**  
F. Domann  
2:30 PM - 4:30 PM  
Room 9 | **The Nucleus: New Insights & Understanding**  
M. Alliegro  
8 AM – 10 AM  
Room 9 |
| **AAA Undergraduate Poster Session**  
M. Dunnwald & J. Helms  
10:30 AM - 12:30 PM  
Room 7A | **AAA Young Investigator Awards Symposium**  
5 PM – 7 PM  
Room 9 |
| **AAA Socializer**  
7 PM – 8 PM  
West Terrace | **AAA Socializer**  
7 PM – 8 PM  
West Terrace |

### Monday, April 23

<table>
<thead>
<tr>
<th>AM</th>
<th>PM</th>
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</table>
| **Tissue Engineering, Regeneration & Repair**  
R. Marcucio  
8 AM – 10 AM  
Room 7A | **The Exquisite Little Brains of Big Insects**  
J. Hildebrand  
10:30 AM - 12:30 PM  
Room 9 |
| **Computer Science Neuronal Migration**  
R. Hartley  
8 AM – 10 AM  
Room 7B | **AAA Keynote Lecture**  
E. Olson  
5 PM – 6 PM  
Room 8 |
| **AAA Keynote Lecture**  
E. Olson  
5 PM – 6 PM  
Room 8 | **AAA Business Meeting**  
6 PM – 7 PM  
Room 8 |
| **AAA Business Meeting**  
6 PM – 7 PM  
Room 8 | **Student/Postdoc Poster Reception**  
7 PM – 8 PM  
West Terrace |
## American Association of Anatomists at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center unless otherwise noted.

### Tuesday, April 24

<table>
<thead>
<tr>
<th>AM</th>
<th>PM</th>
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</table>
| ✤ Epigenetics & Regulatory RNAs  
  B. Futscher  
  8 AM – 10 AM  
  Room 7B | ✤ Development & Growth  
  P. Trainor  
  2:30 PM - 4:30 PM  
  Room 7B |
| ✤ Craniofacial Birth Defects  
  L.B. Ruest  
  8 AM – 10 AM  
  Room 8 | ✤ Refresher Course- The Facts about Formaldehyde  
  R. Fisher  
  2:30 PM - 4:30 PM  
  Room 8 |
| Adult Stem Cells: From Basic Research to Clinical Applications  
  M. Dezawa  
  8 AM – 10 AM  
  Room 9 | ✤ Diseases of the Nervous System  
  Y-Q. Li  
  2:30 PM - 4:30 PM  
  Room 9 |
| ✤ microRNAs in Cardiac Development & Disease  
  D-Z. Wang  
  10:30 AM - 12:30 PM  
  Room 7B | ✤ Teaching Innovations in Anatomy II  
  T. Hoagland  
  8 AM – 10 AM  
  Room 7B |
| ✤ The Role of Variation during Morphogenesis  
  B. Hallgrimsson & R. Marcucio  
  10:30 AM - 12:30 PM  
  Room 8 | ✤ Teaching Innovations in Anatomy II  
  T. Hoagland  
  8 AM – 10 AM  
  Room 7B |
| ✤ Stem Cell Biology  
  C. Zhao  
  10:30 AM - 12:30 PM  
  Room 9 | ✤ Teaching Innovations in Anatomy II  
  T. Hoagland  
  8 AM – 10 AM  
  Room 7B |

### Wednesday, April 25

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| ✤ Bioengineering Principles during Development  
  E. Jones  
  8 AM – 10 AM  
  Room 7A |
| ✤ Form, Function & Evolution  
  K. Muldoon  
  8 AM – 10 AM  
  Room 7B |
| ✤ Muscles & Bones: Evolution & Development  
  R. Schneider  
  10:30 AM - 12:30 PM  
  Room 9 |
| ✤ Novel Views of the Eye  
  J. Clark  
  10:30 AM - 12:30 PM  
  Room 7B |
| ✤ Cardiac Tissue Engineering  
  G. Vunjak-Novakovic  
  10:30 AM - 12:30 PM  
  Room 9 |

### AAA Networking Opportunities

- **Career Networking Break**  
  Saturday, April 21, 10 AM – 10:30 AM, Room 7A (CC)

- **Meet the Editors**  
  Sunday, April 22, AAA Booth 945 (Exhibit Hall)

- **Meet the Author**  
  Sunday, April 22 – Tuesday, April 24, AAA Booth 945 (Exhibit Hall)

- **Ask the Career Advisor**  
  Sunday, April 22 – Tuesday, April 24, Room 10 (AAA Office)

- **New Member Welcome Breakfast**  
  Sunday, April 22, 7 AM – 8 AM, Cardiff (Marriott)

- **Socializer**  
  Sunday, April 22, 7 PM – 8 PM, West Terrace (CC)

- **Student/Postdoc Poster Reception**  
  Monday, April 23, 7 PM – 8 PM, West Terrace (CC)

- **Young Experimental Scientists (Y.E.S) Mixer**  
  Monday, April 23, 9 PM – 11 PM, Marriott Hall – Salon 3

- **Awards Banquet (advance ticket purchase necessary)**  
  Tuesday, April 24, 7 PM – 8 PM, Marina Ballroom DE (Marriott)

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Anatomical Sciences: The Structural Foundation of Health & Disease
<table>
<thead>
<tr>
<th>FRI, APRIL 20</th>
<th>Location</th>
<th>Room</th>
<th>Event (*), advance event registration required</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>5:00 pm-6:30 pm</td>
<td>Marriott Marquis</td>
<td>Marriott Hall 4</td>
<td>Graduate/Postdoctoral Travel Award Keynote Lecture (*)</td>
<td>Heidi E. Hamm, Composing a Life.</td>
</tr>
<tr>
<td>6:30 pm-8:30 pm</td>
<td>Marriott Marquis</td>
<td>Marriott Hall 3</td>
<td>Graduate/Postdoctoral Travel Award Poster Session (*)</td>
<td>Event by invitation only to ASBMB Graduate and Postdoctoral Travel Award recipients.</td>
</tr>
<tr>
<td>SAT, APRIL 21</td>
<td>Location</td>
<td>Room</td>
<td>Event (*), advance event registration required</td>
<td>Title</td>
</tr>
<tr>
<td>9:00 am-1:00 pm</td>
<td>Marriott Marquis</td>
<td>Santa Rosa</td>
<td>K-12 Educators Workshop (*)</td>
<td>Fostering Partnerships between Colleges, Universities and K-12 Schools</td>
</tr>
<tr>
<td>9:00 am-3:30 pm</td>
<td>Marriott Marquis</td>
<td>Marriott Hall 4</td>
<td>Trainee Workshop (*)</td>
<td>Professional Development for Trainees</td>
</tr>
<tr>
<td>11:30 am-12:00 pm</td>
<td>Marriott Marquis</td>
<td>Atlantic</td>
<td>Powering Up!</td>
<td>ASBMB Annual Meeting Orientation for Undergraduates</td>
</tr>
<tr>
<td>12:00 pm-4:30 pm</td>
<td>Marriott Marquis</td>
<td>Marriott Hall 1</td>
<td>The Battle! (*) (1:00 PM Competition Start)</td>
<td>16th Annual ASBMB Undergraduate Student Research Poster Competition</td>
</tr>
<tr>
<td>4:45 pm-5:45 pm</td>
<td>Marriott Marquis</td>
<td>San Diego Ballroom A</td>
<td>Opening Lecture</td>
<td>Stuart Kornfeld, Oligosaccharides as Recognition Molecules - A Coming of Age</td>
</tr>
<tr>
<td>6:00 pm-7:00 pm</td>
<td>Marriott Marquis</td>
<td>Marriott Hall 4</td>
<td>Special Event</td>
<td>Opening Reception</td>
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<tr>
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<th>Room</th>
<th>Event (*), advance event registration required</th>
<th>Title</th>
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<tbody>
<tr>
<td>7:00 am start</td>
<td>Embarcadero</td>
<td>Entrance to Seaport Village</td>
<td>ASBMB 5K Fun Run/Walk (*)</td>
<td>ASBMB 5K Fun Run/Walk held rain or shine.</td>
</tr>
<tr>
<td>7:00 am-8:00 am</td>
<td>Convention Center</td>
<td>11A</td>
<td>Brekke for Next Gens (*)</td>
<td>Undergraduates' Breakfast with award lecturer, Kim Orth, ASBMB Young Investigator</td>
</tr>
<tr>
<td>8:30 am-9:05 am</td>
<td>Convention Center</td>
<td>6B</td>
<td>Avanti Award in Lipids Lecture</td>
<td>George M. Carman, Lipin/Phosphatidic Acid Phosphatase in Lipid Metabolism and Cell Physiology</td>
</tr>
<tr>
<td>9:05 am-9:40 am</td>
<td>Convention Center</td>
<td>6B</td>
<td>ASBMB Plenary Lecture</td>
<td>Steven L. McKnight, Metabolic Specialization of Mouse Embryonic Stem Cells</td>
</tr>
<tr>
<td>9:55 am-12:10 pm</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>Histone Modifications and Their Recognition</td>
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<td>Convention Center</td>
<td>6E</td>
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<td>Constructing Networks</td>
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<td>Convention Center</td>
<td>6D</td>
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<td>The Ribosome and Early Folding Decisions</td>
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<td>Convention Center</td>
<td>6C</td>
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<td>Metabolomics</td>
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<td>6A</td>
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<td>Organismal Metabolism</td>
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<td>Convention Center</td>
<td>1B</td>
<td></td>
<td>Glycoconjugates in Pathogen Invasion and Virulence</td>
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<td>1A</td>
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<td>Maximizing Institutional Effectiveness</td>
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<tr>
<td>Poster Manning Times</td>
<td>Convention Center</td>
<td>Exhibit Hall</td>
<td>Poster Sessions</td>
<td>Consult program for specific schedule information</td>
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<tr>
<td>12:30 pm-1:30 pm</td>
<td>Convention Center</td>
<td>6B</td>
<td>ASBMB Award for Exemplary Contributions to Education Lecture</td>
<td>Judith G. and Donald Voet, Content in the Educational Era of Process</td>
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<tr>
<td>12:30 pm-2:00 pm</td>
<td>Convention Center</td>
<td>6C</td>
<td>Alice &amp; C.C. Wang Award in Molecular Parasitology Symposium</td>
<td>Elisabetta Ullu, The RNA Interference Pathway from a Trypanosome Point of View</td>
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<tr>
<td>SUN, APRIL 22</td>
<td>Convention Center</td>
<td>11A</td>
<td>Workshop</td>
<td>Workshop on LIPID MAPS Lipidomics Tools</td>
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<td>Modeling the Molecular Machinery of the Protein Trafficking Pathway</td>
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<td>Teaching Session with Stuart Komfeld</td>
<td>The Spliceosome is a Dynamic RNP Machine</td>
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<td>ASBMB-Merck Award Lecture</td>
<td>The Spliceosome: Fitting the Pieces Together</td>
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<td>Mechanism and Regulation of DNA Repair</td>
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<td>Mitochondrial Dynamics</td>
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<td>Lipid Droplets: A Dynamic Subcellular Compartment</td>
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<td>6B</td>
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<td>Will Combined MD-PhD Training Make Me Twice as Successful?</td>
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<td>Maximizing Teaching Effectiveness</td>
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<td>1A</td>
<td>Business Meeting</td>
<td>ASBMB Business Meeting</td>
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<td>Marriott Marquis</td>
<td>Marina Ballroom D</td>
<td>Special Event</td>
<td>Welcome Networking Mixer, sponsored by the ASBMB Minority Affairs Committee</td>
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<tr>
<td>MON, APRIL 23</td>
<td>Convention Center</td>
<td>11A</td>
<td>Brekke for Next Gens (*)</td>
<td>Undergraduates’ breakfast with award lecturer, Christine Guthrie, ASBMB-Merck Award, 2011</td>
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<td>Earl &amp; Thressa Stadtman Scholar Awd Lecture</td>
<td>David Sabatini, Control of Growth by the mTOR Pathway</td>
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<td>ASBMB-Merck Award Lecture (2012)</td>
<td>Xiaodong Wang, Dissecting Cellular Necrosis Pathways</td>
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<td>6A</td>
<td>Avanti Young Investigator Award Lecture presented in the symposium, Metabolic Branchpoints/Lipid Channeling</td>
<td>Peter Espenshade, Fungal SREBPs: Hypoxic Transcription Factors Required for Pathogenesis</td>
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<td>RNA Dynamics: Function Follows Folding</td>
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<td>Mechanism of DNA Replication</td>
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<td>Drug Development and Apoptosis: Linking Tumor Regression to Cell Death</td>
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<td>Metabolic Branchpoints/Lipid Channeling (Avanti Young Investigator)</td>
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<td>In vivo Biochemistry of the Pathogen</td>
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<td>Maximizing Your Marketability</td>
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**Concurrent Symposia**

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<td>In vivo Biochemistry of the Pathogen</td>
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<td>Maximizing Your Marketability</td>
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<td>Exhibit Hall</td>
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<td>11A</td>
<td>Workshop</td>
<td>Lipid Droplets: Basic Working Principles Workshop</td>
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<td>6B</td>
<td>Public Policy</td>
<td>Effectively Communicating Your Science</td>
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<td>Lovell Jones, Changing the Course of America Through Mentoring</td>
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<td>Fundamental Mechanisms in Gene Regulation</td>
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<td>6E</td>
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<td>Networks and Time</td>
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<td>6D</td>
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<td>Protein Targeting and Translocation</td>
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<td>Chemistry in the Service of Medicine</td>
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<td>MON, APRIL 23</td>
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<td>6A</td>
<td>Concurrent Symposia</td>
<td>Signaling and Metabolism</td>
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<td>1B</td>
<td></td>
<td>Role of Glycoconjugates in Signaling and Development</td>
</tr>
<tr>
<td>3:45 pm-6:00 pm</td>
<td>Convention Center</td>
<td>1A</td>
<td>Concurrent Symposia</td>
<td>Maximizing Your Global Outreach</td>
</tr>
<tr>
<td>6:00 pm-7:00 pm</td>
<td>Convention Center</td>
<td>West Terr. (Bay Side)</td>
<td>ASBMB Thematic Fermentation Hour</td>
<td>ASBMB's Happy Hour for Biochemists and Molecular Biologists</td>
</tr>
<tr>
<td>7:00 pm-7:45 pm</td>
<td>Convention Center</td>
<td>6A Lobby</td>
<td>Poetry Reading</td>
<td>ASBMB Inaugural Poetry Competition Reading - Winners will read their science-themed prose for all to enjoy!</td>
</tr>
<tr>
<td>TUES, APRIL 24</td>
<td>Convention Center</td>
<td>6B</td>
<td>DeLano Award for Computational Biosciences Lecture</td>
<td>Barry Honig, Physical Principles Underlying Cadherin-Mediated Cell-Cell Recognition</td>
</tr>
<tr>
<td>8:30 am-9:05 am</td>
<td>Convention Center</td>
<td>6B</td>
<td>William C. Rose Award Lecture</td>
<td>Susan Marqusee, Touring the Protein Energy Landscape: The View Depends on Where and How You Look</td>
</tr>
<tr>
<td>9:05 am-9:40 am</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>Transcriptional Regulation During Growth and Development</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>6E</td>
<td></td>
<td>Networks and Space</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>6D</td>
<td></td>
<td>Factors Modulating Protein Quality Control</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>6C</td>
<td>Concurrent Symposia</td>
<td>Metabolic Engineering: From Antibiotics to Biofuels</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>6B</td>
<td></td>
<td>Cancer Cell Metabolism</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>6A</td>
<td></td>
<td>Novel Metabolic Routes of Glycoconjugate Assembly</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>1B</td>
<td></td>
<td>Promoting Concept Driven Teaching Strategies in BMB ...</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TUES, APRIL 24</td>
<td>Convention Center</td>
<td>Exhibit Hall</td>
<td>Poster Sessions</td>
<td>Consult program for specific schedule information</td>
</tr>
<tr>
<td>9:55 am-12:10 pm</td>
<td>Convention Center</td>
<td>6B</td>
<td>ASBMB Young Investigator Award Lecture</td>
<td>Kim Orth, Black Spot, Black Death, Black Pearl: The Tales of Bacterial Effectors</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>6C</td>
<td>Concurrent Symposia</td>
<td>RNA-based Regulation: A Diversity of Mechanisms</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>6E</td>
<td></td>
<td>Coupling of DNA Repair and Replication</td>
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<td></td>
<td>Convention Center</td>
<td>6D</td>
<td>Concurrent Symposia</td>
<td>Organization of the Secretory Pathway</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>6A</td>
<td></td>
<td>Targeted Cancer Drug Development: Defining Molecular Profiles of</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>1B</td>
<td></td>
<td>Lipid Signaling, Infection and Atherosclerosis</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>1A</td>
<td></td>
<td>Biochemical Mediators of the Host-Pathogen Interaction</td>
</tr>
<tr>
<td>WED, APRIL 25</td>
<td>Convention Center</td>
<td>11A</td>
<td>Special Event</td>
<td>ASBMB Women Scientists’ Networking Event/Reception</td>
</tr>
<tr>
<td>9:00 am-9:35 am</td>
<td>Convention Center</td>
<td>6B</td>
<td>Herbert A. Sober Lectureship</td>
<td>Peggy Farnham, Using Genomic Technologies to Investigate Transcriptional Regulation in Normal and Cancer Cells</td>
</tr>
<tr>
<td>9:55 am-12:10 pm</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>Ribosomes: Regulation of Access to mRNA</td>
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<td></td>
<td>Convention Center</td>
<td>6E</td>
<td></td>
<td>Telomeres and Telomerase</td>
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<td></td>
<td>Convention Center</td>
<td>6D</td>
<td>Concurrent Symposia</td>
<td>Endomembrane System Dynamics</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>6C</td>
<td></td>
<td>New Methodologies for Target Discovery and Target Validation</td>
</tr>
<tr>
<td>WED, APRIL 25</td>
<td>Location</td>
<td>Room</td>
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<tr>
<td>9:55 am-12:10 pm</td>
<td>Convention Center</td>
<td>6A</td>
<td>Concurrent Symposia</td>
<td>Lipid Regulation of Protein Function</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>1B</td>
<td>(*) advance event registration required</td>
<td>Relationship of Host and Pathogen</td>
</tr>
<tr>
<td>Poster Manning Times</td>
<td>Convention Center</td>
<td>Exhibit Hall</td>
<td>Late-Breaking Poster Sessions</td>
<td>Consult program for specific schedule information</td>
</tr>
<tr>
<td>12:15 pm-1:30 pm</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>Interplay between Chromatin Structure and the Transcription Machinery</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>6E</td>
<td>Concurrent Symposia</td>
<td>Networks and Noise</td>
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<td>Convention Center</td>
<td>6D</td>
<td>Concurrent Symposia</td>
<td>Protein Quality Control and Disease</td>
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<td></td>
<td>Convention Center</td>
<td>6C</td>
<td>Concurrent Symposia</td>
<td>Frontiers in Mechanistic Enzymology</td>
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<td>Convention Center</td>
<td>6A</td>
<td>Concurrent Symposia</td>
<td>Aging Metabolism</td>
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<td></td>
<td>Convention Center</td>
<td>1B</td>
<td>Concurrent Symposia</td>
<td>Roles of Glycoconjugates in Metabolism and Disease</td>
</tr>
<tr>
<td>4:00 pm</td>
<td>Convention Center</td>
<td></td>
<td>Meeting Concludes</td>
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</tbody>
</table>
American Society for Nutrition at Experimental Biology at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center.

<table>
<thead>
<tr>
<th>Ballroom 20D</th>
<th>SATURDAY, APRIL 21st</th>
<th>SUNDAY, APRIL 22nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00-10:00 AM</td>
<td>3:00-5:00 PM</td>
<td>8:00-10:00 AM</td>
</tr>
<tr>
<td>8:30 am - 12:00 pm</td>
<td>Controversies</td>
<td>10:30 AM - 12:30 PM</td>
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<tr>
<td>10:30 AM -12:30 PM</td>
<td>Regarding Reported</td>
<td>Symposium</td>
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<tr>
<td></td>
<td>Trends: Has the Obesity</td>
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<td>Epidemic Levelled Off in</td>
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<td></td>
<td>the U.S?</td>
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<tr>
<td></td>
<td>Y. Wang and W. Dietz</td>
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<tbody>
<tr>
<td></td>
<td>C. Lutter and A. Morrow</td>
<td>N. Auestad and J.M. Gazzaniga-Moloo</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Track Room 29AB</th>
<th>2:00-5:00 PM Graduate Student Research Award Competition</th>
<th>Utilizing a Multi-level Team Approach: Lessons Learned from the Vitamin D DRI-setting Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N.E. Moran and V.V. Potter</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All minisymposia are programmed in rooms 32B - 29C</th>
</tr>
</thead>
<tbody>
<tr>
<td>32B Carotenoids: Eye and Brain Health</td>
</tr>
<tr>
<td>32A Carotenoids: Bioavailability and Metabolism</td>
</tr>
<tr>
<td>The Experience of Household Food Insecurity</td>
</tr>
<tr>
<td>32D Policies and Programs to Improve Children's Nutrition</td>
</tr>
<tr>
<td>30C Animal Research Models for Macronutrient Metabolism</td>
</tr>
<tr>
<td>30B Protein and Amino Acid Metabolism</td>
</tr>
<tr>
<td>30A Immune Modulating Nutraceuticals and Functional Foods</td>
</tr>
<tr>
<td>29D Breastfeeding and Human Milk: Effects on the Recipient Infant and/or Lactating Mother</td>
</tr>
</tbody>
</table>

This overview includes sessions programmed by ASN's Scientific Program Committee.
View ASN's Society Highlights and Guest Society Highlights in the onsite program for satellite symposia and Council, RIS and other activities.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Health Impact of Whole Grain Bran and Cereal Fiber</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Real-world Nutrition Blended with Science</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>GPEC Forum: Using Interdisciplinary Tools to Evaluate Nutr. Interventions</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Metabolic Regulation by Monounsaturates - The Forgotten Fats</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>FNB Update: Not At All Quiet on the Labeling Front, and Remarks About</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>FNB Update - All Quiet on the Labeling Front, and Remarks About</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>Nutrition Education</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Field Trip</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>Panel: Emerging Biomarkers for Cardiovascular Disease Beyond LDL Cholesterol K. M. Park and B. H. Rice</td>
</tr>
<tr>
<td>Time</td>
<td>Session 1</td>
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</tr>
<tr>
<td>8:00-10:00 AM</td>
<td>Ballroom 20 D: Nutritional Prevention of Cognitive Decline by L. Arab and R. Bailey</td>
</tr>
<tr>
<td>10:30-12:30 PM</td>
<td>31 ABC: Nutritional Regulation of Epigenetic Change by D. F. Romagnolo and T. R. Ziegler</td>
</tr>
<tr>
<td></td>
<td>Education Track 29AB</td>
</tr>
</tbody>
</table>
American Society for Nutrition at Experimental Biology at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center.

Posters will be displayed 8:30 AM – 5:00 PM Sunday - Tuesday. Authors MUST be present by their boards 12:45 PM - 2:45 PM.

<table>
<thead>
<tr>
<th>Sunday Posters:</th>
<th>Monday Posters:</th>
<th>Tuesday Posters:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk Bioactive Components</td>
<td>Breastfeeding and Human Milk: Effect on the Recipient Infant of Lactating Mother</td>
<td>Applications and Challenges of Public Use Data Sets for Secondary Analysis Nutrition Research</td>
</tr>
<tr>
<td>Nutrition Interventions for Risk Factor Modification in Chronic Disease</td>
<td>Nutritional Assessment and Status in Older Populations</td>
<td>Longitudinal and Cross-Sectional Analysis of Associations between Diet and Health Outcomes</td>
</tr>
<tr>
<td>Nutrition and Cognitive and Physical Function in Older Adults</td>
<td>Correlates, Consequences and Treatment of Obesity in Older Adults</td>
<td>Application of Novel Statistical Methods for Use in Nutritional Epidemiology</td>
</tr>
<tr>
<td>Community Nutrition Programs and Policies for Older Adults</td>
<td>Osteoporosis and Bone Metabolism in the Aging</td>
<td>Dietary Supplements as a Population Exposure in Causation, Prevention, and Management of Disease</td>
</tr>
<tr>
<td>Creating Healthy Food Environments</td>
<td>Child Nutrition and Growth: Issues and Challenges</td>
<td>Influences of Water and Beverage Consumption on Nutrition and Health Status</td>
</tr>
<tr>
<td>Behavioral Science and Eating Behavior Change</td>
<td>Global Health: Dietary Intakes and Health Outcomes in Diverse Populations</td>
<td>Nutrition Education in Diverse Populations</td>
</tr>
<tr>
<td>Nutrition Intervention in Diabetes Care</td>
<td>Weight Management in Real Life</td>
<td>Preventing Childhood Obesity</td>
</tr>
<tr>
<td>Nutrition and Sustainability</td>
<td>Feeding Young Children</td>
<td>Nutrigenomics: Population, Racial/Ethnic Differences</td>
</tr>
<tr>
<td>Food-Related Behaviors: Critical for Food Policy</td>
<td>Nutrition Education</td>
<td>Proteins and Amino Acid Metabolism</td>
</tr>
<tr>
<td>Understanding and Communicating Benefits/Risks of Natural State Foods (e.g. Minimally Processed, Natural, Organic)</td>
<td>Childhood Obesity: When Should We Intervene?</td>
<td>Lipid and Fatty Acid Metabolism and Transport</td>
</tr>
<tr>
<td>Metabolic Phenotyping, Metabolomics and Biomarkers</td>
<td>Redefine Obesity: Body Weight versus Adiposity</td>
<td>Dietary Factors Affecting Lipid Metabolism</td>
</tr>
<tr>
<td>Carbohydrate Metabolism</td>
<td>Obesity, Inflammation and Chronic Disease Modulation by Dietary Phytonutrients</td>
<td>Polysaturated Fatty Acids and Health</td>
</tr>
<tr>
<td>Regulation of Food Intake</td>
<td>Obesity and Metabolic Syndrome</td>
<td>Antioxidant Micronutrients</td>
</tr>
<tr>
<td>Carotenoids and Health</td>
<td>Energy Balance, Macronutrient and Weight Management</td>
<td>Water Soluble Vitamins</td>
</tr>
<tr>
<td>Iron, Copper and Chronic Disease</td>
<td>Effects of Dietary Bioactive Components on Experimental Models of Chronic Disease Risk</td>
<td>Micronutrient Bioavailability</td>
</tr>
<tr>
<td>Vitamin D and Obesity: From Cellular to Clinical Trials</td>
<td>Diet and Cancer: Molecular Targets</td>
<td>B Vitamins and One-Carbon Metabolism</td>
</tr>
<tr>
<td>Fat Soluble Vitamins and Chronic Disease</td>
<td>Antioxidant and Anti-inflammatory Effects of Dietary Bioactive Components</td>
<td>Micronutrient Interventions</td>
</tr>
<tr>
<td>Mechanisms of Action and Molecular Targets of Dietary Bioactive Components</td>
<td>Obesity, Inflammation and Nutrigenomics</td>
<td>Selenium</td>
</tr>
<tr>
<td>Epidemiologic Associations between Dietary Bioactive Components and Health</td>
<td>Intestinal Physiology and Digestive Function</td>
<td>Diet and Cancer: Animal Studies</td>
</tr>
<tr>
<td>Bioavailability, Metabolism and Biomarkers of Dietary Bioactive Components</td>
<td>Measuring Diet and Nutritional Status</td>
<td>Diet and Cancer: Translational, Clinical and Survivorship</td>
</tr>
<tr>
<td>Nutritional Gene-Environment Interactions</td>
<td>Nutrition-Related Chronic Disease</td>
<td>Dietary Bioactive Components of Medicinal, Functional and Whole Foods Including Probiotics and Fermented Foods</td>
</tr>
<tr>
<td>Nutrients, Epigenetics and Maternal Programming</td>
<td>Diet, Physical Activity, Food Security Trends and Patterns</td>
<td>Cardiovascular Effects of Dietary Bioactive Components</td>
</tr>
<tr>
<td>Nutrient-Gene Interactions in Models of Neurodegenerative/Neuromuscular and Metabolic Disease</td>
<td>Prenatal Nutrient Programming</td>
<td>Nutritional Immunology and Immune Modulating Nutraceuticals and Functional Foods</td>
</tr>
<tr>
<td>Animal Research Models in Nutrition and Musculoskeletal Development</td>
<td>Nutrition and the Microbiome</td>
<td>The Determinants of Feeding Practices, Dietary Intake and Nutritional Status</td>
</tr>
<tr>
<td>Animal Research Models for Macronutrient Metabolism</td>
<td>Diet-Gene Interactions in the Etiology of Obesity and Weight-Related Comorbidities</td>
<td>Advancing Nutrition Policy and Improving the Effectiveness of Nutrition Programs</td>
</tr>
<tr>
<td>Long-term Effects on Nutrition</td>
<td></td>
<td>Nutritional Status, Diet and Disease</td>
</tr>
<tr>
<td>Interventions to Improve Diet and/or Nutrition Outcomes</td>
<td>Communication and Education</td>
<td>Intervention Studies and Growth, Micronutrients</td>
</tr>
<tr>
<td></td>
<td>Late Breaking posters will be on display Wednesday, April 25, 2012 starting at 8:30 AM. Authors MUST be present by their boards 10:00 AM – 11:00 AM. Late Breaking Posters will include: Biochemistry of Vitamins and Minerals; Energy and Nutrient Metabolism; Human and Clinical Nutrition; Metabolic and Disease Processes</td>
<td>Interventions for the Treatment and Prevention of Nutrition-Related Disease</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nutrition and Inflammation</td>
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</tbody>
</table>
### American Society for Investigative Pathology

#### Sessions at Experimental Biology 2012 – San Diego, CA

**Saturday, April 21**
- **Symposium:** Molecular and Cellular Basis of Disease
- **Graduate Highlights:**
  - ASIP Cotran Early Career Investigator Award Lecture: The Pathogenesis and Treatment of Neurodegenerative Diseases
  - ASIP Best Practices of Student Research in Pathobiology for Basic Scientists: Cell Injury and Apoptosis
  - ASIP Molecular and Cellular Basis of Disease: Metabolism & Disease Biology
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: To Grow or Not to Grow

**Sunday, April 22**
- **Symposium:** Molecular and Cellular Basis of Disease
- **Conference:**
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: Mechanisms of Cardiac Pathobiology
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: Pathobiology of Liver Growth & Regeneration
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: Stem Cells Are We There Yet?

**Monday, April 23**
- **Symposium:** Molecular and Cellular Basis of Disease
- **Conference:**
  - ISBER Symposium: The Many Roles of Histopathology
  - ISAMM Symposium: ISAMM Minisymposium: Molecular and Cellular Basis of Disease: Pathobiology of Liver Growth & Regeneration
  - ISAMM Symposium: ISAMM Minisymposium: Molecular and Cellular Basis of Disease: Stem Cells Are We There Yet?

**Monday, April 23**
- **Symposium:** Molecular and Cellular Basis of Disease
- **Conference:**
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: To Grow or Not to Grow
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: Mechanisms of Cardiac Pathobiology
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: Pathobiology of Liver Growth & Regeneration

**Wednesday, April 25**
- **Symposium:** Molecular and Cellular Basis of Disease
- **Conference:**
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: To Grow or Not to Grow
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: Mechanisms of Cardiac Pathobiology
  - ASIP Minisymposium: Molecular and Cellular Basis of Disease: Pathobiology of Liver Growth & Regeneration
<table>
<thead>
<tr>
<th>Saturday, April 21</th>
<th>Sunday, April 22</th>
<th>Monday, April 23</th>
<th>Tuesday, April 24</th>
<th>Wednesday, April 25</th>
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</table>
### American Society for Pharmacology and Experimental Therapeutics at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center unless otherwise noted.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Session/Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday, 4/21</td>
<td>7:00 AM – 9:00 AM</td>
<td>Marriott</td>
<td>JULIUS AXELROD AWARD LECTURE: From farm to pharm: A journey with serotonin</td>
</tr>
<tr>
<td></td>
<td>9:00 AM – 12:00 PM</td>
<td>Room 2</td>
<td>JULIUS AXELROD SYMPOSIUM: Novel insights into the regulation of serotonin function</td>
</tr>
<tr>
<td></td>
<td>1:00 PM – 2:30 PM</td>
<td>Room 2</td>
<td>BEHAVIORAL PHARMACOLOGY SYMPOSIUM: The behavioral pharmacology of drugs of abuse &amp; drug dependence: A tribute to Steve Holtzman &amp; Bob Schuster</td>
</tr>
<tr>
<td></td>
<td>2:30 PM – 3:30 PM</td>
<td>Room 2</td>
<td>CVP, ISTCP DISTINGUISHED AWARD LECTURE: Nitric oxide in metabolic cardiovascular disease</td>
</tr>
<tr>
<td></td>
<td>4:00 PM – 6:00 PM</td>
<td>Room 2</td>
<td>NEU, MP AWARD LECTURE: Spatiotemporal regulation of protein kinases in living cells</td>
</tr>
<tr>
<td></td>
<td>7:00 PM – 9:00 PM</td>
<td>Room 2</td>
<td>NEU BUSINESS MEETING</td>
</tr>
<tr>
<td>Sunday, 4/22</td>
<td>8:00 AM – 9:00 AM</td>
<td>Room 2</td>
<td>NEU, BEH, ISTCP WORKSHOP: Drug transporters: Roles in new drug discovery &amp; development</td>
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<tr>
<td></td>
<td>9:00 AM – 12:00 PM</td>
<td>Room 2</td>
<td>NEU, BEH, ISTCP SYMPOSIUM: Neuropeptide &amp; peptide action (PPI) intertargets: Promises &amp; challenges</td>
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<td>B.B. BRODIE AWARD LECTURE: Toll-like receptors in neuroplasticity &amp; disease</td>
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<td>NEU, BEH, ISTCP WORKSHOP: The Nociceptin/orphanin FQ-NOP receptor system: Neurobiology, pharmacology, &amp; therapeutic opportunities</td>
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<td>NEU, BEH, ISTCP SYMPOSIUM: Neuropeptide &amp; peptide action (PPI) intertargets: Promises &amp; challenges</td>
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<td>NEU BUSINESS MEETING</td>
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</table>

**Diversity Committee Workshop:** Building a career in pharmacology: A focus on health disparities
- M.I. Davila-Garcia
- 12:00 PM – 2:30 PM
- Room 2

**Graduate Student Colloquium:** Communication
- L. Schrott, J.S. Fedan, M.J. Seminero
- 2:45 PM – 5:15 PM
- Room 2

**2012 TEACHING INSTITUTE:** The use of social media in pharmacology education
- L. Crespo
- 12:00 PM – 2:30 PM
- Room 3
### ASPET Business Meeting
6:00 PM – 7:30 PM
Ballroom 208/C

**DPE**
Adopting TBL techniques to teach pharmacology to graduate, professional & medical students
R. S. Kumar
3:00 PM – 5:30 PM
San Diego Marriott, Hall 5

**NEU, TOX, MP, DDRRA**
Multi target agents: The yin & yang of rational drug discovery
A. Cross, M. Wood
9:30 AM – 12:00 PM
Room 5B

**Graduate Student/Postdoc Best Abstract Competition**
6:30 PM – 8:30 PM
San Diego Marriott, Hall 3/4

**DDRA Business Meeting**
12:15 PM – 1:15 PM
Room 5B

**DDRA, TOX, MP**
Targeting PI3K for human diseases
T. Rao
3:00 PM – 5:30 PM
Room 5B

**DPE Business Meeting**
5:45 PM – 6:45 PM
Room 5B

**MP Business Meeting**
7:00 PM – 9:00 PM
Marriott, Presidio

### Opening Reception
7:30 PM – 9:30 PM
Center Terrace

**Building a pharmacology course from scratch: Benefits & pitfalls of a cut & paste pharmacology course**
J. Sorek
9:30 AM – 12:00 PM
San Diego Marriott, Hall 5

**Women in Pharmacology Career Roundtable**
1:00 PM – 3:00 PM
Room 12

**ASPET Closing Reception**
6:00 PM – 8:00 PM
San Diego Marriott, Poolside Terrace

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**Sunday Poster Sessions**: Drugs of abuse-Cocaine, Drugs of abuse-Depressants/Cannabinoids, Monoamines/behavior, Pharmacology of pain, GPCR signaling, Protein-activated receptors, GRIKs & Arrestins, cAMP signaling & compartmentation, Phospho/histo/ster signaling, Systems pharmacology/toxicology-Asthma & COPD, Systems pharmacology/toxicology-Pulmonary, Endothelium & ion channels, Endothelial mechanisms, Pharmacology of neuroprotection, Mechanisms of gene expression, Developmental Pharmacology/toxicology


**Tuesday Poster Sessions**: Cancer chemotherapy & mechanisms of toxicity I, Cancer chemotherapeutics & mechanisms of toxicity II, Corticotropin-releasing factor, Drugs of abuse-aminophenamines & other stimulants, Drugs of abuse-opiates, Drug-behavioral interactions, Physiology/behavior, CNS pharmacology - Neurotransmitter receptors, Neuropsychiatric disorders, Neurotoxicology-General, Transports, Signal transduction/ion channels, Smooth muscle pharmacology, Mechanisms of toxicity, Renal pharmacology/toxicology

**Wednesday Poster Sessions**: Cardioprotection, Vascular systems pharmacology, Cardiovascular pharmacology/Thrombosis, Targeting myocardial function, Pharmacology & women’s health, Immune cell pharmacology, Pharmacology of immunity, Regenerative pharmacology, Pharmacoproteomics, Opioid/Cannabinoid therapeutics, Natural products, All late-breaking abstracts

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**Monday, April 22nd**

- **Morning**
  - Session A: Role of pharmacogenetics in oncology
    - E.P. Black, H. Swanson
  - Session B: Emerging role of heme oxygenase in cardiovascular & metabolic disease
    - N. Abraham

- **Afternoon**
  - Session C: From structure to knockout: Common themes between CYPs & ABC transporters
    - M. Vore

- **Tuesday, April 23rd**
  - Session D: Opioid-induced heme oxygenase in cardiovascular & metabolic disease
    - J. Hinson

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**Poster Sessions**

- Posters will be displayed 7:30 AM – 6:00 PM Sunday and Monday, 7:30 AM – 4:00 PM Tuesday, and 7:30 AM – 5:30 PM Wednesday. Authors must be present by their boards 12:30 PM – 2:45 PM.
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Session</th>
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<tr>
<td>April 23</td>
<td>9:00-11:30</td>
<td>Brain Insult: How to Keep Metabolism and Exercise and Physiology Section in \</td>
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<td>Sunday, April 22, 2012</td>
<td>Monday, April 23, 2012</td>
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<td>8:00-10:00</td>
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<td>3:30-5:30</td>
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<td>2:00-5:00</td>
<td>MicroRNAs in Human Disease and as Novel Therapeutics Persing/ Liles Room 27</td>
<td>Teaching of Physiology Section Claude Bernard Lecture Galley Room 27</td>
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<tr>
<td>3:30-5:30</td>
<td>Future Directions of Mitochondrial Bioenergetics in Integrative Physiology Jastroch Room 27</td>
<td>Novel Mechanisms of Aging and Disease: Adaptations and Interventions Schrage Room 27</td>
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<tr>
<td>3:30-5:00</td>
<td>A Complex Interplay Coming Together to Build the Heart Krenn/ Pola-Parada Room 22</td>
<td>Disruption of Cerebrospinal Fluid Transport Mechanisms: Implications for Obesity-Related Hypertension Sartor/ Stocker Room 22</td>
</tr>
<tr>
<td>3:30-5:00</td>
<td>Microvascular Inhibition in the Hypothalamic Paraventricular Nucleus Watts/ Aguilera Room 26A</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<tr>
<td>3:30-5:00</td>
<td>Functional Integration in the Extracellular Matrix Chang/ Gardner Room 28A</td>
<td>Do I Need Another Degree? Imig/ Croax Room 28A</td>
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<tr>
<td>3:30-5:00</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<tr>
<td>3:30-5:00</td>
<td>Targeted Proteomic Analyses of Heart Failure Bing/ Lindsey Room 28A</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Role of Adipose Tissue Macrophages in Mediating the Metabolic Effects of Obesity Hawkins Room 28A</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<tr>
<td>3:30-5:00</td>
<td>Respiratory Pattern Variability: Insights into Respiratory Control and Mechanisms in Health and Disease Dick Room 28A</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>S-glutathionylation as a Mechanism of Oxidative Stress and Anoikis Room 28A</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Host Responses to Gastrintestinal Infections Eckmann Room 25C</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Air Pollution — Friend or Foe to the Cardiopulmonary System? Wold Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>The Role of Oxigen Metabolism for the Development of Kidney Disease Palm/ Carmines Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Novel Signaling Pathways in Renal PATHO-physiology Plunkett/ Riquier-Brison Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Novel Sites of Regulation in the Pulmonary Vasculature: Contradictions and Non-traditional Responses Eldridge/ Bates Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Mechanisms of Blood Pressure Regulation Weiner/ Grimm Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Understanding the Evolution of Physiology: Insights from Selection Experiments in Rodent Models Garland/ Meck Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Hydrogen Sulfide: Ecology, Physiology, and Clinical Applications Olson Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Bone-Muscle Cross Talk Brocco/ Johnson Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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<td>3:30-5:00</td>
<td>Mechanical Muscle Damage Myburgh Room 28B</td>
<td>Emerging Paradigms in Microvascular Signaling Stawicki/ Westcott Room 28A</td>
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The American Physiological Society at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center.

### Physiology InFocus

**Physiology in Medicine**

Organized by: **Joey Granger, Univ. of Mississippi Medical Center**

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Room</th>
<th>Event Description</th>
<th>Chairpersons</th>
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<tr>
<td>Sunday</td>
<td>April 22, 2012</td>
<td>3:30-5:30 PM</td>
<td>20A</td>
<td>Physiology of Obesity, Cardiometabolic Disease, and Therapeutic Weight Loss</td>
<td>John Hall and Ann Schrehofer</td>
<td>Randy Seeley, John E. Hall, Kevin L. Grove, Lee M. Kaplan</td>
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<tr>
<td>Monday</td>
<td>April 23, 2012</td>
<td>3:30-5:30 PM</td>
<td>20A</td>
<td>Using Physiology to Translate Cardiac Remodeling and Heart Failure</td>
<td>Merry L. Lindsey and Margaux Horn</td>
<td>Lynne W. Stevenson, Marielle Scherrer-Crosbie, Kersten Small, Yufang Jin</td>
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<tr>
<td>Tuesday</td>
<td>April 24, 2012</td>
<td>3:30-5:30 PM</td>
<td>20A</td>
<td>Hypertension and Chronic Kidney Diseases</td>
<td>Pedro Jose and Jennifer Sullivan</td>
<td>Gerald DiBona, S. Ananth Karumanchi, Susan Quaggin, Alejandro Chade</td>
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<tr>
<td>Wednesday</td>
<td>April 25, 2012</td>
<td>3:30-5:30 PM</td>
<td>20A</td>
<td>Nobel Prize in Physiology or Medicine Lecture</td>
<td>Oliver Smithies</td>
<td>Oliver Smithies, Univ. of North Carolina&lt;br&gt;“On being a bench scientist for 50 years.”</td>
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<td>Sat., Apr. 21 9:00</td>
<td>Networking: A Required Life Skill 9:00-10:00 AM (Howard Adams)</td>
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<td>One-on-One: Joe Tringali, Bill Lindstaedt, John Lombardo, Andrew Green, Naledi Saul, Debra Behrens</td>
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<tr>
<td>Sat., Apr. 21 10:00</td>
<td>Goal Setting, Prioritizing, Time Management 10:30-11:30 AM (Howard Adams)</td>
<td>Postdocs: What Should You be Looking For and How to Find Them 10:00-11:00 AM (Andrew Green)</td>
<td>Talking About Yourself: Interviewing Well 10:00-11:00 AM (Naledi Saul)</td>
<td>Workplace Dynamics III Workshop: 9:00 AM-12:00 PM (Sharon Milgram, Lori Conlan)</td>
<td>One-on-One: Bill Lindstaedt, John Lombardo, Debra Behrens</td>
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<tr>
<td>Sat., Apr. 21 11:00</td>
<td>Goal Setting, Prioritizing, Time Management... (continues until 11:30 AM)</td>
<td>Postdocs: What Should You be Looking For... (Continues until 11:15 AM)</td>
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<td>Workplace Dynamics III Workshop (continues until 12:00 PM)</td>
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<tr>
<td>Sat., Apr. 21 1:00</td>
<td>Ten Ways to Get Lucky in The Job Search 1:00-2:00 PM (Phil Clifford, John Lombardo)</td>
<td>Negotiation Strategies for Scientists 1:30-2:30 PM (Debra Behrens)</td>
<td>Professional Development for PhDs 1:00-2:30 PM (Andrew Green)</td>
<td>Workplace Dynamics: Conflict &amp; Feedback 1:00-3:00 PM (Sharon Milgram, Lori Conlan)</td>
<td>One-on-One: Joe Tringali, Bill Lindstaedt, Naledi Saul</td>
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<td>Sat., Apr. 21 2:00</td>
<td>Transforming Your CV 2:00-3:30 PM (Naledi Saul)</td>
<td>Negotiation Strategies... (continues until 2:30 PM)</td>
<td>Professional Development for PhDs (continues until 2:30 PM)</td>
<td>Job Hunting in the Biotech Industry 2:15-3:15 PM (Bill Lindstaedt)</td>
<td>Conflict &amp; Feedback (continues until 3:00 PM) One-on-One: Joe Tringali, John Lombardo</td>
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<td>Sat., Apr. 21 3:00</td>
<td>Transforming Your CV (continues until 3:30 PM)</td>
<td>Economics and Your Job Search 3:30-4:30 PM (Joe Tringali)</td>
<td>Job Hunting in the Biotech Industry ... (continues until 3:15 PM)</td>
<td>Workplace Dynamics: Team Skills 3:15-5:15 PM (Sharon Milgram, Lori Conlan)</td>
<td>One-on-One: John Lombardo, Debra Behrens, Andrew Green, Bill Lindstaedt</td>
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<tr>
<td>Sat., Apr. 21 4:00</td>
<td>Global Interview Skills 4:00-5:00 PM (Debra Behrens)</td>
<td>Economics and Your Job Search... (continues until 4:30 PM)</td>
<td>Developing Your Core Message/ “Elevator Pitch” 4:00-5:00 PM (John Lombardo)</td>
<td>Team Skills (continues until 5:15 PM)</td>
<td>One-on-One: Bill Lindstaedt, Andrew Green, Naledi Saul</td>
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<td>Sat., Apr. 21 5:00</td>
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### FASEB Career Center Activities at Experimental Biology 2012 – San Diego, CA

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<th>Time</th>
<th>Hall D</th>
<th>CRC-1</th>
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<th>CRC-5</th>
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<tbody>
<tr>
<td>Sun., Apr. 22 8:00</td>
<td>San Diego Convention Center</td>
<td>Developing Your Core Message/ Elevator Pitch 8:30-9:30 AM (John Lombardo)</td>
<td>NIH K Awards 8:30-9:45 AM (Henry Khachaturian)</td>
<td>Revealing Your Character through Your Resume 8:15-9:15 AM (Judy Blumenthal)</td>
<td>Making the Case for Graduate School 8:30-9:30 AM (Howard Adams)</td>
<td>Lab Management 9:00-10:30 AM (Sharon Milgram, Lori Conlan)</td>
<td>One-on-One: Bill Lindstaedt, John Lombardo, Judy Blumenthal</td>
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<td>Sun., Apr. 22 9:00</td>
<td>Developing Your Core Message... (continues until 9:30 AM)</td>
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<td>Economics and Your Job Search 9:30-10:30 AM (Joe Tringali)</td>
<td>Making the Case... (continues until 9:30 AM)</td>
<td>Lab Management (continues until 10:30 AM)</td>
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<td>Transforming Your CV 10:00-11:00 AM (Naledi Saul)</td>
<td>Sometimes It's Who You Know: Winning at Networking 10:30-11:30 AM (Judy Blumenthal)</td>
<td>Economics and Your Job Search (continues until 10:30 AM)</td>
<td>Scientific Peer Review of NIH Grants (continues until 11:30 AM)</td>
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<td></td>
<td>One-on-One: John Lombardo, Naledi Saul</td>
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<tr>
<td>Sun., Apr. 22 11:00</td>
<td>Compensation Negotiation for Scientists Moving into Industry 11:00 AM-12:00 PM (Bill Lindstaedt)</td>
<td>Sometimes... (continues until 11:30 AM)</td>
<td>The Academic Job Search in the Life Sciences: Part 1 11:00 AM-12:00 PM (Andrew Green)</td>
<td>Scientific Peer Review of NIH Grants (continues until 11:30 AM)</td>
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<tr>
<td>Sun., Apr. 22 12:00 PM</td>
<td>Career Skills Blitz* 12:00-1:30 PM</td>
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<td>Career Skills Blitz* (continues until 1:30 PM)</td>
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<td>One-on-One: Bill Lindstaedt, Naledi Saul, Debra Behrens, Judy Blumenthal</td>
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<tr>
<td>Sun., Apr. 22 1:00</td>
<td>Ten Ways to Get Lucky in the Job Search 1:30-2:30 PM (Phil Clifford/John Lombardo)</td>
<td>The Academic Job Search in the Life Sciences: Part 2 1:00-2:00 PM (Andrew Green)</td>
<td>Ten Tough Industrial Interview Questions; Ten Good Responses 1:00-2:00 PM (Joe Tringali)</td>
<td>Career Skills Blitz* (continues until 1:30 PM)</td>
<td>How to Get a Job in Science Education &amp; Outreach 1:30-2:30 PM (Sharon Milgram, Lori Conlan)</td>
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<td>One-on-One: Bill Lindstaedt, Naledi Saul, Debra Behrens, Judy Blumenthal</td>
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<tr>
<td>Sun., Apr. 22 2:00</td>
<td>Ten Ways to Get Lucky (continues until 2:30 PM)</td>
<td>Negotiation Strategies for Scientists 3:30-4:30 PM (Debra Behrens)</td>
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<td>Grant Writing for Success 3:00-4:00 PM (Sharon Milgram, Lori Conlan)</td>
<td>Managing Up 3:00-4:00 PM (Sharon Milgram, Lori Conlan)</td>
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<td>One-on-One: Joe Tringali, Judy Blumenthal, Debra Behrens, Bill Lindstaedt</td>
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<tr>
<td>Sun., Apr. 22 3:00</td>
<td>Achieving Your Goals: Goal Setting Strategies for Scientific and Career Success 3:00-4:00 PM (Bill Lindstaedt)</td>
<td>Negotiation Strategies... (continues until 3:30 PM)</td>
<td>Grant Writing for Success (continues until 3:30 PM)</td>
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<td>How to Get a Job in Science Policy 4:00-5:00 PM (Sharon Milgram, Lori Conlan)</td>
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<td>One-on-One: Bill Lindstaedt, Andrew Green, Naledi, Saul, Debra Behrens</td>
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<tr>
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<td>Revealing Your Character through Your Resume 2:30-3:30 PM (Judy Blumenthal) (continues until 2:15 PM)</td>
<td>Talking About Yourself: Interviewing Well 2:00-3:30 PM (Naledi Saul)</td>
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<td>Grant Writing for Success 2:00-3:30 PM (Anthony Coelho)</td>
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<td>Successful Behaviors for Winning an Interview 4:00-</td>
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<td>One-on-One: Joe Tringali, Bill Lindstaedt, John Lombardo, Naledi Saul, Debra Behrens</td>
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<tr>
<td>Tue., Apr. 24 10:00</td>
<td>Academic Job Search: CV’s, Letters, Statements and Start-ups 10:00 AM -11:30 PM (Bill Lindstaedt)</td>
<td>Negotiation Strategies for Scientists 10:15-11:15 AM (Behrens)</td>
<td>Transforming Your CV 10:30-11:30 AM (Naledi Saul)</td>
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<td>Tue., Apr. 24 11:00</td>
<td>Academic Job Search... (continues until 11:30 AM)</td>
<td>Successful Behaviors for Winning an Interview 11:30 AM-12:30 PM (Judy Blumenthal)</td>
<td>Transforming Your CV... (continues until 11:30 AM)</td>
<td>PhD Negotiation Skills and Strategies: How to Get What You Want and Need 11:00 AM-12:00 PM (Howard Adams)</td>
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<td>Making the Grade: Job Talk/Chalk Talk 1:00-2:15 PM (Behrens)</td>
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<td>One-on-One: John Lombardo, Debra Behrens, Andrew Green</td>
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<td>Tue., Apr. 24 4:00</td>
<td>Job Hunting... (continues until 4:30 PM)</td>
<td>Right Attitude... (continues until 4:15 PM)</td>
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<td>One-on-One: Joe Tringali, Andrew Green, Naledi Saul, Debra Behrens</td>
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SUNDAY APRIL 22, 2012

SYMPHOSUM

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INTERNATIONAL LIFE SCIENCE INSTITUTE (ILSI) NORTH AMERICA

SATURDAY APRIL 21, 2012

SYMPHOSUM

INTERNATIONAL SOCIETY FOR ANALYTICAL AND MOLECULAR MORPHOLOGY (ISAMM)

TUESDAY APRIL 24, 2012
Symposium
401. ISAMM Symposium: Advances in Ultrasensitive RNA In Situ Hybridization

INTERNATIONAL SOCIETY FOR BIOLOGICAL AND ENVIRONMENTAL REPOSITORIES (ISBER)

MONDAY APRIL 23, 2012
Symposium
272. ISBER Symposium: Better Disease Biomarkers through Biobanking

THE MICROCIRCULATORY SOCIETY (MCS)

SATURDAY APRIL 21, 2012
Symposia
64. Microcirculatory Society President’s Symposium. Cation Channels in Vascular Control: ASIC, and TRPV Proteins
67. Microcirculatory Society President’s Symposium II/Young Investigator Novel Trends

SUNDAY APRIL 22, 2012
Lecture
184. Microcirculatory Society Landis Award Lecture

THE PHYSIOLOGICAL SOCIETY - UK (TPS)

SUNDAY APRIL 22, 2012
Symposium

TUESDAY APRIL 24, 2012
Symposium
426. Physiology of Calcium-Activated Potassium Channels

PHYSIOLOGY InFOCUS

SUNDAY APRIL 22, 2012
Symposium
193. Physiology of Obesity, Cardiometabolic Disease, and Therapeutic Weight Loss

MONDAY APRIL 23, 2012
Symposium
330. Using Physiology to Translate Cardiac Remodeling and Heart Failure

TUESDAY APRIL 24, 2012
Symposium
453. Hypertension and Chronic Kidney Diseases

WEDNESDAY APRIL 25, 2012
Lecture
517. Nobel Prize in Physiology or Medicine Lecture

PLANT PHENOLIC AND HUMAN HEALTH RESEARCH INTEREST GROUP (PHENHRIG)

SATURDAY APRIL 21, 2012
Special Function
35. The Human Microbiome and Formation of Bioactive Flavonoid Metabolites

SOCIEDAD MEXICANA DE CIENCIAS FISIOLOGICAS (SMCF)

WEDNESDAY APRIL 25, 2012
Symposium
502. Central Control of Food Ingestion and Metabolism

SOCIETA ITALIANA DE PATOLOGIA/ITALIAN PATHOLOGY SOCIETY (SIP)

MONDAY APRIL 23, 2012
Symposium
273. Stowell Symposium: Trends in Experimental Pathology: Metabolism and Cancer

SOCIETY FOR CARDIOVASCULAR PATHOLOGY (SCVP)

TUESDAY APRIL 24, 2012
Symposium
395. SCVP Symposium: The Pathogenesis and Molecular Diagnosis of Cardiomyopathies

SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE (SEBM)

SUNDAY APRIL 22, 2012
Symposium
168. Stem Cell Biology 2012: Basic Science and Translational Advances
FRIDAY, APRIL 20

Biochemistry and Molecular Biology

1. **ASBMB GRADUATE AND POSTDOCTORAL TRAVEL AWARD KEYNOTE LECTURE**
   
   Special Session
   (Supported by an educational grant from Genentech)
   (Sponsored by: ASBMB Education and Professional Development and Minority Affairs Committees)
   
   Fri. 5:00 PM—San Diego Marriott Marquis & Marina, Marriott Hall Salon 4
   
   Cochaired: K. Dodge-Kafka and C. Heinen

   Invitation only.
   Participation is compulsory for all ASBMB Graduate Minority and Graduate/Postdoctoral Travel Award recipients.
   
   5:00 Chair’s introduction.

2. **ASBMB GRADUATE AND POSTDOCTORAL TRAVEL AWARD POSTER SESSION**
   
   Special Session
   (Supported by an educational grant from Genentech)
   (Sponsored by: ASBMB Education and Professional Development and Minority Affairs Committees)
   
   Fri. 6:30 PM—San Diego Marriott Marquis & Marina, Marriott Hall Salon 1

   Invitation only.
   Participation is compulsory for all ASBMB Graduate Minority and Graduate/Postdoctoral Travel Award recipients.
   Poster board assignments will be issued at event check in, 4:00 pm - 4:45 pm, outside Hall 4.

**Nutrition**

3. **THE GLOBAL NUTRITION TRANSITION: THE ROLE OF LIPID SUPPLEMENTATION**
   
   Special Session
   (Organized and Sponsored by: Herbalife Nutrition Institute)
   
   Fri. 8:30 AM—Hilton San Diego Bayfront, Indigo Ballroom H
   
   Chair: D. Heber

4. **WHAT DO WE REALLY KNOW ABOUT WHOLE FOODS DIGESTIBILITY AND ENERGY VALUES?**
   
   Special Session
   (Organized and Sponsored by: Almond Board of California)
   
   Fri. 1:00 PM—Hilton San Diego Bayfront, Indigo Ballroom G

5. **ASN CARIG ANNUAL SYMPOSIUM**
   
   Special Function
   (Supported by educational grants from Chrysantis, Inc. and Mead Johnson and Co., LLC)
   (Sponsored by: CARIG RIS)
   
   Fri. 1:00 PM—Hilton San Diego Bayfront, Indigo Ballroom C
   
   Chair: M. Ferruzzi
SATURDAY, APRIL 21
Across Societies – Experimental Biology

6. MARC AND PROFESSIONAL DEVELOPMENT PROGRAMS

Workshop
SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

Career Development

The Experimental Biology 2012 Career Center activities have been arranged by the FASEB Office of MARC & Professional Development. Access to the Career Center is FREE to all registered EB 2012 meeting attendees.

9:00 Workplace dynamics I/II. S. Milgram, L. Conlan.
10:00 Postdocs: what should you be looking for and how to find them. A. Green.

10:00 Talking about yourself: interviewing well. N. Saul.
10:30 Goal setting, prioritizing, time management. H. Adams.
11:00 Beyond the bench: preparing for your career transition in the life sciences. J. Tringali.
1:00 Ten ways to get lucky in the job search. P. Clifford, J. Lombardo.
1:00 Workplace dynamics: conflict and feedback. S. Milgram, L. Conlan.
1:30 Negotiation strategies for scientists. D. Behrens.
2:00 Transforming your CV. N. Saul.
2:15 Job hunting in the biotech industry. B. Lindstaedt.
3:15 Workplace dynamics: team skills. S. Milgram, L. Conlan.
4:00 Global interview skills. D. Behrens.
4:00 Developing your core message/"elevator pitch". J. Lombardo.

7. CONNECTING WITH DIFFERENT AUDIENCES: THE ANATOMY OF COMMUNICATION

Symposium
SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B

CHAIR: D. EVANS

Professional Development

Public Policy

8:00 Chair's introduction.
8:05 7.1 The abc of communication: easy as 123? D.J. Evans. Brighton and Sussex Med. Sch., U.K.
8:30 7.2 Communicating science during a crisis. C. Reddy. Woods Hole Oceanographic Instn.
8:55 7.3 Inside the Beltway and up on the Hill. J.C. LaManna. Case Western Reserve Univ.
9:20 7.4 Outside the box and inside the living room: teaching through television. J.S. Reidenberg. Mount Sinai Sch. of Med.
9:45 Discussion.

8. CLIMBING THE ACADEMIC LADDER: SKILLS NEEDED FOR EACH RUNG

Symposium
SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7B

CHAIR: R. PRATT AND K. TOPP

Professional Development

10:30 Chair's introduction.
10:35 8.1 Committees – target the right ones and work strategically to make them productive. K.S. Topp. UCSF.

11:00 8.2 Herding cats and academics: skills for leading a professional organization. D.B. Burr. Indiana Univ. Sch. of Med.
11:25 8.3 Leading a medical school academic unit: institute versus department. K.J. Jones. Indiana Univ. Sch. of Med.
11:50 8.4 The role of the president in guiding the university: learners, lawyers and legislators. R.O. Kelley. Univ. of North Dakota.
12:15 Discussion.

9. MASTER CLASS—NEURAL INNERVATION OF THE HEART AND ITS ROLE IN PATHOPHYSIOLOGY AND TREATMENT

Symposium
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 8

CHAIR: J. WALKER

Education & Teaching

Cardiovascular

1:00 Chair's introduction.
1:30 9.2 Clinical methods to assess cardiac sympathetic innervation and function. D.S. Goldstein. NINDS/NIH.
2:45 Discussion.
10. VISUALIZING COMPLEX BIOMEDICAL SYSTEMS

Symposium
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: C. JOHNSON

Imaging/Computational Analysis

1:00  Chair’s introduction.
1:05  10.1 Image-based biomedical modeling, simulation and visualization. C. Johnson. Univ. of Utah.
1:55  10.3 Automating the visualization of biological machines. C.L. Bajaj. Univ. of Texas at Austin.
2:45  Discussion.

11. AAA LANGMAN GRADUATE STUDENT PLATFORM AWARD SESSION

Special Session
SAT. 1:30 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: P. TRAINOR

1:30  Fgf-induced activation of the limb specific Shh regulatory region. T.W. Bailey, C.U. Pira and K.C. Oberg. Loma Linda Univ. (908.1)
1:45  Nexilin is a dynamic protein at Listeria monocytogenes comet tails and enteropathogenic E. coli pedestals. H.T. Law, M. Bonazzi, J. Jackson, P. Cossart and J.A. Guttmann. Simon Fraser Univ., Canada and Inst. Pasteur and INSERM, Paris. (522.3)
2:00  Is embryonic pressure overload responsible for causing endocardial fibroelastosis? Z. Pesevski and D. Sedmera. First Fac. of Med., Charles Univ. and Inst. of Physiol., Acad. of Sci. of Czech Republic, Prague. (726.13)
2:45  General discussion.

12. AAA EDUCATIONAL RESEARCH PLATFORM AWARD SESSION

Special Session
SAT. 3:15 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: C. ECKEL

3:15  Do lectures matter? Lecture attendance in online and face-to-face histology courses. M.L. Barbeau and K.A. Rogers. Univ. of Western Ontario. (528.5)
3:45  A successful method for engaging students in active learning using prosected cadavers. S. Kirrahah and J.J. Walker. Purdue Univ. (529.13)
4:15  Foundations for a lifetime: a qualitative inquiry into the salient aspects of cadaver dissection over time and their impact on medical professionals. M.D. Skinner, S. Morrow and D.A. Morton. Univ. of Utah. (531.15)

13. PEDAGOGY

Hybrid Symposium
SAT. 3:30 PM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: S. MARQUEZ AND W. PAWLINA

Education & Teaching

3:30  Chair’s introduction.
4:55  13.5 Integration of PBL cases into gross anatomy laboratory experiences followed by a modified TBL formative assessment: pedagogy using the best of both worlds. J.J. Wisco, T.L. Korin, P. Wimmers and M.E. Stark. David Geffen Sch. of Med. at UCLA.
5:10  13.6 Teaching beyond the classroom. L.R. Sherman. Mount Sinai Sch. of Med.
5:25  Discussion.
14. DIGITAL IMAGING

Symposium
(Sponsored by: CSAS and AAA)
Sat. 3:30 PM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: S. ZHANG

Imaging/Computational Analysis

3:30 Chair's introduction.
5:15 Discussion.

15. AAA POSTDOCTORAL PLATFORM AWARD SESSION

Special Session
Sat. 5:00 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: J. VENUTI

5:00 Developing henna-haematoxylin stain as alternative to Nissl stain in delineating the cytoarchitecture of the neocortex and archicortex of the cerebrum. J.N. Alawa, O. Gideon, B. Adetiba and C.B. Alawa, Ahmadu Bello Univ., Nigeria. (918.3)
5:15 15.1 FGF signaling is involved in physiological adaptation to pressure overload in developing heart. E. Krejci, Z. Pesevski, O. Nanka and D. Sedmera, inst. of Physiol., Acad. of Sci. of Czech Republic, Prague and 1st Fac. of Med., Charles Univ. in Prague.
5:45 Potent suppressive effect of resveratrol and apigenin on pro-inflammatory responses in lipopolysaccharide and IFN-γ-activated microglia and macrophages: implications for Alzheimer's disease therapies. L. Ooi, Univ. of Western Sydney Sch. of Med. (921.2)
6:00 Hypoxic environments cause differential facial shape variation in zebrafish. T.E. Parsons, S.M. Weinberg, M. Tsang and A.R. Vieira, Univ. of Pittsburgh. (907.9)
6:15 Tumor-derived IDO affects the lifespan in a mouse model of glioblastoma. D.A. Wainwright and M.S. Lesniak, Univ. of Chicago. (920.1)

Biochemistry and Molecular Biology

16. FOSTERING PARTNERSHIPS BETWEEN COLLEGES, UNIVERSITIES AND K-12 SCHOOLS WORKSHOP

Workshop
(Supported by an educational grant from National Science Foundation)
(Sponsored by: ASBMB Minority Affairs, Education and Professional Development and Undergraduate Affiliate Network Committees)
Sat. 9:00 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, SANTA ROSA

Advance event registration required.

This workshop will promote collaborative partnerships between junior high and high school teachers and college/university faculty and researchers to bring creative, cutting-edge, and hands-on science into K-12 classrooms.

17. ASBMB GRADUATE AND POSTDOCTORAL PROFESSIONAL DEVELOPMENT PROGRAM

Special Session
(Supported by an educational grant from Genentech)
(Sponsored by: ASBMB Education and Professional Development and Minority Affairs Committees.)
Sat. 9:00 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 4
CHAIR: K. DODGE-KAFKA AND C. HEINEN

Advance event registration required.

Participation is compulsory for all ASBMB Graduate Minority and Graduate/Postdoctoral Travel Award recipients.
18. POWERING UP! ASBMB ANNUAL MEETING ORIENTATION FOR UNDERGRADUATES

Workshop
(Supported by an educational grant from National Science Foundation)
Sat. 11:30 AM—San Diego Marriott Marquis & Marina, Atlanta
Cochaired: E. Bell and M. Johnson

This interactive ASBMB Annual Meeting orientation will help students navigate the program offerings and make the most of their participation in the ASBMB national meeting.

19. THE BATTLE! ASBMB 16TH ANNUAL UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION

Special Session
Sat. 1:00 PM—San Diego Marriott Marquis & Marina, Marriott Hall Salon 1
Chaired: K. Cornel
Cochaired: P. A. Ortiz and M. A. Wallert

Board numbers will be assigned at check-in (Noon - 12:45 pm) outside Marriott Hall 1.

20. FIND YOUR SUPER MATCH! CAREER SPEED “DATING” FOR UNDERGRADUATES

Workshop
(Sponsored by: ASBMB Education and Professional Development Committee)
Sat. 4:45 PM—San Diego Marriott Marquis & Marina, San Diego Ballroom A
Chaired: S. Barbour

Fast-paced, informative and fun, this workshop gives undergraduates an opportunity to meet and have Q&A sets with a variety of experts in both traditional and non-traditional career fields.

21. ASBMB OPENING LECTURE: HERBERT TABOR/ JOURNAL OF BIOLOGICAL CHEMISTRY LECTURESHIP

Award
(Supported by an educational grant from Cadmus Communications, a Cenveo Company)
Sat. 6:00 PM—San Diego Marriott Marquis & Marina, Marriott Hall Salon 4

6:00 Introductory remarks. S. R. Pfeffer.

22. ASBMB OPENING RECEPTION

Special Event
Sat.—San Diego Marriott Marquis & Marina, Marriott Hall Salon 1
Immediately follows the ASBMB Opening Lecture
ASBMB members and Biochemistry attendees welcome.

Nutrition

23. PROTEINS AS BENEFICIAL INGREDIENTS IN FORTIFIED BLENDED FOODS: WHAT FOOD AID STUDIES ARE NEEDED?

Special Session
(Organized and Sponsored by: Solae, LLC)
Sat. 6:30 AM—San Diego Convention Center, 30A/B

24. ENERGY BALANCE: A NEW PARADIGM

Symposium
(Supported by an educational grant from International Life Sciences Institute North America)
(Sponsored by: ILSI NA)
Sat. 8:30 AM—San Diego Convention Center, 20D
Chaired: J.A. Milner
Cochaired: D. Tancredi

8:30 Registration.
8:45 Defining energy balance. J. O. Hill. Univ. of Colorado Denver.

Statistical and study design issues. D. Allison. Univ. of Alabama at Birmingham.

Effect of manipulating components of energy intake and energy expenditure. J. Jakicic. Univ. of Pittsburgh.

Can energy balance be altered by exercise alone? J. Donnelly. Univ. of Kansas.

Future directions and panel discussion. J. A. Milner. NCI/NIH.

HELPFUL OR HARMFUL: SOY, ISOFLAVONES, AND CANCER RISK

Symposium
(Supported by an educational grant from Pharmavite)
(Sponsored by: Diet and Cancer RIS)

SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C

CHAIRLED: B. LINDSHIELD

COCHAIRLED: M. MESSINA

Education


Soy and the breast cancer patient: a clinical perspective. M. Hardy. UCLA Ctr. for Integrative Med.

Isoflavones and breast cancer growth and progression: insights from preclinical models. W. Helferich. Univ. of Illinois at Urbana-Champaign.

Panel takes questions from audience.

CLINICAL EMERGING LEADERS AWARD COMPETITION, SUPPORTED BY THE MEDICAL NUTRITION COUNCIL

Special Session
(Sponsored by: Medical Nutrition Council)

SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, 29A/B

CHAIRLED: P. KRIS-ETHERTON

Education

Overview.

Increasing the number of masticatory cycles reduces food intake in healthy young adults. Y. Zhu and J.H. Hollis. Iowa State Univ. (639.7)

Intradialytic protein supplementation improves co-morbid disease risk in hemodialysis patients. E. Tomayko, B. Yudell, E. Jeanes, B. Kistler, P. Fitschen, J.H. Jeong, P-T. Wu, H.R. Chung, E.M. Evans and K. Wilund. Univ. of Illinois at Urbana and Chicago and Univ. of Georgia. (387.4)

Omega-3 supplementation prevents intestinal inflammation by inhibiting the expansion of an intestinal pathobiont in IL-10− mice. S. Devkota, V. Leone, Y. Wang, M. Musch, D. Antonopoulos and E. Chang. Univ. of Chicago and Argonne Natl. Lab. (830.4)


High dose vitamin D is associated with decreased inflammatory markers and increased number of hospital-free days in adults with cystic fibrosis: a pilot study. R.E. Grossmann, S.M. Zughai, R.H. Lyles, S. Liu, V. Sueblinvong, M.S. Schechter, A.A. Stecenko, T.R. Ziegler and V. Tangpricha. Emory Univ. (43.4)

CATOTENOIDS AND HEALTH

Minisymposium
(Sponsored by: CARIG RIS)

SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32B

CHAIRLED: L. RUBIN

COCHAIRLED: J. CAMPBELL

Overview.

Regulation of antioxidant responses in prostate cancer: Nrf2-dependent and independent effects of lycopene. X. Gong, R. Marisiddiah, D. Wiener and L.P. Rubin. Univ. of South Florida.


Summary.
28. THE EXPERIENCE OF HOUSEHOLD FOOD INSECURITY

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32A

CHAIR: J.S. Lee

COCHAIR: M. Burke

8:00 28.1 A longitudinal study of food insecurity among low income families in Toronto. R. Loopstra-Masters and V. Tarasuk. Univ. of Toronto.


8:45 28.4 Children's very low food security is associated with increased dietary intakes in energy, fat, and added sugar among Mexican-origin children (6-11 y) in Texas border colonias. J.R. Sharkey, C. Nalty, C. Johnson and W.R. Dean. Sch. of Rural Publ. Hlth., College Station and Univ. of North Carolina Gillings Sch. of Global Publ. Hlth.

9:00 28.5 Single incidence household food insecurity is associated with elevated maternal BMI. N.A. Tilton, M.M. Black, L.S. Magder, Y. Wang and K.M. Hurley. Univ. of Maryland Sch. of Med.


9:30 28.7 Exploring shopping habits and nutrition knowledge of single mothers in transitional housing. S.J. Sweitzer, M. Romo, M. McAllaster and M.E. Briley. Univ. of Texas at Austin.


29. STRATEGIC, GLOBAL APPROACHES TO IMPROVE BREASTFEEDING RATES

Symposium

(Supported by an educational grant from Medela)

(Sponsored by: Lactation RIS)

(Cosponsored by: International Nutrition Council)

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C

CHAIR: C. Lutter

COCHAIR: A. Morrow

Public Policy


10:45 Making breastfeeding a public health priority in the United States and new tools to measure progress. L. Grummer-Strawn. CDC.


11:15 Maternal vitamin D supplementation to optimize the vitamin D status of breastfed infants. S.S. Oberhelman, M. Meekins, P. Fischer, B. Lee, B. Gardner, R. Singh, S. Cha, J. Pettifor and T. Thacher. Mayo Clin., Univ. of Kentucky and Univ. of Witwatersrand, South Africa. (44.5)


12:30 Flaxseed lignan supplementation improves markers of obesity in C57BL6 mice. N.A. Ford and S.D. Hursting. Univ. of Texas at Austin and M.D. Anderson Cancer Ctr., Smithville. (125.5)
31. CAROTENOIDS: BIOAVAILABILITY AND METABOLISM

Minisymposium

(Sponsored by: CAR1G RIS)

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32B

CHAIR: S. TANUMIHARDJO

COCHAIR: X. GONG

10:30 Overview.

10:45 31.1 No effect of pH on in vitro digestion of carotenoids from sweet potatoes and mandarin oranges. B.J. Burri, C.M. Devin, M. Rajaonary, M. Roman and D. La Porte. USDA, Davis and Univ. of California, Davis.

11:00 31.2 Effect of lactation stage on the content and bioaccessibility of carotenoids in human milk. T.E. Lipkie, Z.E. Jouini, T.G. Sapper and M.G. Ferruzzi. Purdue Univ. and Mead Johnson Nutr., IN.


12:00 31.6 Impact of meal patterning on carotenoid absorption from vegetables. S.R. Goltz, T.N. Sapper, M.L. Failla, W.W. Campbell and M.G. Ferruzzi. Purdue Univ. and The Ohio State Univ.


32. CREATING HEALTHY FOOD ENVIRONMENTS

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32A

CHAIR: E. RACINE

COCHAIR: C. BLAKE

10:30 32.1 Perceptions of the local food environment among low-income residents of Athens, Georgia. S. Wilson and J.S. Lee. Cornell Univ. and Univ. of Georgia.

10:45 32.2 Eating identity and perceptions of the neighborhood food environment. C.E. Blake, T.L. Barnes, M.D. Nichols and A.D. Liese. Univ. of South Carolina.

11:00 32.3 Characteristics of families who buy local produce. E.F. Racine, E.A. Mumford and S.B. Laditka. Univ. of North Carolina at Charlotte and NORC at Univ. of Chicago.

11:15 32.4 Challenges to making local food accessible through farmers’ markets and community supported agriculture: DeKalb County, Georgia. C. McAuliffe, L. Whitaker and A. Webb Girard. Emory Univ. Rollins Sch. of Publ. Hlth.


11:45 32.6 Healthy stores intervention associated with psychosocial improvements in adult American Indian consumers. J. Gittelsohn, S. He, E. Kim, B. Delrow and M. Pardilla. Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Navajo Nation Special Diabetes Prog., Window Rock, AZ.


33. POLICIES AND PROGRAMS TO IMPROVE CHILDREN’S NUTRITION

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: Y. CHU

COCHAIR: D. PINERO


11:00 33.3 Barriers and facilitators to the implementation of healthy eating strategies in schools. M. Quintanilha, J. Lieffers, A. Farmer, T. Berry, S. Downs, D. Mager, N. Willows and L. McCargar. Univ. of Alberta and Univ. of Sydney.

11:15 33.4 State regulation of school food environments is not enough. S.J. Jones, M.P. Burke, E.A. Frongillo, Y. Chu, M. Tompkins and M. Howlett. Univ. of South Carolina and Simon Fraser Univ., Canada.

11:30 33.5 Children’s lunch box after the implementation of a guideline to regulate the foods and beverages for sale in schools in Mexico City. M. Perez-Rodriguez, J.B. Naranjo, E. Pedraza, G. Ávalos, G. Melendez and F. Pfeffer. FUNSALUD, Mexico City.

11:45 33.6 School lunches and children’s fruit and vegetable consumption. A.M. Teixeira, S.J. Jones, C.D. Childers and J.M. Ball. Univ. of South Carolina.
Using technology to assess gain in nutrition knowledge among the youth. H. Roy. LSU.

Behavioral intervention among early adolescent girls improves bone mass after 18 months; however, lactose maldigestion is still a barrier for calcium intake. Y. Lee, C.J. Boushey, L.D. McCabe, G.P. McCabe, R. Novotny, M. Van Loan, M. Read, S.B. Going, C.M. Weaver, D.A. Saviano and ACT Investigators. Purdue Univ., Univ. of Hawaii, USDA, Davis, Univ. of Nevada Reno and Univ. of Arizona.

34. ANIMAL RESEARCH MODELS FOR MACRONUTRIENT METABOLISM

Minisymposium

(Sponsored by: Experimental Animal Nutrition RIS)

Chaired: M. Waldron
Cochaired: K. Swanson


11:45 34.6 Palmitoleate supplementation dissociates liver inflammatory response from hepatic steatosis in mice. X. Guo, H. Li, H. Xu, C. Meng and C. Wu. Texas A&M Univ.

12:00 34.7 Effect of a high carbohydrate or a high fat diet and exercise on the oxidant/antioxidant status in liver. R. Valdés-Ramos, A.L. Guadarrama, B.E. Martinez-Carrillo, A. Kormanovski and T.R. Cruz Hernandez. Autonomous Univ. of State of Mexico and Grad. Sch. of Med.-IPN, Mexico City.

35. THE HUMAN MICROBIOME AND FORMATION OF BIOACTIVE FLAVONOID METABOLITES

Special Function
(Sponsored by: PhenHRIG)

Sat. 1:00 PM—San Diego Convention Center, 30A/B

Chaired: M. Gross

36. CONTROVERSIES REGARDING REPORTED TRENDS: HAS THE OBESITY EPIDEMIC LEVELED OFF IN THE UNITED STATES?

Symposium
(Sponsored by: Nutritional Epidemiology RIS)
(Cosponsored by: Obesity RIS Community and Public Health Nutrition RIS)

Sat. 3:00 PM—San Diego Convention Center, 20D

Chaired: Y. Wang
Cochaired: W.H. Dietz

3:00 Overview of obesity epidemic in the U.S. W. H. Dietz. CDC.

3:25 Some different messages: the trends in different population groups in the U.S. and based on different type of data and different type of analysis. Y. Wang. Johns Hopkins Bloomberg Sch. of Publ. Hlth.

3:50 Lessons from European countries: the recent trends in childhood obesity. T. Lobstein. IASO and IOTF.


4:40 Questions and answers.

37. ADOPTING HEALTHY AND SUSTAINABLE FOOD SERVICE GUIDELINES: EMERGING EVIDENCE FROM IMPLEMENTATION AT THE UNITED STATES FEDERAL GOVERNMENT, NEW YORK CITY, LOS ANGELES COUNTY, AND KAISER PERMANENTE

Symposium
(Sponsored by: Nutrition Education RIS)
(Cosponsored by: Public Health Nutrition RIS)

Sat. 3:00 PM—San Diego Convention Center, 31A/B/C

Chaired: J. Kimmons
Cochaired: A. Lederer

3:00 Implementing and evaluating the Health and Human Services and General Services Administration’s Health and Sustainability Guidelines for federal concessions and vending operations. J. Kimmons. CDC.

4:00 Lessons learned from adopting and implementing procurement policies in the food services in the Los Angeles County Government and the region’s largest school district. M. Wood. RENEW Los Angeles County.


38. GRADUATE STUDENT RESEARCH AWARD COMPETITION, SUPPORTED BY THE NUTRITIONAL SCIENCES COUNCIL

Special Session

(Sponsored by: Nutrition Sciences Council)

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B

CHAIRED: K. TUCKER

Education

2:00 High-dose (4000 IU) vitamin D supplementation improves insulin resistance in obese adolescents. A.M. Belenchia, A.K. Tosh, L.S. Hillman and C.A. Peterson. Univ. of Missouri-Columbia and Univ. of Missouri Hosp. & Clin. (386.3)


2:45 Lower dairy calcium and dairy vitamin D intakes are associated with increased skeletal muscle fatty infiltration in adolescent girls. D. Vassallo, V. Lee, M. Lauder milk, R. Blew and S. Going. Univ. of Arizona and Univ. of Pennsylvania. (369.2)

3:00 Genetic variation in the vitamin D receptor and the plasma proteome. B. Garcia Bailo, A. Badawi and A. El-Sohemy. Univ. of Toronto and Publ. Hlth. Agcy. of Canada, Toronto. (1012.6)

3:15 Fatty acid transport protein mediates macrophage polarization. Y. Qin, B. Sampey, G. Sacks, A. Freemer man, L. Li, R. Coleman, A. Stahl and L. Makowski. Gillings Sch. of Global Publ. Hlth., Univ. of North Carolina at Chapel Hill and Univ. of California, Berkeley. (364.6)

3:30 Tumor progression locus 2 deletion attenuates alcohol-induced hepatic inflammatory foci and cytokine expression in mice. C.A. Peach, S. Hussain, C. Liu, X-D. Wang and A.S. Greenberg. USDA at Tufts Univ. (1033.9)


4:00 Physiologic role of the Menkes copper ATPase (Atp7a) in intestinal iron transport. S. Gulec, P. Ranganathan, Y. Lu and J. Collins. Univ. of Florida. (641.22)


39. CAROTENOIDS: EYE AND BRAIN HEALTH

Minisymposium

(Sponsored by: CARIG RIS)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32B

CHAIRED: E. JOHNSON

COCHAIR: Z. JOUNI

3:00 Overview.


3:45 39.3 Relationship between brain lutein (L) and zeaxanthin (Z) and retinal L and Z in humans. R. Vishwanathan, J. Wittwer, W. Schalch and E.J. Johnson. USDA at Tufts Univ. and DSM Nutritional Prods. Ltd., Kaiseraugst, Switzerland.


4:30 Summary.
40. REGULATION OF FOOD INTAKE

Minisymposium

(Sponsored by: Energy and Macronutrient Metabolism RIS)

(Cosponsored by: Obesity RIS)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32A
CHAIRIED: J.W. APOLZAN
COCHAIRIED: J.H. HOLLIS

3:00 40.1 Chronic high fat diet changes gene expression within the brain reward system: critical periods and sex differences. T.M. Reyes and J. Carlin. Univ. of Pennsylvania Sch. of Med.


4:00 40.5 The contribution of gastrointestinal appetite hormones to protein-induced satiety. A. Astrup, A. Belza, M.Q. Serensen, C. Ritc, J.J. Holst and J.F. Rehfeld. Univ. of Copenhagen, Frederiksberg, Copenhagen and Univ. Hosp.


41. FAT SOLUBLE VITAMINS AND CHRONIC DISEASE

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D
CHAIRIED: D. TEEGARDEN
COCHAIRIED: G. CHEN

3:00 41.1 Vitamin D standardization program. C.T. Sempos, H.W. Vesper and K. Phinney. ODS/NIH, CSC, Atlanta and Natl. Inst. of Stds. and Technol., Gaithersburg, MD.


4:15 41.6 Determining the retinoic acid response element in the liver glucokinase gene promoter using deletion and linker-scan analysis. R. Li and G. Chen. Univ. of Tennessee Knoxville.

4:30 41.7 Knockout of CYP4F14 causes severe perturbations in vitamin E metabolism and results in tissue accumulation of vitamin E in the mouse. S.A. Bardowell, F. Duan, J.E. Swanson, D. Manor and R.S. Parker. Cornell Univ. and Case Western Reserve Univ.

4:45 41.8 Transcriptional regulation of the tocopherol transfer protein. L. Ulatowski, C. Dreussi and D. Manor. Case Western Reserve Univ.

42. PROTEIN AND AMINO ACID METABOLISM

Minisymposium

(Sponsored by: Energy and Macronutrient Metabolism RIS)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30C
CHAIRIED: E. VOLPI
COCHAIRIED: S. CHEVALIER

3:00 42.1 Using the phenylalanine stable isotope pulse method to measure intracellular protein breakdown and metabolic shunting in the context of sepsis in the pig. G.A. Ten Have, M.P. Engelen, R.R. Wolfe and N.E. Deutz. Donald W. Reynolds Inst. on Aging, Little Rock.

3:15 42.2 Dietary supplementation with aromatic amino acids improves net protein synthesis in children with severe acute malnutrition during hospitalization. J.W. Hsu, A. Badaloo, C. Taylor-Bryan, M. Reid, T. Forrester and F. Fahour. USDA, Houston, Baylor Col. of Med. and Univ. of West Indies, Jamaica.

3:30 42.3 Lean growth is enhanced by intermittent bolus compared with continuous feeding in neonates. S.W. El-Kadi, C. Boulry, M.C. Gazzaneo, A. Suryawan, R. Orellana, N. Srivastava, H.V. Nguyen, M.L. Fiorotto and T.A. Davis. USDA, Baylor Col. of Med.


44. BREASTFEEDING AND HUMAN MILK: EFFECT ON THE RECIPIENT INFANT AND/OR LACTATING MOTHER

Minisymposium

(Sponsored by: Lactation RIS)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29C

CHAIR: C. LOVELADY

COCHAIR: E. WIDEN

3:00 44.1 A prospective study of blood pressure, BMI and immunity in breastfeeding and formulat feeding women. M.W. Groer, F. Sahebzamani, C. Jevitt and J. Beckstead. Col. of Nursing, Univ. of South Florida.


4.00 44.5 Maternal vitamin D supplementation to optimize the vitamin D status of breastfed infants. S.S. Oberhelman, M. Meekins, P. Fischer, B. Lee, B. Gardner, R. Singh, S. Cha, J. Pettitfor and T. Thacher. Mayo Clin., Univ. of Kentucky and Univ. of Witwatersrand, South Africa.

Pathology

45. PATHO BIOLOGY FOR BASIC SCIENTISTS: CELL INJURY AND INFLAMMATION: NEW RIFFS ON A CLASSICAL SCORE

Course
(Sponsored by: ASIP Education Committee)
SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR ED: R.N. MITCHELL AND M.B. FURIE

Education
This session is intended primarily for graduate students, residents, and post-doctoral fellows interested in a well-organized and well-structured update on the current scientific and clinical developments—and controversies—regarding cell injury, cell death, inflammation, and neoplasia. Topics will cycle on a regular basis from the popular Summer Academy courses, and speakers will be drawn from among the best pathobiology educators in the ASIP, providing a solid foundation of the fundamentals, and a stimulating look at the future. Given the focus and nature of the presentations, the sessions will also provide an excellent framework for pathobiology faculty developing new course materials, or industry professionals looking for a primer of the fields.

9:30 Apoptosis and necroptosis. S. Oakes. UCSF Sch. of Med.

46. MESENCHYMAL STEM CELLS AND LUNG DISEASE

Symposium
SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR ED: M.A. MATTHAY AND D.S. ZANDER

Pulmonary Pathobiology

Stem Cells
8:30 Mesenchymal stem cells and acute lung injury. M. A. Matthy, UCSF Sch. of Med.
9:15 Mesenchymal stem cell therapy: tales of airway inflammation and infection. T. Bonfield. Case Western Reserve Univ.
10:00 Lung repair by mitochondrial transfer from MSCs. J. Bhattacharya. Columbia Univ. Med. Ctr.
10:45 Mesenchymal stem cells and mechanisms of interstitial lung fibrosis: potential for interaction with the environment. A. R. Brody. North Carolina State Univ.


10:30  48.9  Pro-angiogenic capacity of MMP-9 produced by different types of inflammatory leukocytes is determined by the levels of TIMP-1 complexed with the MMP-9 proenzyme. E. Zajac, B. Schweighofer, T. Kupriyanova, B. Casar, I. Rimann, A. Juncker-Jensen, E.I. Deryugina and J.P. Quigley. The Scripps Res. Inst.

10:45  48.10 The angiogenesis suppressor gene AKAP12 is under the epigenetic control of HDAC7 in endothelial cells. V. Castronovo, N. Matheus, B. Dumont, P. Peixoto, V. Hennequiere, C. Deroanne, A. Colige, E. De Pauw, A. Bellahcene, D. Mottet and A. Turtoi. Univ. of Liege, Belgium.

49.  ASMB LECTURE

(Sponsored by: ASIP and the American Society for Matrix Biology)

SAT. 11:30 AM—SAN DIEGO CONVENTION CENTER, 16B


50.  12TH ANNUAL WORKSHOP ON GRADUATE EDUCATION IN PATHOLOGY: GENOMICS AND PERSONALIZED MEDICINE IN THE GRADUATE CURRICULUM

Workshop

(Sponsored by: ASIP Education Committee)

SAT. 11:30 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, CARDIFF

CHAIRIED: R.N. MITCHELL

Education

The goal of the ASIP Graduate Education Workshops is to provide a venue for Pathology Program Directors and interested Faculty to learn about and discuss innovations and best practices, and share experiences relevant to the training of Graduate Students, Residents, and Fellows. The sessions—with a box lunch provided—are relatively informal, beginning with short presentations (20-30 minutes each) and progressing to lively discussions; they typically average 15-25 attendees from programs around the country.

For 2012, in view of the Banbury Initiative and other developments, the Annual Workshop will focus on Genomics and Personalized Medicine in the Graduate Curriculum: what should graduate programs be considering, and what are the potential challenges and pitfalls?

11:30  Introductory remarks.

51.  BREAST CANCER SCIENTIFIC INTEREST GROUP NETWORKING/POSTER SESSION

(This Session is not CME accredited.)

Poster Discussion

SAT. 11:45 AM—SAN DIEGO CONVENTION CENTER, 1B

CHAIRIED: A.G. RIVENBARK

COCHAIRIED: W.B. COLEMAN

Neoplasia

This informal lunch/networking session will take place following the Breast Cancer Workshop and will showcase a number of posters that will be selected for discussion. This event is provided for all ASIP members who are interested in breast cancer research. One of the major objectives of this session is to create a community of breast cancer researchers and to foster collaborations. Additionally, this professional networking outlet will provide new investigators and/or predoctoral students and postdoctoral trainees an opportunity to become acquainted with scientists working in the field. A complimentary light lunch will be provided for all in attendance.

P1  Growth of triple negative human breast cancer cells is regulated by the OGF-OGFr axis. I.S. Zagon, N.K. Porterfield and P.J. McLaughlin. Penn State Col. of Med. (142.1)

P2  A designer artificial transcription factor stably reprograms cancer cells by targeted DNA methylation. A.G. Rivenbark, S. Stolzenburg, B.D. Strahl and P. Blancafort. Univ. of North Carolina at Chapel Hill. (142.2)

P3  Inhibitory effect of adiponectin on breast cancer cell growth: evidences of the crucial role of ERα expression. L. Mauro, M. Pellegrino, F. De Amicis, C. Giordano and S. Andò. Univ. of Calabria, Italy. (142.3)


P5  Neuropeptide Y stimulates VEGF production and secretion and promotes angiogenesis in murine and human breast cancer. P.J. Medeiros and D.N. Jackson. Univ. of Western Ontario. (142.5)

P6  Kaiso: a key regulator in EMT and cancer progression. J.D. Jones, H. Wang, P. He, W.E. Grizzle, T. Turner and C. Yates. Tuskegee Univ. and Univ. of Alabama at Birmingham. (142.6)

P7  Estrogen receptor-positive breast cancer cells drive CAFs to secrete leptin and support tumor invasiveness. I. Barone, S. Catalan, L. Gelsomino, S. Panza, S. Marsico, C. Giordano, D. Bonofillo, I. Casaburi, K.R. Covington, S. Fuqua and S. Andò. Univ. of Calabria, Italy and Baylor Col. of Med. (142.7)

P8  Reprogramming the cancer epigenome by metabolic transduction. J.S. Byun and K. Gardner. NCI/NIH. (142.8)


P11 Polychlorinated biphenyls enhance the neoplastic progression of human breast epithelial cells in a xenograft model. H. Pang, F.R. Miller, T.A. Kocarek and M. Runge-Morris. Wayne State Univ. (834.6)

p12 Mono-ubiquitination of annexin A1, acetylation of PML and apoptosis of MCF7 cells treated by HDAC inhibitors. A. Hirata, T.H. Senanayake, P.M. Wooster and F. Hirata. Wayne State Univ. (834.5)

P13 FoxO3a transcription factor differentially modulates the metastatic potential of ER+ and ER- breast tumors. C. Morelli, P. Maris, W. Anselmo, M.G. Cesar, M. Lanzino, D. Sisci and S. Andò. Univ. of Calabria, Italy and Thomas Jefferson Univ. (834.4)

P14 Overexpression of claudin-6, -7 or -9 modifies the activation of MMP-2 and MMP-9. A.C. Torres Martinez, L.F. Montaño Estrada and E.P. Rendon-Huerta. Fac. of Med., UNAM, Mexico City. (833.1)

P15 Effects of claudins-6, -7 or -9 overexpression on migration and invasiveness of breast and hepatocellular cancer cells. B. Salas, E.P. Rendón-Huerta and L.F. Montaño-Estrada. UNAM, Mexico City. (833.8)


P17 Progesterone receptor B through Sp1 induces the phosphatase and tensin homologue deleted from chromosome 10 (PTEN) gene promoter activity and cell death in breast cancer cell lines. C. Guido, F. De Amicis, M. Santoro, P. Avena, I. Perrotta, I. Casaburi, S. Panza, S. Marsico and S. Andò. Univ. of Calabria, Italy and Baylor Col. of Med. (834.2)


52. HIGHLIGHTS: GRADUATE STUDENT RESEARCH IN PATHOLOGY

Poster Discussion

(Sponsored by: ASIP Committee for Career Development, Women & Minorities)

SAT. 1:30 PM—SAN DIEGO CONVENTION CENTER, 15B

CHAIR: D. Bielenberg

COCHAIR: K. Kolegraff

This session showcases a selection of oral and poster presentations by students, taken from regular sessions. It provides a view of the research excellence among trainees in Pathology. Scour for a postdoctoral fellow and meet colleagues from other pathology research training programs.


Oral Presentations


1:45 The RNA-binding protein Imp2 regulates oxidative phosphorylation that is key to glioblastoma cancer stem cell maintenance. M. Janiszewska, M.-L. Suva, R.H. Houkkooper, V. Clement-Schatlo and I. Stamenkovic. Univ. of Lausanne, Massechusetts Gen. Hosp., Boston, EPFL, Lausanne and Univ. of Geneva. (479.6)

1:55 Improvement of defective cystic fibrosis airway epithelial repair after CFTR rescue. N.T.N. Trinh, D. Adam, O. Bardou, P. Anik, É. Maillé, S. Lingée, P. Ferraro, M. Desrosiers, C. Coraux and E. Brochiero. CRCHUM Hôtel-Dieu, Univ.of Montreal, Univ. Champagne Ardenne, Reims and CHUM Notre-Dame, Montreal. (56.9)

2:05 Poster Presentations

P2 The desmosomal protein PEP is required for the pro-inflammatory response to Salmonella typhimurium infection. K. Hallstrom, C.V. Srikanth, T. Agbor, Z. Demma and B.A. McCormick. Univ. of Massachusetts Med. Sch. (55.9)

P4 Neuropeptide Y stimulates VEGF production and secretion and promotes angiogenesis in murine and human breast cancer. P.J. Medeiros and D.N. Jackson. Univ. of Western Ontario. (142.5)


P8 Differential contribution of desmoglein 2 and 3 to cell adhesion and intracellular signaling in keratinocytes. E. Hartlieb, V. Spindler and J. Waschke. Ludwig Maximilians Univ., Munich. (833.2)


Oral Presentations

2:35 The role of miR-17-92 cluster in hepatic carcinogenesis. H. Zhu, C. Han and T. Wu. Tulane Univ. Sch. of Med. (274.12)

2:45 Attenuation of retinal neovascularization and endothelial cells proangiogenic activity in endoglin-deficient mice. S. Park, C.M. Sorenson and N. Sheibani. Univ. of Wisconsin-Madison. (48.2)

3:05 Poster Presentations


P3 Entamoeba histolytica induces a robust acute inflammatory response with increased colonic permeability and altered tight junction proteins in Muc2−/− mice. V. Kisson-Singh, F. Moreau and K. Chadee. Univ. of Calgary, Canada. (275.7)

P5 Calreticulin upregulates VEGF-A and VEGF-C in SK-N-DZ and SH-SY5Y neuroblastoma cell lines. K. Lin, P-Y. Wu and H. Lee. Natl. Taiwan Univ. (657.5)


P9 The inhibitory effect of sulforaphane on the expression of VCAM-1 in vascular smooth muscle cells. J.Y. Kim, D-K. Rhee and S. Pyo. Sungkyunkwan Univ., South Korea. (656.16)

P11 Role of PDGFRRα in liver regeneration using hepatocyte-specific knockout mice. P. Awuah, K.N. Nejak-Bowen and S. Monga. Univ. of Pittsburgh Sch. of Med. (274.9)


3:50 Concluding remarks.

53. IPS CELLS: ARE WE THERE YET!

Symposium

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16A

CHAIRED: G.K. MICHALOPOULOS

Stem Cells

2:00 Probing the potential of human pluripotent stem cell progeny. W. E. Lowry. UCLA.


4:20 Instructing cells to change their identity. J. Gearhart. Univ. of Pennsylvania.

54. THE MYOFIBROBLAST: BIOLOGICAL FEATURES AND THERAPEUTIC PERSPECTIVE

Symposium

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16B

CHAIRED: C.M. HOGABOAM

2:00 Epigenetic mechanisms through which TLR9 promotes myofibroblast differentiation and IPF progression. C. M. Hogaboam. Univ. of Michigan.


3:30 The specialized myofibroblasts of the liver: different roles, different cues. R. G. Wells. Univ. of Pennsylvania Sch. of Med.

4:15 TBD. B. Hinz. Univ. of Toronto.

55. ACUTE INFLAMMATORY RESPONSE

Minisymposium

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17A

CHAIRED: M. CYBULSKY

Cochaired: P. ALCAIDE

Inflammation


2:30 55.3 Phosphoinositide 3-kinase activation and actin dynamics within force sensing anchors are required to stabilize VLA-4 integrin-mediated leukocyte adhesion. J. Rullo, H. Becker, S. Hyduk and M. Cybulsky. Univ. of Toronto and Univ. Hlth. Network, Toronto.


3:00 55.5 Monocyte activation and endothelial small G-proteins control the route of transendothelial migration. A.V. Mikhailov and W.A. Muller. Northwestern Univ., Chicago.

3:15 55.6 Endothelial cell IQGAP1 is an important regulator of the transendothelial migration of leukocytes. D.P. Sullivan and W.A. Muller. Northwestern Univ., Chicago.

3:30 55.7 Downstream effects of the homophilic PECAM-1 interaction in neutrophils. N.A. Sieracki, Y. Komarova and A.B. Malik. Univ. of Illinois at Chicago.

3:45 55.8 FGD5 deficiency confers defective matrix adhesion and survival among endothelial cells. M. Nakhaei-Nejad, G. Haddad and A. Murray. Univ. of Alberta.

4:00 55.9 The desmosomal protein, PERP, is required for the pro-inflammatory response to Salmonella typhimurium infection. H. Hallstrom, C.V. Srikanth, T. Agbor, Z. Demma and B.A. McCormick. Univ. of Massachusetts Med. Sch.

4:15 55.10 Engagement of ICAM-1 mediates neutrophil crawling on the luminal surface of the intestinal epithelium and signals to regulate barrier function. R. Sumagin and C.A. Parkos. Emory Univ.


16
56. EPITHELIAL INJURY AND REPAIR

Minisymposium
SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17B
CHAIR ED: S. COLGAN
COCHAIR ED: R. JONES

Epithelial Pathobiology
2:00 56.1 Potassium channels as operators of alveolar epithelial repair. A. Girault, A. Privé, N.T.N. Trinh, O. Bardou, É. Maillé and E. Brochiero. CRCHUM Hôtel-Dieu, Univ. of Montreal.
2:12 56.2 N-formyl peptide receptor-1 is important for homeostasis of intestinal epithelial cells. A. Alam, G. Leoni, C. Wentworth, A. Nusrat and A.S. Neish. Emory Univ.
2:36 56.4 Annexin A1 derived peptide Ac2-26 promotes epithelial wound healing through p120-Vav2-Rac1 signaling and ROS generation. G. Leoni, A. Mohammad, M. Perretti, C. Parkos, A. Neish and A. Nusrat. Emory Univ. and Barts and The London Sch. of Med.
3:00 56.6 Annexin A2 regulates beta 1 integrin internalization and intestinal epithelial cell migration. C.R. Rankin, R.S. Hilgarth, G. Leoni, K.D. Best, M. Kwon, C.A. Parkos and A. Nusrat. Emory Univ.

57. TRAINEE WELCOME RECEPTION
Special Session
(Sponsored by: ASIP Committee for Career Development, Women & Minorities)
SAT. 4:00 PM—SAN DIEGO CONVENTION CENTER, 15A
All trainees and mentors are invited to attend a Welcome Reception immediately following the Excellence in Science award presentation at the Highlights: Graduate Student Research in Pathology Session. Please join us for a fun and informal social gathering—it’s a great opportunity to network with old and new friends!

58. ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE
SAT. 5:00 PM—SAN DIEGO CONVENTION CENTER, 16A
5:00 Introduction.
5:05 Lost in ubiquitination, found by mass spectrometry: identification of E3 ligase substrates controlling critical cellular events and cancer. K. Elenitoba-Johnson. Univ. of Michigan.

Pharmacology and Experimental Therapeutics

59. DIVERSITY COMMITTEE WORKSHOP:
BUILDING A CAREER IN PHARMACOLOGY: A FOCUS ON HEALTH DISPARITIES
Symposium
SAT. 12:00 PM—SAN DIEGO CONVENTION CENTER, 2
CHAIR ED: M.I. DÁVILA-GARCÍA
12:00 Chair’s introduction.
1:10 Cancer drug discovery and health disparities. Eileen J. Kennedy. Univ. of Georgia Col. of Pharm.
1:40 Drug-plant interaction in the American Indian/Alaskan Native populations: no control of potential harm. J. Yracheta. Univ. of Washington Sch. of Pharm.
60. 2012 TEACHING INSTITUTE: THE USE OF SOCIAL MEDIA IN PHARMACOLOGY EDUCATION

Symposium

SAT. 12:00 PM—SAN DIEGO CONVENTION CENTER, 3
CHAIR: L.M. CRESPO

Education

12:00 TBD.
12:45 Wikis and Wikipedia as teaching tools. J. Jemison. Univ. of Vermont Col. of Vermont.
1:30 Editing and publishing on Wikipedia. Lynn M. Crespo. Univ. of South Carolina Sch. of Med., Greenville.

61. GRADUATE STUDENT COLLOQUIUM: COMMUNICATION

Colloquium

SAT. 2:45 PM—SAN DIEGO CONVENTION CENTER, 2
CHAIR: L. SCHROTT, J.S. FEDAN, M.J. SEMINERIO

Education

2:45 Keynote Speaker: Get that job! How to ace your interview. B. A. Fischer. Survival Skills & Ethics Program, Univ. of Pittsburgh.

62. ASPET BUSINESS MEETING AND OPENING AWARDS RECEPTION

Business Meeting

SAT. 6:00 PM—SAN DIEGO CONVENTION CENTER, 20B/C
Opening Reception
7:30 PM—SAN DIEGO CONVENTION CENTER, CENTER TERRACE

Physiology

63. REFRESHER COURSE IN ENDOCRINOLOGY: DIABETIC COMPLICATIONS

Symposium

(Sponsored by: APS Education Committee)

SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: C. WILLIAMS AND M. RYAN

Education

Metabolic Diseases
8:00 Brain-gut interactions. S. Srinivasan. Emory Univ.
8:50 Adipocyte-islet interactions. S. Unniappan. York Univ.

64. MICROCIRCULATORY SOCIETY PRESIDENT’S SYMPOSIUM. CATION CHANNELS IN VASCULAR CONTROL: ASIC, AND TRPV PROTEINS

Symposium

(Sponsored by: The Microcirculatory Society)

SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: M. BOEGEHOLD

9:00 TRPV channels in cerebral arteries. S. Earley. Colorado State Univ.

65. OVERCOMING THE FEAR OF MAKING YOUR OWN TRANSGENIC AND KNOCKOUT MICE

Workshop

SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: D. E. KOHAN AND M. DE CAESTECKER

Education

1:00 Conditional gene expression. H. Bujard. Heidelberg Univ.
2:00 Optimizing transgene expression. C. Sigmund. Univ. of Iowa.
2:30 Key issues with mouse phenotyping. V. Papaioannou. Columbia Univ.
66. PUBLIC OUTREACH AND ANIMAL RESEARCH: TOOLKIT FOR INVESTIGATORS

Symposium

(Sponsored by: APS Animal Care and Experimentation Committee)

SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: B. YATES

Public Policy

1:00 Introduction. B. Yates, Univ. of Pittsburgh.
1:10 Why investigators and institutions should talk about animal research: a scientist’s perspective. D. Ringach, UCLA Jules Stein Eye Inst., David Geffen Sch. of Med.
1:40 Public outreach: a laboratory animal veterinarian’s perspective and experience over a quarter of a century. J. D. Young, Cedars-Sinai Med. Ctr.
2:10 Why investigators and institutions should talk about animal research: a media relations perspective. J. Newman, Oregon Hlth. & Sci. Univ.
2:40 Discussion.

67. MICROCIRCULATORY SOCIETY PRESIDENT’S SYMPOSIUM II/YOUNG INVESTIGATOR NOVEL TRENDS

Symposium

(Sponsored by: The Microcirculatory Society)

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: K. LUKASZWEICZ AND A. GOODWILL

Dedicated to the memory of Gabor Kaley, Ph.D., Professor of Physiology, New York Medical College, in honor of his positive impact on the careers of many young scientists.

2:00 A novel approach for imaging calcium events simultaneously in arteriolar vascular smooth muscle and endothelial cells. P. Bagher, C.J. Garland and K.A. Dora, Univ. of Oxford. (676.6)
2:30 Accelerated arteriogenesis in collateral arterial segments exposed to flow reversal after femoral arterial ligation. J.K. Meisner, S. Sumer, J. Niu, J. Song and R.J. Price, Univ. of Virginia. (682.8)
2:45 NG2 inhibition decreases endothelial cell sprouting along venules: a novel in situ angiogenesis assay to investigate multicellular interactions. P.C. Stapor, T. Ahsan and W.L. Murfee, Tulane Univ. (682.4)
3:00 The effect of network pattern alterations on microvascular resistance in hypertension. M. Yang and W.L. Murfee, Tulane Univ. (859.1)
3:15 Simulation of metabolic blood flow regulation in heterogeneous microvascular networks: effects of hematocrit variations. B.C. Fry and T.W. Secomb, Univ. of Arizona. (860.8)

68. USING SOCIAL MEDIA TO COMMUNICATE ABOUT PHYSIOLOGY AND YOU

Symposium

(Sponsored by: APS Communications Committee)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: J. HICKS

Career Development

3:00 Dr. Pascale Lane – author of the blog Pascale Lane’s Stream of Thought: Urine is Golden; http://pascalelane.wordpress.com/
3:15 Isis the Scientist – author of the popular blog On Becoming a Domestic and Laboratory Goddess; http://isissthescientist.com/

69. TOOLKIT FOR GENOMIC BIOMARKER DISCOVERY BY PHYSIOLOGISTS

Workshop

SAT. 3:15 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: B. JOE AND L. MILLER

Education

3:15 Methods for large scale quantitative proteomics. J. Hoffert, NHLBI/NIH.
3:35 Bridging large scale systems biology research to physiological signaling pathways. L. Miller, NHLBI/NIH.
4:55 Methods for large scale ChIP sequencing. J. Zhu. NHLBI/NIH.

70. WEH SECTION TRAINEE AWARD FINALISTS SESSION AND DATA DIURESIS

Award

(Supported by an educational grant from Data Sciences, International and Juan Carlos Romero Foundation)

(Sponsored by: APS Water and Electrolyte Homeostasis Section)

SAT. 3:15 PM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: A. EL-MARAKBY

3:15 Renal medullary circadian clock genes are altered in endothelin B deficient rats. J.S. Speed, M.A. Saleh and D.M. Pollock. Georgia Hlth. Sci. Univ. and Mansoura Univ., Egypt. (1069.11)


4:30 Female spontaneously hypertensive rats have higher expression of TGF-β and Smad signaling in mesenteric arteries following the development of hypertension. A.J. Tipton and J.C. Sullivan. Georgia Hlth. Sci. Univ. (880.1)

4:45 Hyper-caloric diet enhances aortic endothelial function via increased NOS3 activity and expression in Dahl S rats. F.T. Spradley, J.B. Musall and J.S. Pollock. Georgia Hlth. Sci. Univ. (878.4)

71. PHYSIOLOGY IN PERSPECTIVE — THE WALTER B. CANNON MEMORIAL AWARD LECTURE

Lecture

(Sponsored by: Sucampo AG)

SAT. 5:30 PM—SAN DIEGO CONVENTION CENTER, 20A

Title: The Wisdom of The Body Revisited: Tribute to Walter B. Cannon and His Concept of Homeostasis as Applied to Pathophysiology of Hypertension

SUNDAY, APRIL 22

Across Societies – Experimental Biology

72. MARC AND PROFESSIONAL DEVELOPMENT PROGRAMS

Workshop

SUN. 8:15 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

Career Development

The Experimental Biology 2012 Career Center activities have been arranged by the FASEB Office of MARC & Professional Development. Access to the Career Center is FREE to all registered EB 2012 meeting attendees.

8:15 Revealing your character through your resume. J. Blumenthal.
8:30 Developing your core message/"elevator pitch". J. Lombardo.
8:30 Making the case for graduate school. H. Adams.
9:00 Lab management. S. Milgram, L. Conlan.
10:00 Transforming your CV. N. Saul.
10:30 Sometimes it’s who you know: winning at networking. J. Blumenthal.
10:30 Compensation negotiation for scientists moving into industry. B. Lindstaedt.
11:00 The academic job search in the life sciences: part 1. A. Green.
11:00 The academic job search in the life sciences: part 2. A. Green.
1:00 Ten tough industrial interview questions; ten good responses. J. Tringali.
1:30 Ten ways to get lucky in the job search. P. Clifford, J. Lombardo.
1:30 How to get a job in science education and outreach. S. Milgram, L. Conlan.
2:30 Managing up. S. Milgram, L. Conlan.
3:00 Achieving your goals: goal setting strategies for scientific and career success. B. Lindstaedt.
3:00 The job talk. A. Green.
4:00 Career decisions: how to select a career path that’s best for you. B. Lindstaedt.
4:00 Navigating graduate work protocol, milestones, requirements. H. Adams.
4:00 How to get a job in science policy. S. Milgram, L. Conlan.
4:15 Making the connection: the relationship between the resume, the interview and the job. J. Blumenthal.

73. NIH K AWARDS

Seminar

SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: H. Khachatryan, NIGMS/NIH

Career Development

NIH Grants Seminar Workshop Series

This presentation will focus on the NIH’s new K99/00 Pathways to Independence Award (for postdoctoral scientists) and the K08 Mentored Clinical Scientist Development Award (for individuals with a health professional doctoral degree committed to a career in laboratory or field-based research.) The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative. EB 2012 registration is required to participate in the seminar.

74. FORMULA FOR GRANT SUCCESS: PART I - SCIENTIFIC PEER REVIEW OF NIH GRANTS

Seminar

SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: A. M. Coelho, Jr., Grant Success Associates Inc.

Career Development

NIH Grants Seminar Workshop Series

Learn what is important to know and understand about a sponsoring agency's peer review process. Learn why this understanding peer review can enhance your chances of being funded. This presentation uses the scientific peer review at NIH as an example of what you need to know about peer review at any funding agency and how to use this information in preparation of your grant applications and competing successfully for funding. EB 2012 registration is required to participate in the seminar.
75. **FORMULA FOR GRANT SUCCESS: PART II - GRANT WRITING FOR SUCCESS**

Seminar

**SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER**

**CHAIR: A. M. COELHO, JR., GRANT SUCCESS ASSOCIATES INC.**

Career Development

**NIH Grants Seminar Workshop Series**

This presentation focuses on the principles of Grant Writing for Success: and the common reasons that grant applications fail or succeed. Learn how to make an application meet the needs of the reviewers and the funding agency. Learn how to avoid the need for resubmission. Learn about sponsored agency resources and how to use them in the preparation of your application. *EB 2012 registration is required to participate in the seminar.*

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### Anatomy

**76. AAA GENERAL SESSION**

**Plenary**

**SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 8**

Henry Gray/Lippincott Williams & Wilkins Scientific Achievement Award Lecture

8:00 76.1 Vascular endothelial cells as a source of multipotent stem-like cells. **B.R. Olsen.** Harvard Sch. of Dent. Med.

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**77. AAA GENERAL SESSION**

**Plenary**

**SUN. 9:00 AM—SAN DIEGO CONVENTION CENTER, 8**

Henry Gray/Elsevier Distinguished Educator Award Lecture

9:00 77.1 Open minds, open opportunities. **R.L. Drake.** Cleveland Clin. Lerner Col. of Med.

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**78. GROSS ANATOMY FOR THE PHYSICIAN ASSISTANT**

**Plenary Symposium**

**SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 8**

**CHAIR: M. HANKIN**

**Education & Teaching**

Henry Gray/Elsevier Distinguished Educator Award Symposium

10:30 Chair's introduction.
10:35 78.1 History of the PA profession: from medical corpsmen to present day practitioners. **J.K. Pagel.** Cleveland Clin.

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**79. VASCULAR ENDOTHELIUM IN HEALTH AND DISEASE**

**Plenary Symposium**

**SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 9**

**CHAIR: B. OLSEN**

**Cardiovascular**

Henry Gray/Lippincott Williams & Wilkins Scientific Achievement Award Symposium

10:30 Chair's introduction.
10:35 79.1 VEGF signaling in health and disease. **L. Iruela-Arispe.** UCLA.
11:00 79.2 Novel mechanisms in vascular permeability. **A. Fantin.** University Col. London.
11:50 79.4 Venous malformations: from causes to pathogenic mechanisms and murine models. **M.S. Vikkula.** Univ. Catholique de Louvain, Belgium.

12:15 Discussion.
80. MORPHOMETRY AND APPLIED ANATOMY

Symposium
(Sponsored by: SBA and AAA)
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: R. HALTI CABRAL

2:30 Chair’s introduction.
2:35 80.1 Peripheral nerve morphometry: from neurosciences to clinical applications. V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.
3:00 80.2 Ultrastructural analysis of experimental tenoplasty using bovine peritoneum. T.S. Masuko. Fed. Univ. of Bahia, Brazil.
4:15 Discussion.

81. GLOBAL POSITIONING SYSTEMS GUIDE NEURONAL MIGRATION AND SYNAPSE FORMATION

Hybrid Symposium
(Supported by an educational grant from Springer)
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: A. STRANAHAN

Neurobiology
2:30 Chair’s introduction.
2:35 81.1 Activation of brain Wnt signaling in vivo: effect on LTP and neurogenesis. N.C. Inestrosa. Catholic Univ. of Chile.
3:10 81.2 Notch1 ablation induces molecular changes in plasticity genes that contribute to memory formation. L. Alberi and N. Gaiano. Univ. of Fribourg, Switzerland and Johns Hopkins Sch. of Med.
3:45 81.3 Reelin signaling in the hippocampus and entorhinal cortex contributes to age-related alterations in cognitive function. A.M. Stranahan. Georgia Hlth. Sci. Univ.
4:00 Switch in amyloid clearance mechanisms leads to vascular fragility in cerebral amyloid angiopathy. M.K. Zabel, M. Schrag, A. Crofton, S. Tung, H.V. Vinters and W.M. Kirsch. Loma Linda Univ. and UCLA. (920.10)
4:15 The death of neurons derived from familial Alzheimer’s disease pluripotent stem cells is no different from the death of neurons derived from normal controls. M.A. Shaner, S.H. Yuan and L.S. Goldstein. UCSD. (918.8)

82. ANATOMICAL EDUCATION FOR ALLIED HEALTH CARE PROFESSIONALS

Symposium
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: A. BURROWS

Education & Teaching
2:30 Chair’s introduction.
2:35 82.1 Incorporating biomechanics into an anatomy program with problem-based learning. M. Habib. Chatham Univ., PA.
3:00 82.2 A view inside from the surface: living anatomy for medical illustration students. G.P. Lees. Johns Hopkins Sch. of Med.
4:15 Discussion.

83. EPIGENETIC PLASTICITY IN HEALTH AND DISEASE

Hybrid Symposium
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: F. DOMANN

2:30 Chair’s introduction.
2:35 83.1 The epigenetic basis of cell type specificity. B. Futscher. Univ. of Arizona.
3:00 83.2 Metabolic regulation of epigenetic processes. F.E. Domann. Univ. of Iowa.
3:55 83.5 Age-dependent expression of retinoic acid-related orphan receptor-alpha in the developing mouse cortex and hippocampus. S. Taniguchi, C. Armoskus and H-W. Tsai. California State Univ., Long Beach.
4:25 Discussion.
84. AAA YOUNG INVESTIGATOR AWARDS SYMPOSIUM

Special Session
SUN. 5:00 PM—SAN DIEGO CONVENTION CENTER, 9

5:00 84.1 Tectonics form a transition zone complex of ciliopathy proteins that regulate ciliary composition. J. Reiter, F. Garcia-Gonzalo, K. Corbit, W. Dowdle and L. Yee. UCSF.

5:30 84.2 Evidence for a limbic cortical HPA-inhibitory network and its role in chronic stress-induced HPA axis hyperactivity. J. Radley. Univ. of Iowa.

6:00 84.3 The cellular and molecular basis for planarian regeneration. P. Reddien. Whitehead Inst., MIT.

6:30 84.4 Knocking E. coli off of their pedestals: understanding the strategies microbes exploit to generate morphological structures during their disease processes. J.A. Guttman. Simon Fraser Univ., Canada.

Biochemistry and Molecular Biology

85. BREKKE FOR NEXT GENS, UNDERGRADUATE BREAKFAST WITH AWARD SCIENTIST, KIM ORTH

Special Session
(Supported by an educational grant from National Science Foundation)
SUN. 7:00 AM—SAN DIEGO CONVENTION CENTER, 11A
Invitation only.

86. AVANTI AWARD IN LIPIDS LECTURE

Award
(Supported by an educational grant from Avanti Polar Lipids, Inc.)
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 6B

8:30 Introductory remarks. W. Dowhan.
8:35 86.1 Lipin/phosphatidic acid phosphatase in lipid metabolism and cell physiology. G.M. Carman. Rutgers Univ.

87. ASBMB PLENARY LECTURE

(Supported by an educational grant from Journal of Biological Chemistry)
SUN. 9:05 AM—SAN DIEGO CONVENTION CENTER, 6B

9:10 87.1 Metabolic specialization of mouse embryonic stem cells. S.L. McKnight. Univ. of Texas Southwestern Med. Ctr.

88. HISTONE MODIFICATIONS AND THEIR RECOGNITION

Symposium
SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F
CHAIR: K. ZARET

9:55 Chair’s introduction.

10:25 Identification and characterization of small molecules that inhibit binding of the third plant homeodomain finger of JARID1A to histone H3. E.K. Wagner, R. Flemming, N. Nath and J. Denu. Univ. of Wisconsin-Madison, Promega Corp. and Wisconsin Insts. for Discovery, Madison. (533.2)


11:05 An intrinsically unstructured domain in MBD2 recruits the histone deacetylase core complex of NuRD and modifies kinetics of DNA binding. D.C. Williams, M. Desai, G.D. Ginder and N.M. Walavalkar. Virginia Commonwealth Univ. (731.5)


12:00 Conclusion.
89. CONSTRUCTING NETWORKS

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E

CHAIR: P. SOPRER

Chair’s introduction.

10:00 89.1 Physical host-pathogen networks. N. Krogan. UCSF.

10:25 Specific O-GlcNAcylated peptide enrichment with improved photocleavable chemical/enzymatic tagging methodology. G. Han, J. Ma, X. Liu and G.W. Hart. Johns Hopkins Sch. of Med. (776.7)


11:05 Identifying drug response signatures using genome-scale metabolic network analysis of human cell line expression data. D. Zielinski, M. Mo and B. Palsson. UCSD. (983.6)

11:20 Comparative analysis of M. pneumoniae models using the cytoSEED plugin for metabolic model visualization. N.L. Hazekamp, J. Kammeraad, B. Bockstege and M. DeJongh. Hope Col., MI and Univ. of Notre Dame. (983.4)

11:35 89.3 New opportunities and challenges in network biology. T. Ideker. UCSD.

12:00 Conclusion.

90. THE RIBOSOME AND EARLY FOLDING DECISIONS

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D

CHAIR: W. CLEMONS

Chair’s introduction.


10:40 90.2 The role of Hsp90-R2TP complex in snorNP assembly and ribosomal RNA processing. W.A. Houy. Univ. of Toronto.


12:00 Conclusion.

91. METABOLOMICS

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C

CHAIR: A. OSBOURN

Chair’s introduction.

10:00 91.1 Extensive in vivo metabolite-protein interactions revealed by large-scale systematic analyses. M. Snyder, X. Li, T. Gianoulis, K. Yip and M. Gerstein. Stanford Univ. and Yale Univ.

10:25 Targeting metabolism in liposarcomas. D. Braas, H. Wu and H. Christofk. UCLA. (551.6)

10:40 91.2 Elucidating the proteolytic regulation of bioactive peptides. A. Saghatelian. Harvard Univ.


11:20 Examining the role of lipoprotein-associated phospholipase A2 in atherosclerosis. T.E. Gilpatrick, J. Tomczak and B.J. Bahnsen. Univ. of Delaware. (561.1)

11:35 91.3 Mechanisms of metabolic diversification in plants. A.E. Osbourn. John Innes Ctr., Norwich, U.K.

12:00 Conclusion.

92. ORGANISMAL METABOLISM

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A

CHAIR: J. RUTTER

Chair’s introduction.


11:35 92.3 Metabolic signals that drive cell growth and proliferation. B. Tu and L. Cai. Univ. of Texas Southwestern Med. Ctr.

12:00 Conclusion.
93. GLYCOCONJUGATES IN PATHOGEN INVASION AND VIRULENCE
Symposium
SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1B
CHAired: A. MENON

9:55 Chair’s introduction.
10:00 93.1 Lectin-mediated defense of the intestinal epithelial surface. L. Hooper, S. Vaishnav and S. Mukherjee. Univ. of Texas Southwestern Med. Ctr.
10:25 Receptor determinants for the avian coronavirus infectious bronchitis virus: roles of host cell lectins and glycans. Y. Zhang and G. Whittaker. Cornell Univ. (606.3)
12:00 Conclusion.

94. MAXIMIZING INSTITUTIONAL EFFECTIVENESS
Symposium
SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1A
CHAired: J. BOND

9:55 Chair’s introduction.
10:00 94.1 Integrating undergraduate research/research training into the curriculum at research-intensive institutions. P.J. Kennelly. Virginia Tech.
10:25 STEP into Science at Medgar Evers College, a successful strategic plan. M.A. Carroll, D. Skeete and E.J. Catapane. Medgar Evers Col., NY. (619.2)
10:40 94.2 Integrating undergraduate research/research training into the curriculum at primarily undergraduate institutions. J.J. Provost. North Dakota State Univ.
11:05 A laboratory course exploring the relationship between structure and function of yeast alcohol dehydrogenase. M.O. Huff and B.V. Plapp. Bellarmine Univ., KY and Univ. of Iowa. (619.4)
11:20 94.3 Integrating undergraduate research/research training into the curriculum at a minority-serving institution. C. Andraos-Selim. Hampton Univ.
11:45 Conclusion.

95. ALICE AND C.C. WANG AWARD IN MOLECULAR PARASITOLOGY SYMPOSIUM
Award
SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, 6C

12:35 95.1 The RNA interference pathway from a trypanosome point of view. E. Ullu. Yale Univ. Sch. of Med.
1:05 95.2 The mechanism and machinery of spliced leader RNA silencing, a stress-induced mechanism leading to programmed cell death in Trypanosoma brucei. S. Michaeli. Bar Ilan Univ., Israel.
1:35 95.3 The intracellular parasite Toxoplasma injects polymorphic protein into the host cell that subvert host defenses including recruitment of host mitochondria and membrane attack by p47 GTPases. L. Pernas, J.P. Boyle, M.A. Fieckenstein, M.L. Reese, S. Konen-Waisman, J.C. Howard, T. Steinfeldt and J.C. Boothroyd. Stanford Univ., Univ. of Pittsburgh and Univ. of Cologne.
2:05 Conclusion.

96. ASBMB AWARD FOR EXEMPLARY CONTRIBUTIONS TO EDUCATION LECTURE
Award
(Sponsored by: ASBMB Education and Professional Development Committee)
SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, 6B

12:45 96.1 Content in the educational era of process. J.G. Voet and D. Voet. Swarthmore Col. and Univ. of Pennsylvania.

98. WORKSHOP ON LIPID MAPS LIPIDOMICS TOOLS
(Supported by an educational grant from LIPID MAPS)
SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, 11A
CHAired: E. FAHY

Workshop will highlight the diversity and unique structural and biochemical challenges of the lipidome, and provide users with a suite of convenient online tools for information retrieval and lipidomic data analysis. A brief overview, live demonstration and Q&A session of the online resources available on the LIPID MAPS website, including searchable lipid and gene/protein databases, structure drawing tools, mass-spectrometry prediction programs, lipid-related pathways, experimental protocols and consortium generated datasets will be presented. Workshop should be of interest to lipidomics researchers and bioinformaticists.

Lunch will be provided for the first 35 attendees.
SUNDAY

99. TEACHING SESSION WITH STUART KORNFELD: MODELING THE MOLECULAR MACHINERY OF THE PROTEIN TRAFFICKING PATHWAY

Special Session

Sun. 1:30 PM—San Diego Convention Center, 6B

Meet Dr. Kornfeld and other researchers who have contributed to the field of protein trafficking. Physical models of key proteins will be used to frame the conversations about the recent discovery of essential features of the trafficking pathway.

100. ASBMB-MERCK AWARD LECTURE (2011)

Award

(Supported by an educational grant from Merck)

Sun. 2:55 PM—San Diego Convention Center, 6B

3:00 100.1 The spliceosome is a dynamic RNP machine. C. Guthrie. UCSF.

101. THE SPLICEOSOME: FITTING THE PIECES TOGETHER

Symposium

Sun. 3:45 PM—San Diego Convention Center, 6F

Chaired: A. M. Pyle

3:45 Chair’s introduction.
4:15 A role for stem-loop 4 of U1 snRNA in splice site pairing. S. Sharma, S. Wongpalee and D. Black. HHMI and UCLA. (743.2)
4:30 101.2 Views of the dynamic human spliceosome. M.S. Jurica. Univ. of California, Santa Cruz.
4:55 Computational prediction of alternative splice site selection. A. Busch and K.J. Hertel. Univ. of California, Irvine. (748.2)
5:25 101.3 Co-transcriptional splicing and dynamic rearrangements in the spliceosome. T.L. Johnson, S. Pradhan, E.C. Merkhofer and E. Soule. UCSD.
5:50 Conclusion.

102. MECHANISM AND REGULATION OF DNA REPAIR

Symposium

Sun. 3:45 PM—San Diego Convention Center, 6E

Chaired: P. Sung

3:45 Chair’s introduction.
4:30 102.2 Structure and functions of the fission yeast Swi5-Sfr1 complex, an activator of Rad51 presynaptic filaments. H. Iwasaki. Tokyo Inst. of Technol.
4:55 FANCA has intrinsic affinity to nucleic acids with preference for single-stranded forms. F. Yuan, L. Qian, X. Zhao, J.Y. Liu, L. Song, G. D’Urso, C. Jain and Y. Zhang. Univ. of Miami Miller Sch. of Med. (539.15)
5:10 Structural basis for excision of deaminated and oxidized 5-methylcytosine by thymine DNA glycosylase. A. Maiti, E. Pozharski and A.C. Drohat. Sch. of med. and Sch. of Pharm., Univ. of Maryland Baltimore. (539.10)
5:50 Conclusion.

103. MITOCHONDRIAL DYNAMICS

Symposium

Sun. 3:45 PM—San Diego Convention Center, 6D

Chaired: G. Voeltz

3:45 Chair’s introduction.
3:50 103.1 The behavior of mitochondria. J. Nunnari. Univ. of California, Davis.
4:15 Cardiac-specific deletion of prohibitin-2 in adult mice destabilizes mitochondrial proteins, nucleoids, and cristae morphology, resulting in lethal cardiomyopathy. T. Gawlowski, J. Yan, C. Merkwirth, W. Dillmann, T. Langer and M. Hoshijima. UCSD and Univ. of Cologne, Germany. (585.5)
4:30 103.2 Dynamics of mitochondria and mitochondrial DNA. D. Chan, H. Ngo and H. Chen. HHMI and Caltech.
5:10 Cardiac mitochondrial phenotype of the tazshRNA mouse model of human Barth syndrome. C.H. Le, A.B. deMooij and A.J. Chicco. Colorado State Univ. (586.3)
5:50 Conclusion.
104. LIPOID DROPLETS: A DYNAMIC SUBCELLULAR COMPARTMENT

Symposium
SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6A
CHAIR: D. MUOIO

3:45 Chair's introduction.
4:15 Characterization of lipid droplet and its regulation by caveolin-1 in endothelial cells. A. Kuo, X. Zhang, K.D. Harrison and W.C. Sessa, Yale Univ. (597.1)
4:30 104.2 The cell biology of neutral lipid synthesis and storage. T. Walther, Yale Univ. Sch. of Med.
5:10 Live cell imaging of lipid droplet breakdown and growth in adipocytes. H. Wolinski, M. Paar, C. Jüngst, N.A. Steiner, D. Kolb, A. Lass, R. Zimmermann, A. Zumbusch and S.D. Kohlwein, Univ. of Graz, Austria, Univ. of Konstanz, Germany and Med. Univ. of Graz. (597.5)
5:25 104.3 Control of lipolysis by perilipins. D.L. Brasaemle, Rutgers Univ.
5:50 Conclusion.

105. WILL COMBINED MD-PHD TRAINING MAKE ME TWICE AS SUCCESSFUL?

Symposium
(Sponsored by: ASBMB Minority Affairs Committee)
SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1B
CHAIR: F. TALAMANTES

3:45 Chair's introduction.
3:50 105.1 Contrasting the application process and daily life of MD, MD/PhD, and PhD career tracks. A. Gutierrez-Hartmann, Univ. of Colorado Anschutz Med. Campus.
4:25 105.2 When one plus one equals 10: unique rewards and daunting challenges of being an MD-PhD clinician-scientist. S.I. Hsu, Col. of Med., Univ. of Florida.
4:55 105.3 Lifestyles of physicians and scientists: balancing careers and family. R.G. Lorenz, Univ. of Alabama at Birmingham.
5:25 Panel discussion.
5:50 Conclusion.

106. MAXIMIZING TEACHING EFFECTIVENESS

Symposium
(Sponsored by: ASBMB Education and Professional Development Committee)
SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: E. MARTIN

3:45 Chair’s introduction.
4:15 The effectiveness of images in the development of conceptual understanding in undergraduate biochemistry classes: what do we know? R. Milner, Univ. of Alberta. (616.1)
4:30 106.2 Effective teaching and mentoring while publishing and (hopefully) having a life. D.D. Wykoff, Villanova Univ.
4:55 Probing and improving students’ understanding of protein alpha helix structure using targeted assessment and classroom interventions. J. Loertscher, V. Minderhout, J.E. Lewis and S.M. Villafane, Seattle Univ. and Univ. of South Florida. (616.2)
5:10 Monkeys, beach balls, and Twinkies® using analogies to teach enzyme kinetics. E.A. First, LSU Hlth. Sci. Ctr., Shreveport. (616.3)
5:25 106.3 The UAN: maximizing its utility to promote science education and outreach. N. Grover and M.A. Benore, Colorado Col. and Univ. of Michigan-Dearborn.
5:50 Conclusion.

107. ASBMB BUSINESS MEETING

SUN. 6:15 PM—SAN DIEGO CONVENTION CENTER, 11A

Find out what your Society is up to by attending the Business Meeting. The leadership wants to hear your ideas and receive feedback from members on how we’re doing. ASBMB Council members will be on-hand to discuss issues and answer questions. Come and introduce yourself - this is a great networking opportunity!

108. WELCOME RECEPTION SPONSORED BY THE ASBMB MINORITY AFFAIRS COMMITTEE

Special Event
SUN. 6:30 PM—SAN DIEGO MARriott MARQUIS & MARINA, MARINA BALLROOM D

The ASBMB Minority Affairs Committee welcomes PI's, industry professionals, educators, young professionals and students to enjoy this networking and mentoring reception.

Graduate Minority Travel Award recipient research posters will be displayed at this event.

ASBMB members and Biochemistry attendess welcome.
Nutrition

109. THE ROLE OF DIETARY COMPONENTS IN LEPTIN RESISTANCE

Symposium
(Supported by an educational grant from Research Diets Inc.)
(Sponsored by: Nutritional Sciences Council, Obesity RIS, Energy and Macronutrient Metabolism RIS, Nutrient-Gene Interaction RIS and Nutrition Translation RIS)
Sun. 8:00 AM—San Diego Convention Center, 20D
Chaired: J.R. Vaselli

8:00 Role of fructose and over-nutrition in leptin resistance. P. J. Scarpace. Univ. of Florida.
9:30 Nutrient influences and mechanisms in leptin resistance. W. A. Banks. VA GRECC and Univ. of Washington.

110. SUSTAINABILITY IN THE 21ST CENTURY—FOOD, NUTRITION, AGRICULTURE, ECONOMICS AND THE ENVIRONMENT

Symposium
(Supported by an educational grant from National Dairy Council)
(Sponsored by: Public Information Committee)
Sun. 8:00 AM—San Diego Convention Center, 31A/B/C
Chaired: N. Auestad
Cochaired: J.M. Gazzaniga-Moloo

8:30 Life cycle analysis—from farm to table. O. Jolliet. Univ. of Michigan.
9:00 Agricultural capacity and localized food production to meet nutritional needs of a population. C. Peters. Tufts Univ.

111. UTILIZING A MULTILEVEL TEAM APPROACH: LESSONS LEARNED FROM THE VITAMIN D DRIFT-SETTING ACTIVITY

Symposium
(Sponsored by: Nutritional Sciences Council)
(Cosponsored by: Medical Nutrition Council)
Sun. 8:00 AM—San Diego Convention Center, 29A/B
Chaired: N.E. Moran
Cochaired: V.V. Potter

Education
Public Policy

8:00 Dietary Reference Intakes for vitamin D: justification for a review of the 1997 values. P. Coates. ODS/NIH.
8:24 The role of the basic, laboratory scientist in multi-level teams to investigate vitamin D markers of inadequacy. C. Ross. Penn State.
8:48 The role of translational researchers in multi-level teams in investigating cancer risk as a marker of vitamin D inadequacy. S. Clinton. The Ohio State Univ.
9:12 The role of translational researchers in multi-level teams investigating bone health as a marker of vitamin D inadequacy. S. Shapses. Rutgers Univ.
9:36 Summary and segue to panel discussion.

112. MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS I

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
Sun. 8:00 AM—San Diego Convention Center, 32B
Chaired: M. Dubick
Cochaired: S. Talcott and Student Chair: L. Fishcer

8:00 112.1 Molecular targets for botanical compounds genistein and kaempferol to prevent diabetes. D. Liu, Z. Fu and Y. Zhang. Virginia Tech.
8:45 112.4 Viscous dietary fibers added to a high fat diet decrease adiposity, improve glucose control and alter fuel utilization in obese rats. D.A. Brockman, X. Chen and D.D. Gallaher. Univ. of Minnesota, St. Paul.
113. REDEFINE OBESITY—BODY WEIGHT VERSUS ADIPOSIDY

Minisymposium

(Sponsored by: Obesity RIS)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32A

CHAIR: D. HEBER

COCHAIR: F. GREENWAY

8:00 Overview.


8:30 113.2 Sarcopenic obesity among young adult Asian-American women: results from a serial-cross sectional study of multi-ethnic college aged adults in Southern California. C.L. Carpenter, E. Yan, S. Chen, K. Hong, M.L. Deng, Z. Li and D. Heber. David Geffen Sch. of Med. at UCLA.


9:30 Summary.

114. MICRONUTRIENT INTERVENTIONS

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: H.H. SANDSTEAD

8:00 114.1 Zinc, IGF-1, and food intervention in malnourished pregnant women on children body height after 6 years in Indonesia. N.A. Daud. Hasanuddin Univ., Indonesia.


9:00 114.5 Improvements in perceptual and cognitive performance linked to baseline iron status and consumption of a double-fortified salt. M.J. Wenger, L. Murray-Kolb, J. Hammons, S. Venkatramanan and J.D. Haas. Univ. of Oklahoma, Penn State, Cornell Univ. and Sch. of Dietetics and Human Nutr., McGill Univ.

9:15 114.6 Effect of iodine-iron interactions on iodine status in double-fortified salt intervention with female Indian tea pluckers. J. Hammons, S. Venkatramanan and J.D. Haas. Cornell Univ. and Sch. of Dietetics and Human Nutr., McGill Univ.


Please Silence Your Cell Phones during Sessions
115. IMMUNE MODULATING NUTRACEUTICALS AND FUNCTIONAL FOODS

Minisymposium

(Sponsored by: Nutritional Immunology RIS)

**SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30C**

**CHAIRIED:** S.R. SHAIKH

**COCHAIRIED:** D. WU

8:00 **115.1** The effect of milk components on the immune response to a pneumonia vaccine: a randomized placebo-controlled clinical trial. L.K. Fischer, J.B. German and M.E. Gershwin. Univ. of California, Davis.

8:15 **115.2** Effects of edible mushrooms on plasma levels of anti-bovine collagen II IgG antibodies in DBA1 mice with collagen-induced arthritis. S. Kuvibidila. LSU Hlth. Sci. Ctr., New Orleans and Oklahoma State Univ.

8:30 **115.3** Dietary supplementation of *Lessertia frutescens* (Sutherlandia) enhanced host defense against *Listeria monocytogenes* in BALB/c mice. C.-H. Lu, W. Lei, J.D. Browning, Jr., P.A. Eichen and K.L. Fritsche. Univ. of Missouri-Columbia.


9:00 **115.5** Age modulates effect of fish oil on the immune response in an ovalbumin asthmatic murine model. A. Histed, S. Lee, X. Du, D. Wu and S.N. Meydani. USDA at Tufts Univ.


9:30 **115.7** Cranberry bioactives augment the activation status of THP-1 monocytes/macrophages. R.A. Creasy, C. Khoo and S.S. Percival. Univ. of Florida and Ocean Spray Cranberries Inc., Lakeville, MA.

9:45 **Summary.**

116. EPIGENETICS AND NUTRITION

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

**SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30B**

**CHAIRIED:** J. ZEMPLENI

**COCHAIRIED:** S. ROSS


8:30 **116.3** Folate modulates adipocyte promoter methylation and lipid filling and release. J.S. Gouffon, M. Johnstone and M.B. Zemel. Univ. of Tennessee, Knoxville.

8:45 **116.4** Holocarboxylase synthetase interacts physically with nuclear corepressors and histone deacetylases to mediate gene repression. D. Liu and J. Zempleni. Univ. of Nebraska-Lincoln.

9:00 **116.5** Biotinylated of K16 in histone H4 causes chromatin condensation. M.P. Singh and J. Zempleni. Univ. of Nebraska-Lincoln.

9:15 **116.6** Genistein represses invasion in an in vitro colon cancer metastasis model by transcriptionally upregulating metastasis repressor NDRG1. Q. Li and H. Chen. Univ. of Illinois at Urbana-Champaign.


117. RISK FACTOR MODIFICATION IN CHRONIC DISEASE II

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

**SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30A**

**CHAIRIED:** C. TANGNEY

**COCHAIRIED:** C. BALE

8:00 **Overview.**

8:15 **117.1** Effects of whole walnuts and walnut components on postprandial triglyceride response, plasma measures of antioxidant activity, and endothelial function in overweight and obese adults. C.E. Berryman, S.G. West, J.A. Grieger, J.B. Blumberg and P.M. Kris-Etherton. Penn State and USDA at Tufts Univ.

8:30 **117.2** Phase II randomized trial of walnut supplementation and subsequent influence on male reproductive health. C.L. Carpenter, S.M. Henning, M. Seltzer, E. Peterson, L. Xin and W.A. Robbins. David Geffen Sch. of Med. at UCLA and UCLA Sch. of Nursing.

8:45 **117.3** Effect of pulses as part of a low glycemic index diet compared to a high fiber diet on HbA1c and blood lipids in type 2 diabetes. C.W.C. Kendall, L.S. Augustin, S. Mitchell, S. Sahye-Pudaruth, J. Coveney, A. Cerovic, S. Blanco and D.J.A. Jenkins. Univ. of Toronto and St. Michael's Hosp.


9:30 **117.6** Dietary flavanols maintain endothelial homeostasis. C. Heiss. Univ. Duesseldorf.

9:45 **Summary.**
118. WHAT SHOULD I EAT? NUTRITIONAL EFFECTS OF FOODS

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29D

CHAIR: W. Song

COCHAIR: S. Jasti

8:00  118.1 Effects of rice consumption on selected indicators of nutritional status. E.T. Kennedy and H. Luo. Tufts Univ. Friedman Sch. of Nutr. Sci and Policy.


8:45  118.4 Nutrient intakes and weight status of adult Canadian breakfast consumers versus non-consumers, and of those consuming breakfasts with versus without ready-to-eat cereal. S.I. Barr, L. DiFrancesco and V.L. Fulgoni III. Univ. of British Columbia, Source! Nutr., Toronto and Nutr. Impact LLC, Battle Creek, MI.


9:30  118.7 Inflammation in postpartum women is inversely related to transferrin saturation, but is not correlated with ferritin or hepcidin. J.M. Jorgensen, Z. Yang, B. Lönnerdal, C.J. Chantry, L.H. Allen and K.G. Dewey. Univ. of California, Davis, Natl. Inst. of Nutr. and Food Safety, China CDC, Beijing, Univ. of California Davis Med. Ctr., Sacramento and USDA, Davis.

9:45  118.8 Dietary behaviors and acculturation in South Asian college students. S. Jasti and A. Sachmeci. Queens Col. CUNY.

119. LONGITUDINAL AND CROSS-SECTIONAL ANALYSIS OF ASSOCIATIONS BETWEEN DIET AND HEALTH OUTCOMES

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29C

CHAIR: A.E. Millen

COCHAIR: L.M. Troy

8:00  119.1 Healthy Mediterranean-like dietary pattern predicts reduced risk of acute myocardial infarction in women: the Epic-France (E3N) prospective cohort study. N. Ahluwalia, L. Tondeur, M-C. Boutron and F. Clavel-Chapelon. Fac. of Med., Univ. of Paris 13, INSERM U557, Bobigny and INSERM U1018, Villejuif.


SUNDAY NUTRITION

120. PRESIDENTIAL SYMPOSIUM AND 2011 DANONE INTERNATIONAL PRIZE FOR NUTRITION: NUTRITION AND THE HUMAN GUT MICROBIOME: SEEKING A GLOBAL PERSPECTIVE

Special Session
(Supported by an educational grant from Danone Institute International)
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: S.M. DONOVAN
COCHAIR: J.I. GORDON

Career Development
11:00 Nursing the infant gut microbiota: an evolutionary link between milk glycans and infant born bifidobacteria. D. Mills. Univ. of California, Davis.
12:00 Efforts of the Bill and Melinda Gates Foundation. A. Serazin. Bill and Melinda Gates Foundation.

121. FRUCTOSE, SUCROSE AND HIGH FRUCTOSE CORN SYRUP: RELEVANT SCIENTIFIC FINDINGS AND HEALTH IMPLICATIONS

Symposium
(Supported by an educational grant from Corn Refiners Association)
(Sponsored by: Medical Nutrition Council (MNC)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: P. KRIS-ETHERTON

3:00 Opening comments. P. M. Kris-Etherton. Penn State.
3:05 The biochemistry and metabolism of fructose, sucrose and high fructose corn syrup and other nutritive sweeteners and other implications for the food industry. J. S. White. White Tech. Res.
3:45 The metabolic consequences of fructose: it's alcohol without the buzz? R. Lustig. UCSF.
4:25 What do government agencies consider in the debate over added sugars? D. M. Klurfeld. USDA, Beltsville.
4:45 Discussion.

122. FOOD INSECURITY AND HEALTH ACROSS THE LIFESPAN

Symposium
(Sponsored by: Medical Nutrition Council)
(Cosponsored by: Aging and Chronic Disease RIS and Community and Public Health RIS)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: M.A. JOHNSON
COCHAIR: J.S. LESS

Public Policy
3:00 Food insecurity across the life span is an ongoing national concern. C. Gunderson. Univ. of Illinois.
3:48 Food insecurity and chronic diseases: risks and management problems. B. Laraia. UCSF.
4:12 Food insecurity and health care costs: research strategies using local, state, and federal data sources for older adults. J. S. Lee. Univ. of Georgia.
4:36 National initiatives to alleviate hunger in older Americans. B. Hofland. AARP Fndn.

123. ZINC NUTRITION: FROM DISCOVERY TO GLOBAL HEALTH IMPACT

Symposium
(Supported by an educational grant from The Micronutrient Initiative and Albion)
(Sponsored by: History of Nutrition Committee)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: H.H. SANDSTEAD
COCHAIR: A.S. PRASAD

Education
Career Development
4:00 Progress in assessing dietary zinc as an indicator of population zinc status. R. S. Gibson. Univ. of Otago, New Zealand.
124. BIOAVAILABILITY, METABOLISM AND BIOMARKERS OF DIETARY BIOACTIVE COMPONENTS

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: T.C. WALLACE
COCHAIR: J. BOMSER AND STUDENT CHAIR: B.A. WILSON

3:00 124.1 The fetal programming of dietary fructose and saturated fat on hepatic quercetin glucuronidation in rats. C-Y.O. Chen, N. Bryant, J. Blumberg and A. Serra. USDA at Tufts Univ. and Univ. de Lleida, Spain.
3:15 124.2 Phenolic acid concentrations in plasma and urine from men consuming green or black tea and their chemopreventive properties for colon cancer. S.M. Henning, R. Wang, R. Vicinanza, N. Abgaryan, D. Moura de Oliveira, Y. Zhang, R-P. Lee, C.L. Carpenter, W. Aronson and D. Heber. UCLA.
3:30 124.3 Quercetin bioavailability and biotransformation are inversely related to vitamin C status in college-aged adults. Y. Guo, E. Mah, T. Jalili and R.S. Bruno. Univ. of Connecticut and Univ. of Utah.
4:45 124.8 Determination of cranberry proanthocyanidin A2 in human plasma and urine using LC-MS/MS. C.A. Zampariello, D.L. McKay, G. Dolnikowski, J. Blumberg and C-Y.O. Chen. USDA at Tufts Univ.

125. OBESITY, INFLAMMATION AND CHRONIC DISEASE MODULATION BY DIETARY PHYTONUTRIENTS

Minisymposium
(Sponsored by: Obesity RIS)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: C. DAVIS
COCHAIR: N. MATUSHESKI

3:30 125.3 Decrease of postprandial endothelial dysfunction by spice mix added to high fat meat patty in men with type 2 diabetes mellitus. Z. Li, S.M. Henning, Y. Zhang, A. Zerlin, G. Thames, C-H. Tseng and D. Heber. UCLA.
3:45 125.4 Curcumin suppresses NOD1-mediated chemotactic genes expression in 3T3-L1 adipocytes. P. Hu and L. Zhao. Univ. of Tennessee, Knoxville.
4:00 125.5 Flaxseed lignan supplementation improves markers of obesity in C57BL6 mice. N.A. Ford and S.D. Hursting. Univ. of Texas at Austin and M.D. Anderson Cancer Ctr., Smithville.
4:45 125.8 Cinnamon polyphenols regulate high-fructose feeding and age-induced decreases in sirtuins in rat intestinal enterocytes. B. Qin, M.M. Polansky and R.A. Anderson. USDA, Beltsville, MD and Integrity Nutraceutical Intl., Spring Hill, TN.

126. B VITAMINS AND ONE-CARBON METABOLISM

Minisymposium
(Sponsored by: Vitamins and Minerals RIS)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: J. MILLER
COCHAIR: K.L. SCHALINSKE

3:00 126.1 The reaction of HOCl and cyanocobalamin: corrin destruction and the liberation of cyanogen chloride. D. Maitra, J. Byun, C.E.A. Souza, J. Banerjee, P.R. Andreana, S. Pennathur and H.M. Abu-Soud. Wayne State Univ. and Univ. of Michigan.
127. NUTRITIONAL IMMUNOLOGY

Minisymposium
(Sponsored by: Nutritional Immunology RIS)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30C

CHAIR: P.A. SHERIDAN

COCHAIR: B. LANGKAMP-HENKEN

3:00 127.1 Decreased response of influenza specific CD8+ T cells from overweight and obese humans. H. Paich, P.A. Sheridan and M. Beck. Univ. of North Carolina at Chapel Hill.

3:15 127.2 Age and nutritional status influence peripheral immune cell phenotypes in healthy men in rural Pakistan. I. Alam and G. Pawelec. Univ. of Tübingen, Germany.


4:00 127.5 Regulatory T cells: a mechanism for impaired immunity to influenza infection in obese mice? J.J. Milner, H.A. Paich, P.A. Sheridan and M.A. Beck. Univ. of North Carolina at Chapel Hill.


128. MATERNAL PROGRAMMING OF GENE EXPRESSION

Minisymposium
(Sponsored by: Nutrient-Gene Interaction RIS)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30B

CHAIR: E. UTHUS

COCHAIR: C. ANDERSON


3:30 128.3 Low dietary protein intake during pregnancy differentially affects mitochondrial copy number in vascular cells from subcutaneous versus visceral adipose tissue in the offspring. T. Johnson, E.O. Uthus and K.J. Claycombe. USDA, Grand Forks.


4:45 Summary.
130. BREASTFEEDING, EARLY CHILD FEEDING, DIET AND GROWTH TRENDS

Minisymposium

(Sponsored by: International Nutrition Council (INC)

Sun. 3:00 PM—San Diego Convention Center, 29D

Chair: K. Peterson

Co-Chair: M. Young

3:00 130.1 Concordance with the WHO guidelines for early child feeding through the first six months of life in a sample of infants of the Guatemalan highlands. I. van Beusekom, M. Vossenaar, G. Montenegro-Bethancourt, C.M. Doak and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.


4:00 130.5 Targeted messages delivered by nurses and radio improved infant and young child feeding in Mexico. E.C. Monterrosa, E.A. Frongillo, T. Gonzalez-Cossio, A. Bonvecchio, M.A. Villanueva, J. Thrasher and J.A. Rivera. Univ. of South Carolina and Natl. Inst. of Publ. Hlth., Cuernavaca.


131. INNOVATIVE TOOLS FOR ASSESSMENT OF DIET, PHYSICAL ACTIVITY, AND RELATED BEHAVIORS

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

Sun. 3:00 PM—San Diego Convention Center, 29C

Chair: C. Boushey


3:30 131.3 Dermal carotenoids as measured by resonance Raman spectroscopy as a biomarker of response to a fruit/vegetable intervention study. L. Jahns, L. Whigham, L. Johnson, S. Mayne, B. Carter, I. Ermakov and W. Gellerman. USDA, Grand Forks, Yale Sch. of Publ. Hlth. and Univ. of Utah.


4:00 131.5 Comparison of cooperation between image capture and digital recording of evening meals among adults. T.E. Schap, M.M. Franks and C.J. Boushey. Purdue Univ. and Univ. of Hawaii Ctr.

4:15 131.6 Feasibility of accelerometers for measuring children’s daily physical activity. S.E. Schaefer, M. Van Loan, L.H. Allen and J.B. German. Univ. of California, Davis and USDA, Davis.


4:45 Summary.
Pathology

132. CAREER DEVELOPMENT WORKSHOP AND BREAKFAST: GETTING YOUR DREAM JOB: PREPARING YOUR CV AND MANAGING YOUR INTERVIEW

Workshop

(Supported by an educational grant from Intersociety Council for Pathology Information)

(Sponsored by: ASIP Committee for Career Development, Women and Minorities and the FASEB Minority Access to Research Careers (MARC Office)

Sun. 7:00 am—San Diego Marriott Marquis & Marina, Laguna

Chair: R. Barrios and T. Sander

Career Development

Need to prepare or improve your CV/Resume? Job interview coming up?

Regardless of the career that you choose, preparing your CV/Resume and interviewing well is a necessary skill. Your CV/resume and interview should accurately reflect your achievements, accomplishments, and provide a great first impression of YOU. For practical advice on improving your CV/Resume and Interviewing Skills, you are invited to attend “Getting Your Dream Job: Preparing Your CV/Resume and Managing Your Interview”. This program offers a unique opportunity for trainees and scientists at all levels. You will leave this session with tools that will help you format your CV for academia and write a resume for industry. You will also gain valuable strategies when interviewing for both academic and industry positions. Please join us for an entertaining learning experience that will enhance various aspects of your professional development.

7:00 Welcome breakfast and opening remarks. R. Barrios. The Methodist Hosp. Syst.


7:35 How to write a resume for industry. E. Galbreath. Amgen Labs.

8:00 Managing your interview: part I: the academic job interview. L. M. McManus, M. E. Sobel, C. C. Yates. Univ. of Texas Hlth. Sci. Ctr. at San Antonio, ASIP, Univ. of Pittsburgh Sch. of Med.


133. COMPUTATIONAL PHENOMICS: THE POTENTIAL OF HIGH-THROUGHPUT, WHOLE-ANIMAL IMAGE ANALYSIS FOR ELUCIDATING GENE FUNCTION AND CHEMICAL TOXICITY

Symposium

Sun. 8:30 am—San Diego Convention Center, 17A

Chair: K. C. Cheng and A. Madabhushi

Imaging

8:30 The potential role of high-throughput synchrotron microCT imaging of zebrafish in computational phenomics. K. C. Cheng. Penn State Hershey Coll. of Med.

9:00 Tol2 transposon-based gene trap mutagenesis and high-throughput capillary-based imaging for the zebrafish phenome project. S. C. Ekker. Mayo Clin.

9:30 Fish and chips: high-throughput imaging for the zebrafish phenome project. M. F. Yanik. MIT.

10:15 Roles of multimodal registration and correlative analysis in phenomics. A. Madabhushi. Rutgers Univ.


134. MOLECULAR AND CELLULAR BASIS OF DISEASE: LIVER PATHOBIOLOGY, SESSION 1: LIVER DEVELOPMENT, STEM CELLS AND REGENERATION

Symposium

(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

Sun. 8:30 am—San Diego Convention Center, 16A

Liver Pathobiology


9:30 microRNAs as drivers of liver regeneration. H. Willenbring. UCSF.

10:00 Initiation and termination pathways of liver regeneration. G. K. Michalopoulos. Univ. of Pittsburgh Med. Sch.


11:00 134.1 Wntβ1-catenin pathway is activated by thyroid hormone and is required for its hepatomitogenic activity. M. Fanti, A. Perra, M. Pibiri, M. Schwartz, S.P. Monga, G.M. Ledda-Columbano and A. Columbano. Univ. of Cagliari, Italy, Univ. of Tuebingen, Germany and Univ. of Pittsburgh.

135. REGULATION OF EPITHELIAL JUNCTIONS IN DEVELOPMENT AND DISEASES

Symposium
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16B
CHAIR: A. IVANOV AND A. NUSRAT

Epithelial Pathobiology

8:30 Regulation and signaling of the cadherin/catenin adhesion system. C. Gottardi. Northwestern Univ. Feinberg Sch. of Med.
9:15 Catenins of the p120-subfamily at junctions and in the nucleus. P. D. McCrea. Univ. of Texas MD Anderson Cancer Ctr.
10:00 Unraveling relationships between intercellular junction proteins and epithelial homeostasis. A. Nusrat. Emory Univ.

136. INFLAMMATION AND IMMUNOPATHOLOGY

Minisymposium
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17B
CHAIR: J. HOMEISTER
COCHAIR: B. McCormick

Inflammation

8:45 136.2 α(1,3)-Fucosylation alters STAT3-dependent IL-17 production in vivo. L.C. Mackey, J.M. Rose and J.W. Homeister. Univ. of North Carolina at Chapel Hill.

11:15 136.12 Cell surface localization and shedding of the candidate tumor suppressor ligand Ecrg4 after neutrophil activation and polarization. N. Lopez, X. Dang, M. Krzyzaniak, B. Eliceiri, R. Coimbra and A. Baird. UCSD.

137. MECHANISMS OF CARDIAC PATHOBIOLOGY

Minisymposium
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 15B
CHAIR: L.M. BUJA
COCHAIR: M.S. WILLIS

Cardiac Pathobiology

8:45 137.2 Enhanced aldosterone synthesis and insufficient activation of cyp2c9-EET pathway in the brain play a pivotal role in salt-induced sympathetic activation in mice with pressure overload. K. Ito, Y. Hirooka and K. Sunagawa. Kyushu Univ., Japan.
9:00 137.3 Central sympathetic inhibition improves left ventricular function and survival during the transition from hypertrophy to heart failure in Dahl salt-sensitive rats. N. Honda, Y. Hirooka, R. Matsukawa, K. Itou and K. Sunagawa. Kyushu Univ. Grad. Sch. of Med. Sci., Japan.

9:45 137.6 Muscle RING finger-1 inhibits thyroid hormone-dependent cardiac hypertrophy. K.M. Wadasky, M. Zungu, M. Portman and M.S. Willis. Univ. of North Carolina at Chapel Hill, Univ. of Washington and Seattle Children’s Hosp.

10:00 137.7 STIM1 silencing prevents pressure-overload induced cardiac hypertrophy in mice. L.O. Benard, D. Jeong, D.S. Matasic, E. Kohlbrenner, R.J. Hajar and J-S. Hulot. Mount Sinai Sch. of Med.


10:45 137.10 Adiponectin deficiency accentuates high fat diet-induced cardiac hypertrophy and contractile dysfunction through regulation of autophagy. R. Guo and J. Ren. Univ. of Wyoming Sch. of Pharm.


138. 12TH ANNUAL CAREER DEVELOPMENT PROGRAM AND LUNCH: FUNDAMENTAL BASICS FOR SUCCESS: HOW TO WRITE AWARD-WINNING GRANTS

Special Session
(Sponsored by: ASIP Committee for Career Development, Women & Minorities, American Association of Anatomists and the FASEB Minority Access to Research Careers)

Sun. 11:45 AM—San Diego Marriott Marquis & Marina, Presidio 1
CHAIR: T.A. Reaves and J.S. Reuben

Career Development

Have a great idea but can’t seem to find a way to bring it to life? Most grant workshops focus on the mechanics of grant writing but for practical advice on translating your scientific brainstorms into fundable research plans, you are invited to attend “Fundamental Basics for Success: How to write award winning grants”. This program offers an opportunity for trainees and scientists at all levels to improve their written communication skills. Whether you are applying for funding from NIH, NSF or private agencies, you will leave this session with tools and strategies that will assist you with your grantsmanship and career development. Come prepared for an informative learning session that will help you jump-start your research enterprise!

Pre-registration is required for this session. A limited number of tickets will be available for purchase in the ASIP Office (San Diego Convention Center, Room 18) on Saturday, April 21 from 3:00pm - 5:00pm and on Sunday, April 22 immediately preceding the luncheon.

11:45 Lunch is served.
12:00 Introduction and announcements. T. A. Reaves. Med. Univ. of South Carolina.
12:05 Developing ideas into fundable research grant proposals. M. S. Willis. Univ. of North Carolina at Chapel Hill.
1:05 Grants that get scored...and funded. C. A. Parkos. Emory Univ.
1:35 Questions and wrap-up. J. S. Reuben. Univ. of South Carolina Sch. of Med.-Greenville.

139. MOLECULAR AND CELLULAR BASIS OF DISEASE: LIVER PATHOBIOLOGY, SESSION 2: LIVER INJURY, FIBROSIS AND HEPATOCELLULAR CANCER

Symposium
(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

Sun. 2:00 PM—San Diego Convention Center, 16A
CHAIR: S.P. Monga

Liver Pathobiology

2:00 Origin and source of myofibroblasts in hepatic fibrosis. D. Brenner. UCSD.
3:00 Role of S-adenosylmethionine in the pathogenesis, treatment and prevention of hepatocellular carcinoma. S. C. Lu. Keck Sch. of Med., Univ. of Southern California.
4:00 Identification of Shp2 as a tumor suppressor in hepatocarcinoma. G-S. Feng. UCSD.
140. RESOLUTION OF INFLAMMATION

Symposium

SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17A
CHAIRED: S.P. COLGAN AND A.S. NEISH

Inflammation

2:00 Novel mediators and mechanisms in resolution of inflammation, organ regeneration and pain. C. N. Serhan. Brigham and Women’s Hosp.

3:00 Macrophage regulation of resolving inflammation and tissue repair. W. J. Janssen. Univ. of Colorado Denver.

4:00 Defective inflammation resolution in atherosclerosis. I. Tabas. Columbia Univ.

141. BLOOD VESSEL CLUB

Special Session

SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16B
CHAIRED: D.S. MILSTONE

Vascular Biology

Many cellular and molecular mechanisms that regulate vasculogenesis and angiogenesis have been elucidated. These include defining the importance of endothelial “tip”, “stalk” and “phalanx” cells in vascular sprouting, tube formation and blood flow; the crucial initiating and modulating role of tissue oxygen tension; the contribution of several vascular growth factors and their receptors; identifying intracellular signaling pathways triggered by these and other events; and exploring the importance of the spatio-molecular context and the numerous specific morphogenic signals provided by the extracellular matrix. However, the properties of new blood vessels in physiologic and pathologic settings are complex and distinct and their contributions to the initiation and resolution of both healing and tissue destructive responses remains in many cases enigmatic. While manipulating endogenous and designing exogenous vasculogenic and angiogenic interventions are promising approaches to preventing and treating a wide variety of vascular diseases and to facilitating applications of regenerative medicine success will require new experimental approaches, better understanding of the underlying biologic mechanisms involved and new ways to manipulate the properties of vascular cells and tissues in vitro and in vivo. Blood Vessel Club 2012 will provide a unique setting, consistent with its interactive and less formal origins, to present and discuss the most recent results in these rapidly progressing fields and in other areas of vascular biology. To this end the format will include two “full-length” presentations by investigators advancing the scientific and methodologic boundaries of vascular development and bioengineering plus several shorter presentations of “breaking work” (including “late breaking abstracts”) from a variety of laboratories working in these and other areas. Vigorous discussion and debate among the speakers and audience is encouraged.

2:00 The angiogenic microenvironment: probing the cellular and molecular interactions that regulate vascular sprouting. C. C.W. Hughes. Univ. of California, Irvine.

2:45 “Blitzes” chosen from regular and late-breaking abstracts. L. Iruela-Arispe. UCLA.

3:17 Critical signaling pathways in vascular morphogenesis. L. Iruela-Arispe. UCLA.

4:02 “Blitzes” chosen from regular and late-breaking abstracts.

142. BREAST CANCER: MOLECULAR TARGETS AND TREATMENT STRATEGIES

Minisymposium

SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17B
CHAIRED: P. CARPENTER

COCHAIRED: I. BARONE

Neoplasia

2:00 142.1 Growth of triple negative human breast cancer cells is regulated by the OGF-OGFr axis. I.S. Zagon, N.K. Porterfield and P.J. McLaughlin. Penn State Col. of Med.


2:40 142.3 Inhibitory effect of adiponectin on breast cancer cell growth: evidences of the crucial role of ERα expression. L. Mauro, M. Pellegrino, F. De Amicis, C. Giordano and S. Andò. Univ. of Calabria, Italy.


3:20 142.5 Neuropeptide Y stimulates VEGF production and secretion and promotes angiogenesis in murine and human breast cancer. P.J. Medeiros and D.N. Jackson. Univ. of Western Ontario.


4:00 142.7 Estrogen receptor-positive breast cancer cells drive CAFs to secrete leptin and support tumor invasiveness. I. Barone, S. Catalano, L. Gelsomino, S. Panza, S. Marsico, C. Giordano, D. Bonofiglio, I. Casaburi, K.R. Covington, S. Fuqua and S. Andò. Univ. of Calabria, Italy and Baylor Col. of Med.

4:20 142.8 Reprogramming the cancer epigenome by metabolic transduction. J.S. Byun and K. Gardner. NCI/NIH.

143. PULMONARY PATHOBIOLOGY

Minisymposium

SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 15B
CHAIRED: N. LUKACS AND J. LINDEN

Pulmonary Pathobiology

2:00 143.1 Diesel particulate matter induces receptor for advanced glycation end-products expression by pulmonary macrophages. C.S. Curtis, T.D. Earley and P.R. Reynolds. Brigham Young Univ.


Abstract 143.3 moved to the end of Sunday Poster Session 658.


3:30 143.7 Adenosine A2A receptor activation attenuates Th1 and Th17 polarization in the airway. H. Pei, R. Ken, N. Huynh and J. Linden. La Jolla Inst. for Allergy and Immunol.

3:45 143.8 Evidence for proliferation of airway-delivered donor type II cells in lungs of recipient mice following intratracheal bleomycin. P.M. Wang and W.J. Martin II. NICHD/NIH.


4:15 143.10 Dissecting the fetal development of cystic fibrosis tracheal abnormalities. D.K. Meyerholz, D.A. Stoltz, P.B. McCray, Jr. and M.J. Welsh. Univ. of Iowa.

144. ROUS-WHIPPLE AWARD LECTURE

SUN. 5:00 PM—SAN DIEGO CONVENTION CENTER, 16B

Vascular Biology

5:00 Introduction.


145. LIVER PATHO BIOLOGY AT CLUB HEPATOMANIA

Poster Discussion

(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

SUN. 6:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, TORREY PINES 2/3

CHAIR ED: S.P. Monga and K. Nejak-Bowen

Liver Pathobiology

Club Hepatomania is the official reception and poster discussion session for the ASIP liver interest group. This informal event brings together established researchers, junior faculty and trainees in the hepatic field, which enables forming new and strengthening old collaborations, networking, exploring job opportunities and at the same time discussing high impact and timely research in the discipline of liver pathology.

P1 145.1 Platelet derived growth factor receptor α in liver development. P. Awuah, A. Misse and S. Monga. Univ. of Pittsburgh Sch. of Med.


P3 145.3 Cell proliferation in liver in response to iron overload is dependent on β-catenin in male mice. S.P. Monga, A. Misse, E. Ramos and T. Ganz. Univ. of Pittsburgh and UCLA.


P5 145.5 Global gene expression changes in regenerating mouse liver following concurrent inhibition of MET and EGFRT. S. Paranjpe, W. Bowen, V. Bhave, J. Luo, A. Orr and G. Michalopoulos. Univ. of Pittsburgh.


P7 145.7 Profiling candidate housekeeping genes for data normalization in chronic ethanol treated rat liver regeneration model. E. Juskeviciute, R. Vadjigepalli and J.B. Hoek. Thomas Jefferson Univ.


P12 145.12 LXR agonists protect against saturated fatty acid-induced cytotoxicity in liver cells. D. Wang, Y. Wei and M. Pagliassotti. Colorado State Univ.


P17 145.17 Ethanol and hydrogen peroxide modify the expression of EGFRTyr845 in hepatic cells WRL68. L. Rodriguez-Fragoso, E. Alvarez Ayala and J. Reyes-Esparza. Autonomous Univ. of State of Morelos, Mexico.


146. DER SCHADENKLUB—CELL INJURY
SCIENTIFIC INTEREST GROUP NETWORKING RECEPTION

(This session is not CME accredited)

Poster Discussion

(Sponsored by: ASIP Cell Injury Scientific Interest Group)

SUN. 6:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM E

CHAIR: C.C. YATES-BINDER AND M.S. WILLIS

Cell and Tissue Injury

ASIP Cell Injury Scientific Interest Group (SIG) invites all to attend the Cell Injury program event at Experimental Biology 2012. On Sunday, April 22, 2012 from 6:30PM – 8:30PM there will be a social, which will include a poster session featuring cutting-edge research from ASIP investigators. The Cell Injury SIG was created to give a forum for investigators studying how tissues respond to stress by repair, cell death, and remodeling. “Der Schadenklub” will provide complimentary wine and cheese to all in attendance.

P1 Overexpression of claudin-6, -7 or -9 modifies the activation of MMP-2 and MMP-9. A.C. Torres Martinez, L.F. Montaño Estrada and E.P. Rendon-Huerta. Fac. of Med., UNAM, Mexico City. (833.1)

P2 Response of dorsal root ganglion tissue to chronically stimulated electrodes. C. Kolarcik, E. Rost, I. Albrecht, X. Luo, K. Catt, D.J. Weber and X.T. Cui. Emory Univ. and Georgia Healthcare Syst. and Emory Univ. of Med. Ctr. (1035.10)

P3 Endotoxin-stimulated hepatic stellate cells promote survival of hepatocytes in endotoxemia by inducing endoplasmic reticulum stress and autophagy. C.R. Gandhi, C. Huang and D.B. Stolz. VA Pittsburgh Healthcare Syst. and Univ. of Pittsburgh. (396.2)


P5 Cellular confluence and cohesion regulates CXCL11/IP9 expression during keratinocyte re-epithelialization. A.C. Huen and A. Wells. Univ. of Pittsburgh Med. Ctr. and VA Pittsburgh Healthcare Syst. (56.3)

P6 l-Glutamine enhances wound healing in human colonic epithelial cells. S. Benton, L. Hao, D. Merlin, H. Larou and T.R. Ziegler. Emory Univ. and Georgia State Univ. (833.5)

P7 Ethanol and hydrogen peroxide modify the expression of EGFR-Tyr845 in hepatic cells WRL68. L. Rodriguez-Fragoso, E. Alvarez Ayala and J. Reyes Esparza. Autonomous Univ. of State of Morelos, Mexico. (145.17)

Pharmacology and Experimental Therapeutics

147. EMERGING CONCEPTS IN G PROTEIN-DEPENDENT PLC REGULATION AND PHYSIOLOGY

Symposium
(Sponsored by: The Division for Molecular Pharmacology)

Sun. 9:30 AM—San Diego Convention Center, 2

Chair: A. Smrcka

9:30  Kinetic scaffolding mediated by a phospholipase C-beta and Gq signaling complex. T. K. Harden. Univ. of North Carolina at Chapel Hill.

10:00 Synergistic regulation of phospholipase C beta isoforms as a coincidence detector for GPCR activation. E. Ross. Univ. of Texas Southwestern Med. Ctr.


11:00 PLCe as a localized signal integrator downstream of GPCRs and RTKs. A. V. Smrcka. Univ. of Rochester Sch. of Med.

11:30 Signaling mechanisms for neutrophil chemotaxis regulation. D. Wu. Yale Univ.

148. PHARMACOLOGY AND THERAPEUTIC POTENTIAL OF HISTAMINE H3 AND H4 RECEPTOR LIGANDS

Symposium
(Sponsored by: The Divisions for Drug Discovery, Development & Regulatory Affairs; Molecular Pharmacology; Neuropharmacology; Behavioral Pharmacology; and Integrative Systems, Translational & Clinical Pharmacology)

Sun. 9:30 AM—San Diego Convention Center, 3

Chair: R. Thurmond


10:00 Therapeutic potential of histamine H3 receptor ligands. J-C. Schwartz. Bioprojet Biotech, France.


11:00 Novel antihistamines that target the histamine H4 receptor. R. L. Thurmond. Johnson & Johnson Pharmaceut. R&D LLC.

11:30 Efficacy of a histamine H3 receptor antagonist (JNJ-39220675) and pseudoephedrine versus placebo in the prophylactic treatment of seasonal allergic rhinitis in an EEC model: randomized, three-way cross-over study. W. T. Barchuk. Janssen R&D LLC.

149. NEUROPSYCHOLOGICAL CORRELATES OF STIMULANT TREATMENT FOR ADHD IN ADOLESCENTS AND ADULTS

Symposium
(Sponsored by: The Divisions for Behavioral Pharmacology and Neuropsychopharmacology)

Sun. 9:30 AM—San Diego Convention Center, 4

Chair: C. Advokat

9:30 What do we know about the cognitive effects of stimulant drugs in adults? C. Advokat. LSU.

10:00 Chronic methylphenidate treatment in adolescent monkeys: effects on brain dopamine systems and drug reinforcement. L. J. Porrino. Wake Forest Univ. Sch. of Med.

10:30 Treatment outcome in attention-deficit/hyperactivity disorder, with medication, behavioral treatment, and their combination. W. E Pelham, Jr. Florida Intl. Univ.

11:00 Interventions for cognitive control impairments in ADHD: developmental considerations. J. Schweitzer. Univ. of California, Davis Sch. of Med.


150. ROLE OF PHARMACOGENETICS IN ONCOLOGY

Symposium
(Sponsored by: The Divisions for Toxicology; Drug Metabolism; and Integrative Systems, Translational & Clinical Pharmacology)

Sun. 9:30 AM—San Diego Convention Center, 5A

Chair: E.P. Black and H. Swanson


10:05 Utilizing gene expression signatures to predict response to targeted therapies in lung and colorectal cancer. E. P. Black. Univ. of Kentucky Col. of Pharm.


11:50 Discussion.

Please Silence Your Cell Phones during Sessions
151. MULTI-TARGET AGENTS: THE YIN AND YANG OF RATIONAL DRUG DISCOVERY

Symposium
(Sponsored by: The Divisions for Neuropharmacology, Toxicology, Molecular Pharmacology, and Drug Discovery, Development & Regulatory Affairs)

SUN. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5B

CHAIR: A. CROSS AND M. W. WOOD

9:30 Chair’s introduction.
10:10 When simple agonism is not enough: emerging modalities of GPCR ligands. G. Milligan. Univ. of Glasgow.
11:55 Discussion.

152. BUILDING A PHARMACOLOGY COURSE FROM SCRATCH: BENEFITS AND PITFALLS OF A CUT AND PASTE PHARMACOLOGY COURSE

Symposium
(Sponsored by: The Division for Pharmacology Education)

SUN. 9:30 AM—SAN DIEGO MARriott MARQUIS & MARINA, MARRIOTT HALL SALON 5

CHAIR: J. SZAREK

10:00 Preparing materials for use at sites other than your own medical school. P. G. Anderson. Univ. of Alabama at Birmingham.
11:30 Panel discussion. Should we develop a national repository of pharmacology topics? D. Bailey. Univ. of Western Ontario.

153. JULIUS AXELROD LECTURE

SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 2

The Julius Axelrod Award in Pharmacology, presented annually for significant contributions to understanding the biochemical mechanisms underlying the pharmacological actions of drugs and for contributions to mentoring other pharmacologists, was established to honor the memory of the eminent American pharmacologist who shaped the fields of neuroscience, drug metabolism and biochemistry and who served as a mentor for numerous eminent pharmacologists around the world. Dr. Elaine Sanders-Bush was selected for her innovative and rigorous research that has shaped the field of serotonin receptors, GPCR function, and by extension, neuropharmacology in general.

2:00 Introduction. D. Sibley. NINDS/NIH.

154. JULIUS AXELROD SYMPOSIUM: NOVEL INSIGHTS INTO THE REGULATION OF SEROTONIN FUNCTION

Symposium

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 2

CHAIR: E. SANDERS-BUSH

3:00 Modulation of serotonin homeostasis by integrin signaling pathways. A. Carneiro. Vanderbilt Univ. Sch. of Med.

155. THE BEHAVIOR OF PAIN

Symposium
(Sponsored by: The Divisions for Behavioral Pharmacology; Drug Discovery, Development & Regulatory Affairs; and Neuropharmacology)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 3

CHAIR: T. MARTIN

3:00 TBD.
4:00 The role of drug self-administration as a tool for preclinical pain research. T. J. Martin. Wake Forest Univ. Hlth. Sci.
4:30 Pain-depressed behaviors as novel tools for addressing analgesic efficacy in laboratory animals. S. S. Negus. Virginia Commonwealth Univ.
5:00 Future directions and challenges in the development of novel therapies for pain. F. Porreca. Univ. of Arizona Col. of Med.
156. ROLE OF NUCLEAR RECEPTORS IN LIPID DYSREGULATION AND OBESITY-RELATED DISEASES

Symposium
(Sponsored by: The Divisions for Drug Metabolism; Integrative Systems, Translational & Clinical Pharmacology; Toxicology)

Sun. 3:00 PM—San Diego Convention Center, 5A
Chair: J. Chang and H. Swanson

3:00 Introduction. H. Swanson. Univ. of Kentucky Col. of Med.
3:10 PXR and CAR as therapeutic targets for obesity type 2 diabetes. W. Xie. Univ. of Pittsburgh Sch. of Pharm.
3:45 Bile acid-activated receptors in regulating lipid and glucose metabolism. S. Fiorucci. Univ. of Perugia, Italy.
4:55 Impact of selective estrogen receptor beta ligands on obesity. R. Narayanan. GTx, Inc.

157. EMERGING ROLE OF HEME OXYGENASE IN CARDIOVASCULAR AND METABOLIC DISEASES

Symposium
(Sponsored by: The Divisions for Cardiovascular Pharmacology and Integrative Systems, Translational & Clinical Pharmacology)

Sun. 3:00 PM—San Diego Convention Center, 5B
Chair: N. Abraham

3:20 Molecular regulation of heme oxygenase. A. Agarwal. Univ. of Alabama at Birmingham.
3:40 EET-agonist regulates mesenchymal stem cell-derived adipocytes through activation of heme oxygenase-1. N. G. Abraham. Univ. of Toledo.

4:00 Heme oxygenase and blood pressure regulation. D. E Stec. Univ. of Mississippi Med. Ctr.
4:40 NMR EBC metabonomic to assess the nutriceutical effect in COPD: a pilot study of oral administration of a curcumin-based herbal preparation. G. Scapagnini, N.G. Abraham, S. Davinelli, G. de Laurentiis, D. Paris, D. Melck, A. Motta, S. Matteo and A. Bianco. Univ. of Molise, Italy and Univ. of Toledo. (239.6)


5:10 Discussion.

158. ADAPTING TBL TECHNIQUES TO TEACH PHARMACOLOGY TO GRADUATE, PROFESSIONAL AND MEDICAL STUDENTS

Symposium
(Sponsored by: The Division for Pharmacology Education)

Sun. 3:00 PM—San Diego Marriott Marquis & Marina, Marriott Hall Salon 5
Chair: R. S. Kumar

3:00 Revisiting concepts of Team based learning. Addressing concerns. R. S. Kumar. St Matthew’s Univ. Sch. of Med., Grand Cayman Islands.
4:00 Use of TBL sessions in an introductory graduate pharmacology courses. G. Dunaway. Southern Illinois Univ. Sch. of Med.

4:30 Group activity.

POSTER PRESENTERS:
UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby
Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org

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Physiology

159. A COMPLEX INTERPLAY COMING TOGETHER TO BUILD THE HEART

Symposium
(Sponsored by: APS Cardiovascular Section)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: M. KRENZ AND L. POLO-PARADA

Physiology of Development

8:00 Patterns of mechanical forces and cardiac morphogenesis. B. J. Damon. Med. Univ. of South Carolina.

8:20 Conduction through the developing heart. D. Sedmera. Charles Univ., Prague.

8:40 Cardiac regional electrical specialization during development. L. Polo-Parada. Univ. of Missouri-Columbia.

9:00 Growth signaling in the ventricular wall. M. Krenz. Univ. of Missouri-Columbia.

9:20 Contribution of the lymphatics to building the heart. M. Watanabe. Case Western Reserve Univ. Sch. of Med.

9:40 Cell layer stratification during valve leaflet maturation. J. Lincoln. Nationwide Children's Hosp., The Ohio State Univ.

160. AIR POLLUTION — FRIEND OR FOE TO THE CARDIOPULMONARY SYSTEMS?

Symposium
(Sponsored by: APS Hypoxia Group)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: L. E. WOLD

Hypoxia and Oxidative Stress

8:00 Air pollution and heart dysfunction in humans and animals. M. T. Kleinman. Univ. of California, Irvine.

8:30 Pulmonary dysfunction and air pollution. J. Godleski. Harvard Sch. of Publ. Hlth.


9:30 Mechanisms of air pollution-mediated cardiotoxicity. L. E. Wold. The Ohio State Univ.

161. BRAIN INSULIN: THE FORGOTTEN METABOLIC PARTNER OF LEPTIN?

Symposium

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: K. RAHMOUNI AND V. BROOKS

8:00 Insulin: how your brain uses it to regulate food intake and body weight. D. J. Clegg. Univ. of Texas Southwestern Med. Ctr.

8:30 The importance of brain insulin action to hepatic glucose metabolism in the conscious dog. D. S. Edgerton. Vanderbilt Univ.

9:00 Sympathetic effects of brain insulin: mechanisms and consequences. K. Rahmouni. Univ. of Iowa Carver Col. of Med.


162. EMERGING PARADIGMS IN INFLAMMATION AND MICROVASCULAR DYSFUNCTION: NOVEL INSIGHTS AND FUTURE TRENDS

Symposium
(Sponsored by: APS Cardiovascular Section)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: S. CHAKRABORTY AND M. MUTHUCHAMY

Inflammation and Immune Responses


8:30 Immune cells, preconditioning, and prevention of postischemic microvascular dysfunction and parenchymal cell injury. R. J. Korthuis. Univ. of Missouri-Columbia.


163. IMMUNE CELLS AND THEIR ROLE IN THE REGULATION OF BLOOD PRESSURE AND SODIUM HOMEOSTASIS

Featured Topic
(Sponsored by: APS Water and Electrolyte Homeostasis Section)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: P. MARVAR AND K. W. MATHIS

Blood Pressure Regulation

Inflammation and Immune Responses


8:30 Stress, hypertension, and inflammation. P. Marvar. Emory Univ. Sch. of Med.

9:00 Alterations of T cell receptor Vβ chain usage in angiotensin II-induced hypertension. D. Trott, W. Chen and D. Harrison. Vanderbilt Univ. Med. Ctr. (879.3)

9:30 Placental ischemic stimulated CD4+ T helper cells increase blood pressure and placental and renal oxidative stress during pregnancy. K. Wallace, J. Scott, S. Novotny, J. Heath, J. Moseley and B. LaMarca. Univ. of Mississippi Med. Ctr. (879.7)


164. INNOVATIVE USE OF TECHNOLOGY FOR TEACHING AND STUDENT ASSESSMENT IN PHYSIOLOGY

Featured Topic
(Sponsored by: APS Teaching of Physiology Section)
Sun. 8:00 AM—San Diego Convention Center, 25A
Chair: C. Gopalan

Education
8:00 The use of novel Camtasia videos to improve performance of at-risk students. C.J. Miller. Univ. of Louisville. (519.2)

8:20 Teaching student to use social media to do scientific research. J. Krontiris-Litowitz. Youngstown State Univ. (519.3)


9:20 Technology in teaching physiology using team-based learning. C. Gopalan. St. Louis Col. of Pharm.

165. MICRORNAS IN HUMAN DISEASE AND AS NOVEL THERAPEUTICS

Symposium
(Sponsored by: APS Physiologists in Industry Committee)
Sun. 8:00 AM—San Diego Convention Center, 27
Chair: R. L. Persinger
CoChair: J. T. Liles

Translational Physiology
8:00 microRNA control of human disease. D. MacKenna. Regulus Therapeutics.

8:30 microRNAs as novel therapeutics in cardiovascular disease. E. van Rooij. Miragen Therapeutics.

9:00 Therapeutic microRNA targets in cancer. E. G. Marcusson. Regulus Therapeutics.


166. PUBLISHING 101: HOW TO GET YOUR WORK PUBLISHED IN APS JOURNALS AND AVOID MINEFIELDS ALONG THE WAY

Symposium
(Sponsored by: APS Publications Committee)
Sun. 8:00 AM—San Diego Convention Center, 25C
Chair: H. Raff and R. Scheman

Career Development
8:00 Preparing your work for publication in APS journals: choosing a journal, authorship and peer review. H. Raff. Med. Col. of Wisconsin.

8:30 Ethical minefields I: plagiarism and data duplication. K. Barrett. UCSD.

8:50 Ethical minefields II: image manipulation. C. Bennett. APS.


167. RED BLOOD CELL MECHANISMS OF TISSUE BLOOD FLOW CONTROL: PHYSIOLOGICAL INSIGHTS IN HEALTH AND DISEASE

Symposium
(Sponsored by: The Physiological Society, UK — The Journal of Physiology)
Sun. 8:00 AM—San Diego Convention Center, 26
Chair: J. González-Alonso

8:00 Regulation of blood flow distribution in skeletal muscle: role of erythrocyte-released ATP. M. L. Ellsworth. St. Louis Univ.


9:00 ATP as a mediator of erythrocyte-dependent regulation of skeletal muscle blood flow in humans. J. González-Alonso. Brunel Univ., U.K.


168. STEM CELL BIOLOGY 2012: BASIC SCIENCE AND TRANSLATIONAL ADVANCES

Symposium
(Sponsored by: The Society for Experimental Biology and Medicine)
Sun. 8:00 AM—San Diego Convention Center, 20A
Chair: M. L. Adomo and M. J. Friedlander

Translational Physiology
8:00 Nonhuman primate induced pluripotent stem cells in regenerative medicine. P. Hornsby. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
8:30 Generation of clinically-compliant dopaminergic neurons from pluripotent stem cells for Parkinson's disease therapy. **X. Zeng.** Buck Inst. for Res. on Aging.

9:00 Use of stem cells for islet regeneration in diabetes. **R. Kulkarni.** Joslin Diabetes Ctr.

9:30 Tissue-specific stem cells in aging and cancer. **A. Wagers.** Joslin Diabetes Ctr.

**169. TRANSLATIONAL BIOMARKERS OF HYPERTENSION: INSIGHTS FROM ANIMAL MODELS**

*Featured Topic*

*(Sponsored by: APS Physiological Genomics Group)*

**SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 23**

**CHAIR:** B. Joe

**Blood Pressure Regulation**

**Inflammation and Immune Responses**

8:00 Lessons from rat knockout and related genetically-engineered models of hypertension. **H. Jacob.** Med. Col. of Wisconsin.

8:25 Progress on positional cloning and validation of genomic biomarkers of hypertension. **B. Joe.** Univ. of Toledo Col. of Med.


9:00 Mapping a novel blood pressure quantitative trait locus within a congenic strain spanning a single annotated gene containing segment on rat chromosome 10. **R. Pillai, S. Kumaramamy, Y. Nie, S.Y. Woolwine, P. Farms, K. Gopalakrishnan and B. Joe.** Univ. of Toledo Col. of Med. and Life Sci. *(874.2)*

9:15 Long-term interactions between the ACE/Ang II/AT1a receptor axis and the ACE2/Ang(1-7)/Mas receptor axis in wild-type C57BL/6J and AT1a receptor-knockout mice. **B.N. Ellis, X.C. Li, E. Miguel-Qin and J.L. Zhuo.** Univ. of Mississippi Med. Ctr. *(874.3)*

9:30 (Pro)renin receptor deletion prevents the development of DOCA-salt hypertension in neuron-specific (pro)renin receptor knockout mice. **W. Li, H. Peng, A. Ichihara and Y. Feng.** Tulane Univ. and Tokyo Women’s Med. Univ. *(874.4)*

9:45 The GNAi2 gene: a candidate biomarker of hypertension that determines salt-resistance versus salt-sensitivity in rat models. **R.D. Wainford and D.R. Kapusta.** LSU Hlth. Sci. Ctr., New Orleans and Boston Univ. *(874.5)*

**170. AUTONOMIC CONTROL OF VISCERAL FUNCTIONS**

*Featured Topic*

*(Sponsored by: APS Neural Control and Autonomic Regulation Section)*

**SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C**

**CHAIR:** R. A. Travagl

10:30 Brainstem control of cardiovascular regulation and homeostasis. **M. C. Andersen.** Oregon Hlth. & Sci. Univ.

11:00 Plasticity of brainstem circuits controlling gastrointestinal functions. **K. N. Browning.** Penn State Col. of Med.

11:30 Central TRPV1 signaling regulates systemic blood glucose levels and hepatic PEPCK protein expression. **J.D. O’Hare, K. Miyata, T.L. Fourrier, A.M. Krantz, A.V. Derbenev and A. Zsombo.** Tulane Univ. *(701.5)*

11:45 Hydrogen peroxide modulates membrane properties in second-order nucleus tractus solitarii neurons. **S-i. Sekizawa, J. Horowitz, B. Horwitz and C. Chen.** Univ. of California, Davis. *(701.4)*

12:00 Calcium permeability in NMDA receptors in NTS baroreceptive neurons is not decreased at low temperature in Syrian hamsters, a hibernating species. **S-I. Sekizawa, J. Horowitz, B. Horwitz and C. Chen.** Univ. of California, Davis. *(701.4)*

12:15 POMC-GLP-2R signaling and action in the control of feeding behavior and gastric motility. **X. Guan, X. Shi, D. Li, X. Li, Y. Wang, B. Chang and L. Chan.** Baylor Col. of Med. and Univ. of Texas MD Anderson Cancer Ctr. *(701.16)*

**171. CLAUDE BERNARD DISTINGUISHED LECTURESHP OF THE APS TEACHING OF PHYSIOLOGY SECTION**

**SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 27**

**Education**

*Title:* Reflections on the Teaching and Learning of Science in the Late 20th and Early 21st Centuries

**Speaker:** W. Galey. HHMI, Chevy Chase.

**172. CONTROL OF VASCULAR TONE BY EXTRALUMINAL NUCLEOTIDES**

*Symposium*

*(Sponsored by: APS Cardiovascular Section)*

**SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26**

**CHAIR:** B. S. Kirby and S. P. Mortensen

**Blood Pressure Regulation**

10:30 Sympathetic activation by purinergic receptors in humans. **L. I. Sinoway.** Penn State Univ. Col. of Med.

11:00 Contribution of P2 receptors to the exercise pressor reflex. **M. P. Kaufman.** Penn State Col. of Med.

11:30 Role of interstitial nucleotides in skeletal muscle vasodilation. **M. Nyberg.** Univ. of Copenhagen.

**Visit The Exhibits**

Sunday–Tuesday

9:00 AM–4:00 PM
173. DISRUPTION TO CENTRAL SYMPATHETIC CONTROL MECHANISMS: IMPLICATIONS FOR OBESITY-RELATED HYPERTENSION

Featured Topic

(Sponsored by: APS Central Nervous System Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 22

CHAIR: D. D. SARTOR and S. D. STOCKER

Blood Pressure Regulation

Central Control of Homeostasis


11:00 Flip side: are attenuated sympathoinhibitory responses in obesity linked to hypertension? D. Sartor. Univ. of Melbourne.


12:00 Arcuate nucleus injection of anti-insulin affbody prevents sympathetic response to circulating insulin. B. Luckett, J. Frielie, L. Wolfgang and S.D. Stocker. Penn State Coll. of Med. and Gettysburg Col. (705.5)


174. FRONTIERS IN MECHANOBIOLOGY

Symposium

(Sponsored by: The Biomedical Engineering Society)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 24

CHAIR: S. CHIEN and T. HSIAI

10:30 The role of myosin II motors and F-actin dynamics in the mechanics of cell migration and invasion. J. C. Lashears. UCSD.

10:55 Mechanobiology as a tool in the design of biological machines. W. J. Polacheck. MIT.


11:45 Glyco-mechanobiology in the vasculature. S. Simon. Univ. of California, Davis.


175. HUGH DAVSON DistinguisheD leCTURESHIP OF THE APS CELL AND MOLECULAR PHYSIOLOGY SECTION

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20A

CHAIR: M. KNEPPER

Transporters and Ion Channels

Title: After the Interlude: Cell-Level Systems Biology in the 21st Century

Speaker: M. A. Knepper. NHLBI/NIH.
177. LUNG ION CHANNELS AND FLUID HOMEOSTASIS

Featured Topic

(Sponsored by: APS Respiration Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25A
CHAIRED: S. MATALON AND W. KUEBLER

Transporters and Ion Channels

10:30 Regulation of alveolar fluid transport by gaseous mediators. R. Morty. Univ. of Giessen Lung Ctr.
10:45 Regulation of lung epithelial ion channels by hypochlorous acid. A. LaZarak. Univ. of Alabama at Birmingham.
11:00 NADPH oxidase regulates alveolar epithelial sodium channel activity and lung fluid balance in vivo via O₂⁻ signaling. M.N. Helms, P. Goodson, L. Jain and M. Koval. Emory Univ. (696.4)
11:30 Regulation of ion transport and ASL height by the anti-hypertrophic actions of cardiac overexpression of ACE2 as a novel target for CVD therapeutics. Z. Sun and S.C. Mockrin. NHLBI/NIH.
11:45 Increased formation of functional caveolae due to co-regulation of transcellular and paracellular leak across microvascular endothelium by dynamin and Rac. W.L. Lee, S. Armstrong, V. Khajoe, C. Wang, T. Wang, J. Tigidi, J. Yin, W.M. Kuebler, M. Gillrie, S. Davis and M. Ho. Univ. of Toronto and Univ. of Calgary, Canada. (862.1)
11:30 Sphingolipids signal rapid loss of P-glycoprotein transport activity at the blood-brain barrier. D.S. Miller, C.R. Campos, B.T. Hawkins and R. Cannon. NIAMS/NIMH, Research Triangle Park and Univ. of Washington Sch. of Med. (862.2)
11:45 Influenza M2 inhibits CFTR activity through its ion channel function. J.W. Breslin. LSU Hlth. Sci. Ctr., New Orleans. (862.6)
12:00 Novel role of local lamellipodia in endothelial barrier function. M. Toborek and S. Nakagawa. Univ. of Miami Miller Sch. of Med. and Univ. of Kentucky Med. Ctr. (862.7)

178. MICROVASCULAR PERMEABILITY: PARACELLULAR VERSUS TRANSCELLULAR TRANSPORT

Featured Topic

(Sponsored by: APS Cardiovascular Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIRED: D. LOMINADZE AND M. O’DONNELL

10:30 Introduction.
10:35 Blood-brain barrier ion transporters in cerebral ischemia. M. O’Donnell. Univ. of California, Davis.
10:55 Paracellular occludin oligomeric assemblies at tight junctions of the blood brain barrier are altered by central and peripheral pathologies. T. P. Davis. Univ. of Arizona Col. of Med.

11:15 Co-regulation of transcellular and paracellular leak across microvascular endothelium by dynamin and Rac. W.L. Lee, S. Armstrong, V. Khajoe, C. Wang, T. Wang, J. Tigidi, J. Yin, W.M. Kuebler, M. Gillrie, S. Davis and M. Ho. Univ. of Toronto and Univ. of Calgary, Canada. (862.1)
11:30 Sphingolipids signal rapid loss of P-glycoprotein transport activity at the blood-brain barrier. D.S. Miller, C.R. Campos, B.T. Hawkins and R. Cannon. NIAMS/NIMH, Research Triangle Park and Univ. of Washington Sch. of Med. (862.2)
11:45 Increased formation of functional caveolae due to increased content of fibrinogen. N. Muradashvili, S.J. Khundmiri, R.L. Benton and D. Lominadze. Univ. of Louisville. (862.3)
12:00 Novel role of local lamellipodia in endothelial barrier function. J.W. Breslin. LSU Hlth. Sci. Ctr., New Orleans. (862.6)
12:15 Infection of human pericytes by HIV-1 disrupts the integrity of the blood-brain barrier. M. Toborek and S. Nakagawa. Univ. of Miami Miller Sch. of Med. and Univ. of Kentucky Med. Ctr. (862.7)

179. MOLECULAR AND CELLULAR THERAPY FOR CARDIOVASCULAR DISEASE

Symposium

(Sponsored by: APS Physiological Genomics Group)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIRED: Z. SUN AND S. C. MOCKRIN

12:00 National Heart, Lung, and Blood Institute resources to advance molecular and cellular therapies. S. C. Mockrin. NHLBI/NIH.

180. THE ROLE OF OXYGEN METABOLISM FOR THE DEVELOPMENT OF KIDNEY DISEASE

Symposium

(Sponsored by: APS Renal Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIRED: F. PALM AND P. K. CARMINES

Hypoxia and Oxidative Stress

Translational Physiology

12:00 Hypoxia inducible factor in chronic kidney disease and renal cell carcinoma. M. Nangaku. Univ. of Tokyo Sch. of Med.

181. ENDOPLASMIC RETICULUM STRESS AND VASCULAR PHYSIOPATHOLOGY

Symposium

(Sponsored by: APS Endocrinology and Metabolism Section)

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: K. MATROUGI AND E. WILSON

Inflammation and Immune Responses

3:30 Endoplasmic reticulum stress and microvascular dysfunction in hypertension. K. Matrougui. Tulane Univ.
4:00 Regulation of the UPR in obesity-induced type 2 diabetes. L. Larose. McGill Univ.
4:30 The role of ER stress/UPR in the microvascular endothelial dysfunction. M. Trojanowska. Boston Univ.
5:00 Unfolded protein response in the vascular wall. S. Karabina. Univ. of Pierre and Marie Curie, Paris.

182. ERNEST H. STARLING DISTINGUISHED LECTURESHIP OF THE APS WATER AND ELECTROLYTE HOMEOSTASIS SECTION

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 24

Title: The Female Paradox: Resistance and Vulnerability in Hypertension and Renal Vascular Disease

Speaker: K. Sandberg. Georgetown Univ.

183. FUNCTIONAL INTEGRATION IN THE HYPOTHALAMIC PARAVENTRICULAR NUCLEUS

Symposium

(Sponsored by: APS Central Nervous System Section)

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: A. WATTS AND G. AGUILERA

Transporters and Ion Channels

Central Control of Homeostasis

3:30 Regulation of CRH gene transcription in neuroendocrine neurons. G. Aguilera. NICHD/NIH.
4:00 Signaling mechanisms that coordinate synthesis and release programs in paraventricular neuroendocrine neurons. A. Watts. Univ. of Southern California.
4:30 Inter-population signaling mechanisms within the paraventricular nucleus: role in the generation of coordinated neurohumoral homeostatic responses. J. Stern. Georgia Hlth. Sci. Univ.
5:00 Paraventricular pre-autonomic neurons and cardiovascular function. G. M. Toney. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

184. MICROCIRCULATORY SOCIETY LANDIS AWARD LECTURE

(Sponsored by: The Microcirculatory Society)

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 23

Title: Tales from the Microcirculation: Oxygen Transport and Its Regulation

Speaker: R. N. Pittman. Virginia Commonwealth Univ.

185. NCAR TRAINEE FEATURED TOPIC

Featured Topic

(Sponsored by: APS Neural Control and Autonomic Regulation Section)

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 22

CHAIR: J. CARTER AND R. SABHARWAL


Role of group 1 metabotropic glutamate receptors in the hypothalamic paraventricular nucleus in sympathetic and blood pressure control during water deprivation. W. Holbein, M. Bardgett, M.A. Andrade, M. Herrera-Rosales, A.S. Calderon and G.M. Toney. Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (893.3)

(Pro)renin receptor over-expression induces angiotensin II-independent NADPH oxidase activation through PI3K - ERK signaling in neuronal cells. M. Peng, W. Li, D. Seth, N.L. Gabriel and Y. Feng. Tulane Univ. (893.4)

Downregulation of AT1 receptor in the RVLM induced by mesenchymal stem cells treatment prevent the hypertension and sympathetic hyperactivity in 2K-1C Wistar rats. E.B. Oliveira-Sales, E. Maquigussa, P. Semedo, L.G. Oliveira, N.O.S. Câmara, C.T. Bergamaschi, M.A. Boim and R.R. Campos. Fed. Univ. of Sào Paulo. (893.5)
186. STRESS-RELATED RESPIRATORY DISORDERS: FROM CLINICAL MANIFESTATIONS TO ABNORMAL CHEMOSENSITIVITY

Symposium
(Sponsored by: APS Respiration Section)
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: L. GARGAGLIONI AND R. KINKEAD
Physiology of Development
4:00 Panic disorder, separation anxiety, early separation, suffocation alarm, opioidergic system. D. Klein. Columbia Univ.
5:00 The locus coeruleus: a gateway to understanding stress-related respiratory disorders. L. Gargaglioni. Sao Paulo State Univ.

187. SYSTEMS BIOLOGY OF CARDIOVASCULAR GENOMES AND PROTEOMES

Symposium
(Sponsored by: APS Cardiovascular Section)
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: J. LOSCALZO AND T. VONDRISKA
Translational Physiology
4:00 Implications of genomic networks for pathogenesis of atherosclerosis. A. J. Lusis. UCLA.

188. THE ROLE OF NOVEL WNK SIGNALING PATHWAY IN THE REGULATION OF SODIUM CHANNEL AND TRANSPORTERS

Symposium
(Sponsored by: APS Cell and Molecular Physiology Section)
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: H. CAI
Transporters and Ion Channels
4:00 WNK4 regulates NCC through a ERK1/2 signaling pathway. H. Cai. Emory Univ. Sch. of Med.

4:30 WNK1 activates SGK1 to regulate ENaC activity. M. H. Cobb. Univ. of Texas Southwestern Med. Ctr.
5:00 WNK activates NCC through SPAK/OSR1 kinase. P. A. Welling. Univ. of Maryland Sch. of Med.

189. WHAT DO COMPETENCIES HAVE TO DO WITH MY TEACHING?

Symposium
(Sponsored by: APS Teaching of Physiology Section)
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: V.L. MCCLEARY AND K.A. SUKALSKI
Education

4:45 The time project. D. U. Silverthorn. Univ. of Texas at Austin.
5:00 Small group discussions led by presenters.
5:20 Questions/summary.

190. YOUNG INVESTIGATOR AWARD FEATURED TOPIC: REGULATION OF TRANSPORT KIDNEY INTERCALATED CELLS

Featured Topic
(Sponsored by: APS Renal Section)
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: N. PASTOR-SOLER AND S. PETROVIC
Translational Physiology
Transports and Ion Channels
4:30 K⁺ homeostasis is maintained with knockdown of big-conductance K⁺ channel in principal cells of connecting tubule/collecting duct. T. Rieg, R. Lukowski, J.A. Dominguez, M. Sharik, P. Ruth and V. Vallon. UCSD, VA San Diego Healthcare Syst., Univ. of Tübingen and Univ. of Colorado Anschutz Med. Campus. (867.4)

5:00 Purinergic signaling reciprocally contributes to the TRPV4-mediated mechano-sensitive response in the aldosterone-sensitive distal nephron. M. Mamenko, O.L. Zaika, R.G. O’Neil and O. Pochynyuk. Univ. of Texas Hlth. Sci. Ctr. at Houston. (867.21)


191. WATER AND ELECTROLYTE HOMEOSTASIS SECTION NEW INVESTIGATOR AWARD LECTURE
SUN. 4:30 PM—SAN DIEGO CONVENTION CENTER, 24
Title: Relaxin Protects against Cardio-Renal Disease: Role of Nitric Oxide

192. THE HENRY PICKERING BOWDITCH MEMORIAL AWARD LECTURE
SUN. 6:00 PM—SAN DIEGO CONVENTION CENTER, 20A
Title: microRNAs and Systems Molecular Medicine

Physiology InFocus
Physiology in Medicine

193. PHYSIOLOGY OF OBESITY, CARDIOMETABOLIC DISEASE, AND THERAPEUTIC WEIGHT LOSS
Symposium
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 20A
CHAIR: J. HALL AND A. SCHREIHOFER

Translational Physiology
3:30 Central nervous system fuel sensing: implications for the regulation of energy balance and treatment for obesity. R. Seeley. Univ. of Cincinnati Col. of Med.
4:00 Leptin-melanocortin system and control of cardiovascular metabolic functions in obesity. J. E. Hall. Univ. of Mississippi Med. Ctr.

POSTER PRESENTERS: UPLOAD YOUR POSTER
Where: E-Poster Counter, Hall D Lobby
Deadline: Wed., April 25, 3:30 PM
Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
**MONDAY, APRIL 23**

Across Societies – Experimental Biology

194. **MARC AND PROFESSIONAL DEVELOPMENT PROGRAMS**

**Workshop**

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

Career Development

The Experimental Biology 2012 Career Center activities have been arranged by the FASEB Office of MARC & Professional Development. Access to the Career Center is FREE to all registered EB 2012 meeting attendees.

8:30 Successful behaviors for winning an interview. J. Blumenthal.

9:00 Developing your core message/"elevator pitch". J. Lombardo.

9:00 Ten tough industrial interview questions; ten good responses. J. Tringali.

9:00 How to get a job in government: bench. S. Milgram, L. Conlan.

10:00 Postdocs: what should you be looking for and how to find them. A. Green.

10:00 Sometimes it's who you know: winning at networking. J. Blumenthal.

10:00 How to get a job in government: non-bench. S. Milgram, L. Conlan.


11:00 Compensation negotiation for scientists moving into industry. B. Lindstaedt.

12:00 Career skills blitz.

1:00 The industrial hiring process: learn the nuances, get the offer. J. Tringali.

1:00 The right attitude and behaviors while job searching: from the resume to the job offer. J. Blumenthal.

1:15 Utilizing LinkedIn in the PhD job search. A. Green.

1:30 How to continue your training at NIH. S. Milgram, L. Conlan.

2:00 Achieving your goals: goal setting strategies for scientific and career success [interactive]. B. Lindstaedt.

2:00 Talking about yourself: interviewing well. N. Saul.

2:30 Revealing your character through your resume. J. Blumenthal.

2:30 Becoming a mentor. S. Milgram, L. Conlan.

3:00 Career decisions: how to select a career path that’s best for you. B. Lindstaedt.

3:45 CV → resume. A. Green.

4:00 Job search in academia and industry. D. Behrens.

4:00 Fundamentals for managing the postdoctoral experience. H. Adams.

4:00 Successful behaviors for winning an interview. J. Blumenthal.

195. **NIH K AWARDS**

**Seminar**

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: H. KHACHATURIAN, NIGMS/NIH

Career Development

NIH Grants Seminar Workshop Series

This presentation will focus on the NIH’s new K99/00 Pathways to Independence Award (for postdoctoral scientists) and the K08 Mentored Clinical Scientist Development Award (for individuals with a health professional doctoral degree committed to a career in laboratory or field-based research.) The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative. **EB 2012 registration is required to participate in the seminar.**

196. **FORMULA FOR GRANT SUCCESS: PART I - SCIENTIFIC PEER REVIEW OF NIH GRANTS**

**Seminar**

MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: A. M. COELHO, JR., GRANT SUCCESS ASSOCIATES INC.

Career Development

NIH Grants Seminar Workshop Series

Learn what is important to know and understand about a sponsoring agency's peer review process. Learn why this understanding peer review can enhance your chances of being funded. This presentation uses the scientific peer review at NIH as an example of what you need to know about peer review at any funding agency and how to use this information in preparation of your grant applications and competing successfully for funding. **EB 2012 registration is required to participate in the seminar.**

197. **FORMULA FOR GRANT SUCCESS: PART II - GRANT WRITING FOR SUCCESS**

**Seminar**

MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: A. M. COELHO, JR., GRANT SUCCESS ASSOCIATES INC.

Career Development

NIH Grants Seminar Workshop Series

This presentation focuses on the principles of Grant Writing for Success: and the common reasons that grant applications fail or succeed. Learn how to make an application meet the needs of the reviewers and the funding agency. Learn how to avoid the
need for resubmission. Learn about sponsored agency resources and how to use them in the preparation of your application. EB 2012 registration is required to participate in the seminar.

Anatomy

198. TISSUE ENGINEERING, REGENERATION AND REPAIR

Platform
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: R. MARUCIO

Regeneration/Tissue Engineering

8:00 198.1 Developing a completely biological tissue-engineered blood vessel for clinical use. N. L’Heureux. Cyto graft Tissue Engineering, Novato, CA.
8:30 198.3 Injectable extracellular matrix-derived hydrogel for cardiac repair. K. Christman. UCSD.
9:00 198.5 Injectable extracellular matrix-derived hydrogel for cardiac repair. K. Christman. UCSD.
9:30 198.7 Injectable extracellular matrix-derived hydrogel for cardiac repair. K. Christman. UCSD.
9:45 198.8 Injectable extracellular matrix-derived hydrogel for cardiac repair. K. Christman. UCSD.

199. MICRORNAS IN STEM CELLS AND CANCER

Minisymposium
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: R. HARTLEY

Regulatory RNA Mini-Meeting

8:00 Chair’s introduction.
8:05 199.1 microRNAs to pathways in stem cells and cancer. R. Belloch, D. Subramanyam, C. Melton, R. Judson and C. Belair. UCSF.
8:55 199.3 microRNA-RNA binding protein face off in cancer. R. Hartley, Univ. of New Mexico.
9:20 199.4 Non-coding RNAs: from scientist to patient and back. G. Carlin. Univ. of Texas MD Anderson Cancer Ctr.
9:45 Discussion.

200. ANATOMY EDUCATION BREAKFAST ROUNDTABLES

Special Session
(Supported by an educational grant from Elsevier, Inc.)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 11A
CHAIR: C. ECKEL

Education & Teaching

8:00 Chair’s introduction.
8:30 Applying the Ideas from The Carnegie Study of Medical Education to Guide Medical School Reform. Bridget O’Brien. UCSF.
9:00 General discussion.

201. THE NUCLEUS: NEW INSIGHTS AND UNDERSTANDING

Symposium
(Supported by an educational grant from Hamilton Thorne, Inc.)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: M. ALIEGRO

Cell Biology

8:00 Chair’s introduction.
8:30 201.1 The nucleolus: a disappearing, forgotten, and (maybe) misnamed organelle. M.C. Aliegro. Marine Biol. Lab., Woods Hole, MA.
8:30 201.2 The expanded repertoire of a classical intranuclear domain. T. Pederson. Univ. of Massachusetts Med. Sch.
9:20 201.4 The evolution of the nucleus. J.A. Lake. UCLA.
9:45 Discussion.

202. REACTIVATION OF EMBRYONIC PROCESSES IN REGENERATION AND REPAIR

Symposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: M. DUNNWALD AND J. HELMS

Regeneration/Tissue Engineering

10:30 202.1 Regeneration of the drosophila epidermal barrier after wounding. W. McGinnis and M. Juarez. UCSD.
10:30 202.2 Translating insights from development into regenerative medicine with a focus on Wnt biology. J.A. Helms. Stanford Univ.

203. CELL BIOLOGY AND REGULATORY RNAs

Minisymposium

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: K. PRASANTH

Regulatory RNA Mini-Meeting

Cell Biology

10:30 Chair’s introduction.
11:00 203.2 Role of cancer-associated nuclear-retained RNA in pre-mRNA splicing regulation. K.V. Prasanth, V. Tripathi, X. Zong, Z. Shen and S.G. Prasanth. Univ. of Illinois at Urbana-Champaign.
11:50 203.4 Repeat RNAs in chromosome regulation and mis-regulation in cancer. J.B. Lawrence, L.L. Hall and D.M. Carone. Univ. of Massachusetts Med. Sch.
12:15 Discussion.

204. TEACHING INNOVATIONS IN ANATOMY I

Platform

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: B. SINGH

Education & Teaching

10:30 Benefit assessment of premedical anatomical study for medical students. N. Harper, N.S. Livdahl, J. Jensen and D.A. Morton. Univ. of Utah Sch. of Med. (12.1)
11:00 204.1 Combining ultrasound and gross anatomic dissection in teaching 3-D anatomy: effectiveness in a first year medical course curriculum. A.M. Yee, J. Hwang, A.S. Pagano and S. Marquez. SUNY Downstate Col. of Med. and Mount Sinai Sch. of Med.

12:00 204.5 The ‘unskilled and unaware’ effect is linear in a real-world anatomy setting. G.M. Finn and M.A. Sawdon. Sch. of Med. & Hlth., Durham Univ., U.K.

205. THE EXQUISITE LITTLE BRAINS OF BIG INSECTS

Symposium

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: J. HILDEBRAND

Neurobiology

10:30 Chair’s introduction.
10:35 205.1 The evolution of insect brains and why big may be better. N.J. Strausfeld. Univ. of Arizona.
11:00 205.2 Regulation of form and function in the nervous system of honey bees. S.E. Fahrbach. Wake Forest Univ.
11:50 205.4 Learning from insect brains: CNS processing of behaviorally significant odors. J.G. Hildebrand. Univ. of Arizona.
12:15 Discussion.

206. LUNG DEVELOPMENT AND THE ORIGINS OF DISEASE

Symposium

(Cosponsored by: Developmental Dynamics)

MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: D. ORNITZ

Developmental Biology

2:30 Chair’s introduction.
2:35 206.1 The role of slit-Robo signaling in congenital diaphragmatic hernia. X. Sun, E. Domyan and E. Hines. Univ. of Wisconsin-Madison.
207. EXCELLENCE IN CANADIAN RESEARCH—NEURAL REGENERATION

Symposium

(Cosponsored by: Canadian Association for Anatomy, Neurobiology and Cell Biology)

MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7B

CHAIRED: M. KAWAJA

Neurobiology

Regeneration/Tissue Engineering

2:30  Chair’s introduction.
2:35  207.1 The role of microenvironment in the regenerative potential of neural stem cells after spinal cord injury. S. Karimi. Univ. of Manitoba.
3:00  207.2 Neural stem cells: from basic biology to tissue repair. C. Morshead. Univ. of Toronto.
4:15  Discussion.

208. CURRENT TRENDS IN THE ANATOMICAL SCIENCES: HOW ARE WE TEACHING NORTH AMERICAN DENTAL STUDENTS?

Symposium

MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 8

CHAIRED: H.W. LAMBERT

Education & Teaching

2:30  Discussion.
4:15  Discussion.

209. CARDIOVASCULAR BIOLOGY

Platform

MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 9

CHAIRED: J. BARNETT

Cardiovascular

2:30  209.1 Secreted growth factors from human epicardial-derived precursor cells protect against progressive injury after myocardial ischemia with reperfusion by preventing vascular mexitis. J.L. Spees. Univ. of Vermont.
2:45  Epicardial HIF1 regulates vascular precursor cell invasion into the myocardium through the VEGF signaling pathway. J. Tao, Y. Doughman, K. Yang, D. Ramirez-Bergeron and M. Watanabe. Case Western Reserve Univ. (726.14)
3:45  FOXO transcription factors are critical regulators of neonatal cardiomyocyte proliferation. A. Sengupta and K.E. Yutzey. Cincinnati Children’s Med. Hosp. Ctr. (525.6)
4:00  209.5 Integrating MALDI imaging mass spectrometry and shotgun proteomics for a systems biology understanding of congenital heart valve disease. P.M. Angel, B.M. Mettler, D.P. Bichell, H.S. Baldwin and R.M. Caprioli. Vanderbilt Univ.

210. AAA KEYNOTE LECTURE

(Supported by an educational grant from AACBNC)

MON. 5:00 PM—SAN DIEGO CONVENTION CENTER, 8

5:00  210.1 Heart making and heart breaking: the molecular circuitry of cardiac development, disease and regeneration. E.N. Olson. Univ. of Texas Southwestern Med. Ctr.

211. AAA BUSINESS MEETING

MON. 6:00 PM—SAN DIEGO CONVENTION CENTER, 8
Biochemistry and Molecular Biology

213. BREKKE FOR NEXT GENS, UNDERGRADUATE BREAKFAST WITH AWARD SCIENTIST, BETTIE SUE MASTERS

Special Session
(Supported by an educational grant from National Science Foundation)
MON. 7:00 AM—SAN DIEGO CONVENTION CENTER, 11A
Invitation only.

214. EARL AND THRESSA STADTMAN SCHOLAR AWARD LECTURE

Award
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, 6B
8:30 Introductory remarks. S. R. Pfeffer.
8:35 214.1 Control of growth by the mTOR pathway. D. Sabatini. Whitehead Inst.

215. ASBMB-MERCK AWARD LECTURE

Award
(Supported by an educational grant from Merck)
MON. 9:05 AM—SAN DIEGO CONVENTION CENTER, 6B
9:05 Introductory remarks. S. L. McKnight.

216. AVANTI YOUNG INVESTIGATOR AWARD LECTURE

Award
(Supported by an educational grant from Avanti Polar Lipids, Inc.)
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A
This lecture is presented within the symposium, Metabolic Branchpoints/Lipid Channeling in Room 6A.
9:55 Avanti Young Investigator Award presentation and introduction. D. Raben.

217. RNA DYNAMICS: FUNCTION Follows FOLDING

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F
CHAIR: J. LORSCH
9:55 Chair’s introduction.
10:00 217.1 A conserved RNA structure regulates polyamine-dependent alternative splicing and NMD. M. Ares. Univ. of California, Santa Cruz.
10:25 Role of the cofactor in the catalytic mechanism of the glmsI ribozyme. J. Viladoms Claverol and M.J. Fedor. The Scripps Res. Inst. (746.2)
10:40 217.2 Linking the DEAD-box RNA helicase Ded1p to cellular RNA targets. E. Jankowsky. Case Western Reserve Univ.
11:20 ZBP1 KH34 consensus RNA-binding site identifies post-transcriptional regulatory networks. J. Chao and R. Singer. Albert Einstein Col. of Med. (949.1)
11:35 217.3 Group II intron architecture and its implications for the development of eukaryotic splicing systems. A.M. Pyle. Yale Univ.
12:00 Conclusion.

218. MECHANISM OF DNA REPLICATION

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E
CHAIR: P. BAUMANN
9:55 Chair’s introduction.
10:25 S. cerevisiae RFC Walker A and arginine finger mutants are defective in clamp opening and binding. M.R. Marzahn and L. Bloom. Univ. of Florida. (739.8)
219. ORGANELLE QUALITY CONTROL

Symposium

MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D
CHAIR: D. CHAN

9:55  Chair's introduction.

10:00 219.1 ER-to-cytosol membrane transport of pathogens. B. Tsai. Univ. of Michigan Med. Sch.
10:25  Mitochondrial transcription factor A binding to mitochondrial DNA during aging and calorie restriction. A. Picca, A. Lezza, C. Leeuwenburgh and S. Tornaletti. Univ. of Florida and Univ. of Bari, Italy. (585.7)
10:40 219.2 The role of membrane shaping proteins, MTs and interorganelle contacts in regulating ER structure. G. Voeltz, J. Friedman, M. West, J. DiBenedetto, A. Rowland and A. English. Univ. of Colorado Boulder.
12:00  Conclusion.

220. DRUG DEVELOPMENT AND APOPTOSIS: LINKING TUMOR REGRESSION TO CELL DEATH

Symposium

MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C
CHAIR: R. KING

9:55  Chair's introduction.
10:00 220.1 Dissecting the BCL-2 family interaction network with stapled peptides: mechanistic insights and pharmacologic opportunities. L.D. Walensky. Dana-Farber Cancer Inst.
11:05  FADD/RIP1/RIP3 coregulation of apoptotic, necrotic and survival pathways in embryogenesis and lymphoid homeostasis. J. Zhang. Thomas Jefferson Univ. (798.29)

12:00  Conclusion.

221. METABOLIC BRANCHPOINTS/LIPID CHANNELING

Symposium

(Supported by an educational grant from Avanti Polar Lipids, Inc.)

MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A
CHAIR: D. BRASAEMLE

9:55  Chair's introduction.
10:00  Avanti Young Investigator Award presentation and introduction. D. Raben.
10:50 221.1 Using C. elegans to dissect fat and feeding regulatory pathways. K. Ashrafi. UCSF.
11:15  ACSL1 multi-tissue knockout mice are resistant to diet- and age-induced obesity and insulin resistance. T.J. Grevengoed, D.S. Paul, L.O. Li and R.A. Coleman. Univ. of North Carolina at Chapel Hill. (790.7)

222. IN VIVO BIOCHEMISTRY OF THE PATHOGEN

Symposium

MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1B
CHAIR: S. BOOKER

9:55  Chair's introduction.


11:35 222.3 Alteration of metabolic program by whiB6 enhances tuberculosis persistence. W. Jacobs and B. Weinrick. Albert Einstein Col. of Med. and HHMI.

12:00 Conclusion.

223. MAXIMIZING YOUR MARKETABILITY

Symposium

(Supported by an educational grant from the Council on Undergraduate Research (CUR) and Research Corporation for Science Advancement)

MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1A

CHAIR: J. PROVOST

9:55 Chair’s introduction.

10:00 223.1 Developing administrative/organizational skills. J.S. Bond. Penn State Col. of Med.

10:25 Gaining those important lab skills: three different training programs at a liberal arts college. A. Brower, R. Romano, D. Columbus and A. Aguanno. Marymount Manhattan Col. and Boston Univ. Sch. of Publ. Hlth. (619.5)

10:50 223.2 Opportunities in the private sector. M. Rosenberg. Promega Corp. and Univ. of Wisconsin-Madison.

11:15 Myth busts: 10 things you don’t know about launching a career at a predominantly undergraduate institution. R.S. Rowlett and K.A. Parson. Colgate Univ., NY and Macalester Col., MN. (617.2)

11:40 223.3 Effective use of social networking for career development. L.M. Balbes. Balbes Consultants LLC, Kirkwood, MO.

12:05 Conclusion.

224. EFFECTIVELY COMMUNICATING YOUR SCIENCE

Public Affairs Workshop

(Sponsored by: ASBMB Public Affairs Advisory Committee)

MON. 12:30 PM—SAN DIEGO CONVENTION CENTER, 6B

It has never been more important to communicate science and it’s importance to the public. How can we make scientific discovery a high national priority? What can each of us do locally to make a difference? Join Nobel laureate, P. Berg, NPR science correspondent, M. J. Palmer, Huffington Post science correspondent, C. Santa Maria and moderator J. Berg, for a panel discussion of how to get through to challenging audiences and make the best case for a long term investment in and focus on science.

225. LIPID DROPLETS: BASIC WORKING PRINCIPLES

Workshop

(Supported by an educational grant from Avanti Polar Lipids, Inc.)

MON. 12:30 PM—SAN DIEGO CONVENTION CENTER, 11A

Lipid droplets, organelles found in cells of vertebrates, invertebrates, and plants, have received much attention of late due to their importance in lipid-based diseases, host-pathogen interactions, and in the production of biofuels. This workshop will focus on the working principles and methodologies of lipid droplet research to engage those interested in expanding their knowledge or entering this field of research.

Light refreshments will be hosted. General seating available and doors open 15 minutes prior to event start.

Organizer:

R. V. Stahelin, Indiana Univ. Sch. of Med.-South Bend.

Presenters:

D. Brasaemle, Rutgers Univ.
T. Walther, Yale Univ.
D. Silver, Albert Einstein Col. of Med.

226. RUTH KIRSCHSTEIN DIVERSITY IN SCIENCE AWARD LECTURE

Award

MON. 2:55 PM—SAN DIEGO CONVENTION CENTER, 6B


3:00 226.1 Changing the course of America through mentoring. L.A. Jones. Univ. of Texas M.D. Anderson Cancer Ctr. and Univ. of Houston.

227. FUNDAMENTAL MECHANISMS IN GENE REGULATION

Symposium

MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6F

CHAIR: K. ADELMAN

3:45 Chair’s introduction.


228. NETWORKS AND TIME

Symposium
MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6E

CHAIRED: M. BULYK

3:45 Chair's introduction.
4:30 228.2 Transcription and pre-mRNA processing in space and time. K.M. Neugebauer. Max Planck Inst. for Cell Biol. and Genet., Dresden.
5:25 228.3 Combinatorial and temporal codes within pathogen-responsive gene regulatory networks. A. Hoffmann. UCSD.
5:50 Conclusion.

229. PROTEIN TARGETING AND TRANSLLOCATION

Symposium
MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6D

CHAIRED: J. PUGLISI

3:45 Chair's introduction.

5:25 229.3 The unfolded protein response in health and disease. P. Walter. UCSF.
5:50 Conclusion.

230. CHEMISTRY IN THE SERVICE OF MEDICINE

Symposium
MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6C

CHAIRED: P. COLE

3:45 Chair's introduction.
4:15 Dynamics of induced-fit in HIV reverse transcriptase specificity and resistance. K.A. Johnson, S. Kirmiziatil, V. Nguyen, A. Li and R. Elber. Univ. of Texas at Austin.
4:30 230.2 Using small molecules to engineer and explore human immunity. D.A. Spiegel. Yale Univ.
5:50 Conclusion.

231. SIGNALING AND METABOLISM

Symposium
MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6A

CHAIRED: E. WHITE

3:45 Chair's introduction.
3:50 231.1 Hormonal and cellular control of hepatic lipid metabolism. J. Rutter. Univ. of Utah.
4:30  **231.2** NAD metabolism: mechanisms of lifespan extension in yeast and nicotinamide riboside utilization in a healthy 50-year-old man. C. Brenner, S. Trammell, S-C. Mei and M. Migaud. Univ. of Iowa and Queen's Univ. Belfast.


5:10  The JAK kinase Tyk2 and the signal transducer and activator of transcription 3 are required for brown adipose tissue differentiation. A.C. Larner, M. Derecka, A. Gornicka, K. Szczepanek, M. Morgan, V.B. Raje, J. Sisler and S. Keller. Virginia Commonwealth Univ. and Univ. of Virginia. (758.9)


5:50  Conclusion.

**232. ROLE OF GLYCOCONJUGATES IN SIGNALING AND DEVELOPMENT**

**Symposium**

MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1B

CHAIRED: J. ESKO

3:45  Chair's introduction.


4:15  The role of N-linked glycosylation during *Drosophila* embryonic development. A. McCague and E. Selva. Univ. of Delaware. (607.6)

4:30  **232.2** Specific N-glycans on SynCAM Ig proteins regulate synaptic adhesion and synapse development. T. Biederer. Yale Univ.


5:10  NogoB receptor is essential for extraembryonic vascular development and protein glycosylation. E.J. Park and W.C. Sessa. Sch. of Med., Yale Univ. (607.5)


5:50  Conclusion.

**233. MAXIMIZING YOUR GLOBAL OUTREACH**

**Symposium**

MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1A

CHAIRED: P. CRAIG

3:45  Chair's introduction.

3:50  **233.1** Moving science from the laboratory to the field. A.A. James. Univ. of California, Irvine.

4:15  Undergraduate laboratory renaissance: research integration across the entire biochemistry laboratory curriculum. J. Roceckin-Canfield, R. Gurney, N. Lee and L. Soltzberg. Simmons Col. (619.1)

4:30  **233.2** Cultivating class discussions and interest in scientific research through the acknowledgment of cultural dichotomies. E.M.E. Martin. San Diego State Univ.

4:55  Using distance leaning tools as a mechanism to create a STEM mentoring opportunity. P. Ortiz, J. Duncan-Poitier, M. Groome, K. Hoffman, J. Lansing and S. Wortel. SUNY Empire State Col., SUNY at Albany and New York Acad. of Sci. (620.3)

5:10  Self-efficacy ratings of URM students who return to a STEM summer research program. C.R. Shadding and D. Whittington. Washington Univ. in St. Louis Sch. of Med. and Strategic Evaluations Inc., Durham, NC. (623.2)


5:50  Conclusion.

**234. ASBMB THEMATIC FERMENTATION HOUR**

**Special Event**

MON. 6:00 PM—SAN DIEGO CONVENTION CENTER, WEST TERRACE/WEST LOBBY

Join fellow biochemists and molecular biologists for continued scientific discussion and a cool beverage in a casual atmosphere.

**235. ASBMB INAUGURAL POETRY COMPETITION READING**

**Special Event**

(Sponsored by: ASBMB Today, magazine for members of the ASBMB)

MON. 7:00 PM—SAN DIEGO CONVENTION CENTER, 6A

Finalists of the inaugural ASBMB Poetry Competition will share their winning science-themed verse with fellow meeting attendees. Join us and discover our super-talented scientists.

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236. GPEC FORUM: USING INTERDISCIPLINARY TOOLS TO EVALUATE NUTRITIONAL INTERVENTIONS

Symposium
(Supported by an educational grant from Mathile Institute for the Advancement of Human Nutrition)
(Sponsored by: Graduate and Professional Education Committee (GPEC) and the International Nutrition Council (INC))
(Cosponsored by: Community and Public Health Nutrition RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: J.D. HAAS
COCHAIR: G.S. MARQUIS

Education
Public Policy
8:00 Novel applications of cognitive function in evaluation of nutritional interventions. M. J. Wenger. Univ. of Oklahoma.
8:35 Applications of physical performance and activity measures in evaluating nutritional interventions. S. E. Crouter. Univ. of Massachusetts.
8:55 Discussant. J. D. Haas. Cornell Univ.
9:40 Questions and answers.

237. REAL-WORLD NUTRITIONAL TRANSLATION BLENDED WITH FOOD SCIENCE

Symposium
(Supported by educational grants from PepsiCo / Frito-Lay, Inc. and ConAgra, Inc.)
(Sponsored by: Nutrition Translation RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: M. FERRUZZI
COCHAIR: R. CLEMENS

8:00 What is food science and why does it matter in translational nutrition? M. Ferruzzi. Purdue Univ.
8:20 The complex world of food chemistry: the interplay between flavor reactions and mechanisms of health promotion in food. D. Peterson. Univ. of Minnesota.
8:40 Modeling gastric digestion of foods characterized by their material properties. R. P. Singh. Univ. of California, Davis.
9:20 Food-based clinical interventions toward cancer prevention. S. J. Schwartz. The Ohio State Univ.
9:40 Roundtable discussion.

238. HEALTH IMPACT OF WHOLE GRAINS, BRAN AND CEREAL FIBER

Symposium
(Supported by educational grants from CJ ChielJedang, Garuda international, and Kellogg)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: D.M. KLURFELD
COCHAIR: I.S. KIM

Education
Career Development
8:00 Opening comments and the overview of the science supporting the ASN position statement on whole grains, bran and cereal fiber. D. M. Klurfeld. USDA, Beltsville.
8:48 A comparison of the literature on the association between intakes of bran, cereal fiber, and whole grains and risk and biomarkers of heart disease. L. Qi. Harvard Sch. of Publ. Hlth.
9:12 A comparison of the literature on the association between intakes of bran, cereal fiber, and whole grains and risk of adiposity measures. D. M. Klurfeld. USDA, Beltsville.
9:36 Panel discussion.

239. EPIDEMIOLOGY AND SYSTEMS BIOLOGY APPROACHES

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: G.K. HARRIS
COCHAIR: Z. JOUNI AND STUDENT CHAIR: J. CAINE

8:00 Overview.
8:15 239.1 Relation of whole grain intake to risk of type 2 diabetes, cardiovascular disease and weight gain: a systematic review and meta-analysis. S. Chacko, E.Q. Ye, E.L. Chou, M. Kugizaki and S. Liu. UCLA Sch. of Publ. Hlth. and UCLA.
240. PREVENTING CHILDHOOD OBESITY

Minisymposium

(Sponsored by: Nutrition Education RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: C. GUNTHER
COCHAIR: K. HARRIS

8:00 240.1 Timing of dessert but not portion size affects young children's intake at lunchtime. S. Kranz, L.R. Huss, S. Laurentz and G. McCabe. Purdue Univ.


8:45 240.4 Assessing school personnel knowledge of wellness policies. S. McWhinney, A. McDonald, L. Dawkins-Moulin, C. Outley and L. McKyer. Prairie View A&M Univ. and Texas A&M Univ.

9:00 240.5 Dietary intake of overweight and obese children attending a weight-loss program. S. Kranz, M. Brauchla, A. Garant and S. Gupta. Purdue Univ., Riley Hosp. and Indiana Univ., Indianapolis.

9:15 240.6 Pilot study on the management of childhood overweight: a pound of cure. S.A. Anzeljic and R. Murray. The Ohio State Univ.


241. SELENIUM I: SELENOPROTEIN SYNTHESIS, METABOLISM AND FUNCTION

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: R.A. Sunde

8:00 241.1 Inhibition of selenocysteine tRNA[Ser]Sec aminoacylation provides evidence that aminoacylation is required for regulatory methylation of this tRNA. B. Carlson, J.Y. Kim, X-M. Xu, M.H. Yoo, Y. Zeng, S. Chen, V.N. Gladyshev, B.J. Lee and D.L. Hatfield. NCI/NIH, Seoul Natl. Univ., Ohio Univ. and Brigham and Women's Hosp. and Harvard Med. Sch.


242. LIPID AND FATTY ACID METABOLISM AND TRANSPORT

Minisymposium

(Sponsored by: Energy and Macronutrient Metabolism RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30C
CHAIR: J.T. Brenna
COCHAIR: M.C. Huang

243. NUTRIENT-GENE INTERACTIONS

Minisymposium

(Sponsored by: Nutrient Gene Interactions RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30B
CHAIR: D. LIU
COCHAIR: Y. PAN


8:30 243.3 Effects of vitamin A status on the responses of the hepatic genes' expression to insulin and retinoic acid in primary hepatocytes from Zucker lean and fatty rats. W. Chen and G. Chen. Univ. of Tennessee Knoxville.


9:00 243.5 Aging is a more significant determinant of hepatic DNA methylation patterns than a Western style diet. L.K. Park, E. Saltzman, G. Schnitzler, B.W. Yoon, L.D. Parnell, C.O. Lai and S-W. Choi. USDA at Tufts Univ., Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and Tufts Med. Ctr.

9:15 243.6 Identification of genetic loci controlling intestinal calcium (Ca) absorption using BXD recombinant inbred mice fed high or low dietary Ca. R. Replogle, L. Wang, M. Zhang and J. Fleet. Purdue Univ.


9:45 243.8 Involvement of Sp1 in transcriptional regulation of Atp7a during hypoxia. L. Xie and J.F. Collins. Univ. of Florida.

244. OSTEOPOROSIS AND BONE METABOLISM IN THE AGING

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30A
CHAIR: A. BENDICH

8:00 Overview.


8:30 244.2 Urinary acid excretion can predict changes in bone metabolism during space flight. S.R. Zwart, M. Heer and S.M. Smith. USRA/NASA, Houston, Univ. of Bonn, Profil Inst. for Metab. Res., Neuss, Germany and NASA Johnson Space Ctr.

8:45 244.3 Habitual calcium intake and vitamin D status during adulthood through estrogen deficiency have few interactions on calcium kinetics and bone. C. Park, W. Lee, M. Allen, J. Fleet, G.P. McCabe and C.M. Weaver. Purdue Univ. and Indiana Univ. Sch. of Med.

9:00 244.4 Feeding soy protein isolate prevents impairment of bone acquisition by Western diets as a result of insulin signaling in bone. J. Zhang, O.P. Lazarenko, T.M. Badger, M.J.J. Ronis and J-R. Chen. Univ. of Arkansas for Med. Sci.


9:45 Summary.
245. COMMUNITY NUTRITION PROGRAMS AND POLICIES FOR OLDER ADULTS

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

Mon. 8:00 AM—San Diego Convention Center, 29D

Chaired: M.A. Johnson

Cochaired: J. Fischer

8:00  Overview.
8:15 245.1 Persistent food insecurity is associated with higher levels of cost-related medication nonadherence in low-income older Georgians. E.L.P. Sattler and J.S. Lee. Univ. of Georgia.
9:15 245.5 The influence of home-delivered dietary approach to stop hypertension meals on body mass index and percent of energy needs consumed among older adults with cardiovascular disease. E.F. Racine, J. Lyerly, J. Warren-Findlow, T. Jennifer and W. McAuley. Univ. of North Carolina at Charlotte and George Mason Univ.
9:45  Summary.

246. DEVELOPMENT OF EVIDENCE-BASED NUTRITION

Minisymposium

(Sponsored by: Nutrition Education RIS)

Mon. 8:00 AM—San Diego Convention Center, 29C

Chaired: S.S. Wong

Cochaired: M. Shaw

8:00 246.1 Sensory exploration of seasonally and locally available vegetables and their effects on vegetable consumption of Western Massachusetts Head Start preschool children. S. Sojkowski, S. Severin and S. Kannan. Univ. of Massachusetts Amherst and Head Start, Greenfield, MA.
8:30 246.3 What do college students want? A qualitative study exploring nutrition language and knowledge. S. Hirshberg, J. Lipschitz and I. Lofgren. Univ. of Rhode Island.
9:45 246.8 Randomized, controlled study demonstrates that About Eating, a web-based curriculum focused on eating competence increases food resource management skills of SNAP-Ed eligible women in Pennsylvania. J. Patterson, K. Arnold and B. Lohse. Penn State.

247. PROBIOTICS FOR OPTIMAL NUTRITION: FROM EFFICACY TO GUIDELINES

Symposium

(Supported by educational grants from Abbott Nutrition; BioProspect Limited; Danisco USA Inc.; Danone; Kraft Foods, Inc. and Nestle)

Mon. 10:30 AM—San Diego Convention Center, 20D

Chaired: S.M. Donovan

Cochaired: G.S. Howarth

10:30  Pre-clinical development of new probiotics and probiotic-derived factors. G. Howarth. Univ. of Adelaide, Australia.
11:00  The stressed mucosa—application of non-invasive biomarkers to assess gut health. R. Butler. Univ. of South Australia.
11:30  Probiotic influences on atopy and non-gastrointestinal organ systems. S. Salminen. Univ. of Turku, Finland.
12:00  Evolving regulatory requirements for probiotics: nutritional recommendations. G. Gibson. Univ. of Reading, UK.
248. METABOLIC REGULATION BY AMINO ACIDS FOR OPTIMAL HEALTH

Symposium
(Sponsored by an educational grant from Ajinomoto, Inc)
(Sponsored by: Nutritional Sciences Council(NSC)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: S.M. HUTSON
COCHAIR: G.S. HOWARTH


249. UTILIZING A STEPWISE PROCEDURE TO DESIGN EFFECTIVE NUTRITION EDUCATION

Symposium
(Sponsored by: Nutrition Education RIS, Community and Public Health RIS and Nutrition Translation RIS)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: S. GOODELL

Education
Career Development

10:30 Moderator’s introduction . S. Goodell.
10:55 Team work.
11:25 Discussion.
11:45 Team work.
11:55 Discussion.
12:00 Successful models and HECAT. P. Koch, V. Carraway-Stage. Columbia Univ., FoodMASTER Initiative.
12:20 Conclusion.

250. ESTABLISHING AND EVALUATING HEALTH CLAIMS FOR PROBIOTICS

Special Session
(Supported by educational grants from Abbott Nutrition; Dairy Research Institute; Danone; Kraft Foods, Inc. and Nestle)
MON. 1:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: S.M. DONOVAN
COCHAIR: M.E. SANDERS

Education
Public Policy

1:00 Evaluating the science behind probiotic health claims: European perspective. G. Gibson. Univ. of Reading, UK.
1:20 Evaluating the science behind health claims. B. O. Schneeman. FDA, College Park.
2:00 Questions and answers.

251. MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS II

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: C. KHOO
COCHAIR: A. SHAO

11:00 251.3 Leucine modulation of sirtuins and AMPK in adipocytes and myotubes. C. Liang, A. Bruckbauer and M.B. Zemel. Univ. of Tennessee and Nutraceut. Discoveries Inc., Knoxville.
11:45 251.6 Role of β-hydroxy-β-methylbutyrate in leucine stimulation of muscle mitochondrial biogenesis. R.A. Stancliffe and M.B. Zemel. Univ. of Tennessee, Knoxville.

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Experimental Biology 2013
April 20 - 24
Boston, MA
12:00 251.7 Pomegranate ellagittanin metabolite, uralithin A, inhibits prostate cancer cell proliferation via inhibition of IGF-1 signaling pathway. R. Vicinanza, Y. Zhang, S.M. Henning, J. Ma and D. Heber. UCLA.


252. OBESITY AND METABOLIC SYNDROME

Minisymposium

(Sponsored by: Energy and Macronutrient Metabolism RIS)

Mon. 10:30 am—San Diego Convention Center, 32A

Chair: S.K. Das

Co-Chaired: V.V. Potter

10:30 252.1 Female mice lacking active NADPH-oxidase enzymes are protected against Western diet-induced obesity and metabolic syndrome. M.J. Ronis, N. Sharma, J. Badeaux, M. Ferguson and T.M. Badger. Univ. of Arkansas for Med. Sci.

10:45 252.2 Although equally obese, high fat diet-fed ovariectomized mice respond with greater adipose tissue inflammation than sham-operated mice. V.J. Vieira Potter, K. Strissel, M.S. Obin and A.S. Greenberg. USDA at Tufts Univ.


12:00 252.7 Lipoprotein cholesterol distribution and LDL particle size is proatherogenic in Mexican Americans with metabolic syndrome. G.A.P. Pignotti, S. Neupane, K.J. Farr and S. Vega-López. Arizona State Univ.


253. SELENIUM II: SELENIUM AND CANCER, INFLAMMATION AND OXIDATIVE STRESS

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

Mon. 10:30 am—San Diego Convention Center, 30D

Chair: R.A. Sunde


12:00 253.7 A role for selenoprotein H in genome stability maintenance against oxidative stress. R.T.Y. Wu and W-H. Cheng. Univ. of Maryland College Park.


254. DIETARY FACTORS AFFECTING LIPID METABOLISM

Minisymposium

(Sponsored by: Energy and Macronutrient Metabolism RIS)

Mon. 10:30 am—San Diego Convention Center, 30C

Chair: K.H. Kim

Co-Chaired: C. Smas

10:30 Overview.


11:15 254.3 Consumption of one egg per day reduces the expression of hmg-coa reductase in peripheral mononuclear cells (pbmc) to maintain ldl cholesterol concentrations. M.L. Fernandez, S. Ata, Y. Park and J. Lee. Univ. of Connecticut.


11:45 254.5 Carbohydrate restriction favorably affects HDL metabolism in men and women with metabolic syndrome: addition of egg yolk further increases large HDL particles. C.J. Andersen, C.N. Blesso, Y. Park, J. Barona, T. Pham, J. Lee and M.L. Fernandez. Univ. of Connecticut.


12:15 Summary.

255. NUTRIENT-GENE INTERACTIONS IN MODELS OF NEURODEGENERATIVE/NEUROMUSCULAR AND METABOLIC DISEASES

Minisymposium

(Sponsored by: Nutrient Gene Interactions RIS)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30B

CHAIR: M.J. HAMADEH

COCHAIR: C. WU


10:45 255.2 Effect of ω3 PUFA on diet induced non-alcoholic fatty liver disease development and progression in C57BL/6J mice. C.M. Depner and D.B. Jump. Sch. of Biol. and Popul. Hlth. Sci., Y ork Univ., Canada.


11:15 255.4 Dietary quercetin supplementation alleviates disease related muscle injury in dystrophic muscle. K. Hollinger, E. Snella, R.A. Shanely and J.T. Selsby. Iowa State Univ. and Appalachian State Univ., Kannapolis, NC.

11:30 255.5 EGCG protects against 6-OHDA induced neurotoxicity in a cell culture model. D. Chen, A.G. Kanthasamy and M.B. Reddy. Iowa State Univ.


12:00 255.7 Dietary vitamin D₃ at 50x the adequate intake increases apoptosis in the quadriceps of the female G93A mouse model of amyotrophic lateral sclerosis: a pilot study. E. Parkhomenko, A. Millionis, A. Gianforcaro, J.A. Solomon and M.J. Hamadeh. Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.


256. APPLICATIONS AND CHALLENGES OF PUBLIC USE DATA SETS FOR SECONDARY ANALYSIS NUTRITION RESEARCH

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30A

CHAIR: Y. WANG

10:30 256.1 The most frequently reported foods and beverages differ by age among participants of NHANES 1999-2008. H.A. Eicher-Miller and C.J. Boushey. Purdue Univ. and Univ. of Hawaii Cancer Ctr.


11:00 256.3 Sweeteners in the U.S. food supply and the role of fruit juice concentrates. S.W. Ng, M.M. Slining and B.M. Popkin. Univ. of North Carolina at Chapel Hill.

11:15 256.4 Comparing actual caloric value of food purchases with NHANES: what is missing? C. Piernas, S.W. Ng and B.M. Popkin. Univ. of North Carolina at Chapel Hill.


12:00 256.7 Gestational weight gain trends among WIC participants in Los Angeles County. M. Koleilat, S. Whaley and D. Gee. PHFE WIC Prog., Irwindale, CA.

257. WEIGHT MANAGEMENT IN REAL LIFE

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29D

CHAIR: S.J. NIELSEN

COCHAIR: S. FRANCIS


11:00 257.3 Peer led behavioral intervention and changes in weight status in female college freshman. E.M. Evans, M.D. Schmidt, M.C. Mojtabahedi, D.D. Guest, B.M. Das and E.L. Mailey. Univ. of Georgia and Univ. of Illinois, Urbana.

11:15 257.4 Increased dietary saturated fat intake is negatively associated with compliance to exercise regimen and improvement in fitness parameters. S. Krishnan, M. Gustafson, C. Campbell, E.C. Souza and N.L. Keim. Univ. of California, Davis, USDA Davis and Univ. of California Davis Med. Ctr.

11:30 257.5 Physical activity and protein intake are associated with feelings of energy and fatigue in overweight black and white women. C.L. Ward, W.J. McConnell, R.D. Larson, P.J. O'Connor and E.M. Evans. Univ. of Georgia.


12:15 257.8 Increase in physical activity among Central Brooklyn residents participating in an incentive-based walking program. J. Hoy-Rosas and B. Klein. The Family Ctr., Brooklyn, NY.

258. INFLUENCES OF WATER AND BEVERAGE CONSUMPTION ON HEALTH OUTCOMES

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29C

CHAIR: J. STOOKEY

COCHAIR: C. ZIZZA

10:30 258.1 Beverage choices and contributions to food and nutrient intakes differ by smoking status: results from What We Eat in America, NHANES 2005-2008. R. Sebastian, C. Wilkinson Enns, J. Goldman and C. Zizza. USDA, Beltsville, MD and Auburn Univ. Col. of Human Sci.


11:00 258.3 Validating sugar-sweetened beverage intake and adiposity among African American and white adults in a doubly labeled water study. J.A. Emond, R.E. Patterson, P.M. Jardack and L. Arab. Moores Cancer Ctr., La Jolla, San Diego State Univ. Sch. of Publ. Hlth. and David Geffen Sch. of Med. at UCLA.


11:30 258.5 The association between sugar intake and HDL levels varies by sugar type and source. J.A. Welsh and M.B. Vos. Emory Univ. and Children's Healthcare of Atlanta.


259. THE E.V. MCCOLLUM LECTURE

Keynote Lecture

MON. 12:45 PM—SAN DIEGO CONVENTION CENTER, 20D

TBD. L. H. Allen. USDA, Davis.

260. FRONTIERS IN FIBER NUTRITION RESEARCH AND APPLICATION

Symposium

(Supported by an educational grant from Kraft Foods, Inc. and National Starch, LLC)

(Sponsored by: Nutritional Epidemiology RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 20D

CHAIR: S. M. KUO

COCHAIR: C. L. PEKMAN

3:00 Fibers: roughage, prebiotics and beyond. S. M. Kuo. Univ. at Buffalo.

3:20 New epidemiological evidences on dietary fiber and health. Y. Park. NCI/NIH.

3:40 Fecal bile acid profiling as a biomarker for fiber intake. L. H. Hagey. UCSD.
261. COMMUNICATION TECHNIQUES OF EFFECTIVE SPEAKERS

Symposium
(Supported by an educational grant from the NIH Office of Dietary Supplements)
(Sponsored by: Nutritional Sciences Council (NSC)
Mon. 3:00 PM—San Diego Convention Center, 31A/B/C
Chair: C.A. Swanson
Cochair: J. Engel

Career Development
3:00 Scientifically speaking: how to prepare an effective talk. B. Whitener. IQ Solutions.
3:30 Communicate with more clarity and confidence. N. Tolbert. The Communication Ctr. DC.
4:00 The power of stories. N. Tolbert. The Communication Ctr. DC.
4:30 TBD.

262. A NURTURING ENVIRONMENT PRODUCES FUTURE LEGENDS: DEVELOPMENT OF CAREER THROUGH SUCCESSFUL MENTOR-MENTEE RELATIONSHIPS

Symposium
(Sponsored by: Student Interest Group (SIG)
Mon. 3:00 PM—San Diego Convention Center, 29A/B
Chair: S.C. Chai

Education
Career Development
3:00 TBD. H. G. Anderson, D. Khoury. Univ. of Toronto.
4:00 TBD. R. J. Cousins. Univ. of Florida.
4:20 TBD. V. V. Potter. USDA HNRCA at Tufts Univ.
4:40 Questions and answers.

263. ANTIOXIDANT AND ANTI-INFLAMMATORY EFFECTS ON DIETARY BIOACTIVE COMPONENTS

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
Mon. 3:00 PM—San Diego Convention Center, 32B
Chair: A. Berger
Cochair: S. Ley

3:00 263.1 Phenolics in mulberry leaves protect Hep G2 cells against hyperglycemia-induced oxidative damage. Y-X. Zou, S-T. Liao, F. Liu, J. Blumberg and C-Y.O. Chen. Guangdong Acad. of Agr. Sci., China and USDA at Tufts Univ.
4:00 263.5 Effects of ginger (Zingiber officinale L) on inflammation-induced bone loss. J.L. Funk, J.B. Frye, L.E. Wright and B.N. Timmermann. Univ. of Arizona and Univ. of Kansas.
4:45 263.8 Influence of red pepper spice and turmeric on inflammation, and oxidative stress in overweight females: a metabolomics approach. D.C. Nieman, L. Kam, A.M. Knab and R.A. Shanely. Appalachian State Univ., NC.

264. PREVENTING EARLY CHILDHOOD OBESITY

Minisymposium
(Sponsored by: Nutrition Education RIS)
Mon. 3:00 PM—San Diego Convention Center, 32A
Chair: J. Kim
Cochair: K. Lora

3:00 264.1 The mother-infant dyad study: a grounded theory inquiry into the day-to-day experiences between first-time mothers and their infants that influence feeding practices. J.J. Helvey, K.M. Bower and K.F. Kavanagh. Univ. of Tennessee, Knoxville.


265. ANIMAL RESEARCH MODELS IN NUTRITION AND MUSCULOSKELETAL DEVELOPMENT

Minisymposium

(Sponsored by: Experimental Animal Nutrition RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: R.P. RHoads, Jr

COCHAIR: C.H. STAHL

3:00 265.1 Increased adiposity induced by high dietary butter oil increases vertebrae trabecular structural indices in rats. F.H. Nielsen. USDA, Grand Forks.


4:00 265.4 X-ray fluorescence as an assay tool for musculoskeletal nutrition animal research. R.M. Branly, O.L. Tulp and D. Karam. Broward Coll., FL and USAT Sch. of Med., Montserrat.


4:45 Summary.

266. POLYUNSATURATED FATTY ACIDS AND HEALTH

Minisymposium

(Sponsored by: Energy and Macronutrient Metabolism RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30C

CHAIR: K. CLAYCOMBE

COCHAIR: D. JUMP

3:00 266.1 Oils rich in alpha-linolenic acid independently protect against characteristics of fatty liver disease in the delta-6-desaturase null mouse. J. Monteiro, M. McLennan, L. Hillyer, F. Askarian, M.H. Moghadasian, M.T. Nakamura and D.W.L. Ma. Univ. of Guelph, Canada, Univ. of Manitoba and Univ. of Illinois at Urbana-Champaign.

3:15 266.2 Delta-6 desaturase inhibition reverses cardiopin remodeling and hypertrophy, but not mitochondrial dysfunction, in the aged mouse heart. C.M. Mulligan, C.H. Le, A.B. deMooij and A.J. Chicco. Colorado State Univ.


3:45 266.4 Racial differences in plasma omega-3 long chain fatty acid levels in a cohort of African Americans and European Americans with diabetes and metabolic syndrome. B.A. Wilson, S. Sergeant, H. Ainsworth, R. Mathias and F.H. Chilton III. Wake Forest Sch. of Med. and Johns Hopkins Univ. Sch. of Med.

4:00 266.5 The emerging relationship between the endocannabinoid metabolome, inflammation, and pregnancy. H.A. Durham, J.T. Wood, J.P. Geaghan, A. Makriyannis and C.J. Keefe. LSU AgCtr. and Northeastern Univ.


4:30 266.7 Pre- and post-weaning diets with low omega-6 to omega-3 fatty acid ratio reduced plasma lipid levels and increased cholesterol efflux capacity in the offspring of C57BL/6 mice. K.A. Balogun, R.S. Randunu and S.K. Cheema. USDA, Baylor Coll. of Med.

4:45 266.8 Effects of flaxseed oil supplementation and FADS genotype on declarative memory abilities in toddlers. C.L. Cheatham. Univ. of North Carolina at Chapel Hill, Kannapolis.
MONDAY

267. NUTRITION SCIENCE TRANSLATION: IMPACTS IN POLICY, PRACTICE AND CONSUMERS

Minisymposium

(Sponsored by: Nutrition Translation RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30B

CHAIR: F. WILLIAMSON-HUGHES

COCHAIR: G. JOHNSON

3:00 267.1 Diets that follow the 2010 Dietary Guidelines for Americans are associated with higher intakes of nutrients of concern. L.M. Troy and P.F. Jacques, USDA at Tufts Univ. and Friedman Sch., Tufts Univ.


4:00 267.5 Exploring the landscape of nutrition related marketing in Canada: is it guiding consumers to more healthful dietary patterns? J. Sacco and V. Tarasuk. Univ. of Toronto and Ryerson Univ. Sch. of Nutr. and Policy.

4:15 267.6 Nutrition-related food marketing: a case study of whole grain promotion on breads. D. Sumanac, R. Mendelson and V. Tarasuk. Univ. of Toronto and Ryerson Univ. Sch. of Nutr., Canada.


268. MILK BIOACTIVE COMPOUNDS

Minisymposium

(Sponsored by: Lactation RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30A

CHAIR: L. BODES

COCHAIR: H. HOLSCHER

3:00 268.1 Lactoferrin modulates lipopolysaccharide-induced perturbations in gene expression in human fetal intestinal epithelial cells. E.B. Nonnecke and B.L. Lönnerdal. Univ. of California, Davis.


3:30 268.3 Microbial colonization patterns of piglets fed both sow milk and formula is more similar to that of exclusively sow-reared than formula-fed piglets. M. Wang, E.C. Radlowski, M. Li, M.H. Monaco and S.M. Donovan. Univ. of Illinois, Urbana.


4:00 268.5 Dietary milk polar lipids benefit gut barrier integrity and lipid metabolism in C57BL/6J mice during systemic inflammation induced by Escherichia coli lipopolysaccharide. A.L. Zhou, R.E. Ward and K.J. Hintze. Utah State Univ.


269. ADVANCING NUTRITION POLICY AND IMPROVING THE EFFECTIVENESS OF NUTRITION PROGRAMS

Minisymposium

(Sponsored by: International Nutrition Council (INC)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29C

CHAIR: E. FRONGILLO

COCHAIR: J. LEROY


3:45 269.4 Understanding facilitators and barriers to pregnant women’s participation in a nutrition supplementation program in Bangladesh. J. Woo, G.H. Peito, R.T. Naved, E.A. Frongillo and K.M. Rasmussen. Cornell Univ., ICDDR,B, Dhaka, Bangladesh and Univ. of South Carolina.
Join Us Next Year!
Experimental Biology 2013
April 20 - 24
Boston, MA
272. ISBER SYMPOSIUM: BETTER DISEASE BIOMARKERS THROUGH BIOBANKING

Symposium
(Sponsored by: ASIP and the International Society for Biological and Environmental Repositories)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR: M. HOGAN AND G. HOSTETTER


11:00 Protein expression at the tissue level: the old and the new. G. Hostetter. Van Andel Res. Inst., Grand Rapids, MI.

11:45 Advanced technology for ambient temperature sample preservation. M. Hogan. IntegenX Corp.

273. STOWELL SYMPOSIUM: TRENDS IN EXPERIMENTAL PATHOLOGY: METABOLISM AND CANCER

Symposium
(Supported by an educational grant from Robert E. Stowell Endowment Fund)
(Sponsored by: ASIP and the Italian Pathology Society)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: S. ANDO AND A. MANTOVANI

Neoplasia


10:00 Macrophages metabolism and cancer. A. Mantovani. Univ. of Milan.


11:00 Inflammation as the key link between obesity, metabolic syndrome, and cancer. V. Castronovo. Univ. of Liege.


274. BIOLOGY OF LIVER GROWTH AND REGENERATION

Minisymposium
(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 17B
CHAIR: T. Wu
COCHAIR: K. NEJAK-BOWEN

Liver Pathobiology

8:30 274.1 Hepatic stellate cells modulate the phenotype of liver myeloid dendritic cells rendering them tolerogenic. A. Dangi, T.L. Sumpter, B.M. Matta, D.B. Stolz, N. Murase, A.W. Thomson and C.R. Gandhi. Univ. of Pittsburgh.


9:00 274.3 Estriol-3-sulfate is a substrate to verify functionality of uptake transporters in primary hepatocytes. M. Keiser, J. Radebold, A. Ullrich, G. Damm, A. Nüssler, W. Siemund and D. Runge. Univ. of Leipzig, Med. Fac. and KET Kunststoff and Elasttechnik GmbH, Radeberg OT Liegau-Augustusbad, Germany.

9:15 274.4 Role of reprogramming factors in transdifferentiation of hepatocytes to biliary epithelial cells. V. Bhave, B. Bowen and G. Michalopoulos. Univ. of Pittsburgh.


10:15 274.8 Role of PINCH in regulating liver size and termination of liver regeneration. S. Donthamsetty, W. Mars, C. Wu and G. Michalopoulos. Univ. of Pittsburgh.

10:30 274.9 Role of PDGFRα liver regeneration using hepatocyte-specific knockout mice. P. Awuah, K.N. Nejak-Bowen and S. Monga. Univ. of Pittsburgh Sch. of Med.


11:00 274.11 Impacts of RegIIIβ inactivation on murine hepatic protein nitration induced by acetaminophen. J-W. Yun, K. Lum and X.G. Lei. Cornell Univ.

275. CELL JUNCTIONS AND SIGNALING

Minisymposium

Mon, 9:30 am—San Diego Convention Center, 15B

Chair: J. Waschke

Co-Chair: N. Louis

8:30 275.1 Tandem peptide blocks pemphigus vulgaris skin blistering in vivo and identifies a desmoglein receptor function leading to p38MAPK modulation. V. Spindler, B. Kempf and J. Waschke. Ludwig Maximilians Univ. Munich and Julius Maximilians Univ. Würzburg.


8:54 275.3 JAM-A regulates barrier function through a pathway distinct from that controlling cell migration. A.C. Monteiro, A.L. Ivanov, C.R. Rankin, E.A. Severson, A. Nusrat and C.A. Parkos. Emory Univ., Univ. of Rochester and Brigham and Women’s Hosp.

9:06 275.4 Sorting nexin 27 mediates PDZ-directed trafficking of zona-occludens-2 to the tight junction. C.L. Hueschen, S.P. Zimmerman, S.L. Milgram and M.P. Playford. NHLBI/NIH.

9:18 275.5 IFNy influences epithelial proliferation by modulating Akt-beta catenin signaling downstream of cadherins. P. Nava Dominguez, K.N. Kolegraff, S. Koch, C. Parkos and A. Nusrat. Emory Univ.

9:30 275.6 Disruption of the epithelial barrier upon Shigella flexneri infection. A. Maldonado-Contreras, K. Mummy and B. McCormick. Univ. of Massachusetts Med. Sch.

9:42 275.7 Entamoeba histolytica induces a robust acute inflammatory response with increased colonic permeability and altered tight junction proteins in Muc2− mice. V. Kissoon-Singh, F. Moreau and K. Chadee. Univ. of Calgary, Canada.


9:18 275.5 Inflammasome activation triggered by the cysteine proteases of Entamoeba histolytica. L.M. Mortimer, F. Moreau and K. Chadee. Univ. of Calgary, Canada.

9:30 275.6 Lipocalin 2 confers protection against endotoxin-induced sepsis in mice. M. Vijay-Kumar, J.D. Aitken, G. Srinivasan, B. Zhang and A.T. Gewirtz. Georgia State Univ.


277. LUNCH AND LEARN: BEST PRACTICES OF BIOBANKING AND SPECIMEN COLLECTION

Special Session

(Sponsored by: ASIP Education Committee)

Mon, 12:45 pm—San Diego Convention Center, 14A

Chair: W. Mars, M. Hameed and T. Sander

Did you ever wonder why there can be such high variability in the reproducibility of results from different laboratories? Why is one research group able to lab identify a marker for a particular disease and yet another group never sees it, even when using the same techniques? The answer is generally quite simple: the way the specimens are collected and then stored.

In today’s world where high throughput sampling is becoming the norm for identifying disease biomarkers, this question has never been more important. Those attending this session will be introduced to the factors that are considered important for proper specimen collection and storage and what current best practices of the Pathology field now dictate.


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MONDAY

278. VETERINARY PATHOLOGY SCIENTIFIC INTEREST GROUP

(This session is not CME accredited.)

Poster Discussion

(Sponsored by: ASIP Veterinary Pathology Scientific Interest Group)

MON. 12:45 PM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION
CHAIR: M. McARTHUR, E. GALBREATH, E. WHITLEY AND D. HUTTO

Veterinary Pathology

Anyone interested in veterinary pathology or animal models utilized to elucidate mechanisms of disease is invited to participate in an informal gathering to review interesting posters, meet and interact with a variety of students, residents, fellows, scientists and veterinary pathologists. This gathering has unlimited potential for fun, food and facts. Young scientists have the opportunity for valuable mentoring, networking and exploring potential collaborations. Please join us if you have ever wondered what a veterinary pathologist did.

P1 Effect of naphthalene and copper nanoparticles on three-spined stickleback (Gasterosteus aculeatus). F. Villarreal, E. Falisse, D. Morin, A. Buckpitt and D. Kültz. Univ. of California, Davis and Univ. of Namur, Belgium. (833.13)


P3 Altered neddylation in the heart of a mouse model for myostatin inhibition. S.W. Cotten, K.M. Wadosky, B.L. Copple and J.P. Luyendyk. Univ. of Kansas Med. Ctr. (833.9)


P6 Therapeutic administration of a direct thrombin inhibitor reduces hepatic inflammation in a mouse model of hypercholesterolemia. K.M. Kassel, B.P. Sullivan, B.L. Copple and J.P. Luyendyk. Univ. of Kansas Med. Ctr. (405.7)

P7 Hsp70 and a novel axis of innate immunity in the virus-infected brain. M. Oglesbee, M.Y. Kim, Y. Shu, P. Popovich and S. Niewiesk. The Ohio State Univ. (276.9)

P8 Regulation of the calpain and ubiquitin proteasome system in a canine model of muscular dystrophy with myostatin inhibition. S.W. Cotten, K.M. Wadosky, D. Bogan, J.N. Kornegay and M.S. Willis. Univ. of North Carolina at Chapel Hill. (478.3)


P10 Accumulation and biochemical effects of microcystin-LR on Patagonian silverside (Odontesthes hatcheri) fed with Microcystis aeruginosa cells. C.M. Luquet, F. Bieczynski and V.A. Bianchi. CONICET, Junin de los Andes, Argentina. (833.14)


P12 Development of a new chick choioallantoic membrane model for human pancreas adenocarcinoma. V. Castronovo, A. Gonzalez, P. Delvenne and O. Peuten. Univ. of Liege, Belgium. (479.4)


P15 Expression of pentraxin 3 in the lungs of human, horse, cattle and pig. M. Soron and B. Singh. Univ. of Saskatchewan. (835.9)


P17 The influence of alternative housing on dairy calf innate immune measures after weaning. L.E. Hulbert, M.S. Calvo, K.C. Klasing and F.M. Mitloehner. Univ. of California, Davis. (655.8)


P19 Dissecting the fetal development of cystic fibrosis tracheal abnormalities. D.K. Meyerholz, D.A. Stoltz, P.B. McCray, Jr. and M.J. Welsh. Univ. of Iowa. (143.10)


P27 Fluorescence compared to brightfield detection of CD35 in lymphoid follicles of the monkey to assess immunomodulatory treatment effect. J. Brodbeck, F. Chu, M. Gonzales Edick, L. Rangell, S. Bheddah and G. Cain. Genentech. (655.10)


279. PRESIDENTIAL SYMPOSIUM: PATHOGEN-HOST INTERACTIONS: PROVOKING AND EVADING THE IMMUNE RESPONSE

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: M.B. FURIE

2:00 Introduction.
2:05 Autophagy as a component of the innate immune response. M. S. Swanson. Univ. of Michigan.
2:45 Lyme disease and tularemia: the yin and yang of inflammation. M. B. Furie. Stony Brook Univ.

280. ASIP MEMBERSHIP BUSINESS MEETING AND AWARDS PRESENTATION

(This session is not CME accredited.)

Business Meeting
MON. 5:00 PM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: M.B. FURIE

281. ASIP AWARDS RECEPTION

(This session is not CME accredited.)

Special Session
MON. 6:00 PM—SAN DIEGO CONVENTION CENTER, MEZZANINE FOYER
Open to all attendees

Pharmacology and Experimental Therapeutics

282. LOCATION, LOCATION, LOCATION: THE ROLE OF MEMBRANE MICRODOMAINS IN DOPAMINE TRANSPORTER FUNCTION AND TRAFFICKING

Symposium
(Sponsored by: The Divisions for Neuropharmacology and Molecular Pharmacology)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 2
CHAIR: H. KHOSIBOUEI AND H. MELIKIAN

10:30 The role for the neuronal GTPase, Rin, in dopamine transporter microdomain localization and trafficking. H. Melikian. Univ. of Massachusetts Sch. of Med.
11:00 Membrane cholesterol modulates the outward facing conformation of the dopamine transporter and alters cocaine binding. S. G. Amara. Univ. of Pittsburgh Sch. of Med.
283. COGNITIVE ENHANCEMENT TO IMPROVE TREATMENT OUTCOME AND QUALITY OF LIFE ASSOCIATED WITH NEUROPATHOLOGIES

Symposium

(Sponsored by: The Divisions for Behavioral Pharmacology; Neuropharmacology; and Toxicology)

MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 3
CHAIR: R. GOULD AND M. NADER


10:00 Cognitive deficits associated with cancer chemotherapy and potential pharmacological treatments. E. A Walker. Temple Univ. Sch. of Pharm.


11:30 Nicotinic acetylcholine receptors as targets for cognitive enhancement. M. Sarter. Univ. of Michigan.

284. PERIVASCULAR (P)FAT: PHARMACOLOGY, PHYSIOLOGY AND (P)FUNCTION

Symposium

(Sponsored by: The Divisions for Cardiovascular Pharmacology and Integrative Systems & Translational & Clinical Pharmacology)

MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 4
CHAIR: A. DORRANCE AND S. WATTS

9:30 Emerging fields of study on the adipose tissue. K. Claycombe. USDA, Grand Forks.


10:15 Role of the perivascular renin-angiotensin system in vascular diseases. L. Cassis. Univ. of Kentucky Col. of Med.


285. THE REAL WORLD OF THERAPEUTIC DRUGS: BENCH TO BOARDROOM, THE BEDSIDE AND BEYOND

Symposium

(Sponsored by: The Divisions for Pharmacology Education and Behavioral Pharmacology)

MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5A
CHAIR: P. K. RANGACHARI


9:55 Tomorrow’s prescribers: how should we train them, assess them and support them? S. Maxwell. Univ. of Edinburgh.

10:20 That’s a great drug, but who’s paying for it &mdash beyond the do no harm paradigm. D. Macarios. Amgen.

10:45 Discussing the benefit and risks of drug therapies: interpreting drug information for healthcare providers and patients. S. Milligan. Genentech.


11:35 Open discussion.

286. DRUG DISCOVERY, DEVELOPMENT AND REGULATORY AFFAIRS SYMPOSIUM: MITOCHONDRIAL DYSFUNCTION IN HUMAN DISEASE

Symposium

MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5B
CHAIR: R. DAVIS AND M. WILLIAMS


11:30 Therapeutic potential for mitochondrial disease treatment. R. E. Davis. 3D Pharmaceut. Consultants Inc.

287. PUBLIC AFFAIRS WORKSHOP: FDA’S STRATEGY TO DEVELOP AND VALIDATE NEW ANTICANCER AND CANCER PREVENTION AGENTS AND PATHWAYS

Public Affairs Workshop

MON. 1:00 PM—SAN DIEGO CONVENTION CENTER, 4
CHAIR: K. TEW

1:00 Chair’s introduction.

1:05 Pitfalls in oncology development. K. Delorenzo. FDA, Silver Spring.
1:35  Oncology drug development. **S. Shord.** FDA, Silver Spring.
2:05  Bridging the gap between drug discovery and clinical trials: non-clinical development of oncology drugs. **H. Saber.** FDA, Silver Spring.
2:35  Discussion.

**288. P.B. DEWS LIFETIME ACHIEVEMENT AWARD FOR RESEARCH IN BEHAVIORAL PHARMACOLOGY LECTURE**

**MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 2**

The P.B. Dew Lifetime Achievement Award for Research in Behavioral Pharmacology is given biennially to recognize outstanding lifetime achievements in research, teaching and professional service in the field of Behavioral Pharmacology and to honor Peter Dew for his seminal contributions to the development of behavioral pharmacology as a discipline. Dr. James Barrett was selected for this award based on his accomplishments focusing on some of the most important concepts and questions in the field of behavioral pharmacology, with particular emphasis on the behavioral determinants of drug action.

2:00  Introduction. **N. A. Ator.** Johns Hopkins Sch. of Med.

**289. BERNARD B. BRODIE AWARD IN DRUG METABOLISM LECTURE**

**MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 3**

The Bernard B. Brodie Award in Drug Metabolism has been established to honor the fundamental contributions of Bernard B. Brodie in the field of drug metabolism and disposition. The Award is presented biennially in even years to recognize outstanding original research contributions in drug metabolism and disposition, particularly those having a major impact on future research in the field. Dr. Yuichi Sugiyama receives the Brodie Award in recognition of his outstanding contributions to our understanding of human drug metabolism and transport.

2:00  Introduction. **E. Johnson.** The Scripps Res. Inst.

**290. BEHAVIORAL PHARMACOLOGY DIVISION SYMPOSIUM: THE BEHAVIORAL PHARMACOLOGY OF DRUGS OF ABUSE AND DRUG DEPENDENCE: A TRIBUTE TO STEVE HOLTZMAN AND BOB SCHUSTER**

**Symposium**

**MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 2**

**CHAIRERED: L. DYKSTRA AND C. PARONIS**

3:00  Lessons learned from two of the best. **L. Dykstra.** Univ. of North Carolina at Chapel Hill.
4:00  Some determinants of drug tolerance and dependence. **C. A. Paronis.** Northeastern Univ.
5:00  Building bridges, solving problems: connecting behavioral pharmacological models of self-administration to treatments. **M. Greenwald.** Wayne State Univ. Sch. of Med.

**291. DRUG METABOLISM DIVISION AND JAMES GILLETTE AWARD AND PLATFORM SESSION**

**Oral**

**MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 3**

**CHAIRERED: H. SWANSON**

3:00  Chair’s introduction.
3:25  P450 3A5 is primarily responsible for the formation of the most abundant oxidative metabolite of maraviroc. **Y. Lu, C.W. Hendrix and N.N. Bumpus.** Johns Hopkins Univ. Sch. of Med. (1052.2)
4:05  Hepatic PXR represses **UGT1A1** gene expression during neonatal development. **S. Chen and R.H. Tukey.** UCSD. (1052.4)
5:25  Discussion.

**292. MOLECULAR PHARMACOLOGY DIVISION POSTDOCTORAL AWARD FINALISTS**

**Oral**

**MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 4**

3:00  Cell-intrinsic adenosine A2a receptor signaling is required for T cell homeostasis and tumor surveillance. **C. Cekic, D. Sag and J. Linden.** La Jolla Inst. for Allergy and Immunol. (1119.1)
293. INTEGRATIVE SYSTEMS, TRANSLATIONAL AND CLINICAL PHARMACOLOGY DIVISION YOUNG INVESTIGATOR AWARDS PLATFORM SESSION

Oral

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5A
CHAINE D: J. PAUL
COCHAINE D: H. AKBARALI

3:00 Chair’s introduction.
3:45 Cholecalciferol increases 7-dehydrocholesterol reductase activity in adult human epidermal keratinocytes. L. Zou and T.D. Porter. Univ. of Kentucky. (787.6)
4:00 Break.

294. PHARMACOLOGY EDUCATION DIVISION PROGRAMMING: STRATEGIES FOR PHARMACOLOGY IN INTEGRATED MEDICAL SCHOOL CURRICULUMS: BEST PRACTICES FOR ENHANCING INVOLVEMENT OF OUR DISCIPLINE

Symposium

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5B
CHAINE D: L.M. CRESPO

Education

3:00 The knowledge objectives in pharmacology: our leverage in the curriculum. R. Eisenberg. Univ. of Minnesota.
4:00 Starting with a blank slate: building the curriculum in a new medical school. L. M. Crespo. Univ. of South Carolina, Greenville.
5:00 Panel discussion.

Physiology

295. ASSESSMENT OF STUDENT LEARNING AND SCIENTIFIC TEACHING

Symposium

(Sponsored by: APS Teaching of Physiology Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 26
CHAINE D: M. P. WENDEDOTH

Education

8:00 How to use Bloom’s to assess student learning. M. P. Wendedoth. Univ. of Washington.
8:30 Just the facts? Using Bloom’s taxonomy to characterize the cognitive skills in introductory biology. J. Momsen. North Dakota State Univ.
9:00 Using Bloom’s to inform changes in Introductory Biology course. C. Pollock. Univ. of British Columbia.

9:30 Using the genetics concept assessment to understand misconceptions and assess learning gains. J. Knight. Univ. of Colorado Boulder.

296. CARL LUDWIG DISTINGUISHED LECTURESHIP OF THE APS NEURAL CONTROL AND AUTONOMIC REGULATION SECTION

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 20A

Title: Sympathetic Nerve Activity in Heart Failure: A Critical Role for Central Angiotensin II Receptors

Speaker: I. H. Zucker. Univ. of Nebraska Med. Ctr.
297. COMMUNICATION BETWEEN CARDIAC CELLS AND THE EXTRACELLULAR MATRIX

Featured Topic

(Sponsored by: APS Cardiovascular Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: J. D. CHANG AND J. D. GARDNER

Inflammation and Immune Responses

8:00 Mechanosensing as an important regulator of contractile function in the heart. D. E. Dostal. Texas A&M Hlth. Sci. Ctr.
8:30 Role of Rho kinase in cardiac remodeling. L. Wei. Indiana Univ.
9:00 Matrix metalloproteinase-28 deletion attenuates short-term left ventricular dysfunction but exacerbates cardiac rupture post-myocardial infarction in mice. Y. Ma, J. Zhang, T.A. Ramirez, A.M. Manicone and M.L. Lindsey. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Washington. (1060.1)
9:30 Cardiac-myoocyte ablation of Talin1 results in a blunted hypertrophic response to chronic pressure overload. A.M. Manso, R. Li, N.M. Cruz, Y. Gu, S.M. Chang, B.J. Rasmussen, K.L. Peterson, D. Abel, S.J. Monkley, D.R. Critchley and R.S. Ross. UCSD Sch. of Med. and VA Healthcare San Diego, Univ. of Utah Sch. of Med. and Univ. of Leicester, U.K. (1060.3)
9:45 S1P induces CCN1 expression through RhoA/MRTF-a activation and protects cardiomyocytes against cell death. E. Ding, S. Miyamoto, X. Zhao, S.Y. Xiang, R.R. Neubig and J. Heller Brown. UCSD and Univ. of Michigan. (1060.4)

298. DEVELOPMENT OF THE CONTROL OF BREATHING

Featured Topic

(Sponsored by: APS Respiration Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: F. BAILEY AND R. BAVIS

Physiology of Development

8:30 Arousal from sleep in infants: a major protective mechanism during hypoxia and hypercapnia. R. A. Darnall. Dartmouth Med. Sch.
9:00 The effects of chronic nicotine exposure on chemosensitivity of medullary 5-HT neurons. J. Avraam, Y. Wu and G.B. Richerson. Univ. of Iowa. (1090.8)

299. HYPOXIA INDUCIBLE FACTORS IN HEALTH AND DISEASE

Symposium

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: B. B. REES, C. G. WILSON AND M. WATANABE

Hypoxia and Oxidative Stress

Translational Physiology

8:00 Signaling oxygen levels by protein hydroxylation. P. Ratcliffe. Univ. of Oxford.
8:30 The role of genetic models in determining novel roles for HIF and hypoxic response. R. Johnson. UCSD.
9:00 Molecular basis of congenital disorders of hypoxia sensing and high altitude adaptation. J. Prchal. Univ. of Utah.
9:30 Genomic information controlling the adaptation to long term hypoxia: from flies to humans. G. Haddad. UCSD.

300. ION CHANNELS AS MACROMOLECULAR COMPLEXES

Symposium

(Sponsored by: APS Cell and Molecular Physiology Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: W. A. COETZEE AND M. DELMAR

Transmitters and Ion Channels

8:00 Sodium channels and cardiac desmosomal protein interaction. M. Delmar. NYU Sch. of Med.
8:30 The sodium channel beta subunit as a cell adhesion molecule. L. Isom. Univ. of Michigan Sch. of Med.
9:00 Ankyrin proteins and ion channels. P. Mohler. The Ohio State Univ.
9:30 The KATP channel as a megadalton complex. W. A. Coetzee. NYU Sch. of Med.
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
<th>Institution</th>
<th>Reference</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Modulation of mitochondrial efficiency by dietary nitrate.</td>
<td>F. Larsen</td>
<td>Karolinska Inst.</td>
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<tr>
<td>8:30</td>
<td>Flavonol-mediated enrichment of mitochondrial structure and bioenergetics.</td>
<td>F. Villarreal</td>
<td>UCSD</td>
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<tr>
<td>9:00</td>
<td>AMPK activation by AICAR induces mitochondrial biogenesis in the inner ear.</td>
<td>A.L. Nuttall, T. Wilson, I. Omelchenko and X. Shi.</td>
<td>Oregon Hlth. &amp; Sci. Univ.</td>
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<tr>
<td>9:15</td>
<td>Mitochondrial Ogg1 prevents loss of mitDNA content, decreases mitochondria fission and apoptosis under conditions of oxidative stress in H9C2 cells.</td>
<td>M. Torres-Gonzalez, T. Gawlowski, B. Scott and W. Dillmann.</td>
<td>UCSD Sch. of Med.</td>
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<td>8:00</td>
<td>Mechanisms of diabetes-associated glomerular hyperfiltration.</td>
<td>P. Carmines</td>
<td>Univ. of Nebraska Col. of Med.</td>
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<td>8:30</td>
<td>C-peptide in the pathophysiology of diabetic nephropathy.</td>
<td>C. Maric</td>
<td>Univ. of Mississippi Med. Ctr.</td>
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<tr>
<td>9:00</td>
<td>Sodium retaining actions of insulin in diabetes.</td>
<td>M. Brands</td>
<td>Georgia Hlth. Sci. Univ.</td>
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<tr>
<td>9:30</td>
<td>Novel treatment approaches for diabetic kidney disease.</td>
<td>K. Sharma</td>
<td>UCSD</td>
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<td>8:00</td>
<td>Food preference determined by nutrient sensing in mouth and gut.</td>
<td>A. Sclafani</td>
<td>Brooklyn Col. of CUNY</td>
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<tr>
<td>8:30</td>
<td>Developmental contributions to the metabolic phenotype.</td>
<td>T. H. Moran</td>
<td>Johns Hopkins Univ. Sch. of Med.</td>
<td></td>
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<tr>
<td>9:30</td>
<td>Novel aspect of adipose-brain communication in body weight regulation.</td>
<td>R. Seeley</td>
<td>Univ. of Cincinnati</td>
<td></td>
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305. TRAINEE HIGHLIGHTS IN PHYSIOLOGICAL GENOMICS

Special Session
(Sponsored by: APS Physiological Genomics Group)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: J. L. ZHUO AND C. MORENO-QUINN

8:00 Endoplasmic reticulum (er) stress mediates nuclear factor-κ-B activation in the subfornical organ during slowpressor angiotensin-II hypertension. C.N. Young and R.L. Davison. Cornell Univ. and Weill Cornell Med. Col. (874.11)

8:15 Significantly increased plasma levels of unbound-VEGF in overweight/obese women. K.L. Makey, L. Miele, E. Chinchar, I. Pei, J. Robinson, M. Loftin, D. Waddell, M. Huang and J-W. Gu. Univ. of Mississippi Med. Ctr. and Univ. of Mississippi. (1151.17)


8:45 RNAi silencing of TNFa attenuates cold-induced pulmonary hypertension. P. Crosswhite and Z. Sun. Univ. of Oklahoma Hlth. Sci. Ctr. (874.8)

9:00 Epigenetic mechanism of atherosclerosis and hypertension in hyperhomocysteinemia. N. Narayanan, N. Tyagi, S. Pagni, M.T. Tseng and S.C. Tyagi. Univ. of Louisville. (874.7)

9:15 Mapping a genetic biomarker of blood pressure to <807.3kb using two genetically hypertensive rats. S. Kumarasamy, K. Gopalakrishnan, S. Yergey, M. Ovchinnikov, A.J. Lusis and V.A. Korshunov. Univ. of California, Berkeley. (874.6)


9:45 1H/13C NMR metabolomics in a neonatal rat brain slice model of early and late mild hypothermia treatments of asphyxia. J. Liu, L. Litt, J.G. Pelton, M. Segal, M.J.S. Kelly, M. Kim and T.L. James. UCSF, Lawrence and Univ. of California, Berkeley. (1151.16)

306. ANGIOTENSIN AND SYMPATHETIC NERVE ACTIVITY

Minisymposium
(Sponsored by: APS Neural Control and Autonomic Regulation Section)

MON. 9:00 AM—SAN DIEGO CONVENTION CENTER, 20A
CHAIR: I. H. ZUCKER

Blood Pressure Regulation

9:00 Angiotensin receptor subtypes in CNS cardiovascular control. C. Sumner. Univ. of Florida.


307. ALTERED CENTRAL AND GANGLIONIC CATECHOLAMINERGIC TRANSMISSION IN CARDIOVASCULAR DISEASE

Symposium
(Sponsored by: APS Neural Control and Autonomic Regulation Section)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: D. J. PATERNER AND A. G. TESCHEMACHER


11:00 Angiotensin II and glial-C1 neuron modulation in hypertension. A. G. Teschemacher. Univ. of Bristol.


12:00 Modulation of cardiac sympathetic co-transmitters in cardiovascular disease. N. Herring. Oxford Univ.

308. CHRONIC INTERMITTENT HYPOXIA: RESPIRATORY, AUTONOMIC AND CARDIOVASCULAR CONSEQUENCES

Featured Topic
(Sponsored by: APS Central Nervous System Section)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: A. M. SCHREIHOFER AND G. M. TONEY

Blood Pressure Regulation

Central Control of Homeostasis


11:00 Chronic intermittent hypoxia (cih) alters respiratory rhythmogenesis within the preBötzinger complex. A.J. Garcia, A. Doi, T. Malashchenko, A. Wei, G. Kumar, N.R. Prabhakar and J-M. Ramirez. Seattle Children's Res. Inst., Univ. of Washington and Univ. of Chicago. (899.2)

11:15 Intracellular recordings of respiratory and pre-sympathetic neurons in the ventrolateral medulla of rats submitted to chronic intermittent hypoxia. D.J.A. Moraes, D.B. Zoccal and B.H. Machado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo. (899.1)

11:30 Neuropeptide Y signaling in altered catecholamine synthesis during intermittent hypoxia. G.K. Kumar, G. Raghuraman and N.R. Prabhakar. Univ. of Chicago. (899.12)

11:45 Exposure to acute intermittent hypoxia prolongs sympathoexcitatory and pressor responses evoked by NMDA in the hypothalamic paraventricular nucleus. S.S. Kandlikar, M.A. Andrade, A.S. Calderon and G.M. Toney. Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (899.10)
12:00 Colocalization of angiotensin converting enzyme 1 and FosB in the median preoptic nucleus following intermittent hypoxia. **K.E. Faulk, W.D. Knight, J.T. Little and J.T. Cunningham.** Univ. of North Texas Hth. Sci. Ctr. (899.8)

12:15 Intermittent hypoxia alters circulating leptin levels and the activity of pro-opiomelanocortin hypothalamic arcuate nucleus neurons. **J.M. Moreau, S.A. Messenger and J. Ciriello.** Univ. of Western Ontario. (899.7)

309. **DO I NEED ANOTHER DEGREE?**

Symposium

**(Sponsored by: APS Career Opportunities in Physiology Committee)**

**MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A**

**CHAIREd: J. D. IMIG AND S. D. COAXUM**

**Career Development**

10:30 Opportunities in academia for scientists with an MBA degree. **M. Kluger.** George Mason Univ.

11:00 Physiology and public health: what can an MPH degree do? **R. Carter III.** U.S. Army.


12:00 Benefits and opportunities in science for a JD degree. **B. Taylor.** Patent Lawyer, Roche Tissue Diagnostics, Tucson.

310. **FUTURE DIRECTIONS OF MITOCHONDRIAL BIOENERGETICS IN INTEGRATIVE PHYSIOLOGY**

**Featured Topic**

**(Supported by an educational grant from Seahorse Bioscience, Inc.)**

**(Sponsored by: APS Comparative and Evolutionary Physiology Section)**

**MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 27**

**CHAIREd: M. JASTROCH**

**Hypoxia and Oxidative Stress**

**Translational Physiology**

10:30 Mitochondrial bioenergetics in the intact cell. **D. G. Nicholls.** Buck Inst. for Res. on Aging.

11:00 Antioxidant enhanced spare capacity in cardiomyocytes as a protective response to oxidative stress induced by hypoxia and redox cycling agent. **R. Legmann, J. Melito and D. Ferrick.** Seahorse Bioscience, Billerica, MA. (887.8)


11:30 In vivo spectroscopy provides a new window into mitochondrial bioenergetics. **D. J. Marcinek.** Univ. of Washington Sch. of Med.

12:00 Non-invasive integrative analysis of cardiac energetics, translation to human heart in vivo. **P.H. Dileo, V. Deschodt-Arsac, M. Chapolard, M. Hocini, P. Jais and M. Haissaguerre.** INSERM U1045, Bordeaux Univ. (887.12)

12:15 Mitochondrial functional specialization in glycolytic and oxidative muscle fibers: tailoring the organelle for optimal function. **Y. Burelle, R.T. Hepple and M. Picard.** Univ. of Montreal and McGill Univ. (887.19)

311. **ION CHANNELS**

**Featured Topic**

**(Sponsored by: APS Cell and Molecular Physiology Section)**

**MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C**

**CHAIREd: C. FULLER AND M. CARATTINO**

**Transporters and Ion Channels**

10:30 Expression and functional significance of Ca2+-activated Cl- channels in dendritic cells. **E. Shumilina, K. Szteyn, E. Schmid, M.K. Nurbaeva, W. Yang, K. Kunzelmann and F. Lang.** Univ. of Tuebingen and Univ. of Regensburg, Germany (884.3)

10:45 The N-terminus of CIC-3 determines membrane localization. **F.S. Lamb and M.M. Collins.** Vanderbilt Univ. and Univ. of Iowa. (884.4)


11:15 Chronic ethanol ingestion increases epithelial sodium channel activity in C57BL/6 lung. **D. Trac, E. Brewer and M.N. Helms.** Emory Univ.: Sch. of Med. and Children's Healthcare of Atlanta. (884.6)

11:30 A Deg/ENaC cation conductance regulates migration and cell cycle progression in gliomas. **A.K. Rooj, C.M. McNicholas and C.M. Fuller.** Univ. of Alabama at Birmingham. (884.8)

11:45 The effects of synthetic ASIC1a peptide on glial proliferation. **J.C. Guercio and E. Petroff.** Montclair State Univ. (884.7)

12:00 microRNA 29b is upregulated in pulmonary artery smooth muscle cells from patients with idiopathic pulmonary arterial hypertension and inhibits K+ channel expression and function. **N.M. Pohl, A. Yamamura, H. Yamamura, A. Makino and J.X-J. Yuan.** Univ. of Illinois at Chicago. (884.10)

312. MECHANOBIOLOGY IN THE LUNGS

Symposium
(Sponsored by: APS Respiration Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: C. M. WATERS AND K. RIDGE

10:30 Deformation-induced plasma membrane stress failure.

11:00 Micromechanical properties of intermediate filaments.

11:30 Mechanical properties of migrating cells.
E. Roan. Univ. of Memphis.

12:00 Mechanotransduction and matrix rigidity.
D. Tschumperlin. Harvard Univ.

313. MICROcirculatory SOCIETY YOUNG INVESTIGATOR SYMPOSIUM: OXIDANT STRESS AND INFLAMMATION IN THE MICROcircULATION

Symposium
(Sponsored by: The Microcirculatory Society)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: J. TUNE

10:30 Apocynin improves exercise performance and functional vasodilation by improving KATP function in obese Zucker rats.

10:50 Syndecan-1 modulates leukocyte adhesion in the murine parietal peritoneum microcirculation in response to Staphylococcus aureus lipotechoic acid.
P. Kowalewska and A.E. Fox-Robichaud. McMaster Univ., Canada. (680.8)

11:10 Role of CYP4A/20-HETE pathway in vascular oxidative stress in the Dahl salt-sensitive rat.

11:30 Distinct roles for talin-1 and kindlin-3 in LFA-1-dependent neutrophil rolling and arrest.

11:50 Distinct roles for talin-1 and kindlin-3 in LFA-1-dependent neutrophil rolling and arrest.

12:00 Role of sodium pump β1 subunit in adult mouse lung alveolar fluid homeostasis.
P. Flodby, Z. Borok, D. Gao, Y.H. Kim, K.J. Kim and E.D. Crandall. Univ. of Southern California. (1069.6)

12:15 Renal hemodynamics in the anesthetized giraffe.
316. SOLOMON A. BERSON DISTINGUISHED LECTURESHIP OF THE APS ENDOCRINOLOGY AND METABOLISM SECTION

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20A

Metabolic Diseases
Title: Understanding of Obesity as a Disorder of Energy Homeostasis
Speaker: M. W. Schwartz. Univ. of Washington.

317. WIGGERS AWARD FEATURED TOPIC: CALCIUM HOMEOSTASIS AND ENDOPLASMIC RETICULUM STRESS IN VASCULAR FUNCTION

Featured Topic
(Sponsored by: APS Cardiovascular Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23

CHAIR: R. C. Webb

11:05 Signaling ER redox and folding stress to maintain proper vascular function. C. S. Sevier. Cornell Univ.
12:00 T-type Ca2+channels and the induction of CICR in vascular smooth muscle. K. Bigdely-Shamloo, E.J. Vignond and D.G. Welsh. Univ. of Calgary, Canada. (863.10)
12:15 Time course of doxorubicin accumulation and dysfunction in the rat aorta. N.M. Gibson, D.S. Hydock and R. Hayward. Univ. of Northern Colorado. (866.9)

318. HISTORY OF PHYSIOLOGY GROUP LECTURE

MON. 12:45 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, LA COSTA

Title: Lessons in Respiratory Physiology from the Oxford:Copenhagen Debate and the Three Danish Musketeers

319. EDWARD F. ADOLPH DISTINGUISHED LECTURESHIP OF THE APS ENVIRONMENTAL AND EXERCISE PHYSIOLOGY SECTION

MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 24

Metabolic Diseases
Title: Exercise Only Affects Muscle? Fat Chance

320. CARL GOTTSCHALK DISTINGUISHED LECTURESHIP OF THE APS RENAL SECTION

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 24

Title: Playing in Traffic: Sorting and Signaling in Renal Epithelial Cells
Speaker: M. J. Caplan. Yale Univ. Sch. of Med.

321. CELL MOTILITY IN HEALTH AND DISEASE

Symposium
(Sponsored by: The Biomedical Engineering Society)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25C

CHAIR: A. Kontrogianni-Kostantopoulos and D. Wirtz

3:30 Dysregulation of receptor tyrosine kinase signaling in tumor cell migration and invasion. D. Lauffenburger. MIT.

322. CELLULAR CO2, HCO3− AND PH SENSING

Symposium
(Sponsored by: APS Cell and Molecular Physiology Section)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 26

CHAIR: J. Praetorius and D. Brown

Transporters and Ion Channels

4:00 Luminal chemosensing in the duodenal mucosa. Y. Akiba. UCLA, CURE.
5:00 CO2 and HCO3− sensing in the renal proximal tubule. W. F. Boron. Case Western Reserve Univ. Sch. of Med.
323. COMPENSATORY RESPONSES TO ACUTE OR CHRONIC HYPOXIA EXPOSURE

Featured Topic

(Sponsored by: APS Hypoxia Group)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 22
CHAIRLED: W. SCHRAGE

Hypoxia and Oxidative Stress

Central Control of Homeostasis

3:30 Pulmonary system limitations in COPD: similar to athletes at altitude? M. Amann. VA Med. Ctr., Salt Lake City.


324. EMERGING PARADIGMS IN MICROVASCULAR SIGNALING

Featured Topic

(Sponsored by: APS Cardiovascular Section)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A
CHAIRLED: A. STRAUB AND E. B. WESTCOTT

Blood Pressure Regulation


3:45 The role of Pannexin-1 in the control of resistance vessel tone. M. Billaud. Univ. of Virginia Sch. of Med.


4:15 Myoendothelial contacts within the skeletal muscle arterial network: a potential mediator for divergent control of vascular tone. B.S. Kirby, A. Bruhl and S. Earley. Colorado State Univ. (1058.4)

325. IMPACT OF ENVIRONMENTAL ESTROGENS AND ANDROGENS ON HUMAN AND ANIMAL HEALTH AND REPRODUCTIVE FUNCTION

Symposium

(Sponsored by: APS Comparative and Evolutionary Physiology Section)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIRLED: N. STACHENFELD AND B. B. REES

Metabolic Diseases

Physiology of Development

3:30 Estrogenic activities in marine wildlife: potential causes and population impacts. D. Schlenk. Univ. of California, Riverside.

4:00 Reproductive effects of pesticide exposure in amphibians. T. Hayes. Univ. of California, Berkeley.

4:30 Environmental estrogens and disorders of the reproductive tract. H. S. Taylor. Yale Univ.

5:00 Anogenital distance as a readout of fetal androgen exposure. S. H. Swan. Mount Sinai Sch. of Med.

326. JOSEPH ERLANGER DISTINGUISHED LECTURESHIP OF THE APS CENTRAL NERVOUS SYSTEM SECTION

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 23

Central Control of Homeostasis

Metabolic Diseases

Title: Peptides, Food Intake and Body Weight: Problems of Interpretation

Speaker: S. C. Woods. Univ. of Cincinnati.
327. MOLECULAR SENSORS IN AFFERENTS NEURONS THAT CONTRIBUTE TO PAIN, FATIGUE, AND ACTIVATION OF AUTONOMIC REFLEXES IN HEALTH AND DISEASE

Featured Topic

(Sponsored by: APS Neural Control and Autonomic Regulation Section)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25A

CHAIR: C. BENSON

3:30 ASICs as sensors of metabolites. C. Benson. Univ. of Iowa Carver Col. of Med.

4:00 Applying information from rat and mouse group III-IV afferents to human subjects and patients. A. R. Light. Univ. of Utah.


4:45 Evidence for chemosensitive fibers in the aortic depressor nerve in mice but not in rats. H.M. Stauss, D.A. Morgan and K. Rahmouni. Univ. of Iowa. (892.6)

5:00 A novel pH conditioned Cl conductance in nodose ganglia neurons. R. Wang, C.A. Whiteis, C.J. Benson, M.W. Chapleau and F.M. Abboud. Univ. of Iowa and VA Med. Ctr. (892.7)


328. NOVEL SITES OF REGULATION IN THE PULMONARY VASCULATURE: CONTRADICTIONS AND NONTRADITIONAL RESPONSES

Symposium

(Sponsored by: APS Respiration Section)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28B

CHAIR: M. W. ELDRIDGE AND M. BATES

3:30 Constriction in the microvasculature: muscle is not required. C. St. Croix. Univ. of Pittsburgh.

5:00 Control of pulmonary microvascular perfusion: it's not just arterioles anymore.

329. ORIGINS OF IMPAIRED CARDIOVASCUlar-Renal Function and Body Fluid Balance

Featured Topic

(Sponsored by: APS Water and Electrolyte Homeostasis)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25B

CHAIR: H. NISHIMURA

Metabolic Diseases

Translational Physiology


Prenatal and postnatal programming of hypertension and kidney disease. M. Baum. Univ. of Texas Southwestern Med. Ctr.

Antioxidant treatment during development prevents low birth weight, hypertension, and enhanced sensitivity to mild renal ischemia in offspring exposed to placental insufficiency. N.B. Ojeda, S. Wilkening, J. Dasinger, B.T. Alexander, G. Graves and P. Rhodes. Univ. of Mississippi Med. Ctr. (1101.1)


Gestational chronic intermittent hypoxia causes asymmetric growth restriction and alters cholesterol homeostasis in the liver of Sprague-Dawley rats. W. Iqbal, E. Barry, D. Hardy and J. Ciriello. Univ. of Western Ontario and McMaster Univ., Canada. (1101.3)

Effects of prenatal betamethesone exposure and unilateral nephrectomy on sodium uptake in ovine renal proximal tubule cells from young adult male sheep. Y. Su, J. Bi, L. Tang, J.P. Figueroa and J.C. Rose. Wake Forest Univ. Hlth. Sci. (1102.3)

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Physiology in Medicine

330. USING PHYSIOLOGY TO TRANSLATE CARDIAC REMODELING AND HEART FAILURE

Symposium
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 20A
CHAIR: M. L. LINDSEY AND M. HORN

Translational Physiology


4:00 The importance of cardiac physiology in mice and humans. M. Scherrer-Crosbie. Massachusetts Gen. Hosp.


5:00 The importance of physiology in systems biology approaches to understanding post-MI remodeling. Y. Jin. Univ. of Texas at San Antonio.

Join Us Next Year!

Experimental Biology 2013

April 20 – 24
Boston, MA

American Association of Anatomists (AAA)
The American Physiological Society (APS)
American Society for Biochemistry and Molecular Biology (ASBMB)
American Society for Investigative Pathology (ASIP)
American Society for Nutrition (ASN)
American Society for Pharmacology and Experimental Therapeutics (ASPET)

For further information:
www.experimentalbiology.org
TUESDAY, APRIL 24

Across Societies – Experimental Biology

331. MARC AND PROFESSIONAL DEVELOPMENT
PROGRAMS

Workshop
TUE. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

Career Development

The Experimental Biology 2012 Career Center activities have been arranged by the FASEB Office of MARC & Professional Development. Access to the Career Center is FREE to all registered EB 2012 meeting attendees.

9:00 The job talk. A. Green.
9:15 Making the connection: the relationship between the resume, the interview and the job. J. Blumenthal.
10:00 Academic job search: CVs, letters, statements and start-ups. B. Lindstaedt.
10:00 Navigating graduate work protocol, milestones, requirements. H. Adams.
10:30 Transforming your CV. N. Saul.
11:00 PhD negotiation skills and strategies: how to get what you want and need. A. Green.
11:30 Successful behaviors for winning an interview. J. Blumenthal.
1:00 Making the grade: job talk/chalk talk. D. Behrens.
1:00 Developing/writing the doctoral dissertation. H. Adams.
1:00 Achieving your goals. B. Lindstaedt.
1:30 CV → resume. A. Green.
2:00 Career decisions: how to select a career path that’s best for you. B. Lindstaedt.

332. NATIONAL INSTITUTES OF HEALTH: PROGRAMS AND POLICIES UPDATE FROM INSTITUTES

Tutorial
(Sponsored by: American Association of Anatomists, The American Physiological Society, American Society for Biochemistry and Molecular Biology, American Society for Investigative Pathology, American Society for Nutrition, American Society for Pharmacology and Experimental Therapeutics)
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: J. CHATHAM AND S. BARMAN

Public Policy

2:00 NHLBI: current programs and new initiatives. S. Shurin.
2:30 Common fund programs: what are they and are you eligible for funding? E. Wilder.
3:00 NIGMS strategic plan for training: what does it mean for you? J. Greenberg.
4:30 NIH peer review: where are we and where are we going? R. Nakamura.

333. EPIGENETICS AND REGULATORY RNAs

Platform
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: B. FUTSCHER

Regulatory RNA Mini-Meeting

8:00 333.1 Modulation of Shh signaling by microRNAs. Y. Xu, D. Hu, R. Barbeau, A. Barczak and R. Marcucio. UCSF.
9:20 333.4 Epigenomic implications of antisense transcription. C. Wahlestedt. Univ. of Miami Miller Sch. of Med.
9:40 333.5 ncRNAs, subnuclear architecture, and relocation of regulated transcription units: a strategy for controlling regulated gene programs in the three-dimensional space of the nucleus. M.G. Rosenfeld, L. Yang, C. Lin, W. Liu, E. Nunez, W. Li and Q. Hu. UCSD, HHMI.

334. CRANIOFACIAL BIRTH DEFECTS

Symposium
(Cosponsored by: AAA’s Advisory Committee for Young Anatomists)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: L.B. RUEST

Developmental Biology

8:00 Chair’s introduction.
8:05 334.1 Redefining cleft lip and palate. A.R. Vieira. Univ. of Pittsburgh.


337. THE ROLE OF VARIATION DURING MORPHOGENESIS IN EVOLUTION AND DISEASE

Symposium

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: B. HALLGRIMSSON AND R. MARCUCEO

Developmental Biology

10:30 Chair’s introduction.
11:00 337.2 Tissue interactions that regulate facial morphogenesis. R. Marcucio, N. Young, D. Hu and B. Hallgrimsson. UCSF and Univ. of Calgary, Canada.
11:50 337.4 The phenogenomics of craniofacial shape. B. Hallgrimsson, H.A. Jamniczky, N. Martinez-Abadias, N.M. Young and R.S. Marcucio. Univ. of Calgary, Canada and UCSF.
12:15 Discussion.

338. STEM CELL BIOLOGY

Symposium

(Sponsored by: CSAS and AAA)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: C. ZHAO

Regeneration/Tissue Engineering

10:30 Chair’s introduction.
11:00 338.2 Artificial neural network scaffold transplanted promotes the recovery of structure and function after rat spinal cord transection. Y-s. Zeng. Sun Yat-sen Univ., China.
11:25 338.3 Histone methylation and microRNA mediated regulation of the multipotential state of Flk1+ mesenchymal stem cells. R. C. Zhao. Chinese Acad. of Med. Sci. and Peking Union Med. Col.
12:15 Discussion.
339. DEVELOPMENT AND GROWTH

Platform
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: P. TRAINOR

Developmental Biology

2:45 339.2 A novel gene Crispid2 may contribute to facial dysmorphology in a chicken model of Crouzon’s syndrome. X. Li, S. Tropp, N. Young, B. Hallgrimsson and R. Marcucio. UCSF, San Francisco Gen. Hosp. and Univ. of Calgary, Canada. (907.15)

3:00 339.3 The role of the transcription factor BCL11B in the regulation of growth and asymmetric development of the mouse incisor. K. Kyrylkova, S. Kyryachenko, C. Kioussi and M. Leid. Oregon State Univ.

3:15 339.4 Regulated metabolism of vitamin A by retinol dehydrogenase 10 is critical for embryonic development of the heart. L.L. Sandell. Univ. of Louisville.


4:00 339.7 Cellular patterns of bat (Carollia) forelimb skeletogenesis and their biomechanical consequences. L.N. Cooper, J. Jast, R. Behringer, J.J. Rasweiler IV and K.E. Sears. Univ. of Illinois, Urbana, MD Anderson Cancer Ctr., Univ. of Texas and SUNY Downstate Med. Ctr.

340. REFRESHER COURSE—THE FACTS ABOUT FORMALDEHYDE: WHAT EVERY ANATOMIST SHOULD KNOW

Symposium
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: R. FISHER

Education & Teaching
2:30 Chair’s introduction.
2:34 340.1 Occupational formaldehyde exposure and cancer risk. L. Beane Freeman. NCI/NIH.

341. DISEASES OF THE NERVOUS SYSTEM

Symposium
(Sponsored by: CSAS and AAA)
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: Y-Q. LI

Neurobiology
2:30 Chair’s introduction.
2:35 341.1 TMEM166, a transmembrane protein, regulates cell autophagy and apoptosis in focal cerebrovascular ischemia. C. Zhou. Peking Univ., China.
4:15 Discussion.

POSTER PRESENTERS:
UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby
Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org

LAST DAY TO VISIT EXHIBITS

Tuesday, April 24
9:00 AM – 4:00 PM
Biochemistry and Molecular Biology

342. DELANO AWARD FOR COMPUTATIONAL BIO SCIENCES LECTURE

Award

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 6B

8:30 Introductory remarks. A. Brünger.
8:35 342.1 Physical principles underlying cadherin-mediated cell-cell recognition. B. Honig, Columbia Univ. and HHMI.

343. WILLIAM C. ROSE AWARD LECTURE

Award

TUE. 9:05 AM—SAN DIEGO CONVENTION CENTER, 6B

9:05 Introductory remarks. C. Bustamante.
9:10 343.1 Touring the protein energy landscape: the view depends on where and how you look. S. Marqusee. Univ. of California, Berkeley.

344. TRANSCRIPTIONAL REGULATION DURING GROWTH AND DEVELOPMENT

Symposium

TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F

CHAIRED: J. WysOCKA

9:55 Chair’s introduction.
10:00 344.1 Mechanisms of transcriptional regulation in the p53 network. J. Espinosa. HHMI, Univ. of Colorado Boulder.
10:25 Age-dependent regulation of non-coding RNAs in male germ cell development. A.C.S. Luk, S.H. Ng, W-Y. Chan and T-L. Lee. The Chinese Univ. of Hong Kong Sch. of Biomed. Sci. (922.17)
11:05 Liganded thyroid hormone receptor induces nucleosome removal and histone modifications to activate transcription during adult stem cell development. Y-B. Shi. NICHD/NIH. (922.1)
12:00 Conclusion.

345. NETWORKS AND SPACE

Symposium

TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E

CHAIRED: S. ALTSCHULER

9:55 Chair’s introduction.
10:00 345.1 Dynamic information flow during neutrophil polarization. L. Wu, C-J. Ku, Y. Wang, O. Weiner and S. Altschuler. Univ. of Texas Southwestern Med. Ctr. and UCSF.
10:40 345.2 Spatial organization of signaling in bacterial chemotaxis. V. Sourjik. ZMBH, Univ. of Heidelberg.
11:05 Robust and sensitive control of nitrogen sequestration in Escherichia coli. M. Kim, Z. Zhang, D. Yan, A. Groisman and T. Hwa. UCSD and Indiana Univ. Sch. of Med. (777.1)
11:20 Regulation of activation of Rac1 and Cdc42 GTPases in CHRF-288-11 cells. R.P. Bhullar and B. Xu. Univ. of Manitoba. (769.1)
11:35 345.3 Mechanical tension spatially restricts signals to the leading edge during neutrophil migration. O.D. Weiner. UCSF.
12:00 Conclusion.

346. FACTORS MODULATING PROTEIN QUALITY CONTROL

Symposium

TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D

CHAIRED: J. GESTWICKI

9:55 Chair’s introduction.
10:00 346.1 The interaction of factors required for ER-associated degradation. J.L. Brodsky. Univ. of Pittsburgh.
10:40 346.2 IP3 receptor processing by the ERAD pathway. R.J.H. Wojcikiewicz. SUNY Upstate Med. Univ.
11:05 Regulation of chaperone activity in the endoplasmic reticulum. K. Gehring and G. Kozlov. McGill Univ. (955.5)
12:00 Conclusion.

347. METABOLIC ENGINEERING: FROM ANTIBIOTICS TO BIOFUELS

Symposium

TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C

CHAIRED: D. CANE

9:55 Chair’s introduction.
10:00 347.1 Harnessing unusual precursors in polyketide biosynthesis. M.G. Thomas and H. Park. Univ. of Wisconsin-Madison.
11:35 347.2 Development of *Streptomyces* bacteria as lignocellulose biorefineries. **J.K. Sello.** Brown Univ.

11:40 347.3 Metabolic engineering of *Saccharomyces cerevisiae* for alkaloid production. **C.D. Smolke.** Stanford Univ.

12:00 Conclusion.

10:40 349.2 Biochemical reconstitution and resolution of lipid flippase activities required for protein glycosylation in the ER. **A.K. Menon.** Weill Cornell Med. Col.


12:00 Conclusion.

348. CANCER CELL METABOLISM

**Symposium**

**TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A**

**CHAIRED: R. SHAW**

9:55 Chair’s introduction.

10:00 348.1 Role of autophagy in cancer. **E. White.** Cancer Inst. of New Jersey, New Brunswick.


10:40 348.2 Role of MCT1 in cancer metabolism. **H. Christofk.** UCLA.

10:45 Developing concept-based assessments for cancer cells in situ. **M. Lisanti and F. Sotgia.** Kimmel Cancer Ctr., Thomas Jefferson Univ. (966.1)

11:05 BRAFV600E- and PI3’K-activated signaling pathways cooperate to regulate phosphorylation of ribosomal protein S6 in human melanoma cells. **J.M. Silva and M. McMahon.** UCSF. (967.8)

11:20 Hyperactivation of mitochondrial metabolism in cancer cells in situ. **M. Lisanti and F. Sotgia.** Kimmel Cancer Ctr., Thomas Jefferson Univ. (966.1)


12:00 Conclusion.

349. NOVEL METABOLIC ROUTES OF GLYCOCONEJUGATE ASSEMBLY

**Symposium**

**TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1B**

**CHAIRED: J. HANOVER**

9:55 Chair’s introduction.

10:00 349.1 The biosynthesis of polysialic acid: a developmentally regulated, anti-adhesive glycan. **K.J. Colley, M.G. Thompson, D.A. Foley and J.L. Zapater.** Univ. of Illinois Col. of Med.

10:25 Unusual chemical and enzymatic stability of polysialic acid containing N-glycylneuraminic acid. **L. Davies, O. Pearce, M. Tessier, S. Assar, V. Smutova, A. Pshezhetsky, R. Woods and A. Varki.** UCSD, Univ. of Georgia and CHU Sainte-Justine, Univ. of Montreal. (610.1)

10:40 Welcome and session overview. **E. Bell.** Univ. of Richmond.

10:00 Teaching and learning evolutionary principles, Socratically. **M. Klymkowsky.** Univ. of Colorado Boulder.

10:45 Developing concept-based assessments for biochemistry and molecular biology. **K. Frame.** Natl. Assoc. of Biology Teachers.

11:30 Using a concept inventory to gauge student understanding in a large class. **C. Bailey.** Univ. of Nebraska, Lincoln.

12:00 Discussion.

351. WORK LIFE BALANCE: A PROFESSIONAL DEVELOPMENT WORKSHOP FOR STUDENTS, POSTDOCS AND JUNIOR FACULTY

**Workshop**

**(Sponsored by: ASBMB Membership Committee)**

**TUE. 12:30 PM—SAN DIEGO CONVENTION CENTER, 11A**

**CHAIRED: S. PFEFFER**

Dr. Suzanne Pfeffer, ASBMB President, will engage participants in a discussion to address work-life balance and the practice of successful time management to achieve and sustain personal and professional satisfaction.

**Lunch available for pre-registered event attendees.**
352. ASBMB YOUNG INVESTIGATOR AWARD LECTURE

Award

TUE. 2:55 PM—SAN DIEGO CONVENTION CENTER, 6B


3:00 352.1 Black spot, black death, black pearl: the tales of bacterial effectors. K. Orth. Univ. of Texas Southwestern Med. Ctr.

353. RNA-BASED REGULATION: A DIVERSITY OF MECHANISMS

Symposium

TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6F

CHAIR: T. JOHNSON

3:45 Chair’s introduction.


5:50 Conclusion.

354. COUPLING OF DNA REPAIR AND REPLICATION

Symposium

TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6E

CHAIR: L. SYMINGTON

3:45 Chair’s introduction.

3:50 354.1 Replication forks restarted by homologous recombination display a high frequency of errors at inverted repeats. A.M. Carr and J.M. Murray. Univ. of Sussex, U.K.

4:15 Multiple forms of the E. coli SOS response protein UmuD. J.N. Ollivierre, Q. Huang and P.J. Beuning. Northeastern Univ. (539.7)


5:10 Complex formation between LL-37 and CpG DNA: thermodynamic properties and effects in a prostate cancer progression model. M.L. Craig, C. Dodson, A.S. Gupta and P.D. Deeble. Mary Baldwin Col., VA. (740.6)


5:50 Conclusion.

355. ORGANIZATION OF THE SECRETORY PATHWAY

Symposium

TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6D

CHAIR: C. RABOUILLE

3:45 Chair’s introduction.


4:30 355.2 Self-organization of transitional ER sites. B. Glick, Y. Liu, N. Bharrucha, E. Montagna and D. Bhattacharyya. Univ. of Chicago and ACTREC, Navi, Mumbai, India.

4:55 Calcium-mediated regulation of the Ran gradient and karyopherin nuclear transport receptors. A. Greten, S. Woodward and K.K. Resendes. Westminster Col., PA. (588.1)

5:10 Time-dependent changes in long range sphingolipid organization revealed by high-resolution secondary ion mass spectrometry. M.L. Kraft, H.A. Klitzing, K. Lou, J. Zimmerberg and P.K. Weber. Univ. of Illinois at Urbana-Champaign, NICHD/NIH and Lawrence Livermore Natl. Lab. (987.1)


5:50 Conclusion.

356. TARGETED CANCER DRUG DEVELOPMENT: DEFINING MOLECULAR PROFILES OF SENSITIVITY

Symposium

TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6C

CHAIR: W. HAHN

3:45 Chair’s introduction.


Diacylglycerol acyltransferase 1 functions as a cellular hub to target hepatitis C virus proteins NS5A and core to lipid droplets. M. Ott, G. Camus, E. Herker, C. Harris and R.V. Farese. Gladstone Insts. and UCSF. (790.11)

Bioorthogonal chemistries for glycoprofiling and beyond. C.R. Bertozzi. Univ. of California, Berkeley. (800.6)

Isotuberculosinol: an immunomodulatory diterpenoid from Mycobacterium tuberculosis. R.J. Peters. Iowa State Univ. (800.2)

Acute effects of monounsaturated fatty acids with and without omega-3 fatty acids on vascular reactivity in individuals with type 2 diabetes. P.M. Kris-Etherton. Penn State.

MUFAs on visceral fat and inflammation. Z. Li. David Geffen Sch. of Med., UCLA.

MUFAs in weight management. R. Mattes. Purdue Univ.

Acute effects of monounsaturated fatty acids with and without omega-3 fatty acids on vascular reactivity in individuals with type 2 diabetes. P. M. Kris-Etherton. Penn State.

Effects of MUFAs on visceral fat and inflammation. Z. Li. David Geffen Sch. of Med., UCLA.

MUFAs in weight management. R. Mattes. Purdue Univ.
361. EXPANDING THE FRONTIERS OF NUTRITION RESEARCH: NEW QUESTIONS NEW METHODS AND NEW APPROACHES

Symposium
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: D. PELLETIER
COCHAIR: C. PORTER

8:00 Frontiers in nutrition research: new questions, new methods and new approaches (overview). D. Pelletier. Cornell Univ.

8:30 The Food Dignity Project: action research and CBPR as frontiers in nutrition. C. Porter. Univ. of Wyoming.

9:00 Implementation science in developing countries: a sampling of questions, methods and approaches in large scale micronutrient programs. L. Neufeld and S. Wuehlen. Micronutrient Initiative, Ottawa.

9:30 Implementation science within the U.S.: questions, methods and approaches and state of the field. G. Aarons. UCSD.

362. FOOD AND NUTRITION BOARD UPDATE: NOT AT ALL QUIET ON THE LABELING FRONT, AND REMARQUES ABOUT SODIUM

Symposium
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: L. MEYERS
COCHAIR: D.M. BIER

Education
Public Policy

8:00 Welcome and Food and Nutrition Board update. L. D. Meyers. IOM.

8:05 IOM report on front of package nutrition systems and symbols. D. M. Bier. USDA, Houston.

8:25 Moderated discussion. What’s next? What are the challenges? A. Lichtenstein. Tufts Univ.


9:30 Moderated discussion including audience participation - What’s happening now? What’s anticipated? How do we document the impact? TBD.

363. EFFECTS OF DIETARY BIOACTIVE COMPONENTS ON EXPERIMENTAL MODELS OF CHRONIC DISEASE RISK

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: J. WELAN
COCHAIR: M. PICKLO

8:00 363.1 Pyrroloquinoline quinone (pqq) and indicators of antioxidant potential, inflammation and metabolism in humans. R.B. Rucker, C. Harris, W. Chownanadisai and C. Slupsky. Univ. of California, Davis.


8:45 363.4 Effects of leucine on mitochondrial biogenesis and cell cycle in A-375 melanoma cells. T.M. Flihi1o, M.E. Johnstone and M.B. Zemel. Univ. of Tennessee, Knoxville.

9:00 363.5 Cinnamon counteracts the negative effects of a high fat/high fructose diet on brain insulin signaling and behavior. B. Qin, F. Canini, A.M. Roussel and R.A. Anderson. USDA, Beltsville, MD, Integrity Nutraceut. Intl., Spring Hill, TN, CRSSA Army Res. Ctr. for Hlth., Grenoble and Joseph Fourier Univ., Grenoble.


364. OBESITY, INFLAMMATION AND NUTRIGENOMICS

Minisymposium
(Sponsored by: Nutrient Gene Interactions RIS)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: D. HWANG
COCHAIR: T. ANTHONY

8:00 364.1 Effects of prebiotic inclusion and chain length on intestinal barrier, histomorphology, and mRNA abundance in obese C57BL/6J mice. K.D. Cephas, H.F. Mangian, K.A. Tappenden and K.S. Swanson. Univ. of Illinois at Urbana Champaign.
365. MICRONUTRIENT BIOAVAILABILITY

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: L. SALDANHA

COCHAIR: E. JANLE

8:00 365.1 Vitamin D3 supplementation leads to increased total calcium absorption in 4- to 8-year-old children. S. Abrams, K. Hawthorne and Z. Chen. Baylor Coll. of Med.


9:45 365.8 Biofortified red mottled beans (Phaseolus vulgaris L) in a maize and bean diet provide more bioavailable iron than standard red mottled beans: studies in poultry (Gallus gallus) and an in vitro digestion/Caco 2 model. E. Tako, M.W. Blair and R.P. Glahn. USDA, Ithaca and Cornell Univ.

366. DIET AND CANCER: MOLECULAR TARGETS

Minisymposium

(Sponsored by: Diet and Cancer)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30C

CHAIR: N. EMENAKER

COCHAIR: H. XIAO


8:15 366.2 BRCA-1 promoter hypermethylation and silencing induced by the aromatic hydrocarbon receptor and preventative effects of resveratrol. A. Papoutsis, J. Borg, O. Selmin and D. Romagnolo. Univ. of Arizona.


8:45 366.4 DHA alters EGFR spatiotemporal dynamics to suppress signal transduction. H.F. Turk and R.S. Chapkin. Texas A&M Univ.

9:00 366.5 Synergistic inhibition of lung cancer cell growth by nobiletin and atorvastatin in combination. N. Chaoenosphinph, J. Zheng, P. Qiu, P. Ngaov and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


9:45 366.8 Bovine lactoferrin and bovine lactoferricin are internalized by colon cancer cells and exhibit elevated apoptosis. R. Jiang and B. Lönnerdal. Univ. of California, Davis.
367. NUTRITION, COGNITIVE, PHYSICAL AND FUNCTIONAL HEALTH IN OLDER ADULTS

Minisymposium
(Sponsored by: Aging and Chronic Disease RIS)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30B
CHAIR: D. Houston

COCHAIRED: C. Tangney

8:00 Overview.
3:00 367.2 Memory performance is related to dietary, metabolic, and inflammatory parameters in older adults. D.L. Ballantyne, M.D. Shidler, R. Krikorian and S-Y. Lee. Univ. of Cincinnati and Univ. of Cincinnati Acad. Hlth. Ctr.
9:15 367.5 Intergenerational exergaming physical activity program increases flexibility and strength in older adults. K.A. Strand, S.L. Francis, J.A. Margrett, W.D. Franke and M.J. Peterson. Iowa State Univ.
9:45 Summary.

368. BREASTFEEDING: DETERMINANTS INITIATION, DURATION AND OTHER LACTATION SUCCESS OUTCOMES

Minisymposium
(Sponsored by: Lactation RIS)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30A
CHAIR: C. Lovelady

COCHAIRED: B. Olson

8:15 368.2 Poor positioning, decreased prolactin levels, and low milk output associated with early cessation of exclusive breastfeeding in obese women. L.E. Hauff and E.W. Demerath. Cornell Univ. and Univ. of Minnesota, Minneapolis.

8:45 368.4 Maternal hospital experiences and exclusive breastfeeding in the first six months among WIC participants. M. Koleilat, S. Whaley and L. Jiang. PHFE WIC Prog., Irwindale, CA.

369. CHILD NUTRITION AND GROWTH: ISSUES AND CHALLENGES

Minisymposium
(Sponsored by: Nutritional Epidemiology RIS)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29C
CHAIR: K. Kordas

COCHAIRED: N. Ahluwalia

8:00 Overview.
8:30 369.2 Lower dairy calcium and dairy vitamin D intakes are associated with increased skeletal muscle fatty infiltration in adolescent girls. D. Vassallo, V. Lee, M. Laundermill, R. Blew and S. Going. Univ. of Arizona and Univ. of Pennsylvania.
10:30 The good, the bad and the ugly: adaptive and pathologic roles of inflammation and ROS in obesity. M. S. Obin. USDA at Tufts Univ.

11:00 The effect of macrophage secreted factors on preadipocyte fate: adipogenesis and survival. A. Sorisky. Univ. of Ottawa.


12:00 The Nrf2/antioxidant pathway and adipocyte function. J. Chan. Univ. of California, Irvine.

371. THE FUTURE OF NUTRITION RESEARCH

Symposium

(Sponsored by: Public Policy Committee)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C

CHAIR: S.M. Hutson

Public Policy

Career Development


10:40 Identifying nutrition research gaps. S. Hutson. Virginia Tech.

10:50 The future of nutrition research. R. M. Russell. ODS/NIH


Speakers: J. Milner, NC/NIH
D. Bier, Children's Nutr. Res. Ctr., Houston
A. C. Ross, Pen State
Z. Li, UCLA
D. Klurfeld, USDA, Beltsville, MD.
J. Mein, Monsanto
P. Stover, Cornell Univ.
372. CLINICAL NUTRITION UPDATE 2012

Symposium
(Supported by an educational grant from Abbott Nutrition)
(Sponsored by: Medical Nutrition Council (MNC)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29A/B

CHAIR: E. SALTZMAN

COCHAIR: C.W. BALES AND M.A. JOHNSON

Education

Career Development

12:06 Update on hospital nutrition support. T. R. Ziegler. Emory Univ.

373. DIETARY BIOACTIVE COMPONENTS

Minisymposium
(Supported by an educational grant from Abbott Nutrition)
(Sponsored by: Dietary Bioactive Components RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32B

CHAIR: K.J. YEUM

COCHAIR: J.B. BLUMBERG AND STUDENT CHAIR: K. ZUNGLA

10:30 Overview.
10:45 373.1 Comparison of phenolic acid profiles and anti-inflammatory effects of two major species of blueberries in the U.S. J. Kang, K.M. Thakali and X. Wu. Univ. of Arkansas for Med. Sci.
11:15 373.3 Flavan-3-ol isolated from rhizome of Drynaria fortunei (Kunze) J. Sm. exerts osteoprotective effects via its actions on osteoblastogenesis and osteoclastogenesis. M-S. Wong, K-C. Wong, X. Dong, M-C. Law and T-H. Chan. The Hong Kong Polytech Univ.
12:00 373.6 Preliminary characterization of secreted bioactive compounds from Bifidobacterium longum with modulatory activity towards enterocytic fasting induced adipocyte factor. P. Pham, R. Cotten, T. Kolinek, S. Parker, D. Vattem and V. Maitin. Texas State Univ., San Marcos.

374. CHILDHOOD OBESITY: WHEN SHOULD WE INTERVENE?

Minisymposium
(Sponsored by: Obesity RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32A

CHAIR: S. GOODELL

COCHAIR: W. DIETZ

10:30 374.1 Gestational weight gain is associated with postpartum weight retention and infant anthropometrics. F. Begum, I. Colman, L. McCargar, R.C. Bell and APrON. Study Team. Univ. of Alberta and Univ. of Ottawa.
10:45 374.2 Breastfeeding and obesity: WIC policy changes increase breastfeeding rates and reduce obesity at age four. S. Whaley, M. Koleilat and M. Whaley. PHFE WIC Prog., Irwindale, CA.
11:00 374.3 Early obesity prevention: a randomized trial of a practice-based intervention in 0-24 months infants. N. Schroeder, B. Rushovich, E. Bartlett, J. Gittelsohn and B. Caballero. USDA, Beltsville, Univ. of Maryland Baltimore and Johns Hopkins Univ.
375. INTESTINAL PHYSIOLOGY AND DIGESTIVE FUNCTION

Minisymposium

(Sponsored by: Experimental Animal Nutrition RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: J. ODLE
COCHAIR: S.W. KIM

10:30 Overview.
10:45 375.1 Development of a simple in vitro digestion model suitable for multi-nutrient food systems. V.M. Garcia-Campayo, K. Ross, P. Ayeni, A. Bonnema and A. Berger. Cargill Inc., MN.
11:00 375.2 Development of a proof of concept bioassay core laboratory for in vivo testing of functional food products in animal models. K.L. McCutcheon, R.J. Martin and M.J. Keenan. LSU AgCtr.
11:15 375.3 Chronic antibiotic administration increases intestinal mass but inhibits functional adaptation in an intestinal failure piglet model. J.L. Barnes and K.A. Tappenden. Univ. of Illinois at Urbana-Champaign.
11:45 375.5 The gut microbiome of kittens is affected by dietary protein: carbohydrate ratio and correlated with blood metabolite and hormone concentrations. S. Hooda, B.M. Vester Boler, S.E. Dowd and K.S. Swanson. Univ. of Illinois, Urbana and Res. and Testing Lab., Lubbock.
12:00 375.6 Adaptation to every other day feeding leads to an increase in small intestine transit-amplifying cells and a decrease in gonadal fat. A.T. Mah, L. Van Landeghem, R.E. Blue and P.K. Lund. Univ. of North Carolina at Chapel Hill.

376. DIET AND CANCER: ANIMAL STUDIES

Minisymposium

(Sponsored by: Diet and Cancer RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30C
CHAIR: M.Y. HONG
COCHAIR: N. SIRIWARDHANA

10:45 376.2 Dietary supplementation with methylseleninic acid, but not selenomethionine, reduces spontaneous metastasis of Lewis lung carcinoma in mice. L. Yan and L.C. Demars. USDA, Grand Forks.
11:00 376.3 Polyphenolic extract from Mangifera indica is cytotoxic in ER + BT474 breast cancer cells and targets the SHIP-1-phosphatidylinositol3-kinase-Akt through microRNA-155. N. Banerjee, S. Arbizu, K.A. Krenek and S.M. Talcott. Texas A&M Univ.
11:15 376.4 The effect of tomato powder, soy germ, or a combination on prostate carcinogenesis in TRAMP mice. K. Zuniga, S. Clinton, J.M. Thomas-Ahner and J.W. Erdman, Jr. Univ. of Illinois at Urbana-Champaign and The Ohio State Univ.
12:00 376.7 Effects of high-fat diet on intestinal permeability and inflammation-associated tumorigenesis. M-Y. Kim, Y-J. Bae, Y-K. Bak, J. Kim and M-K. Sung. Sookmyung Women’s Univ. and Hanbuk Univ., South Korea.

377. TRANSLATION OF NUTRITION SCIENCE TO PUBLIC HEALTH

Minisymposium

(Sponsored by: Nutrition Translation RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30B
CHAIR: B. RICE

10:30 Overview.
11:15 377.3 Correlation of the nutrition metric profiling tool. A. Magness, M. McAllaster, K. McInnis, C. Roberts-Gray, S. Sweitzer and M. Briley. Univ. of Texas at Austin, Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Third Coast R&D, Galveston.
12:15 Summary.
378. GLOBAL HEALTH: DIETARY INTAKES AND HEALTH OUTCOMES IN DIVERSE POPULATIONS

Minisymposium
(Sponsored by: Nutritional Epidemiology RIS)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30A
CHAIR: J. McDermid
COCHAIR: L. Troy

10:30 378.1 Burden and determinants of childhood undernutrition in an urban slum community in Ibadan, Nigeria. F.O. Samuel and F.B. Fadeyi. Univ. of Ibadan, Nigeria.


11:00 378.3 Race, diet, and body size contribute to skeletal parameters in female adolescents. B. Martin, C. Whisner, L. Delany and C.M. Weaver. Purdue Univ.


11:45 378.6 Food-waste study in 10 classes of first grade students to examine the proposed USDA guidelines for the School Breakfast Program 2011. N. Carr and S. Kranz. Purdue Univ.


379. DIETARY SUPPLEMENTS AS A POPULATION EXPOSURE IN CAUSATION, PREVENTION AND MANAGEMENT OF DISEASE

Minisymposium
(Sponsored by: Nutritional Epidemiology RIS)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29D
CHAIR: R. Bailey
COCHAIR: Y. Song

10:30 379.1 Making sense of dietary supplement research and a framework for the future. P.M. Coates and R. Bailey. ODS/NIH.


11:00 379.3 Dietary supplement use during pregnancy: results from the National Health and Nutritional Examination Survey. A. Brannum, B. Singer and R. Bailey. Ctrs. for Dis. Control and Prevent., Hyattsville, MD, Univ. of Maryland College Park and ODS/NIH.


11:45 379.6 Dietary supplement users report physicians are primary source of information in East and West geographic regions. A. Kazaks, M. Rozga and J. Stern. Bastyr Univ., WA, Michigan State Univ., Univ. of California, Davis.


380. BEHAVIORAL SCIENCE AND EATING BEHAVIOR CHANGE

Minisymposium
(Sponsored by: Nutrition Education RIS)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29C
CHAIR: Y. Chu
COCHAIR: M. Spence and STUDENT CHAIR: S. Hirshberg

10:30 380.1 Social influences on sugar consumption during pregnancy. J. Graham, L.E. Forbes, M. Mayan, L. McCargar, R.C. Bell and Sweet Moms Team. Univ. of Alberta.

10:45 380.2 Association of the parental feeding practices and type and home availability of sugar-sweetened beverages and fruit juice of preschool children from low income families. K. Lora, C. Quesada, D. Wakefield and A. Ferris. Univ. of Connecticut Hlth. Ctr., East Hartford.

11:00 380.3 Relationship between executive function, mood, and eating behavior in preschoolers. J. Pieper and K. Laugero. Univ. of California, Davis and USDA, Davis.

11:30 **380.5** Grocery store podcast about omega-3 fatty acids positively impacted shopping behavior. D. Bangia, D.M. Palmer and C. Johnson. Rutgers, The State Univ. of New Jersey.


**381. W.O. ATWATER LECTURE**

*Keynote Lecture*

*(Supported by an educational grant from USDA, Beltsville)*

*(Sponsored by: USDA, Beltsville)*

**TUE. 12:45 PM—SAN DIEGO CONVENTION CENTER, 20D**

**Title:** From Instinct to Intellect: 150 Years in Evolution of Energy Balance in Man

**Speaker:** J. O. Hill. Univ. of Colorado Denver.

**382. EMERGING BIOMARKERS FOR CARDIOVASCULAR DISEASE: BEYOND LDL CHOLESTEROL**

*Symposium*

*(Supported by an educational grant from National Dairy Council)*

**TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 20D**

**CHAIR:** S.B. Roberts

**COCHAIR:** N. Krebs

**3:00** Introduction. S. B. Roberts. USDA at Tufts Univ.

**3:05** Worksite interventions for primary prevention of weight gain. S. Beresford. Univ. of Washington.


**4:00** Cost-benefit projections for health care savings associated with worksite weight loss programs. C. Meyerhoefer. Lehigh Univ.

**4:30** Panel discussion.

**383. INTERVENTION POINTS IN OBESITY: HOW EFFECTIVE ARE WORKSITE INTERVENTIONS FOR WEIGHT CONTROL AND REDUCING EXCESS HEALTH CARE COSTS ASSOCIATED WITH OBESITY?**

*Symposium*

*(Sponsored by: Medical Nutrition Council (MNC) and Obesity RIS)*

**TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 31A/B/C**

**CHAIR:** S.B. Roberts

**COCHAIR:** N. Krebs

**3:00** Introduction. S. B. Roberts. USDA at Tufts Univ.

**3:05** Worksite interventions for primary prevention of weight gain. S. Beresford. Univ. of Washington.


**4:00** Cost-benefit projections for health care savings associated with worksite weight loss programs. C. Meyerhoefer. Lehigh Univ.

**4:30** Panel discussion.

**384. SCIENTIFIC CAREER ADVANCEMENT FOR EARLY STAGE INVESTIGATORS**

*Symposium*

*(Sponsored by: Young Professional Interest Group (YPiG))*

**TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B**

**CHAIR:** V.V. Potter

**Education**

**Career Development**

**3:00** Upper level scientist from government agency. K. M. O’Connell. USDA.


**3:40** New professor from research university. J. W. Perfi eld. Univ. of Missouri-Columbia.

**4:00** New professor from small liberal arts college. K. F. Hilpert. SUNY Oneonta.

**4:20** Tenured professor from research university. E. M. Evans. Univ. of Georgia.

**4:40** New professor from medical school. A. L. Hevener. UCLA.

Please Silence Your Cell Phones during Sessions
385. CARDIOVASCULAR EFFECTS OF DIETARY BIOACTIVE COMPONENTS

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: D. Klimis-Zacas

COCHAIR: J.Y. Lee and STUDENT CHAIR: K. Sant

3:00 385.1 Grape polyphenols improve blood pressure and vascular function in men with metabolic syndrome. J. Barona, J.S. Volek and M.L. Fernandez. Univ. of Connecticut and Univ. of Antioquia, Colombia.

3:15 385.2 A mixture of grape seed and skin extract, green tea extract, resveratrol, and quercetin reduces blood pressure in hypertensive subjects with metabolic syndrome. T. Jalili, S. Beisinger, A. Quadros and A. Rabovsky. Univ. of Utah and Melaluca Inc., Idaho Falls.

3:30 385.3 Arterial stiffness and blood pressure are reduced after watermelon supplementation in obese with prehypertension and hypertension. A. Figueroa, M.A. Sanchez-Gonzalez, A. Wong and B.H. Arjmandi. Florida State Univ.


4:00 385.5 Wild blueberry consumption markedly attenuates concentration and expression of inflammatory markers in the obese Zucker rat. S. Vendrame, A. Daugherty, A.S. Kristo and D. Klimis-Zacas. Univ. of Maine.

4:15 385.6 Hypolipidemic effect of a blue-green alga, Nostoc commune var. sphaeroides Kützing, is attributed to algal residue but not lipid extract in C57BL/6J mice. C.S. Ku, B. Kim, T.X. Pham, Y. Yang, Y. Park, T.P. Carr, C. Weller and J. Lee. Univ. of Connecticut and Univ. of Nebraska-Lincoln.

4:30 385.7 Whole apple but not apple pectin affects cardiac pathology and the oxidative stress/antioxidant transcriptome in obese rats. E.M. Seymour, P.R. Brickner, K.N. Bosak, M.G. Kondoleon and S.F. Bolling. Univ. of Michigan.


386. VITAMIN D AND OBESITY: FROM CELLULAR TO CLINICAL TRIALS

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: C. Palacios

COCHAIR: M.J. Hamadeh


3:15 386.2 Vitamin D regulates apoptosis in adipocytes via Ca²⁺ signaling. I.N. Sergeev. South Dakota State Univ.

3:30 386.3 High-dose (4000 IU) vitamin D supplementation improves insulin resistance in obese adolescents. A.M. Belenchia, A.K. Tosh, L.S. Hillman and C.A. Peterson. Univ. of Missouri-Columbia and Univ. of Missouri Hosp. & Clins.

3:45 386.4 Association between vitamin D metabolites in fat tissue and serum 25-hydroxyvitamin D in overweight and obese adults. B.D. Piccolo, E. Gertz, A.P. Thomas, N.L. Keim, S.H. Adams, E. Seyoum, G. Dolnikowski and M. Van Loan. Univ. of California, Davis, USDA, Davis and USDA at Tufts Univ.

4:00 386.5 Association between vitamin D status, cardiometabolic risk factors and metabolic syndrome in Puerto Rican adults. C. Palacios, C. Perez, M. Guzman, A.P. Ortiz and E. Suarez. Sch. of Publ. Hlth. and Sch. of Med., Med. Sci. Campus, Univ. of Puerto Rico.


4:45 386.8 Vitamin D and TNF-alpha effects on adipogenesis and inflammation in human adipocytes. R.J. Wood, B.E. Gray, Y-C. Kim and A.G. Ronnenberg. Univ. of Massachusetts Amherst.

387. RISK FACTOR MODIFICATION IN CHRONIC DISEASE I: MACRONUTRIENT MANIPULATION

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: C. Bales

COCHAIR: C. TANGNEY

3:00 Overview.

TUESDAY


Abstract 387.3 moved to the end of Tuesday Poster Session 812.


388. DIET AND CANCER: TRANSLATIONAL, CLINICAL AND SURVIVORSHIP

Minisymposium

(Sponsored by: Diet and Cancer RIS)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30C

CHAIR: J. WHelan

COCHAIR: J.R. ZHOU

3:00 Overview.


3:30 388.2 Alcohol and breast cancer risk in five ethnic groups: the Multiethnic Cohort. S-Y. Park, L.N. Kolonel, B.E. Henderson and L.R. Wilkens. Univ. of Hawaii Cancer Ctr. and Univ. of Southern California.


4:00 388.4 Living WCRF recommendations associated with less prostate cancer aggressiveness among African and Caucasian Americans. L. Arab, J. Su, S. Steck, A. Ang, E. Fontham, J. Bensen and J. Mohler. UCLA, NCI/NIH, Univ. of Southern California, LSU, New Orleans, Univ. of North Carolina at Chapel Hill and Roswell Park Cancer Inst.


389. REVITALIZING LOCAL FOOD SYSTEMS

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30B

CHAIR: C. PORTER

COCHAIR: N. FITZGERALD


3:45 389.4 Successful strategies and barriers to community gardening in metro Atlanta, Georgia. J.L. Self, A. Wyatt and A. Webb Girard. Emory Univ.

4:00 389.5 Nutrition education and cooking classes with teen and adolescent mothers. I. Scripa, C. Dobson, E. Yamaguchi and M. Taylor. Univ. of North Carolina at Greensboro and YWCA of Greensboro.


3:00  Overview.


3:45  391.4  Evaluating the quality of foods and beverages offered to preschool children at childcare centers using the Healthy Eating Index-2005. T. Erinosho, S. Ball, P. Hanson and D. Ward. Univ. of North Carolina at Chapel Hill.


4:30  391.7  Is fruit and vegetable intake of preschool children associated with parental feeding practices? J.E. Shim, J. Kim and STRONG Kids Research Team. Seoul Natl. Univ. and Univ. of Illinois at Urbana-Champaign.


Pathology

393. SCIENTIFIC SLEUTHING OF HUMAN DISEASE FOR HIGH SCHOOL TEACHERS

Special Session
(Supported by an educational grant from Intersociety Council for Pathology Information)
(Sponsored by: ASIP Education Committee)

TUE. 8:30 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR
CHAIR: K. NEJAK-BOWEN and M.B. FURIE

Education

Are you a high school science teacher interested in integrating concepts of human disease into your regular science curricula, or an undergraduate from a local college or university who is interested in learning more about pathology? If so, this workshop is for you! “Scientific Sleuthing of Human Disease for High School Teachers” will include presentations and handouts by three leading research pathologists on specific topics appropriate for classroom use, as well as information on pathology resources on the web. And this year we are adding a special “hands-on” component, where workshop attendees will have the opportunity to examine plasticized lung specimens up close and personal! The session will end with a tour of the latest scientific equipment and advances in technology in the Convention Center exhibit hall. Teachers are also welcome to bring students who have completed or are enrolled in an advanced biology course.

Space in this free workshop is limited, so register early!

8:30 Check-in and continental breakfast.
10:15 Break.
11:15 Break.
12:15 Tour the exhibits.

394. MOLECULAR AND CELLULAR BASIS OF DISEASE: HOST-MICROBE INTERACTIONS: THE MICROBIOTA AND SYSTEMIC DISEASE

Symposium
TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: A.S. NEISH
COCHAIR: S. LYNCH

Host-Microbe Interactions

10:00 Microbiota in systemic autoimmune disease. A. V. Chervonsky. Univ. of Chicago.
10:45 Lactobacillus rhamnosus GG inhibits neutrophil extracellular trap formation. L. Vong, R.J. Lorentz, A.J. Sousa, M. Glogauer and P.M. Sherman. The Hosp. for Sick Children and Univ. of Toronto.

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395. SCVP SYMPOSIUM: THE PATHOGENESIS AND MOLECULAR DIAGNOSIS OF CARDIOMYOPATHIES

Symposium
(Sponsored by: ASIP and the Society for Cardiovascular Pathology)

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16B
CHAIR: L.M. BUJA AND J. SEIDMAN

Cardiac Pathobiology

10:00 Molecular genetics and pathogenesis of arrhythmogenic right ventricular cardiomyopathy. A. J. Marian. Univ. of Texas Hlhs. Sci. Ctr. at Houston.

396. AUTOPHAGY IN CELLULAR HOMEOSTASIS AND DISEASES

Workshop

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR: A.I. IVANOV AND X-M. YIN

8:30 Ras, autophagy, and glycolysis. J. Debnath. UCSF.
10:00 396.1 Heavy metal scavenger metallothionein mitigates deep hypothermia-induced myocardial contractile anomalies: role of autophagy. S. Jiang and J. Ren. Univ. of Wyoming.
10:36 Exogenous calcium induces autophagy via classical autophagic machinery and recruits endoplasmic reticulum membranes to form autophagosomes. X. Chen, M. Li, W. Gao and X-M. Yin. Indiana Univ. - Purdue Univ. Indianapolis and Univ. of Pittsburgh.
11:12 396.5 mdx Mice have a defect in autophagy that is restored by rapamycin-loaded nanoparticle treatment. A.J. Li, K.P. Bilee, J.N. Marsh, C.C. Weihl and S.A. Wickline. Washington Univ. in St. Louis.

397. COMBATING CANCER THROUGH IMPROVED DIAGNOSIS AND THERAPEUTICS

Minisymposium
TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 15B
CHAIR: M.E. SOBEL
COCHAIR: A. GASPERI-CAMPANI

Neoplasia

8:30 397.2 New diagnostic approaches mediated by oligonucleotide aptamer (a revolutionary antibody?). Y. Zu, Z. Zeng and P. Zhang. The Methodist Hosp., Houston.
8:45 397.3 CSR1 inhibits XIAP. J. Luo, Z-L. Zheng and Y.P. Yu. Univ. of Pittsburgh.
9:30 397.6 Rational selection of antigens for targeted therapy of liver metastases. A. Turtoi, A. Blomme and V. Castronovo. Univ. of Liege, Belgium.
10:00 397.8 B-lymphocyte stimulator in neuroendocrine tumors: correlation with disease behaviour. M. Fabris, E. Tonutti, S. Pizzolitto, M. Isola, F. Curcio and F. Grimaldi. Azienda Hosp., Udine and Univ. of Udine, Italy.

398. NEUROPATHOLOGY

Minisymposium
TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 15A
CHAIR: C. WILEY
COCHAIR: E. MASLIAH

Neuropathology

8:30 398.1 Gender differences in decreased ambulation and balance associated with Alzheimer’s disease. E. O’Mahony, H. Schlueter, J. Hong and S. Stavraneas. Willamette Univ.
8:45 398.2 Imaging functional anatomy in the brain of mouse models of human disease. E.L. Bearer, J.J. Gallagher, A. Gonzales and R.E. Jacobs. Univ. of New Mexico and Caltech.
9:00 398.3 Reduced ABC efflux transporter function in activated microglia: implications in neurodegeneration. C. Gibson, J.R. Richardson and L.M. Aleksunes. Rutgers Univ. and UMDNJ, Piscataway.
Regulation of Angiogenesis via Dual Receptor Antagonism


399. REGULATION OF THE EXTRACELLULAR MATRIX IN THE PATHOPHYSIOLOGY OF DISEASE

Minisymposium

(Sponsored by: ASIP Cell Injury Scientific Interest Group)

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17B

CHAIRMED: C. YATES-BINDER

COCHAIRMED: J. HOMEISTER

Cell and Tissue Injury

8:30 Introductory remarks.
8:40 Regulation of angiogenesis via dual receptor antagonism. R. V. Iozzo. Thomas Jefferson Univ.

9:30 399.1 Exosomes, allostery, and active site in MMP engagement of elastin, collagen, and heparin from the matrix. S.R. Van Doren, Y. Fulcher, T. Byrne, Y. Zhao, F. Zhang, R. Linhardt and G. Fields. Univ. of Missouri-Columbia, Rensselaer Polytech Inst. and Torrey Pines Inst. for Molec. Studies, Port St. Lucie, FL.


400. NEUROPATHOLOGY SCIENTIFIC INTEREST GROUP LUNCH/NETWORKING SESSION

(This session is not CME accredited.)

Special Session

(Sponsored by: ASIP Neuropathology Scientific Interest Group)

TUE. 11:45 AM—SAN DIEGO CONVENTION CENTER, 33A

CHAIRMED: C.A. WILEY AND C. KOLARCICK

Neuropathology

The ASIP Neuropathology Scientific Interest Group will hold its first meeting at noon on Tuesday April 24th. Our first session will be an informal gathering of investigators from a broad range of disciplines who share a common interest in mechanisms of neurological disease. Given the diverse group of investigators attending the annual ASIP meeting, we hope to foster cross-disciplinary discussions to build multi-disciplinary networks. We are particularly interested in engaging current pre-doctoral students and postdoctoral trainees that may be interested in neuropathology research. After brief introductions, we will highlight current hot topics in neurological disease and make plans for programming at future ASIP meetings. Light refreshments will be provided.

401. ISAMM SYMPOSIUM: ADVANCES IN ULTRASENSITIVE RNA IN SITU HYBRIDIZATION

(This session is not CME accredited.)

Symposium

(Sponsored by: ASIP and the International Society for Analytical and Molecular Morphology)

TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17B

CHAIRMED: R.R. TUBBS AND L.E. DEBAULT


3:10 RNA ish—a useful tool to evaluate head and neck carcinomas for transcriptionally-active HPV. J. S. Lewis. Washington Univ.


402. MOLECULAR AND CELLULAR BASIS OF DISEASE: HOST-MICROBE INTERACTIONS: SESSION 2: NEW CONCEPTS IN VASCULAR BIOLOGY: ENDOThelial BACTERIAL INTERACTIONS

Symposium
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16A
CHAIRED: M. Hickey
COCHAIRED: F.W. LUSCINSKAS

Host-Microbe Interactions
2:00 Imaging the inflammatory response—examination of bacterial interactions in the vasculature. M. J. Hickey. Monash Univ.
3:30 Penetration of the blood-brain barrier by bacterial pathogens. K. S. Doran. San Diego State Univ.
4:15 402.1 In situ quantification of macrophage AIM2 inflammasome activation during Francisella tularensis infection by fluorescence proximity ligation. G. DeLoid and L. Kobzik. Harvard Sch. of Publ. Hlth. and Brigham and Women’s Hosp.

403. NATIONAL INSTITUTES OF HEALTH: PROGRAMS AND POLICIES UPDATE FROM INSTITUTES

(This session is not CME accredited.)

Symposium
(Sponsored by: ASIP, American Physiological Society, American Association of Anatomists, American Society for Biochemistry and Molecular Biology, American Society for Nutrition and American Society for Pharmacology and Experimental Therapeutics)
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: J. CHATHAM AND S. BARMAN

Public Policy
2:00 NHLBI: current programs and new initiatives. S. Shurin. NHLBI/NIH.
2:30 Common fund programs: what are they and are you eligible for funding? E. Wilder. OD/NIH.
3:00 NIGMS strategic plan for training: what does it mean for you? J. Greenberg. NIGMS/NIH.
3:30 NIH peer review: where are we and where are we going? R. Nakamura. CSR/NIH.

404. PROTEIN MISFOLDING AND CHAPERONOPATHIES

Symposium
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR: M.S. WILLIS AND J. LIN

2:00 Endoplasmic reticulum stress and cell survival. J. H. Lin. UCSD.
2:30 The role of ER-associated degradation in channelopathies due to protein misfolding. T. Mu. Case Western Reserve Univ. Sch. of Med.
3:00 Chaperones as the underlying pathophysiology of disease (chaperonopathies). A. J.L. Macario. Univ. of Maryland Sch. of Med.
3:30 Endoplasmic reticulum chaperones in development and human diseases. A. S. Lee. Univ. of Southern California Norris Cancer Ctr.
4:00 Progressive aggregation despite chaperone associations of a mutant SOD1-YFP in transgenic mice that develop ALS. M. Feany. Brigham and Women’s Hosp.

405. NOVEL TREATMENT FOR LIVER INJURY, FIBROSIS AND CANCER

Minisymposium
(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16B
CHAIR: C. GHANDHI
COCHAIR: P. STOCK

Liver Pathobiology
2:00 405.1 Glypican-3 as a potential therapeutic target for hepatocellular carcinoma immunotherapy. T. Trinh and C. Liu. Univ. of Florida.
2:45 405.4 PEZH2 and H3K27me3 are associated with Mallory-Denk body forming liver cell phenotype and HCC. B. French, F. Bardag-Gorce, J. Oliva, J. Li, J. Zhong and S.W. French. LA BIOMED.
3:00 405.5 Modulatory effects of mesenchymal stem cells on hepatic mitochondrial reactive oxygen species production in dietary-induced insulin resistance. V.Z. Nyamandi, C. Hughely, V. Johnsen, H. Virtanen, D.S. Hittel and J. Shearer. Univ. of Calgary, Canada.
3:30 405.7 Therapeutic administration of a direct thrombin inhibitor reduces hepatic inflammation in a mouse model of hypercholesterolemia. K.M. Kassel, B.P. Sullivan, B.L. Copple and J.P. Luyendyk. Univ. of Kansas Med. Ctr.


4:00 405.9 Development of liver fibrosis is critically regulated by phosphodiesterase 4 sub-family. L. Gobejishvili, K. Breitkopf, J. Zhang, D. Avila, S.S. Dooley, S. Barve and C.J. McClain. Univ. of Louisville and Univ. of Heidelberg, Germany.


406. ENDOTHELIAL AND EPITHELIAL CONTRIBUTIONS TO HOMEOSTASIS AND THE INFLAMMATORY RESPONSE

(This session is not CME accredited.)

Poster Discussion

(Sponsored by: ASIP Inflammation/Immunopathology and Mucosal Pathobiology Scientific Interest Groups)

TUE. 5:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR

CHAIR: F.W. Lusinskas, A. Neish and A. Nusrat

Inflammation

Epithelial Pathobiology

We are pleased to announce a special interest group encompassing epithelial and endothelial cell biology, mucosal inflammation, and leukocyte biology. Tissue injury in response to environmental and exogenous challenges is associated with an inflammatory response that often occurs at biological interfaces, such as epithelial mucosa in the intestinal, respiratory and urogenital tract, or endothelia in organs and peripheral vasculature. Leukocyte trafficking during the inflammatory response at the interface presents a special problem in that these tissues must maintain (or restore) vital physiological functions to environmental and exogenous challenges is associated inflammation, and leukocyte biology. Tissue injury in response to environmental and exogenous challenges is associated

P1 Salmonella typhimurium induces HXA3 secretion by decreasing cellular levels and activity of the oxidoreductase enzymes GPX 1 and PHGPX. T. Agbor and B. McCormick. Univ. of Massachusetts Med. Sch. (276.1)

P2 Entamoeba histolytica induces a robust acute inflammatory response with increased colonic permeability and altered tight junction proteins in Muc2−/− mice. V. Kissoon-Singh, F. Moreau and K. Chadee. Univ. of Calgary, Canada. (275.7)

P3 Phospholipase A2 is involved in S. pneumoniae-elicited PMN transepithelial migration. R. Bhownick, B.A. McCormick and J.M. Leong, Tufts Univ. Sch. of Med. and Univ. of Massachusetts Med. Sch. (276.8)

P4 Sorting nexin 27 mediates PDZ-directed trafficking of zona-occludens-2 to the tight junction. C.L. Hueschen, S.P. Zimmerman, S.L. Milgram and M.P. Playford. NHLBI/NIH. (275.4)

P5 Tandem peptide blocks pemphigus vulgaris skin blistering in vivo and identifies a desmoglein receptor function leading to p38MAPK modulation. V. Spindler, B. Kempf and J. Waschke. Ludwig Maximilians Univ. Munich and Julius Maximilians Univ. Würzburg. (275.1)

P6 Annexin A1 derived peptide Ac2-26 promotes epithelial wound healing through p120-Vav2-Rac1 signaling and ROS generation. G. Leoni, A. Mohammad, M. Perretti, C. Parkos, A. Neish and A. Nusrat. Emory Univ. and Barts and The London Sch. of Med. (56.4)

P7 N-formyl peptide receptor-1 is important for homeostasis of intestinal epithelial cells. A. Alam, G. Leoni, C. Wentworth, A. Nusrat and A.S. Neish. Emory Univ. (56.2)


P9 Cellular confluence and cohesion regulates CXCL11/IP9 expression during keratinocyte re-epithelialization. A.C. Huen and A. Wells. Univ. of Pittsburgh Med. Ctr. and VA Pittsburgh Healthcare Syst. (56.3)


P12 Lactobacillus rhamnosus GG inhibits neutrophil extracellular trap formation. L. Vong, R.J. Lorentz, A.J. Sousa, M. Glogauer and P.M. Sherman. The Hosp. for Sick Children and Univ. of Toronto. (394.1)

P13 Differential contribution of desmoglein 2 and 3 to cell adhesion and intracellular signaling in keratinocytes. E. Hartlieb, V. Spindler and J. Waschke. Ludwig Maximilians Univ., Munich. (833.2)

P14 Overexpression of claudin-6, -7 or -9 modifi es the tight junction. G. Leoni, A. Mohammad, M. Glogauer and P.M. Sherman. The Hosp. for Sick Children and Univ. of Toronto. (833.1)

P15 Engagement of ICAM-1 mediates neutrophil crawling on the luminal surface of the intestinal epithelium and signals to regulate barrier function. R. Sumagin and C.A. Parkos. Emory Univ. (55.10)

P16 Secondary lymphoid organs and CCR7 are dispensable for intestinal Th17 and Foxp3+ Treg cell differentiation. D. Geem, O. Medina, W. Kim, C. Huang, R. Newberry and T.L. Denning. Emory Univ. and Washington Univ. Sch. of Med. (136.4)

P17 Phosphoinositide 3-kinase activation and actin dynamics within force sensing anchors are required to stabilize VLA-4 integrin-mediated leukocyte adhesion. J. Rullo, H. Becker, S. Hyduk and M. Cybulsky. Univ. of Toronto and Univ. Hlth. Network, Toronto. (55.3)

Endothelial cell IQGAP1 is an important regulator of the transendothelial migration of leukocytes. D.P. Sullivan and W.A. Muller. Northwestern Univ., Chicago. (55.6)


α(1,3)-Fucosylation alters STAT3-dependent IL-17 production in vivo. L.C. Mackey, J.M. Rose and J.W. Homeister. Univ. of North Carolina at Chapel Hill. (136.2)

VEGFR2 activation during the early onset of flow is ligand-dependent and mediated by the release of autocrine VEGF. N.G. dela Paz and J.A. Frangos. La Jolla Bioengin. Inst. (656.8)


**Pharmacology and Experimental Therapeutics**

407. **JOHN J. ABEL LECTURE**

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 2

The John J. Abel Award in Pharmacology, supported by Pfizer, Inc., is named after the founder of ASPET and was established to stimulate fundamental research in pharmacology and experimental therapeutics by young investigators. Dr. Jin Zhang was selected for her contributions to cellular enzymology that have helped shape the field of pharmacology.

8:30 Introduction. L. Wecker. Univ. of South Florida Col. of Med.


408. **MEMBRANE RAFTS IN ENDOTHELIAL SIGNALING**

Symposium

(Sponsored by: The Divisions for Cardiovascular Pharmacology and Integrative Systems, Translational & Clinical Pharmacology)

TUE. 9:30 AM—SAN DIEGO CONVENTION CENTER, 2

CHAIR: I. LEVITAN AND P-L. LI

9:30 The role of lipid rafts in endothelial redox signaling. P-L. Li. Med. Col. of Virginia, Virginia Commonwealth Univ.

10:00 Paradoxical effects of modified low-density lipoproteins on endothelial membrane rafts. I. Levitan. Univ. of Illinois at Chicago.

10:30 Role of membrane rafts and caveolae in the sensitivity of endothelial cells to hemodynamic forces. V. Rizzo. Temple Univ. Sch. of Med.

11:00 Membrane rafts in endothelial function of the cerebral circulation. T. P. Davis. Univ. of Arizona.
410. THE NOCICEPTIN/ORPHANIN FQ-NOP RECEPTOR SYSTEM: NEUROBIOLOGY, PHARMACOLOGY AND THERAPEUTIC OPPORTUNITIES

Symposium
(Sponsored by: The Divisions for Neuropharmacology and Behavioral Pharmacology)
TUE. 9:30 AM—SAN DIEGO CONVENTION CENTER, 4
CHAIR: G. CALO

- 9:55 The nociceptin/orphanin FQ-NOP receptor system as a target for treating addiction. N. P. Murphy. UCLA.
- 10:45 Therapeutic potential of NOP agonists as analgesics without abuse liability. M. C. Ko. Univ. of Michigan Med. Sch.
- 11:10 NOP receptor ligands in parkinsonism and levodopa-induced dyskinesia. M. Morari. Univ. of Ferrara, Italy.

411. FROM STRUCTURE TO KNOCKOUT: COMMON THEMES BETWEEN CYPS AND ABC TRANSPORTERS

Symposium
(Sponsored by: The Divisions for Toxicology; Drug Metabolism; and Drug Discovery, Development & Regulatory Affairs)
TUE. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5A
CHAIR: M. VORE

- 9:30 Structure of multidrug resistance transporters. G. Chang. UCSD.
- 10:30 Role of ABC transporters in ADME: translation from knockout mice to clinics. Y. Sugiyama. RIKEN Yokohama Inst.
- 11:00 Humanized mouse lines and their application for prediction of human drug metabolism and toxicological risk assessment. F. J. Gonzalez. NCI/NIH.
- 11:30 Discussion.

412. MODELS OF AFFECTIVE DISORDERS AND PHARMACOLOGICAL INTERVENTIONS: THE INFLUENCE OF ETIOLOGY IN TREATMENT APPROACH

Symposium
(Sponsored by: The Divisions for Behavioral Pharmacology; Drug Discovery, Development & Regulatory Affairs; and Neuropharmacology)
TUE. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5B
CHAIR: M. NADER AND L. HOWELL

- 10:00 Cross-species tests of potential predictors of responders to antipsychotic treatments. M. Geyer. UCSD.
- 11:00 The relationship between gender and psychotic symptoms in drug abusers. R. De La Garza II. Baylor Col. of Med.
- 11:30 Drug x host x environment interactions in nonhuman primate models of cocaine abuse. M. A Nader. Wake Forest Univ. Sch. of Med.

413. WOMEN IN PHARMACOLOGY CAREER ROUNDTABLE

Special Session
TUE. 1:00 PM—SAN DIEGO CONVENTION CENTER, 12

414. CARDIOVASCULAR PHARMACOLOGY DIVISION TRAINEE SHOWCASE

Oral
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 2

- 3:15 Sphingosine kinase-1 regulates VEGF-A induced angiogenesis by mediating the interaction between VEGFR2 and S1P1. A.M. Chavez, K.R. Chava and D. Mehta. Univ. of Illinois at Chicago. (841.2)
3:30 RhoA, phospholipase Cε and PKD signaling mediate S1P induced cardioprotection against ischemia/reperfusion. S.Y. Xiang, K. Ouyang, J. Chen, A.V. Smrcka and J. Heller Brown. UCSD and Univ. of Rochester. (1114.5)

3:45 TRPV4 sparklets?elementary Ca2+ signals underlying endothelial-dependent vascular function. S. Sonkusare, A.D. Bonev, M.I. Kotlikoff and M.T. Nelson. Univ. of Vermont and Cornell Univ. (670.6)

415. NEUROPHARMACOLOGY DIVISION POSTDOCTORAL SCIENTIST AWARD FINALISTS

Oral

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 3

3:00 Chronic fluoxetine treatment is associated with persistent desensitization of the 5HT2A receptor and decreased cocaine-primed reinstatement in rhesus monkeys. E.K. Sawyer and L.L. Howell. Emory Univ. Yerkes Natl. Primate Res. Ctr. (844.7)

3:20 Dopamine and isoproterenol depolarize corticotrophin releasing factor neurons in the bed nucleus of the stria terminals: a potential neurocircuit involved in relapse. Y. Silberman, R.T. Matthews and D.G. Winder. Vanderbilt Univ. Sch. of Med. (1039.3)


4:00 Methamphetamine-induced locomotor sensitization in C57BL/6 mice requires the MT1 melatonin receptor. A.J. Hutchinson, J. Ma, R.L. Hudson and M.L. Dubocovich. Univ. at Buffalo SUNY. (1040.6)


4:40 Cognitive and motor effects of endurance related compound AICAR: from muscle to brain. T. Kobilo and H. van Praag. NIA/NIH, Baltimore. (847.2)

5:00 Regulation of glycinogen phosphorylase by the malin-laforin complex. V.V. Dukhande, T.M. Bridges and M.S. Gentry. Univ. of Kentucky Col. of Med. (852.14)

5:20 Discussion.

416. REGULATION OF TRP CHANNELS

Symposium

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 4

CHAIR: M. Zhu

3:00 Physiological functions of TRP channels as revealed from TRP knockout mice. V. Flockerzi. Univ. of Saarland, Germany.


4:00 Phosphoinositide regulation of TRP channels. T. Rohacs. UMDNJ- New Jersey Med. Sch.

4:30 Function and regulation of intracellularly localized TRPML channels. H. Xu. Univ. of Michigan.


5:15 Discussion.

417. TOXICOLOGY DIVISION SYMPOSIUM: THE UTILIZATION OF GENETICALLY MODIFIED MICE TO DETERMINE MECHANISMS OF TOXICITY

Symposium

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5A

CHAIR: J. Hinson


3:10 Role of P450 and nuclear receptor transgenic mice in determining mechanisms of chemical hepatotoxicity. F. J. Gonzalez. NCI/NIH.

3:45 Transgenic mouse models for modulating glutathione synthesis. T. J. Kavanagh. Univ. of Washington.

4:20 Signal transduction pathways in the mechanisms of hepatotoxicity. N. Kaplowitz. Univ. of Southern California, Keck Sch. of Med.


418. TARGETING PI3K FOR HUMAN DISEASES

Symposium

(Sponsored by: The Divisions for Drug Discovery, Development & Regulatory Affairs; Toxicology; and Molecular Pharmacology)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5B

CHAIR: T. Rao

3:00 Chair’s introduction.

3:05 PI3K structure, function, regulation in disease and drug targeting. D. Fruman. Univ. of California, Irvine.


4:05 Targeting the PI3K pathway for immune-mediated diseases. C. Rommel. Intellikine Inc.


5:20 Discussion.

419. PAUL M. VANHOUTTE DISTINGUISHED LECTURE IN VASCULAR PHARMACOLOGY

TUE. 4:30 PM—SAN DIEGO CONVENTION CENTER, 2

The Paul M. Vanhoute Lecture in Vascular Pharmacology was established to honor Dr. Vanhoute’s lifelong scientific contributions to our better understanding and appreciation of the importance of endothelial cells and vascular smooth muscle function in health and disease and for his mentoring of countless prominent endothelial and vascular biologists and pharmacologists. Dr. Richard Cohen receives this honor in recognition of his substantial lifelong scientific achievements and commitment in this research area that have led to the development of novel pharmacological agents to treat vascular dysfunction in the clinic.


Physiology

420. AUGUST KROGH DISTINGUISHED LECTURESHP OF THE APS COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION

(Supported by an educational grant from Novo Nordisk Foundation)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24

Title: Tales from the Heart: A Comparative and Evolutionary Perspective of the Vertebrate Circulatory System

Speaker: J. Hicks. Univ. of California, Irvine.

421. CELL-CELL AND CELL-MATRIX ADHESIONS IN CONTROL OF LUNG FLUID BALANCE AND INNATE IMMUNITY: TALKING IS CRITICAL!

Featured Topic

(Sponsored by: APS Respiration Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A

CHAIR: K. Birukov and D. Mehta

8:00 Vascular permeability control and signaling functions of VE-cadherin at the front, center and sides of endothelial cells. E. Harris. Stanford Univ.

8:25 Rap1 and afadin promote interactions between adherens junctions and tight junctions and regulate endothelial permeability. A.A. Birukova, N. Zebda, T. Wu, O. Dubrovskyi, N. Sarich and K.G. Birukov. Univ. of Chicago. (1063.1)


8:55 Cadherin ectodomains and cadherin-actin linkages regulate the endothelial barrier. S.K. Quadri, L. Sun and J. Bhattacharya. Columbia Univ. (1063.3)

9:10 Src family kinases collaborate with distinct TNF-alpha-induced signaling pathways to regulate actin dynamics at cell-cell junctions and barrier function in endothelial cells. A.P. Adam, A. Lowery and P. Vincent. Albany Med. Ctr. (1063.2)


9:40 Innate immune function of adherens junctions in septic model of ALI. G. Hu. Univ. of Illinois at Chicago.

422. CELLULAR SIGNALING, SECOND MESSENGERS, CELL-CELL INTERACTIONS

Featured Topic

(Sponsored by: APS Cell and Molecular Physiology Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25C

CHAIR: N. Bradbury and My. Helms

8:00 DNA-dependent protein kinase is critical for VCAM-1 expression upon TNF treatment through phosphorylation of p50 NF-κB: a critical involvement in vascular and lung inflammation. J. Ju, A. Naura, Y. Errami, H. Kim, J. Kim, A.A. Beg, C. Giardina and H. Boulares. LSU Hlth. Sci. Ctr.-New Orleans, Chonbuk Natl. Univ., South Korea, Moffitt Cancer Cancer, Tampa and Univ. of Connecticut. (1064.9)
PHYSIOLOGY TUESDAY


8:30 ERK1/2-dependent bestrophin-3 expression prevents ER-stress-induced cell death of renal epithelial cells by reducing CHOP. W.-K. Lee, P.K. Chakraborty, E. Roussa, N.A. Wolff and F. Thévenod. Univ. of Witten/Herdecke and Univ. of Freiburg, Germany. (1064.12)

8:45 Fibronectin stabilization and fibronectin-integrin signaling via MAPK are required in L-glutamine-mediated protection against gut injury. S. Niederlechner, J. Klawitter, C. Baird, A. Kallweit, U. Christians and P. Wischmeyer. Univ. of Colorado Denver, Aurora. (1064.13)


9:15 Hyposmotic stress-induced cytoplasmic calcium increase involves TRPV4 and Src family kinase activation. A. Mandal, M. Shahidullah and N.A. Delamere. Univ. of Arizona. (1064.3)


423. EFFECT OF EXERCISE AND NUTRITIONAL PERTURBATIONS ON CUMULATIVE MUSCLE PROTEIN SYNTHESIS

Featured Topic

(Sponsored by: APS Endocrinology and Metabolism Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25A

CHAIR: S. RIECHMAN

Metabolic Diseases

8:00 Resistance exercise increases cumulative muscle protein synthesis. J. D. Fluckey. Texas A&M Univ.


9:00 Muscle RING finger-1 inhibits IGF1-dependent Akt activation and exercise-induced cardiac hypertrophy. K.M. Wadosky, J.E. Rodriguez and M.S. Willis. Univ. of North Carolina at Chapel Hill. (1076.1)


424. FROM MICROSCOPES TO MICRONEUROGRAPHY: INNOVATIVE TECHNIQUES FOR THE STUDY OF CENTRAL NEURAL CONTROL

Symposium

(Sponsored by: Neural Control and Autonomic Regulation Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 26

CHAIR: C. N. YOUNG AND C. G. CLARK

8:00 Biology at the tip of an atomic force microscope. G. A. Meininger. Univ. of Missouri-Columbia.


9:00 In vivo imaging of animal models of neurological disorders using two-photon excited fluorescence microscopy. C. B. Schaffer. Cornell Univ.


425. MECHANISMS OF BLOOD PRESSURE REGULATION

Featured Topic

(Sponsored by: APS Renal Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28B

CHAIR: D. WEINER AND P. R. GRIMM

8:00 Activation of the novel estrogen receptor GPR30 reduces blood pressure and renal injury in the streptozotocin-induced diabetic rat infused with angiotensin II. C. Maric-Bilkan and E. Flynn. Univ. of Mississippi Med. Ctr. and Women's Hlth. Res. Ctr., Jackson. (1096.1)

8:15 Role of the sex chromosomal complement (XX or XY) to impact blood pressure and natriuresis in the model of aldosterone escape. L. Li, S. Tsukerman, H. Ji, K. Sandberg and C. Ecelbarger. Georgetown Univ. (1096.6)

8:30 ENaC is active in the ASDN in the absence of mineralocorticoid. E. Mironova, V. Bugaj and J. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (867.11)

9:00 Na-K ATPase regulation by cardioglycosides: role of AT1R. S.J. Khundmiri, M.L. Merchant and E.D. Lederer. Univ. of Louisville and Robley Rex VA Med. Ctr. (867.30)

9:15 Salt-deficient diet does not attenuate the development of slowly progressive ANG II-dependent hypertension in Cyp1a1-Ren2 transgenic rats. A.E. Collins, C.G. Howard and K.D. Mitchell. Tulane Univ. (688.1)

9:30 PDGF receptor antagonism with imatinib mesylate improves renal hemodynamics independent of changes in blood pressure in Cyp1a1-Ren2 transgenic rats with ANG II-dependent malignant hypertension. M-Y. Kwak, C.G. Howard and K.D. Mitchell. Tulane Univ. (690.5)


426. PHYSIOLOGY OF CALCIUM-ACTIVATED POTASSIUM CHANNELS

Symposium

(Sponsored by: The Physiological Society (UK)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 23

CHAIR: M. SHIPSTON AND P. RUTH

8:00 KCa channel function and regulation in T-cells. E. Skolnik. NYU Langone Med. Ctr.

8:30 Small molecule regulators of KCa channels. H. Wulff. Univ. of California, Davis.

9:00 KCa and the control of smooth muscle function. P. Ruth. Univ. of Tubingen.


427. REGULATION OF WATER AND ION CHANNELS AND MODULATORY PROTEINS, LIPIDS, AND HORMONES

Featured Topic

(Sponsored by: APS Epithelial Transport Group)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22

CHAIR: R. T. WORRELL AND N. PASTOR-SOLER

8:00 Identification of ENaC intersubunit interfacing residues provides insight into conformational changes associated with channel gating. D.M. Collier and P.M. Snyder. Univ. of Iowa Carver Col. of Med. (1068.7)

8:15 Inhibition of αENaC expression and ENaC activity following blockade of the circadian clock-regulatory kinases CKIIα/e. J. Richards, M. Mitzeff, L. Jeffers, K-Y. Cheng, D.C. Eaton and M.L. Gumz. Univ. of Florida and Emory Univ. (1068.6)


Estradiol increases the density and open probability of epithelial sodium channels in alveolar cells. M.M. Greenlee, B.J. Duke and D.C. Eaton. Emory Univ. (1068.10)


428. THERMAL PHYSIOLOGY: FROM ACUTE RESPONSES TO PROTECTIVE ADAPTATION

Featured Topic

(Sponsored by: APS Environmental and Exercise Physiology Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25B

CHAIR: C. MINSON

8:00 Introduction: new insights into thermal adaptation. C.T. Minson. Univ. of Oregon.


KCa channels and EETs: major contributors to cutaneous thermal hyperemia. V.E. Brunt and C.T. Minson. Univ. of Oregon. (1079.10)

eNOS and nNOS contribution to reflex cutaneous vasodilation during dynamic exercise in humans. T.C. McNamara, J. Keen, G.H. Simmons, L.A. Holowatz and B.J. Wong. Kansas State Univ., Nike Sports Res. Lab., Beaverton, OR and Penn State. (1079.11)

Cardiovascular, autonomic, and thermoregulatory effects of repeated exertional heat stress in rats. H.M. Strauss, N. Choudhary, A. Nash, F.O. Liaboe and K.C. Kregel. Univ. of Iowa. (1079.3)


Heat acclimation mediated cytoprotective memory: does epigenetic mechanisms play a role? A lesson from the heart. M. Horowitz. The Hebrew Univ.
429. **TRANSIENT RECEPTOR POTENTIAL CHANNELS AND ENDOTHELIAL CALCIUM REGULATION IN NATIVE CELLS AND WHOLE VESSELS**

**Featured Topic**

*(Sponsored by: APS Cardiovascular Section)*

**TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 27**

**CHAIRMED: S. MARRIELLI AND S. EARLEY**

**Transmitters and Ion Channels**

8:00 Introductory remarks. **S. Earley**, Colorado State Univ.

8:15 Spatial and temporal TRPV channel activation in intact mesenteric artery. **M. T. Nelson**, Univ. of Vermont Col. of Med.


9:00 CaR-mediated vasodilatation: role of endothelium. **M. Francis, M.S. Taylor and S. Earley**, Colorado State Univ. and Univ. of South Alabama Col. of Med. *(1056.1)*

9:15 Unitary TRPA1-mediated Ca\(^{2+}\) influx events in primary cerebral artery endothelial cells. **M. Sullivan, M. Greenberg, C. Preet, I. Greenwood and V. Ho**, St. George's Univ. of London. *(1056.6)*


**11:00** The effect of *Helicobacter typhlonius* infection on colonic ion transport in the IL10 knockout mice. **A. Lindstrom, S. Fan, M. Schultz and G. Butt**, Univ. of Otago, New Zealand. *(1109.1)*

**11:15** Leptin receptor deficiency causes intestinal hyperplasia and altered membrane abundance of glucose transporters. **J.A. Dominguez and T. Rieg**, Univ. of Colorado Anschutz Med. Campus, UCSD and VA San Diego Healthcare Syst. *(1109.2)*

**11:30** Macromolecular complex of CFTR, NHERF2 and iNOS at the plasma membrane contributes to diarrhea in IBD. **K. Arora, S. Yarlagadda, A. Ren, W. Zhang, C. Sinha and A.P. Naren**, Univ. of Tennessee Hlth. Sci. Ctr., Memphis. *(1109.3)*

**11:45** Duox?a novel antimicrobial duodenal defense mechanism. **M. Higashiya, Y. Akiba, S. Rudenkyy, P.H. Guth, E. Engel and J.D. Kaunitz**, UCLA and West Los Angeles VA Med. Ctr. *(1109.4)*

**12:00** Potassium channel function in inflammation. **C. Lytle**, Univ. of California, Riverside.

**431. JULIUS H. COMROE, JR. DISTINGUISHED LECTURESHIP OF THE APS RESPIRATION SECTION**

**TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 24**

**Hypoxia and Oxidative Stress**

**Title:** Sensing Hypoxia: Physiology, Genetics and Epigenetics

**Speaker:** **N. R. Prabhakar**, Univ. of Chicago.

**432. NEUROVASCULAR RESPONSES TO AGING AND DISEASE: ADAPTATIONS AND INTERVENTIONS**

**Featured Topic**

*(Sponsored by: APS Neural Control and Autonomic Regulation Section)*

**TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 27**

**CHAIRMED: W. SCHRAGE**


TUESDAY


12:00  Influence of aging on local and neural modulators of peripheral vascular tone in humans. F. A. Dinennon. Colorado State Univ.

433. NOVEL ROLES OF THE RENIN-ANGIOTENSIN SYSTEM IN AGING AND OTHER PATHOLOGIES

Symposium
(Sponsored by: APS Endocrinology and Metabolism Section)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: M. C. CHAPPELL

Blood Pressure Regulation
10:30  The role of renin-angiotensin system in aging. C. Carter. Univ. of Florida.
11:00  Therapeutic benefit of angiotensin-(1-7) in cancer. P. E. Gallagher. Wake Forest Sch. of Med.
12:00  ACE2 and Ang-(1-7) in progressive liver injury. M. C. Chappell. Wake Forest Univ.

434. REGULATION OF TRANSPORTERS AND MODULATORY PROTEINS, LIPIDS, AND HORMONES

Featured Topic
(Sponsored by: APS Epithelial Transport Group)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: P. WELLING AND M. LEVI

Translational Physiology
Transporters and Ion Channels
11:15  Alternatively spliced PY cassette exons in WNK1 enhance sensitivity to aldosterone via the E3 ubiquitin ligase Nedd4-2. A. Roy, S. Khadem, B.F. Donnelly, F. Gong, N.M. Pastor-Soler, Y.P.C. Chang and A.R. Subramanya. Univ. of Pittsburgh Sch. of Med., Univ. of Maryland Sch. of Med. and VA Pittsburgh Healthcare Syst. (1152.6)
11:30  Insulin activates intestinal NHE3 via IRBIT. P. He, M. Yanda, M. Anitha, S. Srinivasan and C. Yun. Emory Univ. (1152.21)


12:00  Tracking of single microvilli to study regulation of the intestinal phosphate transporters. L. Lanzano, Y. Caldas, H. Giral, M. Digman, M. Levi and E. Gratton. Univ. of California, Irvine and Univ. of Colorado Denver, Aurora. (1068.15)


435. TARGETED PROTEOMIC ANALYSES OF HEART FAILURE

Featured Topic
(Sponsored by: APS Cardiovascular Section)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: P. L. Ping and M. L. Lindsey

10:30  Dynamics of the nuclear proteome in heart failure. T. Vondriska. UCLA Sch. of Med.
11:00  Phosphorylation of cTnl as a biomarker for heart failure. Y. Ge. Univ. of Wisconsin-Madison Sch. of Med. and Publ. Hlth.
12:00  Proteomic analyses on mitochondria in rats model of heart failure. T. Liu, L. Chen, E. Kim and A. Knowlton. Univ. of California, Davis, St. Mary’s Hosp. of Daejeon Catholic Univ., South Korea. (1127.5)
436. THE LETHALITY OF TRAUMA: NEW INSIGHTS INTO THE PHYSIOLOGY OF HEMORRHAGE

Featured Topic

(Sponsored by: APS Environmental and Exercise Physiology Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: V. CONVERTINO

Blood Pressure Regulation

Translational Physiology


11:00 Reduced vascular smooth muscle sensitivity to contraction in ex vivo hemorrhaged rabbit epigastric artery. P.H. Ratz, R.W. Barbee, A.S. Miner, P.S. Reynolds and D. Contaifer. Virginia Commonwealth Univ. (1080.1)


11:30 Activation of 5HT1A receptors in the nucleus tractus solitarius contributes to blood pressure compensation with blood loss and peripheral chemoreflex responses in the presence of acidosis. J.E. Vantrease, N. Dudek and K. Scrogin. Loyola Univ. Chicago, Maywood. (1080.3)


437. UBIQUITYLATION AND DEUBIQUITYLATION OF ION CHANNELS AND TRANSPORTERS

Featured Topic

(Sponsored by: APS Cell and Molecular Physiology Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: K. HAMILTON AND C. BALUT

Transporters and Ion Channels

10:30 Ubiquitylation and deubiquitylation of KCa3.1 regulates trafficking and degrading. D. C. Devor. Univ. of Pittsburgh.

11:00 Loss of renal Nedd4-2 in adult mice leads to PHAII compensated by ENaC downregulation and ROMK upregulation. O. Staub, C. Ronzaud, D. Loffi ng, A. Debonneville, B. Yang, J. Stokes, R. Koesters, E. Hummler and J. Loffi ng. Univ. of Lausanne, Univ. of Zurich, Univ. of Iowa and INSERM/Univ. Pierre et Marie Curie, Paris. (1067.2)

11:15 Long QT syndrome type 3 caused by a PY-motif mutation leading to altered ubiquitylation and increased expression of Nav1.5 in knockin mice. J. Rougier, M. Albesa, C.A. Remme, J. Ogorodnik, S. Petitprez, J. Bankston, R.S. Kass, C.R. Bezzina, W. Chung and H. Abriel. Univ. of Bern, Univ. of Amsterdam and Columbia Univ. (1067.3)

11:30 Prolactin-stimulated ubiquitination of the zinc transporter ZnT2 regulates zinc secretion. Y.A. Seo and S.L. Kelleher. Penn State and Penn State Col. of Med. (1067.4)


12:00 Ubiquitination of vesicular acetylcholine transporter. Y. Li, J.L. Freeling and A. Sample. Univ. of South Dakota. (1067.6)

12:15 cGMP induces the degradation of internalized NKCC2 in thick ascending limbs: role of the proteasome. G. Ares and P. Ortiz. Henry Ford Hlth. Syst. (1067.7)

438. UNDERSTANDING THE EVOLUTION OF PHYSIOLOGY: INSIGHTS FROM SELECTION EXPERIMENTS IN RODENT MODELS

Featured Topic

(Sponsored by: APS Comparative and Evolutionary Physiology Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: T. GARLAND, JR. AND T. MEEK

10:30 Use of selection experiments with rodents to elucidate the evolution of physiological traits. T. Garland, Jr. Univ. of California, Riverside.

11:00 Correlated responses to selection for high maximal aerobic metabolism, predatory behavior, and herbivorous capability in a wild rodent, the bank vole: mimicking an adaptive radiation. P. Koteja. Jagiellonian Univ., Poland.


TUESDAY

12:00 Using a selective breeding strategy to create 7th generation rats that voluntarily run low and high nightly distances. M.D. Roberts, L. Gilpin, J. Knouse, A. Haynes, R. Toedebusch, L. Ebene, C. Moore, S. Naples and F.W. Booth. Univ. of Missouri-Columbia and Sch. of Med. (1073.2)

12:15 Weight loss and the lean phenotype: energy expenditure and physical activity during calorie restriction. S. Mukherjee, D. Lapp, E. Cosentino, S.L. Britton, L.G. Koch and C.M. Novak. Kent State Univ. and Univ. of Michigan. (1073.3)

439. VASOPRESSIN-MEDIATED PHOSPHORYLATION AND TRAFFICKING OF TRANSPORTERS INVOLVED IN URINE CONCENTRATION

Symposium
(Sponsored by: APS Renal Section)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: J. M. SANDS AND M. A. BLOUNT

Translational Physiology
Transporters and Ion Channels
10:30 Vasopressin-mediated phosphorylation controls the urine concentration mechanism. J. D. Klein. Emory Univ.
11:00 A systems biology perspective of vasopressin signaling. J. D. Hoffert. NHLBI, NIH.

440. NATIONAL INSTITUTES OF HEALTH: PROGRAMS AND POLICIES UPDATE FROM INSTITUTES

Symposium
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: J. CHATHAM AND S. BARMAN

Public Policy
Career Development
2:00 NHLBI: current programs and new initiatives. S. Shurin. NHLBI/NIH.
2:30 Common fund programs: what are they and are you eligible for funding? E. Wilder. OD/NIH.
3:00 NIGMS strategic plan for training: what does it mean for you? J. Greenberg. NIGMS/NIH.
3:30 NIH peer review: where are we and where are we going? R. Nakamura. CSR/NIH.

441. ROBERT M. BERNE DISTINGUISHED LECTURESHIP OF THE APS CARDIOVASCULAR SECTION

TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 24

Blood Pressure Regulation
Inflammation and Immune Responses
Title: Molecular Mechanisms of Hypertension: Redox Signaling, Lipid Rafts and TRPMs

442. COMPUTATIONAL MODELING IN CENTRAL RESPIRATORY CONTROL AND CO2 CHEMORECEPTION

Symposium
(Sponsored by: APS Respiration Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: I. C. SOLOMON AND J. M. CORDOVEZ

Physiology of Development
3:30 Intracellular pH regulation in CO2 chemosensitive and non-chemosensitive cells. J. M. Cordovez. Univ. de los Andes, Colombia.
4:00 What we can learn from mathematical models of chemosensitive neurons. J. C. Leiter. Dartmouth Med. Ctr.
5:00 Pontomedullary respiratory network models: predictions and experiments. B. G. Lindsey. Univ. of South Florida.

443. HORACE W. DAVENPORT DISTINGUISHED LECTURESHIP OF THE APS GASTROINTESTINAL AND LIVER PHYSIOLOGY SECTION

TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 24

Translational Physiology
Title: Mechanism and Regulation of Intestinal Absorption of Water-Soluble Vitamins: Cellular and Molecular Aspects
444. HYDROGEN SULFIDE: ECOLOGY, PHYSIOLOGY, AND CLINICAL APPLICATIONS

Symposium
(Sponsored by: APS Comparative and Evolutionary Physiology Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: K. R. OLSON

Hypoxia and Oxidative Stress
Translational Physiology
3:30 \( \text{H}_2\text{S} \) in the environment: friend or foe? \textbf{D. Julian.} Univ. of Florida.
4:10 \( \text{H}_2\text{S} \) signaling: from hypothesis to function in the nervous system. \textbf{H. Kimura.} Natl. Inst. of Neurosci., Tokyo.
4:30 \( \text{H}_2\text{S} \) signaling in the cardiovascular system. \textbf{J-S. Bian.} Natl. Univ. of Singapore.
5:00 \( \text{H}_2\text{S} \) as an oxygen sensor in the carotid body. \textbf{P. J. Kemp.} Cardiff Univ. Sch. of Biosci.

445. KISSPEPTIN NEURONS: CENTRAL MEDIATOR OF REPRODUCTION AND METABOLISM

Symposium
(Sponsored by: APS Endocrinology and Metabolism Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: W. K. SAMSON AND M. J. KELLY

Central Control of Homeostasis
3:30 Kiss1 neurons as central processors for reproduction. \textbf{R. A. Steiner.} Univ. of Washington.
4:00 Estrogenic and leptin regulation of kisspeptin neurons. \textbf{O. K. Ronnekleiv.} Oregon Hlth. & Sci. Univ.
4:30 Neural pathways linking leptin and other signals to the reproductive neuroendocrine system. \textbf{M. N. Lehman.} Univ. of Michigan Sch. of Med.
5:00 Factors responsible for the inhibition of kisspeptin and GnRH during states of negative energy balance. \textbf{M. S. Smith.} Oregon Natl. Primate Res. Ctr., OHSU.

446. KRUPPEL-LIKE FACTORS IN MUSCLE BIOLOGY

Symposium
(Sponsored by: APS Muscle Biology Group)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: S. HALDAR AND M. JAIN

4:00 KLF4 and phenotypic plasticity in smooth muscle. \textbf{G. K. Owens.} Univ.of Virginia.

447. NOVEL ADVANCES IN CYSTIC FIBROSIS RESEARCH AND DRUG DISCOVERY

Symposium
(Sponsored by: APS Epithelial Transport Group)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: B. A. STANTON AND J. BOMBERGER

Translational Physiology
Transporters and Ion Channels
3:30 Structure function studies of CFTR. \textbf{C. Bear.} Hosp. for Sick Children and Univ. of Toronto.
4:00 Bacterial-viral interactions in the CF lung. \textbf{J. Bomberger.} Univ. of Pittsburgh.
5:00 New CF animal models: lessons from the CF pig and ferret. \textbf{J. Zabner.} Univ. of Iowa.

448. NRF2 MODULATION IN EXERCISE, AGING AND CHRONIC DISEASE

Symposium
(Sponsored by: APS Environmental and Exercise Physiology Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: B. F. MILLER

Hypoxia and Oxidative Stress
Translational Physiology
4:00 Cellular stress resistance and aging: mutant mice and long-lived species. \textbf{R. A. Miller.} Univ. of Michigan.
4:30 Role of Nrf2 and exercise in aging muscle. \textbf{B. F. Miller.} Colorado State Univ.
5:00 Therapeutic potential of Nrf2 activator for cardiovascular disease. \textbf{K. L. Hamilton.} Colorado State Univ.

449. PHYSIOLOGICAL REMODELING OF RESISTANCE ARTERIES

Symposium
(Sponsored by: APS Cardiovascular Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: J. MULLER-DELP AND M. Delp

Blood Pressure Regulation
3:30 Acute adaptations of vascular smooth muscle cells in continuously constricted resistance arteries. \textbf{L. Martinez-Lemus.} Univ. of Missouri-Columbia.
4:00  Arteriolar remodeling induced by changes in flow and pressure in a model of skeletal muscle disuse. M. Delp. Univ. of Florida.

4:30  Age induces proliferation of smooth muscle and vascular remodeling in coronary arterioles: role of AMPK. J. Muller-Delp. Univ. of Florida Col. of Med.

5:00  Flow-induced remodeling of resistance arteries: role of angiotensin II. D. Henrion. INSERM 771, Angers.

450. ROLE OF ADIPOSE TISSUE MACROPHAGES IN MEDIATING THE METABOLIC EFFECTS OF OBESITY

Symposium
(Sponsored by: American Federation for Medical Research)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: M. Hawkins

Translational Physiology

4:00  Mechanisms of adipose tissue inflammation and fibrosis. J. Pessin. Albert Einstein Col. of Med.

4:30  Molecular mechanisms that regulate macrophage accumulation and function in adipose tissue. A. Ferrante, Jr. Columbia Univ.

5:00  Characterizing macrophage phenotype and extracellular matrix components in human adipose tissue. P. Kern. Univ. of Kentucky.

451. ROLE OF ION CHANNELS IN CELL MIGRATION

Symposium
(Sponsored by: APS Cell and Molecular Physiology Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: S. O’Grady and E. Brochiero

Transmitters and Ion Channels

4:00  Regulation of cell migration by integrin-mediated modulation of potassium efflux through Kir4.2. D. Sheppard. UCSF.


5:00  Collaborative work of K+ and CFTR channels with proteins of the migration machinery for the movement of lung epithelial cells. E. Brochiero. Univ. of Montreal.

452. APS BUSINESS MEETING

TUE. 6:00 PM—SAN DIEGO CONVENTION CENTER, 20A

Wednesday, April 25, 2012

Attend the Poster Sessions in the Sails Pavilion at 10:00 AM for coffee and 2:00 PM for snacks and learn more about the cutting edge science from more than 1,000 presenters.
WEDNESDAY, APRIL 25

Anatomy

454. BIOENGINEERING PRINCIPLES DURING DEVELOPMENT

Hybrid Symposium

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: E. JONES

Developmental Biology

8:00 Chair’s introduction.
9:55 454.7 Exceeding expectations: examining the systemic effects of high body mass in relation to mechanical loading. N.M. Reeves. Univ. of Tennessee, Knoxville.

455. FORM, FUNCTION AND EVOLUTION

Platform

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: K. MULDOON

8:00 455.1 A morphometric study of phylogenetic and ecologic patterns in procyonid (Mammalia: Carnivora) endocasts. H.E. Ahrens and V.B. DeLeon. Johns Hopkins Univ. Sch. of Med.
8:15 455.2 Molar surface area and mandibular mechanics: complex scaling relationships in primate masticatory systems. M.A. Holmes, T. Peburn and V. DeLeon. Johns Hopkins Sch. of Med. and Univ. of Missouri Sch. of Med., Columbia.
9:00 455.4 Comparative functional morphology of the head suspension of quadrupedal cats and the shoulder suspension of bipedal humans. M.L. Osborn and D.G. Homberger. LSU.
9:45 455.7 Exceeding expectations: examining the systemic effects of high body mass in relation to mechanical loading. N.M. Reeves. Univ. of Tennessee, Knoxville.

456. TEACHING INNOVATIONS IN ANATOMY II

Platform

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: T. HOAGLAND

Education & Teaching

8:00 456.1 Radical hysterectomy teaching module with a three-dimensional digital model of the female pelvis. S.K. Dunnigan, H.M. Nguyen and M. Johnson. Univ. of Western Ontario.
8:45 456.4 Integration of anatomy, literature research skills and clinical practice through a peer-teaching and peer-assessment exercise at pre-clinical level in an undergraduate medical course. L. Filgueira and E. Eppler. Univ. of Western Australia and Univ. of Zurich.
9:00 456.5 Curricular integration: not what we are bringing together, but who. R. Hopkins. Univ. of British Columbia.
9:15 456.6 Curricular integration: not what we are bringing together, but who. R. Hopkins. Univ. of British Columbia.
9:30 456.7 Increased episodes of anatomy comic strips. M.S. Chung. Ajou Univ. Sch. of Med., South Korea.
9:45 456.8 Anatomy education through dissection and peer teaching: special dissections of the head and neck. A.M. Koba, L. Johnson and K.P. Babin. Col. of Sci. and Engin., San Francisco State Univ. and City Col. of San Francisco.
457. MUSCLES AND BONES: EVOLUTION AND DEVELOPMENT

Platform

Wed. 10:30 AM—San Diego Convention Center, 7A

Chair: R. Schneider

Developmental Biology


11:00  457.3  Neural crest derivation of the bony skull of the Mexican axolotl. N. Piekarski and J. Hanken. Harvard Univ.


11:30  457.5  Regulation of jaw size during development and evolution. E.L. Ealba, J. Yu, A.H. Jheon, K.D. Butcher and R.A. Schneider. UCSF.


12:00  457.7  A novel skeletal disorder defines an intracellular role for FGFR2 during development. A.E. Merrill, A. Sarukhanov, P. Krejci, B. Ideni, R. Lachman, W. Wilcox and D. Krakow. Univ. of Southern California, UCLA and Cedars-Sinai Med. Ctr.

12:15  Discussion.

458. NOVEL VIEWS OF THE EYE

Symposium

(Cosponsored by: Association of Anatomy, Cell Biology & Neurobiology Chairpersons)

Wed. 10:30 AM—San Diego Convention Center, 7B

Chair: J. Clark

Neurobiology

Cell Biology

10:30  Chair’s introduction.


11:00  458.2  The genetic basis for normal vision and vision disorders. J. Neitz and M. Neitz. Univ. of Washington.


12:15  Discussion.

459. CARDIAC TISSUE ENGINEERING

Symposium

Wed. 10:30 AM—San Diego Convention Center, 9

Chair: G. Vunjak-Novakovic

Cardiovascular

10:30  Chair’s introduction.

10:35  459.1  Clinically relevant issues in cardiac stem cell therapy. J.C. Wu. Stanford Univ. Sch. of Med.

11:00  459.2  In vitro models of heart disease and regeneration. M. Radisic. Univ. of Toronto.


12:15  Discussion.

POSTER PRESENTERS:
UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby

Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
Biochemistry and Molecular Biology

460. HERBERT A. SOBER LECTURESHIP

Award

WED. 9:00 AM—SAN DIEGO CONVENTION CENTER, 6B

9:00 Introductory remarks. M. Stallcup.

9:05  460.1 Using genomic technologies to investigate transcriptional regulation in normal and cancer cells. P.J. Farnham. Univ. of Southern California.

461. RIBOSOMES: REGULATION OF ACCESS TO mRNA

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F
CHAIR: M. ARES, JR.

9:55 Chair’s introduction.

10:00  461.1 A knotty problem: dissecting the molecular mechanics of mRNA recruitment to the eukaryotic ribosome. J.R. Lorsch. Johns Hopkins Univ. Sch. of Med.


12:00 Conclusion.

462. TELOMERES AND TELOMERASE

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E
CHAIR: J. DIFFLEY

9:55 Chair’s introduction.

10:00  462.1 Control of centrosomes and kinesin motors by telomeres in meiosis. J.P. Cooper, C. Bez, A. Fennell, M. Klutstein and K. Tomita. Cancer Res. UK and University Col. London.


10:40  462.2 BRCA1 and CtIP are required for processing uncapped telomeres. M. Tarsounas. Univ. of Oxford.


12:00 Conclusion.

463. ENDOMEMBRANE SYSTEM DYNAMICS

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D
CHAIR: B. GLICK

9:55 Chair’s introduction.

10:00  463.1 Mechanisms of ESCRT-mediated cargo sorting and degradation. A. Audhya, A. Schuh, J. Mayers, I. Fyfe and M. Edwardson. Univ. of Wisconsin-Madison and Univ. of Cambridge.


11:05 The actions of SNAREs and Munc18 in neuronal vesicle fusion. J. Shen. Univ. of Colorado Boulder. (988.2)

11:20 Regulation of I-kappa-B kinase pathway by CARMA 1•Bcl-10•MALT -1 complex promotes SNARE complex formation and secretion in platelets. M. Banerjee, Z. Karim, J. Zhang and S.W. Whiteheart. Univ. of Kentucky. (986.1)

11:35  463.3 Molecular insights into tether function at the late endosome and vacuole. C. Ungermann. Univ. of Osnabrueck, Germany.

12:00 Conclusion.

464. NEW METHODOLOGIES FOR TARGET DISCOVERY AND TARGET VALIDATION

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C
CHAIR: P. JACKSON

9:55 Chair’s introduction.

10:00  464.1 Functional genomics to decipher cancer dependencies and mechanisms. W.C. Hahn. Dana-Farber Cancer Inst.

10:25 Large scale analysis of synaptic phosphorylation and O-GlcNAcylation reveals complex interplay between these post-translational modifications. J.C. Trinidad, D.T. Barkan, B. Gulledge, A. Thalhammer, A. Sali, R. Schoepfer and A.L. Burlingame. UCSF and University Col. London. (978.2)


12:00 Conclusion.

465. LIPID REGULATION OF PROTEIN FUNCTION

Symposium

Wed. 9:55 AM—San Diego Convention Center, 6A

Chair: T. Osborne

9:55 Chair’s introduction.


11:05 Chemical approaches to the investigation of protein-membrane binding interactions using synthetic lipid probes. M.D. Best. Univ. of Tennessee, Knoxville. (595.1)

11:20 Sterol regulation of HMG CoA reductase in the liver. N. Calhoun and R. Deobse-Boyd. Univ. of Texas San Agustin. (931.3)

11:35 465.3 Inflammation and insulin resistance. J.M. Olefsky. UCSD.

12:00 Conclusion.

466. RELATIONSHIP OF HOST AND PATHOGEN

Symposium

Wed. 9:55 AM—San Diego Convention Center, 1B

Chair: M. Jackson

9:55 Chair’s introduction.


10:40 466.2 Protein export via the accessory SecA2 system of Mycobacterium tuberculosis. M. Braunstein, J.T. Sullivan, M. Feltcher and L. Ligon. Univ. of North Carolina at Chapel Hill.


11:35 466.3 Compensatory evolution and fixation of Rifampicin resistance in MDR and XDR tuberculosis. C.E. Barry III. NIAID/NIH.

12:00 Conclusion.

467. INTERPLAY BETWEEN CHROMATIN STRUCTURE AND THE TRANSCRIPTION MACHINERY

Symposium

Wed. 1:45 PM—San Diego Convention Center, 6F

Chair: R. Shiekhettar

1:45 Chair’s introduction.

1:50 467.1 Molecular dynamics of epigenetic transitions. G.L. Hager. NCI/NIH.


2:30 467.2 Lysine methylation and regulation of gene expression programs. O. Gozani. Stanford Univ.


3:10 Transcription factor access to their sites in chromatin. M. Floer and A. Gijodda. Michigan State Univ. (925.1)


3:50 Conclusion.

468. NETWORKS AND NOISE

Symposium

Wed. 1:45 PM—San Diego Convention Center, 6E

Chair: A. Hoffmann

1:45 Chair’s introduction.

2:00 Talk TBA. C. Voight, MIT.

2:25 468.1 Sensing array of radically coupled genetic biopixels. J. Hasty. UCSD.

2:55 Topocell – an image analysis tool to study intracellular topography. V.R.C.P.F. Fachada, N. Fachada, T. Turpeinen, P. Rahkila, A. Rosa and H. Kainulainen. Univ. of Jyväskylä, Finland and Tech Univ. of Lisbon. (578.2)


3:50 Conclusion.

469. PROTEIN QUALITY CONTROL AND DISEASE

Symposium

WED. 1:45 PM—SAN DIEGO CONVENTION CENTER, 6D

CHAIR: J. BRODSKY

1:45 Chair's introduction.


2:15 Ubiquitin chain trimming recycles the substrate binding sites of the 26 S proteasome and promotes degradation of lysine 48-linked polyubiquitin conjugates. C-W. Liu, N-Y. Zhang, A.D. Jacobson and A. MacFadden. Univ. of Colorado Sch. of Med. and Med. Col. of Wisconsin. (957.1)

2:30 469.2 TorsinA – unlocking the mysteries of an AAA+ ATPase in the endoplasmic reticulum and nuclear envelope. P.J. Hanson, A. Vander Heyden and T.V. Naismith. Washington Univ. Sch. of Med.

2:55 The role of protein oxidation in the onset of the transthyretin amyloidoses. L. Zhao, N. Reixach and J. Buixbaum. The Scripps Res. Inst. (752.10)


3:50 Conclusion.

470. FRONTIERS IN MECHANISTIC ENZYMOLOGY

Symposium

WED. 1:45 PM—SAN DIEGO CONVENTION CENTER, 6C

CHAIR: J. SELLO

1:45 Chair’s introduction.


2:15 High-pressure adaptation in piezotolerant enzymes studied with cytochromes P450 from deep-sea bacteria. D.R. Davydov and E.V. Sinaev. UCSD Skaggs Sch. of Pharm. and Pharmacut. Sci. (959.4)

2:30 470.2 Oxidative nucleic acid modification and demodification. C. He. Univ. of Chicago.


3:50 Conclusion.

471. AGING METABOLISM

Symposium

WED. 1:45 PM—SAN DIEGO CONVENTION CENTER, 6A

CHAIR: B. Tu

1:45 Chair’s introduction.

1:50 471.1 Unbiased identification of novel AMPK substrates by chemical genetics. A. Brunet. Stanford Univ.

2:15 Using Drosophila as a model system to study cold tolerance. D. Luor, K. Parikh, D. Shain and N. Yakoby. Rutgers, The State Univ. of New Jersey, Camden. (969.5)


2:55 A novel anti-aging compound extends longevity by remodeling neutral lipid metabolism. V. Titorenko, A. Beach, V. Richard and M. Burstein. Concordia Univ., Canada. (965.1)


3:50 Conclusion.

472. ROLES OF GLYCOCONJUGATES IN METABOLISM AND DISEASE

Symposium

WED. 1:45 PM—SAN DIEGO CONVENTION CENTER, 1B

CHAIR: K. Colley

1:45 Chair’s introduction.

1:50 472.1 O-GlcNAc cycling and epigenetics. J.A. Hanover, P. Wang, S. Ghosh, C. Keembiyehetty, M. Comly, M. Bond, M. Krause and D. Love. NIDDK/NIH.


2:30 472.2 The mammalian O-mannosylation pathway: protein substrates and functional glycans. L. Wells. Univ. of Georgia.
**WEDNESDAY**

2:55 Human lysyl oxidase-like 2 in breast cancer metastasis. **M. Mure, L. Xu and K. Rebecchi.** Univ. of Kansas. (794.6)

3:10 Alteration of heparan sulfate 2-O-sulfation in endothelial cells enhances neutrophil infiltration in mice. **D. Xu, J. Axelsson, B.N. Kang, P. Sriramarao, T.M. Handel, K. Ley and J.D. Esko.** UCSD, Univ. of Minnesota, St. Paul and La Jolla Inst. for Allergy and Immunol. (609.1)


3:50 Conclusion.

### Nutrition

#### 473. NUTRITIONAL PREVENTION OF COGNITIVE DECLINE

**Symposium**

*Supported by an educational grant from the NIH Office of Dietary Supplements*

*Sponsored by: Nutritional Epidemiology RIS*

**WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 20D**

**CHAIRED:** L. ARAB

**COCHAIR:** R. BAILEY

- 8:00 The role of B vitamins in preventing and treating cognitive impairment. **M. Morris.** Tufts Univ.
- 8:30 Coffee, tea, caffeine and flavonoids and cognitive decline. **L. Arab.** David Geffen Sch. of Med., UCLA.
- 9:00 Omega 3 fatty acids and decline. **T. Cederholm.** Uppsala Univ., Sweden.
- 9:30 Vitamin D. **J. W. Miller.** Univ. of California, Davis Med. Ctr.

#### 474. NUTRITIONAL REGULATION OF EPIGENETIC CHANGES

**Symposium**

*Supported by educational grants from New England Biolabs and ThermoFisher Scientific*

*Sponsored by: Medical Nutrition Council (MNC) and the Nutritional Sciences Council (NSC)*

**WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C**

**CHAIR:** D.F. ROMAGNOLO

**COCHAIR:** T. R. ZIEGLER

- 8:00 MicroRNAs, diet and cancer. **R. Dashwood.** Oregon State Univ.
- 8:30 Diet-nuclear receptor interactions and epigenetic diseases. **D. F. Romagnolo.** Univ. of Arizona.
- 9:00 Linking one-carbon metabolism to epigenetic regulation. **P. J. Stover.** Cornell Univ.
- 9:30 Epigenetic mechanisms in obesity. **R. Waterland.** Baylor Col. of Med.

### 475. MACRONUTRIENTS AS TOOLS TO COUNTER AGE-RELATED CHANGES IN SKELETAL MUSCLE

**Symposium**

*Supported by an educational grant from the Dairy Research Institute*

*Sponsored by: Energy and Macronutrient Metabolism RIS and Aging and Chronic Disease RIS*

**WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20D**

**CHAIR:** W.W. CAMPBELL

- 10:30 Dietary protein: quantities, qualities, and patterns of intake to promote muscle synthetic responses and body composition change in young and old adults. **S. Phillips.** McMaster Univ., Canada.
- 11:00 Dietary carbohydrate: relationships among dietary carbohydrate, exercise, skeletal muscle, and insulin action. **J. Haus.** Univ. of Illinois, Chicago.
- 12:00 Energy balance and macronutrient distributions: must obese older adults compromise skeletal muscle while losing weight to improve health? **W. W. Campbell.** Purdue Univ.

**POSTER PRESENTERS: UPLOAD YOUR POSTER**

Where: E-Poster Counter, Hall D Lobby

Deadline: Wed., April 25, 3:30 PM

 Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
Pathology

476. INNATE IMMUNITY IN THE BRAIN

Symposium
(Sponsored by: ASIP Neuropathology Scientific Interest Group)
Wed. 8:30 AM—San Diego Convention Center, 16B
Chair: C.A. Wiley and J. Kofl er

Neuropathology
8:40 Innate immunity in the CNS. S-Y. Zhang. Rockefeller Univ.
10:00 Microglia in vitro. J. Kofl er. Univ. of Pittsburgh Med. Ctr.

477. RECENT ADVANCES IN THE PATHOBIOLOGY OF DIABETIC COMPLICATIONS

Symposium
Wed. 8:30 AM—San Diego Convention Center, 16A
Chair: I. Jialal and S. Devaraj

8:30 The role of inflammation in diabetic vascular complications. I. Jialal. Univ. of California, Davis Med. Ctr.
10:00 AGE-RAGE axis in diabetic complications. A. M. Schmidt. NYU Sch. of Med.

478. ANIMAL MODELS

Minisymposium
Wed. 8:30 AM—San Diego Convention Center, 17B
Chair: M.J. McArthur
Co-Chaired: E. Whitley

9:00 478.3 Regulation of the calpain and ubiquitin proteasome system in a canine model of muscular dystrophy with myostatin inhibition. S.W. Cotten, K.M. Wadowsky, D. Bogan, J.N. Kornegay and M.S. Willis. Univ. of North Carolina at Chapel Hill.
9:15 478.4 The preventive effect of melatonin and/or exercise on cartilage destruction in collagenase-induced osteoarthritis rats. H. Kim, Y. Hong and Y. Hong. Inje Univ., South Korea.

479. MODELING CANCER: BIOLOGICAL AND THERAPEUTIC IMPLICATIONS

Minisymposium
Wed. 8:30 AM—San Diego Convention Center, 17A
Chair: P. Dasgupta
Co-Chaired: V. Castronovo

Neoplasia
9:00 479.3 Loss of β-catenin in hepatocytes leads to paradoxical increase in DEN/PB induced HCC. P. Awuah. Univ. of Pittsburgh Sch. of Med.
9:45 479.6 The RNA-binding protein Imp2 regulates oxidative phosphorylation that is key to glioblastoma cancer stem cell maintenance. M. Janiszewska, M-L. Suva, R.H. Houtkooper, V. Clement-Schatlo and I. Stamenkovic. Univ. of Lausanne, Massachusetts Gen. Hosp., Boston, EPFL, Lausanne and Univ. of Geneva.
Pharmacology and Experimental Therapeutics

480. RAY FULLER LECTURE IN THE NEUROSCIENCES

Lecture
WED. 8:30 AM—SAN DIEGO CONVENTION CENTER, 2

The Ray Fuller Lecture in the Neurosciences was established to honor the achievements of Ray Fuller in applying an improved understanding of the central nervous system to discover better treatments for the mentally ill. Dr. Fuller was one of the triad that discovered fluoxetine (Prozac), leading to an entire new approach to the therapy of depression.

8:30 Introduction. L. Wecker. Univ. of South Florida Col. of Med.
8:35 Fulfilling the promise of molecular medicine in autism spectrum disorders. M. F. Bear. MIT.

481. RAY FULLER SYMPOSIUM: PROGRESS TOWARD AUTISM DRUG DISCOVERY

Symposium
WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 2
CHAIR: M. BEAR

9:30 TBD.
11:50 Discussion.

482. PROTEIN-PROTEIN INTERACTION INTERFACES AS THERAPEUTIC TARGETS: PROMISES AND CHALLENGES

Symposium
(Sponsored by: The Divisions for Molecular Pharmacology and Drug Discovery, Development & Regulatory Affairs)
WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 3
CHAIR: H. Fu

9:30 Chair’s introduction.
9:40 Targeting PPIs to interrogate survival signaling network in cancer. H. Fu. Emory Univ.
10:50 Fragment-based drug discovery approach for challenging targets: PPI. M. Arkin. UCSF.

483. NADPH-CYTOCHROME P450 OXIDOREDUCTASE: ROLES IN PHYSIOLOGY, PHARMACOLOGY, AND TOXICOLOGY

Symposium
(Sponsored by: The Divisions for Drug Metabolism; Toxicology; and Drug Discovery, Development & Regulatory Affairs)
WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 4
CHAIR: D. Riddick
COCHAIR: T. Porter

9:40 Engineered mouse models harboring null or hypomorphic alleles for NADPH-cytochrome P450 oxidoreductase. X. Ding. New York State Dept. of Hlth. Discussion.
10:10 Mouse models for deciphering the roles of NADPH-cytochrome P450 oxidoreductase and cytochrome b₅ in physiology, drug metabolism and cancer. C. R. Wolf. Univ. of Dundee, Ninewells Hosp. and Med. Sch. Discussion.
10:45 Replication of the hepatic lipidosis seen in hepatic POR-null mice in a hepatoma cell culture model: a role for FXR? T. D Porter. Univ. of Kentucky Col. of Pharm. Discussion.
11:55 Discussion.

484. OPIOID-INDUCED BOWEL DYSFUNCTION

Symposium
(Sponsored by: The Divisions for Integrative Systems, Translational & Clinical Pharmacology; Toxicology; and Neuropharmacology)
WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5A
CHAIR: H. Akbarali

9:30 Opiate receptor function in enteric neurons. C. Sternini. UCLA Sch. of Med.
10:00 Peripheral opiate antagonists—current usage in treating OBD. F. M. Mangano. Adolor Corp.
10:30 Opioid tolerance and bowel dysfunction. H. I. Akbarali. Virginia Commonwealth Univ.
11:00 Mu opioid receptor biased ligands: delivering powerful analgesia and minimizing side effects. S. DeWire. Trevana Inc.
485. DISCOVERY OF PROTEIN KINASE INHIBITORS FOR CNS DISORDERS: OPENING NEW AVENUES FOR UNMET NEEDS

Symposium
(Sponsored by: The Divisions for Neuropharmacology; Behavioral Pharmacology; and Molecular Pharmacology)

WED. 3:00 PM—SAN DIEGO CONVENTION CENTER, 3

CHAIR: M. GNEGY AND D. WATTERSON

3:00 Guiding medicinal chemistry with pharmacology in novel small molecule kinase inhibitor discovery: a case study. D. M. WATTERSON. Northwestern Univ. Feinberg Sch. of Med.

3:35 Protein kinase inhibitors as therapeutics for neurodegenerative diseases: cdk5 as a case study. M. GLICKSMAN. Harvard Med. Sch.

4:10 Application of fragment-based lead discovery to identify specific targeted protein kinase inhibitors for CNS disorders. V. NIENABER. Zenobia Therapeut., Inc.

4:45 PKCβ inhibitors as potential treatment for drug abuse. R. CHEN. Univ. of Michigan Med. Sch.

5:20 Discussion.

486. STEROID SIGNALING VIA G PROTEIN-COUPLED RECEPTORS

Symposium
(Sponsored by: The Divisions for Molecular Pharmacology; Integrative Systems, Translational & Clinical Pharmacology; Neuropharmacology; Toxicology; and Cardiovascular Pharmacology)

WED. 3:00 PM—SAN DIEGO CONVENTION CENTER, 4

CHAIR: E. PROSSNITZ

3:00 What have selective ligands told us about GPER function? E. PROSSNITZ. Univ. of New Mexico.


4:00 Actions of GPER on the vasculature. M. BARTON. Univ. of Zurich.


5:00 G protein estrogen receptor regulates Kv11.1 ion channel activity in ERneg breast cancer cells. S. GENTILE. Loyola Univ., IL. (1048.8)

5:15 Discussion.

487. CLINICAL PIPELINE OF MARINE PHARMACEUTICALS: THE ODYSSEY CONTINUES

Symposium
(Sponsored by: The Division for Drug Discovery, Development & Regulatory Affairs)

WED. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5A

CHAIR: K. GLASER AND A.M.S. MAYER

3:00 Overview of the current marine clinical pharmaceutical pipeline. K. B. GLASER. Abbott Labs.

3:15 Discovery of Eribulin mesylate (Halaven®): From marine natural product to FDA approved drug. M. YU. EISAI Inc.


4:25 Discovery and development from marine microbiology of the anticancer compounds plinabulin (NPI-2358) and marizomib (NPI-0052). G. K. LLOYD. Nereus Pharmaceut. Inc.

5:00 Overview of the current preclinical marine pharmacology pipeline. A.M.S. MAYER. Midwestern Univ., IL.

5:20 Discussion.

488. APPLICATIONS OF BIOMATERIALS AND DRUG DELIVERY SYSTEMS FOR ENHANCING TISSUE ENGINEERING AND REGENERATION

Symposium
(Sponsored by: The Division for Integrative Systems, Translational & Clinical Pharmacology)

WED. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5B

CHAIR: K.E. ANDERSON AND G. CHRIST

3:00 Biomaterials and biofunctional nanoparticles for tissue engineering and other biomedical applications. J. HUBBELL. Swiss Fed. Inst. of Technol. Sch. of Life Sci., Lausanne.

3:30 Injectable hydrogels for delivery of therapeutic agents for treatment of peripheral and central nervous system injury. M. SHOICHER. Univ. of Toronto.

4:00 Polymeric materials and conjugates for systemic drug and gene delivery. P. STAYTON. Univ. of Washington.

4:30 Hydrogel drug delivery systems for musculoskeletal repair. J. TEMENOFF. Georgia Tech.

5:00 Delivery of nucleic acids to regulate the local environment in tissue engineering applications. J. M. SAUL. Wake Forest Univ. Hlth. Sci.

489. ASPET CLOSING RECEPTION

Special Event
WED. 6:00 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, POOLSIDE TERRACE
490. ANABOLIC RESISTANCE TO EXERCISE WITH AGING OR DISEASE

Featured Topic
(Sponsored by: APS Environmental and Exercise Physiology Section)

Wed. 8:00 AM—San Diego Convention Center, 25B
Chair: J. Fluckey

Metabolic Diseases

8:00 Introduction.
8:05 Anabolic resistance to load-induced hypertrophy with metabolic syndrome in the mouse. S. C. Bodine. Univ. of California, Davis.
8:50 The effect of treadmill exercise on the regulation of protein synthesis during IL-6 induced cancer cachexia. M. Puppa, J. White, S. Sato and J. Carson. Univ. of South Carolina. (1149.2)
9:50 Wrap-up. J. D. Fluckey. Texas A&M Univ.

491. BONE-MUSCLE CROSSTALK

Featured Topic
(Sponsored by: APS Muscle Biology Group)

Wed. 8:00 AM—San Diego Convention Center, 28B
Chair: M. Brotto and M. Johnson

8:00 The state of a new field: The Bone-Muscle Crosstalk. T. Clemens, Johns Hopkins Sch. of Med.
8:30 Aging and exercise models that define and reveal new aspects of the muscle-bone communication. M. Hamrick, Georgia Health Sciences University-Medical College of Georgia
9:00 Multiple-staged regulation of myogenic differentiation by prostaglandin E2. C. Mo, S. Romero-Suarez, O. Igwe and M. Brotto. Univ. of Missouri-Kansas City. (1143.1)
9:15 Wnt3a a potent modulator of myogenic differentiation and muscle cell function. S. Romero-Suarez and M. Brotto. Sch. of Nursing, Univ. of Missouri-Kansas City. (1143.2)
9:30 Bad to bone: homocysteine. N. Tyagi, N. Narayanan, S. Givviman and S.C. Tyagi. Univ. of Louisville. (1143.5)

492. CONFLICT RESOLUTION: HOW TO KEEP EVERYONE HAPPY!

Symposium
(Sponsored by: APS Women in Physiology Committee)

Wed. 8:00 AM—San Diego Convention Center, 25C
Chair: A. Grippo and R. L. Sutliff

Career Development

8:00 Squashing squabbles. P. O. Smith. Univ. of Mississippi Med. Ctr.
8:30 Disagree and advance your career: nonviolent approaches for dealing with your superior. B. Horwitz. Univ. of California, Davis.
9:00 Overcoming laboratory disagreements from a trainee perspective. J. Sasser. Univ. of Mississippi Med. Ctr.
9:30 Panel discussion with questions from the audience.

493. CONTEMPORARY APPROACHES TO THE PATHOPHYSIOLOGY OF THE CARDIOVASCULAR SYSTEM

Symposium
(Sponsored by: Latin American Association of Physiological Societies (ALACF))

Wed. 8:00 AM—San Diego Convention Center, 23
Chair: R. Iturriaga and B. H. Machado

8:00 The novel axis of the renin-angiotensin system-ACE2/angiotensin-(1-7)/Mas: role in cardiovascular control and hypertension. R. A.S. Santos. Fed. Univ. of Minas Gerais, Brazil.
8:30 ACE and AT1 receptor function as angiotensin II-independent mechanotransducers. J. E. Krieger. Heart Inst., Univ. of Sao Paulo.
9:00 Pathophysiological role of the sodium/bicarbonate cotransporter in the heart. A. Aiello. Univ. of La Plata.

494. GASTROINTESTINAL PHYSIOLOGY AND THE MICROBIOME

Featured Topic
(Sponsored by: APS Gastrointestinal and Liver Physiology Section)

Wed. 8:00 AM—San Diego Convention Center, 25A
Chair: R. T. Worrell and H. V. Carey

Translational Physiology

8:00 Hibernation alters the gut microbial community in ground squirrels. H.V. Carey, W.A. Walters and R. Knight. Univ. of Wisconsin-Madison, Univ. of Colorado Boulder and HHMI. (1155.6)
Dynamics of the cecal microbial community of an extreme hibernator, the arctic ground squirrel. T. Stevenson, L. Buck, B. Quinlan and K. Duddleston. Univ. of Alaska Anchorage. (1155.7)

Feeding of probiotic formulation protects from obesity and diabetes. H. Yadav and S.G. Rane. NIDDK/NIH. (1155.4)

Organ function shapes the microbiome… and vice versa. M. G. D. Bello. Univ. of Puerto Rico at Rio Piedras.

Diverse gut microbes facilitate ingestion of dietary toxins in herbivores. M.D. Dearing, K. Kohl, C. Dale and R. Weiss. Univ. of Utah. (1155.8)


Dietary fat-induced taurocholic acid production promotes pathobiont and colitis in IL-10 -/- mice. S. Devkota, Y. Wang, V.A. Leone, M. Musch, A. Nadimpalli, D. Antonopoulos, B. Jabri and E. Chang. Univ. of Chicago and Argonne Natl. Lab. (1155.2)

OVERVIEW OF FORMATION AND MAINTENANCE OF MAMMALIAN MITOCHONDRIA

J. Nunnari. Univ. of California, Davis.

MITOCHONDRIAL DYNAMICS IN CARDIAC PHYSIOLOGY

Symposium

(Sponsored by: APS Cardiovascular Section)

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 26

CHAIR: W. C. STANLEY AND J. H. RENNISON

Metabolic Diseases

Translational Physiology

Overview of formation and maintenance of mammalian mitochondria. J. Nunnari. Univ. of California, Davis.


Mitochondrial turnover and ischemia/reperfusion injury. A. B. Gustafsson. UCSD.

Sirtuins, protein acetylation and selective mitophagy. M. N. Sack. NHLBI/NIH.

NEUROVASCULAR MECHANISMS AND TARGETS IN STROKE: FROM CELLS TO HUMANS

Symposium

(Sponsored by: American Federation for Medical Research)

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 27

CHAIR: M. L. GUMZ AND R. D. RUDIC

Translational Physiology


Physiology and pathophysiology of the blood-brain barrier. T. Davis. Univ. of Arizona.


NOVEL REGULATORS OF CARDIAC FIBROBLAST FUNCTION AND FATE

Featured Topic

(Sponsored by: APS Cardiovascular Section)

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22

CHAIR: M. CZUBRYT

Inflammation and Immune Responses

8:00 Regulation of cardiac fibroblast transdifferentiation by microenvironment manipulation. B. Hinz. Univ. of Toronto.

8:30 miRNA regulation of cardiac fibroblast function. E. Creemers. Univ. of Amsterdam.


Scleraxis works synergistically with Smads to regulate collagen gene expression. R. Bagchi and M. Czubryt. Univ. of Manitoba. (1059.2)


RECENT ADVANCES IN PHYSIOLOGY AND DISEASE: THE ROLE OF THE CIRCADIAN CLOCK IN NEURAL, CARDIOVASCULAR AND METABOLIC FUNCTION

Symposium

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24

CHAIR: M. L. GUMZ AND R. D. RUDIC

Mechanism and regulation of the circadian clock. D. R. Weaver. Univ. of Massachusetts Med. Sch.


The role of the circadian clock protein Per 1 in the regulation of renal sodium handling. M. L. Gumz. Univ. of Florida.

499. RESPIRATORY PATTERN VARIABILITY: INSIGHTS INTO RESPIRATORY CONTROL MECHANISMS IN HEALTH AND DISEASE

Featured Topic
(Sponsored by: APS Respiration Section)

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A

CHAIR: T. DICK

8:00 Central mechanisms of variable respiratory patterns. N. Mellen. Univ. of Louisville Sch. of Med.
9:00 A stochastic and integrative model of breathing with temporal scaling characteristics. B.F. BuSha and S. Frone. The Col. of New Jersey. (1148.11)
9:15 Influence of different classes of anesthetics on burst-to-burst variability of basal phrenic nerve discharge in adult in vivo rat. T. Rahim, A. Kiridly, I.M. Reid and I.C. Solomon. Stony Brook Univ. (1148.9)

500. AMERICAN PHYSIOLOGICAL SOCIETY: 125 YEARS OF PROGRESS

Symposium
(Sponsored by: APS History of Physiology Group)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23

CHAIR: C. M. TIPTON AND K. RYAN

11:10 APS and progress in advocating and implementing scientific policies and practices at the national and international levels. M. Frank. APS.
11:30 Eminent physiological studies by APS members during the past 125 years. C. M. Tipton. Univ. of Arizona.
11:50 Discussion by the membership.

501. BIOENGINEERING AND REGENERATIVE MEDICINE

Symposium
(Sponsored by: Biomedical Engineering Society)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 22

CHAIR: N. BURSAC AND C. NELSON

10:55 In situ regeneration of blood vessels by recruiting endogenous stem cells. S. Li. Univ. of California, Berkeley.
12:10 Vascularization of engineered tissues. J. West. Rice Univ.

502. CENTRAL CONTROL OF FOOD INGESTION AND METABOLISM

Symposium
(Sponsored by: Sociedad Mexicana de Ciencias Fisiologicas)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 24

CHAIR: R. BUIJS

10:30 Chemosensory processing in the taste: reward pathway. R. Gutierrez. CINVESTAV del IPN.
11:00 POMC—NPY neuronal interaction essential for metabolic control. T. L. Horvath. Yale Univ. Sch. of Med.
12:00 Circadian desynchronization: a pathway to obesity. C. Escobar. Natl. Autonomous Univ. of Mexico.

503. E-MEDIA TOOLS FOR THE PROFESSIONAL SCIENTIST

Symposium
(Sponsored by: APS Trainee Advisory Committee)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C

CHAIR: J. BOMBERGER AND E. DALE-NAGLE

Career Development

10:30 Using e-media to find funding opportunities. C. Dant. Dartmouth Norris Cotton Cancer Ctr.
11:00 E-media tools for teaching. A. Bunker. Morningside Col., IA.
12:00 Ethical implications of social media. N. Brown. Happy Place Marketing, Tulsa.
504. ESSENTIAL INSIGHTS INTO PROTEIN INTERACTIONS IN EPITHELIA

Symposium

**WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 27**

**CHAIR: R. A. FENTON**

10:30 Use of mass spec and related techniques to measure post-translations modifications. **F. White.** David H. Koch Inst. for Integrative Cancer Res., MIT.

11:00 The interactome of a human cell. **P. Braun.** Dana-Farber Cancer Inst.


12:00 Novel imaging approaches to study protein-protein interactions in living animals. **R. Paulmurugan.** Stanford Univ.

505. INSULIN RESISTANCE: A DEFENSE MECHANISM FOR THE STRESSED HEART?

Symposium

*(Sponsored by: APS Cardiovascular Section)*

**WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26**

**CHAIR: H. TAEGTMEYER AND M. CHANDLER**

**Metabolic Diseases**

10:30 Etiology of insulin resistance. **V. T. Samuel.** Yale Univ. Sch. of Med.


11:45 Cardioprotection attributed to high fat diet-induced insulin resistance. **M. Chandler.** Case Western Reserve Univ.

12:10 Insulin resistance as a cellular defense mechanism. **K. L. Hoehn.** Univ. of Virginia.

506. MECHANICAL MUSCLE DAMAGE

**Featured Topic**

*(Sponsored by: APS Muscle Biology Group)*

**WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28B**

**CHAIR: K. MYBURGH**

10:30 Divergent and fiber-specific responses to eccentric contraction in vivo. **K. H. Myburgh.** Stellenbosch Univ.


11:15 Titin is not the weak link in the Z-disk streaming induced by plyometric exercise. **F. Macaluso, A.W. Isaacs and K.H. Myburgh.** Stellenbosch Univ., South Africa. *(1141.1)*

11:30 Mechanical modeling of Z-disc behavior in response to stretch. **K. S. Campbell.** Univ. of Kentucky.

507. OXYGEN TRANSPORT AND FATIGUE IN HUMANS: UNRAVELING THE MECHANISMS

Symposium

*(Sponsored by: APS Environmental and Exercise Physiology Section)*

**WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25B**

**CHAIR: J. A. LOPEZ CALBET AND J. DEMPSSEY**

10:30 Brain oxygenation and fatigue: is it all about low PaO2? **J. A. Lopez Calbet.** Univ. of Las Palmas de Gran Canaria.

11:00 Performance enhancing effects of increased oxygenation. **C. Lundby.** Univ. of Zurich.

11:30 Mitochondrial respiration as limiting factor for exercise in humans. **R. Boushel.** Univ. of Copenhagen.

12:00 Role of muscle afferents in convective O2 transport and fatigue. **M. Aman.** Univ. of Utah.

508. REGULATION OF INTESTINAL STEM CELLS DURING DEVELOPMENT, HOMEOSTASIS, ADAPTATION AND PATHOPHYSIOLOGY

Symposium

*(Sponsored by: APS Gastrointestinal and Liver Physiology Section)*

**WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25A**

**CHAIR: Y. ZAVROS AND N. N. NANTHAKUMAR**

**Translational Physiology**

**Physiology of Development**


11:00 CD166, the cancer stem cell marker, functions to regulate the intestinal stem cell niche. **M. Wong.** Oregon Hlth. & Sci. Univ.

11:30 Intestinal stem cell: isolation and characterization during intestinal adaptation and during recovery from injury. **C. M. Dekaney.** Univ. of North Carolina at Chapel Hill.

12:00 Intestinal stem cell: regulation of the stem cell, stem cell niche during aging in the *Drosophila*. **D. L. Jones.** Salk Inst. for Biol. Studies.

509. S-GLUTATHIONYLATION AS A MECHANISM OF OXIDATIVE SIGNALING

Symposium

*(Sponsored by: APS Respiration Section)*

**WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A**

**CHAIR: J. SNOW AND V. ANATHY**

**Hypoxia and Oxidative Stress**

10:30 S-glutathionylation uncouples eNOS and regulates its cellular and vascular function: relevance to pulmonary vasoreactivity. **J. L. Zweier.** The Ohio State Univ.
11:00 Intermittent hypoxia increases S-glutathionylation of mitochondrial complex I. J. Nanduri. Univ. of Chicago.
11:30 S-glutathionylation activates STIM1 and alters mitochondrial homeostasis. M. Madesh. Temple Univ.
12:00 Redox regulation of apoptosis by S-glutathionylation of death receptor Fas. V. Anathy. Univ. of Vermont Col. of Med.

510. DIABETIC CARDIOVASCULAR DYSFUNCTION: ROS-DEPENDENT AND -INDEPENDENT CAUSES AND COMPLICATIONS

Featured Topic
(Sponsored by: APS Cardiovascular Section)
WED. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: L. E. WOLD AND J. G. MESZAROS

Hypoxia and Oxidative Stress
Metabolic Diseases
4:00 Diabetic cardiomyopathy and nephropathy: Roles of glucose metabolism and oxidative stress. P. N. Epstein. Univ. of Louisville.
5:15 Role of BMP4 in eNOS uncoupling in type 2 diabetes. J.Y. Youn and H.L. Cai. UCLA. (1057.4)

511. HOST RESPONSES TO GASTROINTESTINAL INFECTIONS

Featured Topic
(Sponsored by: APS Gastrointestinal and Liver Physiology Section)
WED. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: L. ECKMANN

3:30 Role of focal adhesion kinase in the innate immune response to salmonella infection. J. Casanova. Univ. of Virginia.

4:15 Changes in innate immune pathway and proteins of Caenorhabditis elegans during Cronobacter sakazakii infection. K. Balamurugan and B.S. Sivamaruthi. Alagappa Univ., India. (1156.2)

512. LEPTIN: METABOLIC, CARDIOVASCULAR AND IMMUNE CONTROL. DOES IT ALL COME FROM THE BRAIN?

Featured Topic
(Sponsored by: APS Cardiovascular Section)
WED. 3:30 PM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: E. BELIN DE CHANTEMELE AND H. LOB

Inflammation and Immune Responses
3:30 Expanding metabolic roles for central leptin signaling and regulation by PTP1B. K. Bence. Univ. of Pennsylvania.
4:00 Circumventricular organs: new targets for leptin actions in central regulation of energy balance and cardiovascular regulation. A. V. Ferguson. Queen's Univ., Canada.
4:45 Activation of leptin receptors in the NTS contributes to the elevated blood pressure in obesity via inhibiting NTS melanocortin signaling. S-I. Sekizawa and C. Chen. Univ. of California, Davis. (1128.5)
5:00 Increasing leptin sensitivity increases blood pressure in mice on a TH2 responsive background only. E.J. Belin de Chantemele. Georgia Hlth. Sci. Univ. (1128.6)
513. MAMMALIAN TARGET OF RAPAMYCIN AS A CENTRAL PLAYER IN ENERGY BALANCE REGULATION

Symposium
(Sponsored by: APS Translational Physiology Group)
Wed. 3:30 PM—San Diego Convention Center, 28B
CHAIR: I. Torre-Villalvazo and A. R. Hargens

Translational Physiology
4:00 Amino acid signaling to mTOR mediated by inositol polyphosphate multikinase. S. Kim. Korea Advanced Inst. of Sci. and Technol.
4:30 Hypothalamic mTOR signaling in energy balance and obesity. D. Cota. INSERM, Univ. Bordeaux.
5:00 AMPK-mTOR cross talk regulates brown adipocyte differentiation. S. Fernandez-Veledo. Hosp. univ. de Tarragona Joan XXIII, Spain.

514. NUCLEAR RECEPTORS IN LIVER DISEASE

Symposium
(Sponsored by: APS Gastrointestinal and Liver Physiology Section)
Wed. 3:30 PM—San Diego Convention Center, 25A
CHAIR: L. Wang and J. Chiang

Inflammation and Immune Responses
3:30 LXRAs and lipid signaling in hepatic stellate cells. S. W. Beaven. UCLA.
4:00 SHP regulation of fatty liver and liver cancer. L. Wang. Univ. of Utah Sch. of Med.
5:00 A novel role of FXR in hepatocarcinogenesis. W. Huang. Beckman Res. Inst. of City of Hope.

515. REACTIVE OXYGEN SPECIES, EXERCISE AND SARCOPENIA

Symposium
(Sponsored by: APS Environmental and Exercise Physiology Section)
Wed. 3:30 PM—San Diego Convention Center, 27
CHAIR: A. McArdle and S. Brooks

4:00 Role of oxidative stress on NMJ degeneration in aging. H. Van Remmen. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
4:30 ROS signaling and maintenance of muscle mass and function. M. J. Jackson. Univ. of Liverpool.
5:00 Mitochondrial involvement in aging muscle atrophy: cause or effect(or). R. T. Hepple. McGill Univ.

516. REGULATION OF MUSCLE BLOOD FLOW BY ATP DURING EXERCISE

Symposium
(Sponsored by: APS Environmental and Exercise Physiology Section)
Wed. 3:30 PM—San Diego Convention Center, 25B
CHAIR: G. H. Simmons and S. B. Bender

Blood Pressure Regulation
4:00 The red blood cell as a source of dilatory ATP during exercise: mechanisms and implications. R. S. Sprague. St. Louis Univ. Sch. of Med.
5:00 The relative maintenance of skeletal muscle vasoconstriction during exercise in the aged: is ATP involved? A. R. Crecelius. Colorado State Univ.

Physiology InFocus
Physiology in Medicine

517. NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE LECTURE

Wed. 3:30 PM—San Diego Convention Center, 20A

Translational Physiology
Title: On Being a Bench Scientist for 50 Years
Speaker: O. Smithies. Univ. of North Carolina at Chapel Hill.
SUNDAY, APRIL 22

Across Societies – Experimental Biology

518. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES I

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Education**

*Presentation time: 12:30 PM-2:30 PM*

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for **Sunday** only.

T1 518.1 Collaborative group testing: perceptions of students in a biotechnology course for non-majors. **T.M. Roberts, M.A. Siegel and S.K. Freyermuth.** Univ. of Missouri-Columbia.

T2 518.2 Determining the effectiveness of the hybrid teaching method in a biology course at a small liberal arts college. **K.K. Resendes and K. Mroz.** Westminster Col., PA.

T3 518.3 Assessment of online course design for a lecture-only pathophysiology course. **K.L.W. Walton.** Missouri Western State Univ.

T4 518.4 Are your students ready for A & P? Developing an effective tool to identify students at risk for failure in introductory science courses. **A.D. Gultice, R. Kallmeyer and A. Witham.** Univ. of Cincinnati Blue Ash Col. and The Christ Col., Cincinnati.

T5 518.5 A biomedical instrumentation lab to accompany an advanced physiology course. **N.S. Latman.** West Texas A&M Univ.

T6 518.6 Developing simple virtual microscopic slides in developing countries: impact and attitudes of medical students. **U.B. Anyaehie and E. Anyanwu.** Univ. of Nigeria.

T7 518.7 Replacing laboratory animals by alternative material for teaching diabetes in practical classes. **M.J.A. Rocha, L.F. Tazinafo, P.J. Basso and M.F. Silva.** Univ. of São Paulo, Ribeirão Preto.

T8 518.8 CO2 rebreathing: an undergraduate lab to study the chemical control of breathing. **N.J. Domnik, S.E. Turcotte, N.Y. Yuen, S. Iscoe and J.T. Fisher.** Queen’s Univ., Canada.

T9 518.9 Applying new technologies to old problems: undergraduate research projects for isolating and characterizing local *Daphnia* sp. and *Chlamydomonas* sp. **M.A.F. Daggett.** Missouri Western State Univ.

T10 518.10 Integration of student centered physiology learning into related high school science courses. **S. Anjur.** IMSA, Aurora, IL.


T12 518.12 Hands on physiology activity improves learning of special senses. **H. Carvalho and K.M. Collins.** Virginia Tech Carilion Sch. of Med. and VPI and State Univ.

T13 518.13 Bringing “PhUn” into the community in Burlington, North Carolina. **J.K. Uno.** Elon Univ.


T16 519.2 The use of novel Camtasia videos to improve performance of at-risk students. **C.J. Miller.** Univ. of Louisville.

T17 519.3 Teaching student to use social media to do scientific research. **J. Krontiris-Litowitz.** Youngstown State Univ.


T19 519.5 Predicting strategies to improve student perceptions about connections between biology knowledge areas using innovative network analysis software. **A. Dasgupta and N. Pelaez.** Purdue Univ.

T20 519.6 Physiology with the singing greeting card beeper. **G. Belušič and G. Zupančič.** Univ. of Ljubljana, Slovenia.

T21 519.7 Computer-driven mechanical model enables investigation of complex cardiovascular concepts. **T.E. Sweeney.** Univ. of Scranton.

T22 519.8 Using open source technology to enhance nursing students’ understanding of physiology. **J.E. Lafuze and D.D. Runshe.** Indiana Univ. East and Indiana Univ., Indianapolis.

T24  519.10  Simulation activities increase medical student question performance compared to paper clinical case conferences. D.M. Harris, R. Laudadio, D. Campos and K. Ryan. Univ. of Central Florida and Drexel Univ. Col. of Med.
T25  519.11  Using “clicker cases” online: an effective strategy for engaging undergraduate students in physiology case studies. M.T. Knabb. West Chester Univ., PA.
T26  519.12  Acceptance and usefulness of an audience response system in teaching an undergraduate pharmacology class. M.C. Sekar. Col. of Pharm., Univ. of Findlay, OH.

520. DISEASE PREVENTION THROUGH EDUCATION

Poster  SUNDAY  7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education  Presentation time: 1:30 PM-3:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Sunday only.


521. CELL BIOLOGY: SIGNALING AND MOLECULAR BIOLOGY

Poster  SUNDAY  7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


522. CELL BIOLOGY: MEMBRANES AND CYTOSKELETON

Poster  SUNDAY  7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B248 522.2 *Edwardsiella tarda* alter their protein expression profiles at permissive human temperatures and control the host cytoskeleton for their benefit. B.J. Tenkink, R. Noort, B.A. Siame, J.A. Gutman and K.Y. Leung. Simon Fraser Univ. and Trinity Western Univ., Canada.

B249 522.3 Nexilin is a dynamic protein at *Listeria monocytogenes* comet tails and enteropathogenic *E. coli* pedestals. H.T. Law, M. Bonazzi, J. Jackson, P. Cossart and J.A. Gutman. Simon Fraser Univ. and Univ. of Victoria, Canada.

B250 522.4 *Francisella* enters host cells by clathrin-mediated endocytosis at a cholesterol rich domain. A.E. Lin, Y. Kim, H.T. Law, F.E. Nano and J.A. Gutman. Simon Fraser Univ. and Univ. of Victoria, Canada.


B252 522.6 Alpha II-spectrin interacting partners in the inner ear serve as pointers to the protein composition of the striated organelle. R.L. Chidavaenzi and A. Lysakowski. Univ. of Illinois at Chicago.


B255 522.9 Morphological changes in the radial spokes of two *Chlamydomonas* mutants expressing various truncated RSP3. B. Meek, P. Sivadas and P. Yang. Oklahoma State Univ. Ctr. for Hlth. Sci. and Marquette Univ.

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**523. IMAGING**

**Poster**

*Presentation time: 12:30 PM-2:00 PM*


B257 523.2 Novel imaging of the implantation of left-sided pacing leads within reanimated swine hearts. J.H. Eggun and P. Iaizzo. Univ. of Minnesota, Minneapolis.


B259 523.4 3-Dimensional imaging and quantification of cell adherence on curved surfaces of medical grade devices using confocal laser-scanning microscopy. K.E. Prater, R.D. Prater and J.P. Biggerstaff. Univ. of Tennessee, Knoxville.


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**524. CARDIOVASCULAR BIOLOGY: ANATOMY AND MORPHOLOGY**

**Poster**

*Presentation time: 12:30 PM-2:00 PM*

B261 524.1 Glutamatergic neurons of the rat epicardial ganglia. T. Wang and K.E. Miller. Oklahoma State Univ.


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**525. CARDIOVASCULAR BIOLOGY: HEART DEVELOPMENT AND GROWTH**

**Poster**

*Presentation time: 12:30 PM-2:00 PM*


B264 525.2 Is BMP-2 a component of the particulate matrix that is responsible for epithelial/mesenchymal transformation during heart development. T.H. Abd-Elhamid, M.L. Conway and A.R. Sinning. Univ. of Mississippi Med. Ctr.

B265 525.3 The type I TGFβ receptor ALK-1 functions in angiogenesis. I. Duffy, J. Watters and J. Hawker. Saint Leo Univ., FL, South Florida Community Col. and Texas A&M Univ.

B266 525.4 Shear stress-activated angiopoietin-2 modulates endothelial cell repairs and vasculogenesis via Wnt/β-catenin signaling pathway. F. Yu, W. Takabe, M. Harrison, R. Li, J. Gu, N. Chi, C-L. Lien and T. Hsiai. Univ. of Southern California, Emory Univ., Children’s Hosp. Los Angeles and UCSD.


526. CARDIOVASCULAR BIOLOGY: DYSFUNCTION; DISEASE; GENETIC DISORDERS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B272 526.4 Bacterial LPS influences receptor activator NF kappa B and fractalkine receptors expression in arterial smooth muscle cells derived from limbs amputated for peripheral arterial disease. R. Zamin, P. Norman and L. Filgueira. Univ. of Western Australia.

B273 526.5 Liver-specific deletion of protein tyrosine phosphatase 1B improves endothelial dysfunction and cardiovascular alterations associated with obesity in mice. A. Agouni, S. Tual-Chalot, L. Duluc, C.M. Martinez, N. Mody, R. Andriantsitohaina and M. Delibegovic. Univ. of Surrey, Univ. of Aberdeen and INSERM U694, Angers.


527. CARDIOVASCULAR BIOLOGY: SEX AND GENDER-RELATED DIFFERENCES

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


528. ANATOMY EDUCATION: UNDERGRADUATE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B278 528.1 Correlation between undergraduate anatomy and physiology and graduate anatomy outcomes: defining predictors of academic success of PA students. M. Hankin, A. Gardner, R. Lane, C. Bennett-Clarke and P. Hogue. Univ. of Toledo Col. of Med.

B279 528.2 How do undergraduate students study for anatomy, and does it matter? J.B. Barger. Indiana Univ.

B280 528.3 Helping students help themselves: evaluating the effectiveness of undergraduate study techniques in human anatomy. C. Eleazer and R.K. Scopa Kelso. Univ. of Tennessee, Knoxville.

B281 528.4 Collaborative learning utilizing case-based problems. N.T. Hilvano and K.M. Mathis. Univ. of Cincinnati–Clermont Col.

B282 528.5 Do lectures matter? Lecture attendance in online and face-to-face histology courses. M.L. Barbeau and K.A. Rogers. Univ. of Western Ontario.

B283 528.6 Designing a laboratory-based microscopic anatomy class for undergraduates. S.K. Sommers Smith. Wellesley Col.

B284 528.7 Undergraduate dissection techniques: unique views of internal structures. L.N. Coniglio and Z.M. Saenz. San Francisco State Univ.

529. ANATOMY EDUCATION: TEACHING METHODS AND INNOVATIONS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B287 529.3 The use of medical images in teaching human anatomy. G. Rae, M. Skelton and E. Bevers. Stetson Univ., FL.

B288 529.4 Faculty and student perceptions of tablet-based content in gross anatomy laboratory teaching. B.J. Smoot, C. Andler, J. Clay, C. Mayfield, P. Ohara and K.S. Topp. UCSF.

B289 529.5 The role of color in knowledge retention: a body-painting study. G.M. Finn and P.M. White. Sch. of Med. and Hlth., Durham Univ., U.K.

B290 529.6 A practical way to understand anatomical planes and directions in animals using vegetables. L.J. Tamayo-Arango. Univ. of Antioquia, Colombia.

B292 529.8 The novel ‘syncetration’ approach to learning gross anatomy with clay models: is it a plausible alternative for learning the muscles in the anterior forearm? H. Kim, M. Johnson and T.D. Wilson. Univ. of Western Ontario.

B293 529.9 Broadening the education of anatomy with art. K.P. Babin and A.M. Koba. City Col. of San Francisco and San Francisco State Univ.


B298 529.14 Enhancing science literacy in tertiary education: a real-world exercise in literature research, scientific writing, and self and peer assessment. L. Filgueira, B. Pauk and J. Meyer. Univ. of Western Australia.

B299 529.15 The Downstate video Atlas of Anatomy, a project powered by dyad pedagogy. A. Blumenberg and S. Marquez. SUNY Downstate Col. of Med.


B302 529.18 Analysis of study logs in an anatomy learning skills course. A. Schutte. Indiana Univ.


B307 530.3 A digital atlas for ultrasound guided nerve blocks of the upper limb. R.J. Rawski, J. Brookes, M. Johnson and S. Ganapathy. Univ. of Western Ontario.

B308 530.4 User experience and the influence on the evaluation of information presentation in an online brachial plexus module. J.G. Turgeon, K. Armstrong and T.D. Wilson. Univ. of Western Ontario.

B309 530.5 The educational value of virtual 3D skeletal model rendered from CAT scan in anatomy education. V.M. Balzano and L.M.J. Lee. The Ohio State Univ. Col. of Med.


B311 530.7 Use of video lab guides to supplement an undergraduate cadaver lab. H.J. Billings. West Virginia Univ. Hlth. Sci. Ctr.

B312 530.8 The use of 3D stereoscopic and 2D videos as pre-lab tool for anatomy dissection. S.M. Alkhallili, K. Hannon and G.L. Coppoc. Purdue Univ.

B313 530.9 Cadaver dissection videos as an effective lab instruction tool for medical and other graduate level health professional students. M.T. Bee, J.M. Montante and B. McAuley. Oakland Univ. William Beaumont Sch. of Med. and Univ. of Detroit Mercy.

B314 530.10 Computer-assisted instruction increased students’ ability to interpret 3D relationships and retain essential course material in undergraduate human anatomy and A&P courses. R.B. Tallitsch, K. Abdel-Malek, J. Krippel, A. Beck, P. Croll, S. Fenwick, K. Kelley and B. Peters. Augustana Col., IL, Cyber-Anat., Iowa City, Midwestern Univ. Sch. of Med., IL and St. Ambrose Univ., IA.


B316 530.12 Integrating online lessons for learning in the anatomy laboratory. E. Petrik and A.F. Doubleday. Univ. of Illinois at Chicago Col. of Dent.

B317 530.13 A comparison of commercial anatomy educational software. S.M. Attardi and K.A. Rogers. Univ. of Western Ontario.

531. ANATOMY EDUCATION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B318 531.1 The John Martin Rare Book Room as a learning resource. P.M. Heidger, Jr. and D.L. Hirst. Univ. of Iowa Carver Col. of Med.


B321 531.4 Undergraduate study approaches to anatomy, using surface or deep approaches. S. Dunham and A.J. Notebaert. Indiana Univ.

The anatomy training program by distance learning co-sponsored by AAA and the anatomical societies: experiences of first cohort of AAA trainees and mentor. C. Vasan, B. Smoot and N. Vasan. New Jersey Med. Sch. and UCSF.


Three opportunities in gross anatomy for meeting the diverse needs of fourth year medical students based on their chosen specialty areas. M.H. Snow and M.A. Winfield. Keck Sch. of Med., Univ. of Southern California.


Clinical cases and TBL in developmental and gross anatomy course. V. Mavrych, O. Bolgova and R. Seetharama. St. Matthews Univ., Cayman Islands.

Clinical utility of PA anatomy education. R. Lane, A. Gardner, C. Bennett-Clarke, P. Hogue and M. Hankin. Univ. of Toledo Col. of Med.


Beneficial aspect of cadaver dissection – medical students perspective. B. Kraszpulski. Wright State Univ.

Accurate accountability of anatomical donors and material permits quality control for the medical school and maintains public trust. M.P. McGillicuddy, N. Caceres and S. Marquez. SUNY Downstate.


Medical students in the microscopic anatomy course: active learning as an evolving response to the adult learner’s needs. R.A. Jurjus, J. Krum and E. Goldman. The George Washington Univ.


ANATOMY EDUCATION: ASSESSMENT, CURRICULUM AND MENTORING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

Medical students in the microscopic anatomy course: active learning as an evolving response to the adult learner’s needs. R.A. Jurjus, J. Krum and E. Goldman. The George Washington Univ.


VISIT THE EXHIBITS

APRIL 22 – APRIL 24

EXHIBIT HOURS

SUNDAY – TUESDAY
9:00 AM – 4:00 PM
Biochemistry and Molecular Biology

533. HISTONE MODIFICATIONS AND THEIR RECOGNITION

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A2 533.2 Identification and characterization of small molecules that inhibit binding of the third plant homeodomain finger of JARID1A to histone H3. E.K. Wagner, R. Flemming, N. Nath and J. Denu. Univ. of Wisconsin-Madison, Promega Corp. and Wisconsin Insit. for Discovery, Madison.


534. MECHANISMS OF INHERITANCE OF HISTONE MODIFICATIONS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A4 534.1 SV40 virions encode transgenerational epigenetic information from cellular viral chromatin. B.I. Milavetz, L. Kallestad, A. Gefroh, N. Adams, E. Wood and L. Balakrishnan. Univ. of North Dakota and Univ. of Rochester Med. Ctr.

535. TRANSCRIPTIOINAL REGULATION AND EPIGENETICS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A6 535.2 Integrin α6β4 regulates promoter demethylation of EGFR ligands. B.L. Carpenter, M. Chen and K. O’Connor. Univ. of Kentucky.


A13 535.9 Downregulation of BRCA1-mediated transcription by HP1γ via modulation of promoter occupancy. J.D. Choi and J-S. Lee. Seoul Natl. Univ. and Ajou Univ., South Korea.


A15 535.11 Epigenic regulation of the class II transactivator by the polycomb repressive complex 2. N. Boyd and S.F. Greer. Georgia State Univ.


A17 535.13 Identification of potential enhancers in intron 5 of the RUNX1 gene. S.E. Gutierrez, R. Alarcon, B. Rebolloso, V. Fernandez and A. Javed. Univ. of Concepcion, Chile and Univ. of Alabama at Birmingham.


A20 535.16 Hypoxia sensing by Fe2+/α-KG dependent dioxygenases regulate hnu synthesis in trypanosome DNA, chromatin structure and Pol II transcription. R. Sabatini, L. Cliffe, D. Ekanayake and G. Hirsch. Univ. of Georgia.
536. MECHANISM AND REGULATION OF DNA REPAIR

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A21 536.1 Enhancing directed double strand breaks with the Ref and RecA protein. S.J. Won and M.M. Cox. Univ. of Wisconsin-Madison.

A22 536.2 Lysine rich C-terminal domain of Ku protein from Mycobacterium smegmatis regulates its mode of DNA interaction. A.K. Kushwaha and A. Grove. LSU.

A23 536.3 The molecular mechanism of bacteriophage T4 Rad50/Mre11 DNA repair complex. T. Herdendorf and S. Nelson. Iowa State Univ.

A24 536.4 p300-Dependent acetylation of histone H3 at lysine 56 is required for cardioprotection and DNA damage response. S. Jain, J. Wei and N.H. Bishopric. Miller Sch. of Med., Univ. of Miami.


537. DNA DAMAGE RESPONSE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A32 537.4 The anti-oxidant cysteamine confers a protective effect against oxidative damage in Saccharomyces cerevisiae in the absence of endogenous repair machinery. A.M. Steele, E. Chikwana and S. Mordan-McCombs. Franklin Col., IN.


538. DNA DAMAGE SIGNALING PATHWAYS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A35 538.2 Cigarette smoke induces DNA damage and inhibits cell cycle checkpoint and DNA repair pathways. P. Thai, D. Chen and R. Wu. Univ. of California, Davis.

539. DNA REPAIR MECHANISMS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A36 539.1 Human DNA2/BLM and EXO1 participate in parallel long-range resection pathways for repair of DSB due to replication stress. K. Karanja, S. Cox and J. Campbell. Caltech.


A38 539.3 A novel role for the MRN-CtIP complex in Schizosaccharomyces pombe non-homologous end-joining. Y. Li and K. Runge. Case Western Reserve Univ. and Cleveland Clinic.


A40 539.5 Soc1 sumoylation by Mms21 promotes sister chromatid recombination through counteracting Wapl. N. Wu, X. Kong, Z. Ji, K. Yokomori, P.R. Potts and H. Yu. Univ. of Texas Southwestern Med. Ctr. and Univ. of California, Irvine.


A42 539.7 Multiple forms of the E. coli SOS response protein UmuD. J.N. Ollivierre, Q. Huang and P.J. Beuning. Northeastern Univ.

540. HOMOLOGOUS RECOMBINATION

Poster

**Presentation time:** 12:25 PM-1:55 PM

A51 540.1 The relative efficiency of homology-directed repair has distinct effects on proper anaphase chromosome separation. C. Laurier, A. Cheng and J.M. Stark. City of Hope.


541. MUTAGENESIS

Poster

**Presentation time:** 12:25 PM-1:55 PM

A54 541.1 Polymyxin effects on β-lactam antibiotics in *Pseudomonas aeruginosa*. M. Lewis and D. Kwon. Long Island Univ.-Brooklyn Campus.


542. THE RIBOSOME AND EARLY FOLDING DECISIONS

Poster

**Presentation time:** 1:05 PM-2:35 PM

A56 542.1 The role of chaperones in the initial steps of bacterial oxidoreductase maturation. T.G.H. Leach and R. Turner. Univ. of Calgary, Canada.


543. AUTOPHAGY PATHWAY

Poster

**Presentation time:** 1:05 PM-2:35 PM

A58 543.1 The role of autophagy in erlotinib-resistant lung cancer and the synergistic induction of cell death with combination cisplatin and erlotinib treatment by Atg3 modulation. J.G. Lee and R. Wu. Univ. of California, Davis.


A61 543.4 Autophagy stimulation manipulates *Burkholderia cenocepacia* infection in a cystic fibrosis mouse model. B.A. Abdurrahman, A. Abu Khweek, K. Caution, A. Akhter, M. Tazi, B. Kopp and A. Amer. The Ohio State Univ. and Nationwide Children's Hosp.

A62 543.5 A naturally-occurring flavonoid quercetin inhibits autophagy in human rhabdomyosarcoma cell line. K. Dokladny and P. Moseley. Univ. of New Mexico.


544. MECHANISMS OF PROTEIN SYNTHESIS

Poster

**Presentation time:** 1:05 PM-2:35 PM


A65 544.2 Cloning and characterization of EF-Tu and EF-Ts from *Pseudomonas aeruginosa*. S. Palmer, E. Rangel, A. Montalvo, D. Mugica and J. Bullard. Univ. of Texas-Pan American.
545. PROTEIN FOLDING AND MISFOLDING
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A66 545.1 Soluble expression of chicken follistatin proteins in *Escherichia coli*. R. Choi and Y.S. Kim. Univ. of Hawaii.
A70 545.5 Stability contributions of hydrogen bonds in the third circuit of hemolysin a from *Proteus mirabilis*. M.A. Mauseth and T.M. Weaver. Univ. of Wisconsin-La Crosse.

546. PROTEIN SYNTHESIS IN ORGANELLES
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

547. PROTEIN TURNOVER AND QUALITY CONTROL
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A72 547.1 Role of p97 AAA ATPase in the autophagic-lysosomal degradation of hepatic CYP2B1. P. Acharya and M.A. Correia. UCSF.
A75 547.4 Functional roles for the proteasome in retro-translocation of polytopic membrane proteins for ERAD. N.J. Smith, D. Adle and J. Lee. Univ. of Nebraska-Lincoln and Yale Univ.
A76 547.5 Defying the proteasome, autophagy and convention: *S. cerevisiae* dodges the isoaspartyl aging bullet. A. Patananan and S. Clarke. UCLA.

548. PROTEIN TURNOVER IN CELL REGULATION
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A78 548.2 Tripartite motif protein 23 regulates degradation of epidermal growth factor receptor. K. Le, G. Pacheco-Rodriguez, J. Moss and M. Vaughan. NHLBI/NIH.

549. PROTEOLYTIC ENZYMES AND INHIBITORS (PROTEIN SYNTHESIS)
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A81 549.2 Separation of proinsulin conversion intermediates. R.B. Mackin. Creighton Univ.
A82 549.3 Selection of improved peptide ligases by yeast surface display. H. Tran, D. Gray, J. Marks, W. DeGrado and J. Wells. UCSF.

550. RIBOSOME AND TRANSLATION
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A83 550.1 Crystallization of *Escherichia coli* 70S ribosome in complex with tRNAs. B. Young. Univ. of Maryland Baltimore County and Yale Univ.
A85 550.3 The shortest nascent peptide that can direct ribosome stalling. S. Sothiselvam, H. Ramu, N. Vazquez-Laslop and A. Mankin. Univ. of Illinois at Chicago.
A86 550.4 The role of chromodomain in eukaryotic elongation factor 3-ribosome interaction. A.N. Sasikumar and T.G. Kinzy, UMDNJ-Robert Wood Johnson Med. Sch.
A87 550.5 Investigating the control of the actin cytoskeleton by EF1α. S. Colmer, C. Karas, D. Scerbo, M. Gomez and S. Dunaway. Drew Univ., NJ.

551. METABOLOMICS
Poster
Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A94 551.6 Targeting metabolism in liposarcomas. D. Braas, H. Wu and H. Christofk. UCLA.

552. BIOSYNTHESIS OF COMPLEX MOLECULES
Poster
Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

553. CHEMICAL BIOLOGY OF CELL DEATH
Poster
Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

554. MULTIENZYME COMPLEXES
Poster
Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

555. PHOTOCHEMICAL SENSORS
Poster
Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

556. PROTEIN INTERACTIONS IN CATALYSIS
Poster
Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
557. PROTEOLYTIC ENZYMES AND INHIBITORS (CHEMICAL BIOLOGY)

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

558. REGULATION AND ALLOSTERISM

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM
A107 558.3 The effects of citrate on glyoxosomal malate dehydrogenase. J. Mays, J. Marion and E. Bell. Univ. of Richmond and Virginia Commonwealth Univ.
A112 558.8 The effects of leucine on regulation of glutamate dehydrogenase by purine nucleotides. R. McMullan and E. Bell. Univ. of Richmond.
A113 558.9 The role of methionine residues in activity and subunit communication in malate dehydrogenase. F. Billue and E. Bell. Univ. of Richmond.

559. SMALL MOLECULE TOOLS FOR BIOLOGY

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

560. STRUCTURAL ENZYMENOLOGY

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

561. STRUCTURAL ENZYMENOLOGY OF MEMBRANE PROTEINS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM
562. ORGANISMAL METABOLISM

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A121 562.1 Thioesterase superfamily member 2 (Them2) promotes the hepatic oxidation of plasma-free fatty acids. H.W. Kang, S. Han and D.E. Cohen. Brigham and Women's Hosp.

A122 562.2 Citric acid cycle and nitrogen assimilation enzyme activities in glutamate dehydrogenase mutants of *S. cerevisiae*. A. Sieg and P.J. Trotter. Augustana Col., IL.

A123 562.3 Evidence of a dual role for adiponectin in liver regeneration following partial hepatectomy. J. Correnti and J.B. Hoek. Thomas Jefferson Univ.

563. GENETIC AND METABOLIC APPROACHES TO OBESITY

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A124 563.1 Role of unique miRNAs in development of obesity and type 2 diabetes. H. Yadav and S.G. Rane. NIDDK/NIH.

564. METABOLIC REGULATION

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM


A128 564.4 Spatial buffering of ATP by arginine kinase may be critical for *Myxococcus xanthus* development. T.E. Bohl and D. Fraga. Col. of Wooster, OH.


A130 564.6 Study on mechanism of cholesterol metabolism in Leydig's cells of rats with lower serum testosterone due to intermittent anaerobic swimming training. Y. Yan and M. Xie. Beijing Sport Univ.


A133 564.9 Visualization of ferritin in *Anopheles gambiae* 4a3b cells. Z.R. Conley, D.L. Geiser and J.J. Winzerling. Univ. of Arizona.

565. MITOCHONDRIA IN HEALTH AND DISEASE

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM


A137 565.4 Histone H4 acetylation at K16 residue and mitochondrial activity in neuronal cells. R.J. Dmitriev, A.V. Zhdanov and D.B. Pupkovsky, University Col. Cork.


A141 565.8 Peroxisome proliferator coactivator 1α (PGC-1α) deficiency accelerates endothelial dysfunction during chronic angiotensin II treatment by increasing mitochondrial oxidative stress and vascular aging. T. Jansen, S. Kroeller-Schoen, A. Daiber, T. Muenzel and E. Schulz. Univ. of Mainz, Germany.


565.16 Effect of proinflammatory cytokines on mitochondrial function in 3T3-L1 adipocytes. J.P. Kuzmicic, W. Hahn, J. Burrill, S. Lavandero and D. Bernlohr. Univ. of Chile and Univ. of Minnesota, Minneapolis.

566. OBESITY

Poster
Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 pm-2:35 pm


567. ENZYMES, HORMONES AND OBESITY

Poster
Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 pm-2:35 pm

568. FRONTIERS IN OBESITY RESEARCH

Poster
Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 pm-2:35 pm

569. TREATMENT, PREVENTION AND COMPLICATIONS OF OBESITY

Poster
Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 pm-2:35 pm


569.3 Progression of obesity-related heart dysfunction in two rat models. R.F. Martins, M.W. Gorr, D.J. Youtz, S. Teich and L.E. Wold. Nationwide Children’s Hosp. and The Ohio State Univ.
570. OBESITY AND THE METABOLIC SYNDROME

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A162 570.1 Pharmacological evaluation of an analogue of L-carnitine in obese Zucker-Lepr fa/ta rats. L. Rodríguez-Fragoso, B. Mendoza, R. de la Cruz Cordero, O. Vite, A. Avalos-Soriano and J. Reyes Esparza. Autonomous Univ. del Estado de Morelos and Ctr. for Res. and Technol. Develop. in Chronic Dis., Queretaro, Mexico.


A164 570.3 Hepatic MGAT1 is directly regulated by PPARγ2 and promotes fatty liver. Y. Lee and J-w. Kim. Yonsei Univ. Col. of Med., South Korea.


A166 570.5 Imperative role of macrophage in maintaining systemic energy homeostasis. B. Lee, L. Qiao, B. Kinney and J. Shao. UCSF and Univ. of Kentucky Col. of Med.


A169 570.8 Palmitate and ceramide induce human monocytic cell toxicity towards neuronal cells. J.P. Little, J.M. Madeira and A. Klegeris. Univ. of British Columbia-Okanagan.

A170 570.9 AIMing at metabolic syndrome: towards development of novel therapies for modern metabolic diseases via macrophage-derived AIM. T. Miyazaki, J. Kurokawa and S. Arai. Univ. of Tokyo.


571. CALCIUM

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A172 571.1 The role of cellular energy levels in the calcium-mediated regulation of the Ran nuclear transport gradient. K. Batzel and K.K. Resendes. Westminster Col., PA.


A175 571.4 Store-operated calcium entry regulate mesenchymal stem cell proliferation. J.K. Maliske, B. Pani, S. Bollimuntha, J.E. Ohm and B.B. Singh. Univ. of North Dakota.

A176 571.5 Plexin, small GTPases and their interactions with the calcium binding protein, calmodulin: a possible mechanism for calcium to influence cell motility. I. Ahmed and M. Buck. Case Western Reserve Univ.

572. CYCLASES

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A177 572.1 Alcohol effect on recombinant adenylyl cyclase. E. Qualls-Creekmore, R. Gupta and M. Yoshimura. LSU Sch. of Vet. Med.


573. NITRIC OXIDE

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A180 573.2 A comparison of nitrophorin 3 between wild-type and native forms. K.C. Childers. Univ. of Arizona.


A185 573.7 Control of electron transfer and catalysis in neuronal NOS by a hinge connecting the FMN and FNR domains. M.M. Haque, M. Fadialla, K. Aulak, A. Ghosh and D. Stuehr. Cleveland Clin.
574. PHOSPHODIESTERASES

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A187 574.1 Homogenous, luminescent HTS-formatted platform technologies for cAMP- and cGMP-dependent phosphodiesterase. S. Goueli and K. Hsiao. Promega Corp. and Univ. of Wisconsin Med. Sch.

575. SIGNALING CROSSTALK

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A186 575.8 Ambient ultrafine particles inhibit eNOS activity via S-glutathionylation. J. Hill, M. Shen, R. Li, Z. Ning, C. Sioutas and T. Hsiai. Univ. of Southern California and City Univ. of Hong Kong.


A198 576.6 The effects of *Candidatus Liberibacter asiaticus* infection on the protein expression profiles and nutrient status of citrus plants. C.C. Nwugo, H. Lin, Y-P. Duan and E. Civerolo. USDA, Parlier, CA and Fort Pierce, FL.


A200 576.8 Membrane localization of a novel regulator of actin depolymerizing factor. K.K. Cuddy, P.H. Grey, X. Zhang and D.G. Oppenheimer. Univ. of Florida and UCSD.


577. METHODS

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A204 577.1 Effects of storage conditions on soil molecular biology for forensic science purposes. S.A. Larson, N. Patel, V. Freeman, J. Hustedt, D. Carter and C. Bailey. Univ. of Nebraska-Lincoln.

A205 577.2 Development of a multiplex immunoassay for receptor signaling protein analysis. R. Wiese, S. Harbison and D. Hayes. EMD Millipore, St. Charles, MO.


A207 577.4 Assay of vitamin C in red blood cells. H. Li, H. Tu, Y. Wang and M. Levine. NIDDK/NIH.


A210 577.7 Lab-on-a-Print: desktop microfabrication for quantitative biology. T. Pan. Univ. of California, Davis.

578. BIOPHYSICAL METHODS

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A213 578.1 Histidine-tag-specific optical probes. H.E. Elverson, L.M. Hellman, M. Melikshvili, C. Zhao, S.W. Whiteheart and M.G. Fried. Univ. of Kentucky, Univ. of Notre Dame and UCSD Sch. of Pharm.

A214 578.2 Topocell – an image analysis tool to study intracellular topography. V.R.C.P.F. Fachada, N. Fachada, T. Turpeinen, P. Rahkila, A. Rosa and H. Kainulainen. Univ. of Jyväskylä, Finland and Tech Univ. of Lisbon.


579. MASS SPECTROSCOPY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A217 579.1 Rapid method for monitoring muscle protein metabolites by LC-MS. O. Auell, B. Hayes, C. Chow, D. King and D.G. Hammond. Taylor Univ., IN.


A219 579.3 Collaborative center for chemical and biological mass spectrometry. J. Sauer and J. Lawrence. Univ. of Wisconsin-Stevens Point.

A220 579.4 Detection of peptidyl-4-hydroxyproline in Bacillus anthracis. K. Rebecchi, L. Xu, T. Williams and M. Mure. Univ. of Kansas.


580. NANOTECHNOLOGY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM


A223 580.2 Gold nanoparticle associated to berberine induces vasorelaxation and cytosolic Ca2+ decrease in rat aorta. N.T. Santos, B.R. Silva, L.M. Bendhack and C.N. Lunardi. Univ. of Brasilia and Univ. São Paulo, Ribeirão Preto.

A224 580.3 Tamoxifen association to methacrylate polymer as a promising drug delivery system. S.S. Barros, J.R. Silva, R.B. Azevedo and A.J. Gomes. Univ. of Brasilia, Brazil.


A226 580.5 Association of berberine into hydrogel as drug delivery system. C.R. Souza and C.N. Lunardi. Univ. of Brasilia.

A227 580.6 Polymeric microparticle loaded with atenolol as a drug delivery system to cardiovascular system. N.A. Oliveira and A.J. Gomes. Univ. of Brasilia.

A228 580.7 Preparation and characterization of polysaccharides microparticles loaded with cisplatin. C.M.S. Ribeiro and A.J. Gomes. Univ. of Brasilia.


581. PROTEIN CHEMISTRY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM


A236 581.5 Evidence for the presence of phosphate groups on the two major proteins of the hamster sperm acrosomal matrix and their potential role in acrosomal hydrolase binding activities. G. Alvarez, T.L. Buchanan, S. Raychoudhury and S.K. Nagdas. Fayetteville State Univ., NC and Benedict Col., SC.


A240 581.9 The roles of conserved cysteine residues in the structure and function of glyoxysomal malate dehydrogenase. R. Jones and E. Bell. Univ. of Richmond and Math. & Sci. High Sch. at Clover Hill, VA.


A243 581.12 Stability and functionality of HL heteropolymer ferritins responsible for a hereditary ferritinopathy disorder. J. McNally, P. Arosio and F. Bou-Abdallah. SUNY Potsdam and Univ. of Brescia, Italy.

A244 581.13 The linkage between citrate, pH regulation and protein folding in glyoxysomal malate dehydrogenase. H. Yanta and E. Bell. Univ. of Richmond.

582. ELECTROPHORESIS

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 pm-2:35 pm

A245 582.1 Operation invisible dead: a blind study to compare molecular fingerprints of soil samples between crime scene and criminal's shoe. N. Patel, S. Larson, V. Freeman and C. Bailey. Univ. of Nebraska-Lincoln.

583. NEW MOLECULAR AND CELLULAR IMAGING AGENTS

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 pm-2:35 pm


584. RECOMBINANT DNA TECHNOLOGY

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 pm-2:35 pm


A251 584.4 Differentiating frequency of recombination from frequency of recombinants. G. Lezin, Y. Kosaka, H.J. Yost, M.R. Kuehn and L. Brunelli. Univ. of Utah and NCI-Frederick.

A252 584.5 Cloning of a putative L-3-hydroxyacyl CoA dehydrogenase from Micrococcus luteus. V. Takkalapalli, J-K. Huang and L. Wen. Western Illinois Univ.

585. MITOCHONDRIAL DYNAMICS

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 pm-1:55 pm

A253 585.1 Molecular nanovironment of the mitochondrial presequence translocase. C.S. Mehnert, M. Gebert, S. Oeljeklaus, N. Pfanner and M. van der Laan. Univ. of Freiburg, Germany.

A254 585.2 Lithocholic acid delays yeast aging by altering mitochondrial dynamics. V. Titorenko, A. Beach and M. Burstein. Concordia Univ., Canada.


A257 585.5 Cardiac-specific deletion of prohibitin-2 in adult mice destabilizes mitochondrial proteins, nucleoids, and cristae morphology, resulting in lethal cardiomyopathy. T. Gawlowski, J. Yan, C. Merkwirth, W. Dillmann, T. Langer and M. Hoshijima. UCSD and Univ. of Cologne, Germany.

A259 585.7 Mitochondrial transcription factor A binding to mitochondrial DNA during aging and calorie restriction. A. Picca, A. Lezza, C. Leeuwenburgh and S. Tornaletti. Univ. of Florida and Univ. of Bari, Italy.

586. MITOCHONDRIAL GENETIC DISEASES

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


587. MITOCHONDRIAL TOXICITY

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A264 587.1 Effects of manganese and copper on mitochondrial membrane potential in the gill of Crassostrea virginica. B. Boisette, F. Dailey, E.J. Catapane and M.A. Carroll. Medgar Evers Col., NY.

588. NUCLEAR DYNAMICS

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A265 588.1 Calcium-mediated regulation of the Ran gradient and karyopherin nuclear transport receptors. A. Grenet, S. Woodward and K.K. Resendes. Westminster Col., PA.

589. ORGANELLE BIOGENESIS

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A267 589.2 Structural and energetic changes in mitochondria associated with aging rodent oocytes may be overcome by mitochondrial microinjection. F.J. Castora, F. Duran, F. Li, W. Ford, P. Birdsal, A. Mezeti and R.J. Swanson. Eastern Virginia Med. Sch. and Old Dominion Univ.

590. CELL CYCLE

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


591. CELL CYCLE AND GROWTH CONTROL

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A271 591.1 Selenoprotein W is required for epidermal growth factor-stimulated proliferation via a pathway involving MKK4 and p53. V.E. Hakes and Z. Alkan. USDA, Davis.


A274 591.4 Asymmetric cortical extension leads to asymmetric cell division in Drosophila neuroblasts. M. Connell, C. Cavernard, D. Ricketson, C.Q. Doe and K.E. Prehoda. Univ. of Oregon.
A275 591.5 Acute and chronic exposure of nickel promotes breast cancer cell growth. J.P. Sabangan and M.C. Louie. Dominican Univ. of California.

592. CHECKPOINT MECHANISMS
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 12:25 PM-1:55 PM
A276 592.1 Using the S. cerevisiae Stn1 telomere capping protein to dissect downstream responses of the S phase checkpoint. H.J. Gasparyan and C. Nugent. Univ. of California, Riverside.

593. CYCLINS AND CYCLIN-DEPENDENT KINASES
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 12:25 PM-1:55 PM

594. LIPID DROPLETS: A DYNAMIC SUBCELLULAR COMPARTMENT
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 12:25 PM-1:55 PM
A280 594.3 CGI-58 regulates triacylglycerol metabolism and lipid signaling pathways in plant cells. S. Park, S. Gidda, N. Khoo, P. Horn, C. James, K. Chapman, R. Mullen and J. Dyer. USDA, Maracopa, AZ, Univ. of Guelph, Canada and Univ. of North Texas.
A281 594.4 Hydrophobic and electrostatic interactions anchor perilipin 2 to the surface of cytosolic lipid droplets. A.C. Sletten, A.E. Seline and L.L. Listenberger. St. Olaf Col., MN.

595. CHEMICAL PROBES OF LIPID SYSTEMS
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 12:25 PM-1:55 PM
A283 595.1 Chemical approaches to the investigation of protein-membrane binding interactions using synthetic lipid probes. M.D. Best. Univ. of Tennessee, Knoxville.

596. GENETIC MODELS OF LIPID METABOLISM
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 12:25 PM-1:55 PM

597. LIPID DROPLET DYNAMICS
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 12:25 PM-1:55 PM
A291 597.7 Formulation development of alcohol-free oil-in-water microemulsions as potential adjuvants and vehicles for vaccines. J.M. Muderhwa. Brooke Army Med. Ctr., Fort Sam Houston, TX.
598. LIPID MOBILIZATION, LIPASES AND LIPID TRANSPORT PROTEINS

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A292 598.1 Regulation of macrophage cholesterol homeostasis by trans fatty acid. F. Shao and D.A. Ford. St. Louis Univ. Sch. of Med.

A293 598.2 Fatty acid uptake in the early branching eukaryotic pathogen Trypanosoma brucei. K.S. Paul, P. Vigueira, B. Winston, B. McCall, S. Cain, H. Evans and J. McCallister. Clemson Univ.

599. LIPID STORAGE

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A295 599.2 Homology modeling of perilipin 5. Z. Niday and J.T. Tansey. Otterbein Univ., OH.

600. STRUCTURE, FUNCTION AND BIOGENESIS OF CELL MEMBRANES

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A296 600.1 Temporal hierarchy of membrane restructuring during cold acclimation in fish. K. Ward and E.E. Williams. Salisbury Univ., MD.

601. LIPID DOMAINS AND LIPID RAFTS

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A297 601.1 A multifaceted investigation of the localization of the human follicle stimulating hormone receptor. D. Steinmetz and B.D. Cohen. Union Col., NY.


A299 601.3 Cloning and characterization of novel CTP:phosphoethanolamine cytidylyltransferase (Pcyt2) isoforms made by alternative splicing. Z. Pavlovic and M. Bakovic. Univ. of Guelph, Canada.

A300 601.4 FSH can induce ERK activation in a cAMP independent manner. C.L. Curtis and B.D. Cohen. Union Col., NY.


602. MEMBRANE PROTEIN SYNTHESIS, INSERTION AND ASSEMBLY

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


603. PROTEIN-LIPID INTERACTIONS AS DETERMINANTS OF FUNCTION

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A305 603.1 The effect of the lipid environment on drug binding and transport by the P-glycoprotein multidrug transporter. F.J. Sharom and A.T. Clay. Univ. of Guelph, Canada.


604. STRUCTURE AND FUNCTION OF TRANSPORT PROTEINS AND CHANNELS

Poster

Sun. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A307 604.1 Structural investigations of CIC-ec1, a large integral membrane protein, using solution-state NMR and nanodisc technology. T. Chew, S. Abraham, S. Elvington and M. Maduke. UCSF and Stanford Univ.

A308 604.2 Functional and structural analysis of transmembrane segment IV of Na+/H+ exchanger of Schizosaccharomyces pombe. A. Ullah, C. Alves, B.L. Lee, B.D. Sykes and L. Fliegel. Univ. of Alberta.

A309 604.3 Regulatory activation is accompanied by movements in the C-terminus of the Na-K-Cl cotransporter (NKCC1). M.Y. Monette and B. Forbush. Yale Univ.
A310 604.4 Pannexin 1 knockdown in metastatic melanoma cells induces cell differentiation into a melanocytic phenotype decreasing tumor size and metastasis in vivo. S. Penuela, L. Gyenis, A. Ablack, J. Churko, A. Berger, J. Lewis, D. Litchfield and D. Laird. Univ. of Western Ontario.


A312 604.6 Characterization of rOrf8/EscI of the entero-pathogenic Escherichia coli as an inner rod protein. N. Sal-Man, W. Deng and B.B. Finlay. Univ. of British Columbia.

605. VESICULAR TRAFFICKING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT

Presentation time: 12:25 PM-1:55 PM

A313 605.1 S. cerevisiae Env7 encodes a novel vacuolar membrane kinase involved in delivery or function at the vacuole and is an ortholog of human Ser/Thr kinase STK16. E. Gharakhanian, S. Manandhar, S. Cocca and F. Ricarte. California State Univ., Long Beach.


A317 605.5 S. cerevisiae ENV9, ENV10 and ENV11 are novel genes involved in lysosomal vacuole events and their products localize to lipid droplets, ER, and nucleus, respectively. L.A.K. Remington, T. Hseuh and E. Gharakhanian. California State Univ., Long Beach.

A318 605.6 Characterization of the interaction between sorting nexin 27 and β-catenin in kidney epithelial cells. B. Duchez, S.L. Milgram and M.P. Playford. NHLBI/NIH.

A319 605.7 The Vibrio parahaemolyticus effector VopQ induces autophagosome accumulation in host cells. A. Sreelatha, T. Bennett, V. Starai and K. Orth. Univ. of Texas Southwestern Med. Ctr. and Univ. of Georgia.

A320 605.8 A model system to investigate antibody bipolar bridging mediated by gE-gI, a herpes virus Fc receptor. B. Ndjamen, A. Farley and P.J. Bjorkman. Caltech and MIT.

606. GLYCOCONJUGATES IN PATHOGEN INVASION AND VIRULENCE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT

HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A322 606.2 Generation of an IgG monoclonal antibody to LacdiNac glycan epitopes from splenocytes of Schistosoma mansoni-infected Swiss Webster mice. V.H. Bartlette, B. Mamphey, M. Mandalasi and K. Nyame. Univ. of Maryland Eastern Shore.

A323 606.3 Receptor determinants for the avian coronavirus infectious bronchitis virus: roles of host T cell lectins and glycans. Y. Zhang and G. Whittaker. Cornell Univ.

607. ROLE OF GLYCOCONJUGATES IN SIGNALING AND DEVELOPMENT

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT

HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A327 607.4 Global increases in O-GlcNAc levels lead to differentiation of myoblasts. K. Vaidyanathan and L. Wells. Univ. of Georgia.


A329 607.6 The role of N-linked glycosylation during Drosophila embryonic development. A. McCague and E. Selva. Univ. of Delaware.

608. GLYCANS IN PATHOGENIC PROTOZOA
Poster
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

**A331 608.1** A mutant of *Leishmania donovani* deficient in elongating mannosylphosphoryl transferase activity. **M.R. Phillips and S.J. Turco.** Univ. of Kentucky.

609. IMMUNE SYSTEM GLYCOBIOLOGY
Poster
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

**A332 609.1** Alteration of heparan sulfate 2-O-sulfation in endothelial cells enhances neutrophil infiltration in mice. **D. Xu, J. Axelsson, B.N. Kang, P. Sriramarao, T.M. Handel, K. Ley and J.D. Esko.** UCSD, Univ. of Minnesota, St. Paul and La Jolla Inst. for Allergy and Immunol.

**A333 609.2** Strategies to enhance T cell reconstitution after severe immunodepletion. **M.R. Martínez, J. Dudakov and M. van den Brink.** Univ. of Puerto Rico Mayaguez and Mem Sloan Kettering Cancer Ctr.

610. NERVOUS SYSTEM GLYCOBIOLOGY
Poster
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

**A334 610.1** Unusual chemical and enzymatic stability of polysialic acid containing N-glycolyneuraminic acid. **L. Davies, O. Pearce, M. Tessier, S. Assar, V. Smutova, A. Pshezhetsky, R. Woods and A. Varik.** UCSD, Univ. of Georgia and CHU Sainte-Justine, Univ. of Montreal.

611. CHEMISTRY AND CELL BIOLOGY OF NATURAL PRODUCTS
Poster
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM

**A335 611.1** Biological features of human catalytic antibody light chains showing anti-cancer activity. **T. Uda and E. Hifumi.** Oita Univ., Japan and CREST of JST, Saitama.

**A336 611.2** Catalytic and biological features of human light chains suppressing of infection of influenza virus A type. **E. Hifumi, N. Fujimoto and T. Uda.** Oita Univ. and CREST of JST, Saitama, Japan.

**A337 611.3** Antibacterial activity of some coumarins and their metal complexes. **S.R. Govori, A. Buza, N. Ajvazi and A. Haziri.** Univ. of Prishtina, Kosovo.

**A338 611.4** Determining intracellular concentrations of flavonoids in MDA-MB-231 cells using mass spectrometry. **A. Pham, S. Yadegarynia and B. White.** San Jose State Univ.

**A339 611.5** Effects of chalcone on oxidatively stressed *Caenorhabditis elegans*. **M. Duong, K. Susman, F. Caruso and M. Rossi.** Vassar Col. and CNR, Rome.


**A341 611.7** Orf6: biochemical characterization of a putative thioesterase from a polyunsaturated fatty acid synthase. **M.M. Rodriguez-Guilbe, R. González-Méndez, T. Wymore, E. Spreiter and A. Baerga-Ortiz.** Univ. of Puerto Rico Sch. of Med., Pittsburgh Supercomputing Ctr. and Univ. of Puerto Rico.


612. MODE OF ACTION OF BIOACTIVE NATURAL PRODUCTS
Poster
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM

**A343 612.1** Cranberry flavonols inhibit matrix metalloproteinase activity in human prostate cancer cells. **R. Hurta, J. MacPhee, B. Elwood, K. Patel and C. Neto.** Univ. of Prince Edward Island, Canada and Univ. of Massachusetts-Dartmouth.

**A344 612.2** Investigation of the role of dietary flavonoids on cell death: evidence to support a non-apoptotic mechanism. **T. Lialiutska, N. Ngo and B. White.** San Jose State Univ.

**A345 612.3** Identification of mechanism of action of anti-HIV properties of compounds present in neem (*Azadirachta indica*) extracts. **S. Arora and J. Vanniyasingam.** Kean Univ., NJ.

**A346 612.4** Systemic chemical proteomics based target identification and validation of OMe-Syn, a new anti-angiogenic natural small molecule. **N.H. Kim, N. Pham, R. Quinn and H.J. Kwon.** Yonsei Univ., South Korea and Griffith Univ., Australia.

**A347 612.5** Relating coumarin molecular structure to biological and chemical properties. **E. Hefter, F. Caruso and M. Rossi.** Vassar Col. and Inst. of Biomolec. Chem.-CNR, Rome.

613. PROTEIN-SMALL MOLECULE INTERACTIONS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A349 613.1 The role of histidines in neurosteroid binding of NMDA NR2B and D subunits. S. Rhoads, S. Biello, L. Zemck and L. Gentile. Univ. of Richmond.


A351 613.3 Disruption of the HIF-1α/p300 interaction as a means of inhibiting angiogenesis. K.M. Reece, E.D. Richardson, S.T. Pisle, A.J. Holly, T.J. Campbell and W.D. Figg. NCI/NIH and SAIC, NCI-Frederick.

A352 613.4 Understanding the regulation of AMPA and NMDA iGluRs through the binding of sulfated neurosteroids. E.I. Bartle, D. Fanelli, R. Roark, A. Young and L. Gentile. Univ. of Richmond.


A354 613.6 A fluorescent glutathione analog for monitoring interactions of GST fusion proteins. H.C. Huff, C.R. Gaines and B.D. Caldwell. Missouri Western State Univ. and Boys Latin Sch. of Maryland, Baltimore.

614. CASPASES

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:25 PM-1:55 PM


615. SIGNALING IN DISEASE AND THERAPY

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A357 615.1 Physiologic cardiac hypertrophy and cardiac dilation: a comparative study using ZmRacD transgenic mouse model. M.T. Elnakish, M.D.H. Hassona, M.A. Alhaj, L. Moldovan, M. Khan and H.H. Hassanain. The Ohio State Univ.


A365 615.9 Modulation of microRNA miR-29c in a novel cross-talk between mTOR complex 1 and angiotensin II type 2 receptor AT2R: an adaptive mechanism in over-nutrition. L. Pulakat, R. Gul, S. Arnold, V. DeMarco and J.R. Sowers. Univ. of Missouri-Columbia.

A366 615.10 HSP90 is a novel target of thrombospondin-1 to regulate colon cancer development. J. Ling, L. Gutierrez, Z. Lopez-Dee, S. Pan, V. Kalter, C. Cottell and D. Nye. The Commonwealth Med. Col., Wilkes Univ. and Univ. of California, Riverside.

616. MAXIMIZING TEACHING EFFECTIVENESS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A367 616.1 The effectiveness of images in the development of conceptual understanding in undergraduate biochemistry classes: what do we know? R. Milner. Univ. of Alberta.


A370 616.4 Design of purification and analysis protocols for riboflavin binding protein in an undergraduate biochemistry laboratory. T. Arnold Murray. Capital Univ., OH.
617. MAXIMIZING YOUR MARKETABILITY
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A371 617.1 Withdrawn.
A372 617.2 Myth busters: 10 things you don’t know that you think you know about launching a career at a predominantly undergraduate institution. R.S. Rowlett and K.A. Parson. Colgate Univ., NY and Macalester Col., MN.

618. ENGAGING K-12 STUDENTS IN SCIENCE
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A373 618.1 Getting the high schools involved in scientific research! The New York City Partnership to Advance Science; collaborative research projects between NYC high schools and a liberal arts college: the pilot year. A. Aguanno. Marymount Manhattan Col.

619. ENHANCING UNDERGRADUATE RESEARCH EXPERIENCES
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A375 619.2 STEP into Science at Medgar Evers College, a successful strategic plan. M.A. Carroll, D. Skeete and E.J. Catapane. Medgar Evers Col., NY.
A377 619.4 A laboratory course exploring the relationship between structure and function of yeast alcohol dehydrogenase 1. M.O. Huff and B.V. Plapp. Bellarmine Univ., KY and Univ. of Iowa.
A378 619.5 Gaining those important lab skills: three different training programs at a liberal arts college. A. Brower, R. Romano, D. Columbus and A. Aguanno. Marymount Manhattan Col. and Boston Univ. Sch. of Publ. Hlth.

620. INNOVATIVE APPROACHES TO STEM EDUCATION
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A379 620.1 Enhancing student engagement in an advanced protein structure, function and biophysics class. E. Bell. Univ. of Richmond.
A381 620.3 Using distance leaning tools as a mechanism to create a STEM mentoring opportunity. P. Ortiz, J. Duncan-Poitier, M. Groome, K. Hoffman, J. Lansing and S. Wortel. SUNY Empire State Col., SUNY at Albany and New York Acad. of Sci.
A383 620.5 Teaching biochemistry and molecular biology using dihydrofolate reductase as an expression system. J. Lau and M. Gilbert. Bellarmine Univ., KY and Bio-Rad Labs., Hercules, CA.
A384 620.6 Reading and writing about science: biochemistry, biomedicine and bioethics presented through the first year seminar. C. Rohrman. Albion Col., MI.
A385 620.7 Incorporating mathematics principles into high school biology experiments using GFP denaturation studies. M. Puccinelli, E. Ogele, S. Kasper and L. West. Lee Univ., TN.
A386 620.8 A novel approach to science?did Alice learn toxicology from the Mad Hatter? V.V. Shende and M.A. Benore. Univ. of Michigan-Dearborn.

621. PERFORMANCE ASSESSMENT FOR TEACHERS AND STUDENTS
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A387 621.1 Community-based design and national testing of an assessment tool to measure student understanding of enzyme kinetics in undergraduate biochemistry. J. Loertscher, V. Minderhout, J.E. Lewis and S.M. Villafane. Seattle Univ. and Univ. of South Florida.

622. STRATEGIES FOR COMMUNITY OUTREACH AND ENGAGEMENT
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A388 622.1 A medical humanities perspective of Frida Kahlo – an opportunity for recruitment into the health sciences. F. Antelo. Harbor-UCLA Med. Ctr.
623. WORKING WITH STUDENTS OF CULTURALLY DIVERSE BACKGROUNDS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


Nutrition

624. LACTATION: BIOLOGY OF MILK PRODUCTION AND SECRETION

Poster

(Sponsored by: Lactation RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C1 I 624.1 The total amino acid profile of human milk is stable over the first three months of lactation. R.J. McMahon, M. Gray, A. Adelman, P.M. Herbers, J.G. Woo and A.L. Morrow. Mead Johnson Nutr., IN and Cincinnati Children’s Hosp.


C3 I 624.3 Breastmilk cells produce milk proteins in the culture dish. F. Hassiotou, P. Metzger, N. Trengove, C. Tat Lai, L. Filgueira and P. Hartmann. Univ. of Western Australia, Crawley and Albert Ludwigs Univ. Freiburg.

C4 II 624.4 An automated method to quantify milk fat globules and sources of RNA in milk. S.R. Hartono, F. Ventimiglia, J.T. Smilowitz, J.B. German, I. Korf and D.G. Lemay. Univ. of California, Davis.


C6 II 624.6 Genetic influence on fatty acid composition of human breastmilk. C.L. Cheatham. Univ. of North Carolina at Chapel Hill, Kannapolis.


625. MILK BIOACTIVE COMPONENTS

Poster

(Sponsored by: Lactation RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C11 II 625.2 Human milk oligosaccharides in banked donor milk compared to mother’s milk in the NICU. C. Marx, R. Bridge, A. Wolf, W. Rich, J.H. Kim and L. Bode. UCSD.


C13 II 625.4 Human milk oligosaccharides are differentially metabolized in neonatal rats. E. Jantscher-Krenn, C. Marx and L. Bode. UCSD.


C15 II 625.6 Active transcription factors in the development of the small intestine during early life. M. Zhang, Y. Liao and B. Löönderdal. Univ. of California, Davis and Australian Natl. Univ.

**SUNDAY**

**NUTRITION**

C17 II 625.8 Dietary bovine lactoferrin stimulates intestinal proliferation in piglets. E.A. Reznikov, S.S. Comstock, N. Contractor and S.M. Donovan. Univ. of Illinois, Urbana and Pfizer Nutr., Collegeville, PA.

C18 I 626.1 Case-control study of eating behaviors of young adults with and without diet-related chronic health condition. V. Quick, R. McWilliams and C. Byrd-Bredbenner. Univ. of Minnesota, Minneapolis and Rutgers Univ.


C20 I 626.3 Individualized counseling for a Healthy People 2010 diet results in surpassed fruit and vegetable intakes. E. Sidahmed, M. Cornellier, L. Askew, A. McCoy, M. Rapai, A. Sen and Z. Djuric. Univ. of Michigan.


C24 I 626.7 Baseline vitamin D status in patients with chronic kidney disease. B.N. Wright, K. Coakley, J. Alvarez and V. Tangpricha. Univ. of Maryland Baltimore County and Emory Univ. Sch. of Med.

C25 II 626.8 Internet-based tools to assess diet and provide feedback in CKD IV. L. Arab, S. Murali, A. Rastogi, A. Ang, N. Shetty and R. Vargas. UCLA and Kaiser Permanente, Fontana, CA.

C26 I 626.9 Withdrawn.


C39 II 626.22 Effects of vitamin D and calcium supplementation on blood pressure and serum lipids: a randomized, double-blind, placebo-controlled, clinical trial. W. Chai, R.M. Bostick, A.A. Franke and R.V. Cooney. Logan Coll. of Chiropractic Univ. Progs., Emory Univ. and Univ. of Hawaii.

C40 I 626.23 Exploring the association between dietary patterns and the presence of age-related macular degeneration. B. Goulão, P.M. Camacho, C. Mota, I. Coelho, M. Roe and I. Castanheira. SUNY Oneonta and Penn State.


627. NUTRITION AND COGNITIVE AND PHYSICAL FUNCTION IN OLDER ADULTS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

**Presentation time**: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C50 I 627.2 The characterization of iron status in InCHIANTI: the use of a higher ferritin cutoff. L. Chen, L.E. Murray-Kolb and K.V. Patel. Johns Hopkins Bloomberg Sch. of Publ. Hlth., Penn State and NIA/NIH.

C51 I 627.3 Neuronal MCP-1 mediates microglia recruitment and neurodegeneration induced by thiamine deficiency. G. Yang and Z. Ke. Shanghai Insts. for Biol. Sci., Chinese Acad. of Sci.


C53 I 627.5 Assessment of appendicular lean mass in older adults. A. Ellis and B.A. Gower. Univ. of Alabama at Birmingham.


628. COMMUNITY NUTRITION PROGRAMS AND POLICIES FOR OLDER ADULTS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

**Presentation time**: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C56 I 628.1 Supplementing the nutrition screening initiative survey to characterize nutritionally at risk older adults. S.M. Wunderlich, Y. Bai, J. Brusca and S. Gaits. Montclair State Univ., NJ.

C57 II 628.2 Prevalence of osteoarthritis and dietary pattern in older people above 60 in southern area of Korea. D. Shin and H-J. Oh. Kyungnam Univ., South Korea.

C58 I 628.3 Identification of environmental supports for healthy eating in older adults. A. Sylvie and N.L. Cohen. Univ. of Massachusetts Amherst.

629. CREATING HEALTHY FOOD ENVIRONMENTS

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

**Presentation time**: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C59 I 629.1 Don’t walk this talk: public health discourse that disempowers. C.M. Porter. Univ. of Wyoming.

C60 II 629.2 Selecting target populations for community nutrition intervention using spatial analyses. J.E. Bryant. West Virginia Univ.

C61 I 629.3 Nutrition environment measures survey examining food price, availability, and quality, before and after relocation of Atlanta public housing residents. M. Ndirangu, D. Oakley and A. Anderson. Georgia State Univ.


C65 I 629.7 Identifying nutrition education deficits that affect food purchasing by low-income families with young children. E.E. Calloway, S.J. Svetzter, M.E. Briley, M. Romo, K. McInnis and M. McAllaster. Univ. of Texas at Austin and Johns Hopkins Bloomberg Sch. of Publ. Hlth.
C66 II 629.8 Integrating nutrition and physical activity education into a food pantry. S. El-Kabany, E.A. Jara and A. Al Abdralnabi. Loma Linda Univ. Sch. of Publ. Hlth.


C68 II 629.10 Associations between food types, the concentration of SNAP approved stores and community health. E.F. Racine, Q. Wang, S.B. Laditka, C. Wilson and A. Mignery. Univ. of North Carolina at Charlotte, Humana, St. Petersburg, FL and Mecklenburg Hlth. Dept., Charlotte, NC.

630. WHAT SHOULD I EAT? NUTRITIONAL EFFECTS OF FOODS

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C71 I 630.3 Applying the dietary guidelines for Americans to the foods actually consumed in the U.S.: why are so many SoFAS on MyPlate? N. Carr, S. Kranz and L.M. Jahns. Purdue Univ. and USDA, Grand Forks.

C72 II 630.4 Self-reported lactose intolerance in Canadian adults. S.I. Barr. Univ. of British Columbia.


C86 II 630.18 Korean middle school students' recognition and consumption of fast food. K.J. Chang and S-E. Kim. Inha Univ., South Korea.

C87 I 630.19 Korean elementary school students' recognition, preference and nutrition knowledge on seafood. K.J. Chang and R. Joo. Inha Univ., South Korea.


C89 I 630.21 Formative evaluation for promoting adoption of the DGA, 2005 among African American parents and children in the Lower Mississippi Delta: focus group results. B.B. McGee, V. Richardson, G.S. Johnson and C. Johnson. Southern Univ. and A&M Col., LA.

C90 II 630.22 Automated extraction and analysis of Salmonella enterica from ground turkey and kitchen surfaces. P. Williams, T. Parrish, M. Duggan and J. Chapman. Evogen Inc., Lenexa, KS.

C91 I 630.23 Health disparities in coronary heart disease in Miami-Dade County among multi-ethnic populations. G. Nagi and F.G. Huffman. Florida Intl. Univ.
631. THE EXPERIENCE OF HOUSEHOLD FOOD INSECURITY

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C98  II  631.2  Are food insecure adults more likely to have undiagnosed diabetes mellitus? M. Ding and C. Zizza. Auburn Univ.


C102 II  631.6 A garden-based nutrition intervention in the rural Dominican Republic – impact on vitamin A rich food consumption. J.C. Binford, M.A. Camp and D. Camp. Yale Univ. Sch. of Med. and Sch. of Publ. Hlth.


C104 II  631.8 Food insecurity is associated with poor social capital, perceived health, and perceived diet among adult food bank users in and around the lower mainland of British Columbia, Canada. R.W. Hill and D.H. Holben. Ohio Univ.


632. BEHAVIORAL SCIENCE AND EATING BEHAVIOR CHANGE

Poster

(Sponsored by: Nutrition Education RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C107 I  632.1 Shaping college-age eating behavior in an institutionally derived food setting with a simple, interactive computer spreadsheet. T.A. Crowder and W.B. East. U.S. Military Acad., NY.

C108 II  632.2 Weight regulation practices of young adults: predictors of restraint eaters. V. Quick. Univ. of Minnesota, Minneapolis.

C109 I  632.3 2009-10 USDA Fresh Fruit and Vegetable Program in Indiana improved several factors that lead to improved health. Y-C. Lin, E. Poland and A.D. Fly. Indiana Univ. and Indiana Dept. of Educ., Indianapolis.


C111 I  632.5 Sodium benzoate intake in beverages may contribute to ADHD symptoms in college students. B. Beezhold and C.S. Johnston. Benedictine Univ., IL and Arizona State Univ.


C113 II  632.7 Media coverage and awareness of the release of the 2010 Dietary Guidelines for Americans and MyPlate. S.B. Epstein, K. Jeanpierre, S. Lynn and A.K. Kant. Queens Col., CUNY.
633. NUTRITION INTERVENTION IN DIABETES CARE

Poster

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C117 II 633.4 Change in adherence to DASH diet and cardiovascular risk factors in youth with type 1 and type 2 diabetes mellitus: the search for diabetes in youth study. T.L. Barnes, J.L. Crandell, R.A. Bell, E.J. Mayer-Davis, D. Dabelea and A.D. Liese. Univ. of Wisconsin, Madison.


C119 II 633.6 Adiponectin enhances fetal fat deposition. L. Qiao, H-s. Yoo, A. Madon, B. Kinney, B. Lee, W.W. Hay and J. Shao. UCSD and Univ. of Colorado Denver, Aurora.

C120 I 633.7 Genetic variation in TAS1R2 taste receptor and sweet taste perception and sugar intake. A.G. Dias and A. El-Soehmy. Univ. of Toronto.

C121 II 633.8 Egg consumption and coronary heart disease among diabetic individuals: a systematic review of the literature. N.L. Tran, L.M. Barraj and J. Heilman. Exponent, Washington, DC.


634. NUTRITION AND SUSTAINABILITY

Poster

(Sponsored by: Nutrition Translation RIS)

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C124 II 634.2 Impact of Eat Well...For your Self, For the World text and curriculum on college students’ attitudes and eating habits. M. Neyman Morris, L. Rios, L. Bacon, D. Clifford and K. Gray. California State Univ., Chico and City Col. of San Francisco.

C125 I 634.3 Attitudes and behaviors related to locally grown and sustainable foods in a multiethnic population. A. Spieckerman. California State Univ., Fullerton.

635. FOOD-RELATED BEHAVIORS: CRITICAL FOR FOOD POLICY

Poster

(Sponsored by: Nutrition Translation RIS)

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C127 II 635.2 Intake, knowledge, beliefs and perception regarding the benefits and barriers of nuts intake among individuals with or at risk of cardiovascular disease and/or diabetes. R. Pawlak, H. London, S. Colby, E. Wall-Bassett and N. Sira. East Carolina Univ. and Univ. of Tennessee, Knoxville.


C131 II 635.6 U.S. trends in dietary variety and its association with BMI and micronutrient intakes. R.E. Ebner, A.P. Burke, S. Kranz, C.J. Boushey, S.B. Roberts and M.A. McCrory. Purdue Univ., Dublin Inst. of Technol. and Trinity Col., Ireland, Univ. of Hawaii Cancer Ctr. and USDA at Tufts Univ.

636. UNDERSTANDING AND COMMUNICATING BENEFITS/RISKS OF NATURAL-STATE FOODS (E.G. MINIMALLY PROCESSED, NATURAL, ORGANIC)

Poster

(Sponsored by: Nutrition Translation RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C133 I 636.1 Nutritional profiling of cod liver oil processed by molecular distillation, fermentation, or unrefined. B.T. Metzger and D.M. Barnes. Standard Process Inc., Palmyra, WI.


C135 I 636.3 Effect of fat claims on consumer perceptions about product helpfulness for weight management. A. Schermel, Y. Qi, W. Lou, J.E. Mendoza, S. Henson and M.R. L’Abbe. Univ. of Toronto and Univ. of Guelph, Canada.

C136 II 636.4 Potato consumption among children and adolescents, ages 2 to 18, in the U.S. M.L. Storey and P.A. Anderson. Alliance for Potato Res. and Educ., McLean, VA.

C137 I 636.5 Potato consumption among adults in the U.S. M.L. Storey and P.A. Anderson. Alliance for Potato Res. and Educ., McLean, VA.


C142 II 636.10 Glycemic response to muscadine grape components, comparing healthy weight and overweight individuals. S. Cvitkusic. North Carolina State Univ.

C143 I 636.11 Validation of the digestive tolerance of soluble gluco fiber, a new fiber. B. Housez and M. Cazaubiel. Biofortis, Nantes.


C145 I 636.13 Canned fruits, vegetables, beans and fish provide nutrients at a lower cost compared to fresh, frozen or dried. C. Kapica and W. Weiss. Ketchum, Chicago.


637. METABOLIC PHENOTYPING, METABOLOMICS AND BIOMARKERS

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C150 I 637.3 Effects of consuming oxidized vegetable oils on amino acid metabolism. L. Wang, D. Yao and C. Chen. Univ. of Minnesota, St. Paul.


C152 II 637.5 In utero bisphenol A exposure: effects on metabolic homeostasis throughout the life-course. O.S. Anderson, B.N. Sanchez, K.E. Peterson, Z. Zhang and D.C. Dolinoy. Univ. of Michigan.

C153 II 637.6 Metabolites in human breastmilk identified as markers for sample storage quality. P. Hartmann, J.K. Lui, K.M. Piper, C. Rawlinson, G.L. Maker, N.J. Trengove and R.D. Trengove. Univ. of Western Australia and Murdoch Univ., Australia.


638. CARBOHYDRATE METABOLISM

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C174 I 638.15 Effects of apple cider vinegar on postprandial blood glucose and satiety. L. Bollinger, J. Holden and J.C. Chezem. Ball State Univ.

C175 II 638.16 Influence of cultivar, processing, and food form on the glycemic index of barley. A. Aldughpassi, T.M.S. Wolever and E.M. Abdel-Aal. Univ. of Toronto and Agr. and Agri-Food Canada, Guelph.


639. REGULATION OF FOOD INTAKE

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C179 II 639.2 Popcorn snack more satiating than almonds, party mix or pretzels. K.J. Reimers, U.T. Lowczyk and M.C. Meyer. ConAgra Foods, Omaha.
640. CAROTENOIDS AND HEALTH

**Poster**
*(Sponsored by: CARIG RIS)*

**Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Title</th>
<th>Authors</th>
<th>Affiliations</th>
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</thead>
<tbody>
<tr>
<td>C182</td>
<td>639.5</td>
<td>Within subject variation of satiety hormone responses to a standard lunch.</td>
<td>S.M. Forester, M. Witbracht, W. Horn, K. Laugero and N.L. Keim. Univ. of California, Davis and USDA, Davis.</td>
</tr>
<tr>
<td>C183</td>
<td>639.6</td>
<td>The effects of BMI and ratings of hunger on perceived taste of food.</td>
<td>A.M. Stickel, E. Green and C. Murphy. San Diego State Univ. and UCSD.</td>
</tr>
<tr>
<td>C184</td>
<td>639.7</td>
<td>Increasing the number of masticatory cycles reduces food intake in healthy young adults.</td>
<td>Y. Zhu and J.H. Hollis. Iowa State Univ.</td>
</tr>
<tr>
<td>C185</td>
<td>639.8</td>
<td>Increasing the number of masticatory cycles reduces appetite and modulates glycemic response and plasma gut hormone concentrations.</td>
<td>Y. Zhu, W.H. Hsu and J.H. Hollis. Iowa State Univ.</td>
</tr>
<tr>
<td>C191</td>
<td>639.14</td>
<td>High-fat feeding leads to decreased responsiveness to the GLP-1 analogue, exendin-4, in obesity-prone rats.</td>
<td>F. Duca, Y. Sakar and M. Covasa. INRA, Jouy en Josas, France and Western Univ. of Hlth. Sci., CA.</td>
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<td>C195</td>
<td>640.3</td>
<td>The role of β-carotene-9',10'-monooxygenase as a retinoid-generating enzyme during mammalian embryonic development.</td>
<td>E. Spieglerr, Y-K. Kim and L. Quadro. Rutgers Univ.</td>
</tr>
<tr>
<td>C196</td>
<td>640.4</td>
<td>Effects of dietary carotenoids on steroid hormone status in male mice lacking carotene-15,15'-monooxygenase (CMO-I) or carotene-9',10'-monooxygenase (CMO-II).</td>
<td>J.W. Smith, N.A. Ford, S.K. Clinton and J.W. Erdman, Jr. Univ. of Illinois at Urbana-Champaign, Univ. of Texas at Austin and The Ohio State Univ.</td>
</tr>
<tr>
<td>C197</td>
<td>640.5</td>
<td>Genotypic differences impact serum and hepatic lipids in mice lacking carotenoid cleavage enzymes.</td>
<td>A.C. Eisen, N.A. Ford and J.W. Erdman, Jr. Univ. of Illinois at Urbana-Champaign and Univ. of Texas at Austin.</td>
</tr>
<tr>
<td>C198</td>
<td>640.6</td>
<td>High resolution carotenoid separations of serum and natural products using UHPLC.</td>
<td>N.E. Craft. Craft Technol. Inc., Wilson, NC.</td>
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<tr>
<td>C201</td>
<td>640.9</td>
<td>Effects of lecithin/oil ratio in salad dressing on the bioavailability of fat soluble micronutrients in salad vegetables.</td>
<td>Y. Zhang, Y. Zhou, L. Flendrig, M. Gribnau and W.S. White. Iowa State Univ. and Unilever R&amp;D, Netherlands.</td>
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<tr>
<td>C202</td>
<td>640.10</td>
<td>Coconut oil facilitates tomato carotenoid tissue accumulation in the Mongolian gerbil (Meriones unguiculatus).</td>
<td>L.E. Conlon, R.D. King, N.E. Moran and J.W. Erdman, Jr. Univ. of Illinois, Urbana and The Ohio State Univ.</td>
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641. IRON, COPPER AND CHRONIC DISEASE

**Poster**
*(Sponsored by: Vitamins and Minerals RIS)*

**Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

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<td>C204</td>
<td>641.2</td>
<td>Effect of beef consumption on body iron and cognitive function in iron-deficient women.</td>
<td>C. Blanton. Idaho State Univ.</td>
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</table>
C206 II 641.4 Biomarker erythrocyte copper chaperone for superoxide dismutase is higher following marginal copper deficiency. J.R. Prohaska, K. Lassi and M. Broderius. Univ. of Minnesota Med. Sch. Duluth.


C208 II 641.6 Mathematical modeling of iron uptake by Tim-2 receptor in mouse kidney cells. J. Han and Z. Xie. North Carolina A&T State Univ.


C211 II 641.9 The role of N-linked glycosylation in the trafficking and transferrin binding of TfR2. N. Zhao and C.A. Enns. Oregon Hlth. & Sci. Univ.

C212 II 641.10 Discovery of a novel cytosolic ferrooxidase in rodent enterocytes. Y. Lu, P.N. Ranganathan and J.F. Collins. Univ. of Florida.


C222 II 641.20 The iron transporter ferroportin is regulated by ascorbate. N.M. Scheers, K.B. Hoffmann and A-S. Sandberg. Chalmers Univ. of Technol., Sweden.


C224 II 641.22 Physiologic role of the Menkes copper ATPase (Atp7a) in intestinal iron transport. S. Gulec, P. Ranganathan, Y. Lu and J. Collins. Univ. of Florida.


C226 II 641.24 Iron transport ability of the Slc39a (ZIP) family of metal-ion transporters. W. Zhang and M. Knutson. Univ. of Florida.

C227 I 641.25 Iron overload upregulates the expression of regenerating islet-derived family genes in rat pancreas. R. Coffey, H. Nam and M. Knutson. Univ. of Florida and Univ. of Utah.


C229 I 641.27 Role of the iron-import protein DMT1 (divalent metal transporter 1) in liver iron uptake. C-Y. Wang and M. Knutson. Univ. of Florida.


C232 II 641.30 Posttranslational regulation of the Menkes copper ATPase (Atp7a) in intestinal epithelial cells. L. Xie and J.F. Collins. Univ. of Florida.

C233 I 641.31 Copper transport by divalent metal transporter 1 under low iron conditions. L. Jiang and J.F. Collins. Univ. of Florida.

C234 II 641.32 Metal transport, subcellular localization, and tissue distribution of Zip8, a Zip14 homologue. C.-Y. Wang, S. Jenkitkasemwong, B.K. Sparkman, A. Shawki, B. Mackenzie and M. Knutson. Univ. of Florida and Univ. of Cincinnati.

642. VITAMIN D AND OBESITY: FROM CELLULAR TO CLINICAL TRIALS

Poster
(Sponsored by: Vitamins and Minerals RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C235 I 642.1 Vitamin D2 intake increases 25-hydroxy vitamin D2 but decreases 25-hydroxy vitamin D3 concentration in the serum of healthy adults. C.B. Stephensen, M. Zerofsky, D.J. Burnett, Y. Lin, B.D. Hammock, L.M. Hall and T. McHugh. USDA, Davis, Univ. of California, Davis, California Polytech State Univ., San Luis Obispo and USDA, Albany, CA.

175
C236 II 642.2 The inhibitory effect of dietary fructose on lactation-induced increases in rat epithelial calcium transport is mediated by fructose-induced reductions in vitamin D levels. V. Douard, T. Suzuki, Y. Sabbagh, J. Lee, S. Shapses, S. Lin and R.P. Ferraris. UMDNJ, Newark, Yamagata Univ., Japan, Genzyme Corp., Framingham, MA and Rutgers Univ.

C237 I 642.3 Bone mineral density and vitamin D status in older women with and without metabolic syndrome. K. Lasley, P. Changwatpol, J.R. Hermann, A. Bogale and B.J. Stoecker. Oklahoma State Univ.

643. FAT SOLUBLE VITAMINS AND CHRONIC DISEASE

Poster

(Sponsored by: Vitamins and Minerals RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C238 I 643.1 Predictors of 5-year change in plasma 25-hydroxyvitamin D concentrations in postmenopausal women. M. Klucznynski, M. Platek, C. DeNysschen, J. Wactawski-Wende and A. Millen. Univ. at Buffalo, NYU and Buffalo State Col.

C239 II 643.2 Vitamin D status of immigrant mothers and infants in metro Vancouver. W. Li, S.I. Barr, T.J. Green, S.J. Whiting and G.E. Chapman. Univ. of British Columbia and Univ. of Saskatchewan Col. of Pharm. and Nutr.


C241 II 643.4 Poor vitamin D status is associated with increased risk for metabolic syndrome, diabetes mellitus, and several unfavorable cardiometabolic markers in U.S. adults. V. Ganji, X. Zhang and V. Tangpricha. Georgia State Univ. and Emory Univ. and VA Med. Ctr.


C244 I 643.7 Cardiovascular risk factors are related to vitamin D status in midlife and older African Americans. J.L. Lemacks, J. Ilich-Ernst, P.A. Railston, I. Young-Clark, C. Coccia, K. Wickrama and C.M. Harris. Florida State Univ., Texas A&M Univ.-Kingsville, Univ. of Georgia and Florida A&M Univ.


C248 I 643.11 Supercritical fluid extraction of vitamin D2 from UV enhanced yeast. B.T. Metzger, C. Scholl and D.M. Barnes. Standard Process Inc., Palmyra, WI.

644. MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS

Poster

(Sponsored by: Dietary Bioactive Components RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C251 I 644.3 Ratio of primary to secondary oxidation products and time of exposure correlate with lipid accumulation in murine adipocytes. J.P. Skinner, N. Dingels, N. Santanam and M. Penumetcha. Georgia State Univ. and Marshall Univ., WV.


C253 I 644.5 The lactoferrin receptor is differentially expressed across several human epithelial cell types. S.A. Lopez, E.B. Nonnecke and B.L. Lönnerdal. Univ. of California, Davis.


C255 I 644.7 Proanthocyanidins stimulate an inflammatory response in a pig intestinal epithelial cell line (IPEC-1 cells). M. Monagas, N. Schoene, J. Urban and G. Solano-Aguilar. UAM-CSIC, Madrid and USDA, Beltsville, MD.


C266 1 644.11 Quercetin exerts anti-adipogenic effects through modulation of 3T3-L1 preadipocyte proliferation and differentiation. J. Swick, O.H. Lee and Y-C. Kim. Univ. of Massachusetts Amherst. 


C269 1 644.14 α-Tocopheryl phosphate – an activated form of vitamin E important for angiogenesis? J-M. Zingg, M. Meydani and A. Azzi. USDA at Tufts Univ. 


C273 1 644.18 Polymethoxyflavones and atorvastatin synergistically inhibit breast cancer cell growth. L. Li, N. Charoensinphon, J. Zheng and H. Xiao. Univ. of Massachusetts Amherst. 


646. BIOAVAILABILITY, METABOLISM AND BIOMARKERS OF DIETARY BIOACTIVE COMPONENTS 

Poster 

(Sponsored by: Dietary Bioactive Components RIS) 

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D 

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II) 


C279 1 645.2 Determining functional fiber properties of berry pomaces via an anaerobic fermentation system. M.L. Goita, K.L. McCutcheon, A.M. Raggio and J.W. Finley. LSU AgCtr. 


C284 1 645.7 Determining functional fiber properties of berry pomaces via an anaerobic fermentation system. M.L. Goita, K.L. McCutcheon, A.M. Raggio and J.W. Finley. LSU AgCtr.
C279  I  646.9  Variability on urinary excretion of chlorogenic acid compounds and metabolites in humans after overnight fasting and under controlled diets. G. Duarte, M. Monteiro, V. Marques and A. Farah. Fed. Univ. of Rio de Janeiro.


C282  II  646.12  Effects of whole grain phytochemicals on biomarkers of postprandial metabolic dysregulation in overweight/obese adults following an oral glucose challenge. D.L. McKay, C-Y.O. Chen and J.B. Blumberg. USDA at Tufts Univ.


C287  I  646.17  Uptake and metabolism of α-mangostin by human cell lines: HepG2 liver cells, HT-29 colon cells, and THP-1 macrophage-like cells. F. Gutierrez Orozco, C. Chitchumroonchokchai, K.M. Riedl and S.J. Schwartz. The Ohio State Univ.


C290  II  646.20  Improving bioavailability of 5-hydroxy tangeretin by food grade nanoemulsions. J. Zheng, Y. Li, N. Charoensinphon, W. Nutakul, P. Dong, P. Qiu, D.J. McClements and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


C294  II  646.24  Do intakes of 250-500mg/d of EPA and DHA increase blood biomarkers? A.C. Patterson, A. Chalil, P. Charkhzarin, J.J. Aristizabal Henao, I. Streit, F. Ciobanu and K.D. Stark. Univ. of Waterloo, Canada.


C296  II  646.26  The effects of almonds on the profile and bioaccessibility of isoflavones from a soy soft pretzel. A.L. Simmons, C. Chitchumroonchokchai, M.L. Failla and Y. Vodovoz. The Ohio State Univ.


647. NUTRIENT-GENE INTERACTIONS

Poster
(Sponsored by: Nutrient Gene Interactions RIS)

**SUNDAY**

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C299  II  647.2  Expression of one-carbon metabolism genes in cultured primary lymphocytes. J. Zhu and M. Kohlmeier. Univ. of North Carolina at Chapel Hill, Kannapolis.


C304  I  647.7  Differential regulation of liver gene expression by in vitro digested soy and caseinates. J. Li, P. Liu, M. Cope, S. Crosby, N. Napawan and E.S. Krul. Solae LLC, St. Louis and Washington Univ.


C312 I 647.15 Saturated fat intake interacts with HDL-c genes to influence plasma HDL-c of Filipino women. N. Zubair, L.S. Adair and A. Feranil. Univ. of North Carolina at Chapel Hill and Univ. of San Carlos, Philippines.

C313 II 647.16 ZIP14 regulates tight junction protein expression in response to LPS. G.J. Guthrie, T. Beker-Aydemir and R.J. Cousins. Univ. of Florida.

C314 I 647.17 Retinol tends to reduce activator protein-1 and nuclear factor kappa B mediated gene transcription in cultured human colorectal cancer cells. K. Olds and M.A. Lane. Texas State Univ.- San Marcos.


C318 I 648.3 Green tea supplementation during gestation and lactation modulates heart lipid metabolism and oxidative status in rat offspring born of high-fat, diet-fed dams. B.C.Y. Lam and E.T.S. Li. Univ. of Hong Kong.


649. NUTRIENT-GENE INTERACTIONS IN MODELS OF NEUROGENERATIVE/NEUROMUSCULAR AND METABOLIC DISEASE

Poster (Sponsored by: Nutrient Gene Interactions RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C323 I 649.1 Fructose-induced stress signaling in hepatocytes involves methylglyoxal. D. Wang, Y. Wei and M. Pagliassotti. Colorado State Univ.


C329 I 649.7 Genetic variation in the epithelial sodium channel and salt taste perception in humans. A.G. Dias and A. El-Soehemy. Univ. of Toronto.

C331 I 649.9 The role of autophagy in radiation-induced salivary gland dysfunction. M. Morgan. Univ. of Arizona.

650. ANIMAL RESEARCH MODELS IN NUTRITION AND MUSCULOSKELETAL DEVELOPMENT

Poster

(Sponsored by: Experimental Animal Nutrition RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C336 I 650.5 Maternal vitamin D supplementation results in higher expression of bone formation markers at the growth plate and site-specific effects on bone strength in male offspring. K.A. Fielding, J. Chen, R. Jahani, E.M. Comelli and W.E. Ward. Univ. of Toronto and Brock Univ., Canada.

651. ANIMAL RESEARCH MODELS FOR MACRONUTRIENT METABOLISM

Poster

(Sponsored by: Experimental Animal Nutrition RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

652. LONG-TERM EFFECTS ON NUTRITION

Poster

(Sponsored by: International Nutrition Council (INC))

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C350 I 652.1 Anthropometric assessment of lactating mothers attending public clinics in the Guatemalan highlands in metropolitan Quetzaltenango. L. Oyesiku, C.M. Doak, M. Vossenaar and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.


C356 I 652.7 Fetal growth and birth weight are determined by maternal fat mass at mid pregnancy in low-income Brazilian women. T. Toro-Ramos, R. Sichieri and D.J. Hoffman. Rutgers, The State Univ. of New Jersey and State Univ. of Rio de Janeiro.

653. INTERVENTIONS TO IMPROVE DIET AND/OR NUTRITION OUTCOMES

Poster

(Sponsored by: International Nutrition Council (INC))

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


654. COMMUNICATION AND EDUCATION

Poster

(Sponsored by: International Nutrition Council (INC))

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

Pathology

655. INFLAMMATION AND IMMUNE RESPONSE

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM


B176 655.8 The influence of alternative housing on dairy calf innate immune measures after weaning. L.E. Hubert, M.S. Calvo, K.C. Klasing and F.M. Mitloehner. Univ. of California, Davis.


B192 656.14 Renal oxidized fatty acids are reduced in LDL receptor-deficient mice following treatment with anti-inflammatory peptide F. K.D. Navab, O. Elboudwarej, M. Memarzadeh, L. Vakili, M. Shabihkhani, R. Rostami, J. Swartz and S. Vazirian. UCLA.

B193 656.15 Activation and dephosphorylation of PPARY induce PCSK9 production. Y. Duan, Y. Chen and J. Han. Nankai Univ., China.


B196 656.18 Cav-3 is associated with and regulates the actin cytoskeleton in BV2 cells. J.R. Niesman, M. Saldana, N. Zemke, B.P. Head and H.H. Patel. UCSD.


657. ADVANCES IN TUMOR BIOLOGY

Poster

Sun, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 11:30 AM-1:30 PM


B200 657.3 Putting the more back in morphology: quantitating multiple protein expressions in intact tissue sections. J.R. Mansfield and C. Hoyt. Caliper Life Sci., Hopkinton, MA.


B202 657.5 Calreticulin upregulates VEGF-A and VEGF-C in SK-N-DZ and SH-SY5Y neuroblastoma cell lines. K. Lin, P-Y. Wu and H. Lee. Natl. Taiwan Univ.

B203 657.6 Induced myeloperoxidase activity in ovarian cancer mouse model. R.V. Papineni, G. Mor, W. McLaughlin, J. Holmberg and V. Craveiro. Carestream Hlth. Inc., Woodbridge, CT and Yale Univ.


B208 657.11 The study of androgen effects on LPA-induced ROS in different human prostate cancer cell lines. Y-C. Lin, Y-L. Huang and H. Lee. Natl. Taiwan Univ. and Asia Univ., Taiwan.


B213 657.16 Gene expression in the colon of wild type and knockout Parp1 mice. K. Moua, A. Rod and R. Cormier. Univ. of Minnesota Duluth.


B216 657.19 Reombinant mojastin disintegrins inhibit cell proliferation and migration of SK-Mel-28 cells and migration of HT-144 cells. T.D. Bella, D.A. Gutierrez, R. Bueno and J.G. Soto. San Jose State Univ.

658. PULMONARY PATHOBIOLOGY

Poster

Sun, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 11:30 AM-1:30 PM


B218 658.2 Human mesenchymal stem cell modulates the stretch-induced inflammatory response in bronchial epithelial cells. C.Y-C. Kuo, J.Y-S. Li, O.K-S. Lee and S. Chien. UCSD and Natl. Yang-Ming Univ., Taiwan.

Pharmacology and Experimental Therapeutics

**659. DRUGS OF ABUSE—COCAINE**

**Poster**

**Presentation time:** 12:30 PM-2:45 PM

B1 659.1 The effect of PKMζ inhibition on cocaine-induced place preference and locomotor sensitization. K. Howell, S.A. Carmack and S.G. Anagnostaras. UCSD.


**660. DRUGS OF ABUSE—DEPRESSANTS/CANNABINOIDS**

**Poster**

**Presentation time:** 12:30 PM-2:45 PM


B16 660.3 Age difference in behavior induced from co-administration of nicotine and alcohol. A. Larraga, C.N. Chew, C. Gadalla, J.D. Belluzzi and F.M. Leslie. Univ. of California, Irvine.

B17 660.4 Conditioned taste aversion elicited by synthetic cannabinoid JWH-018 in mice is attenuated by pretreatment with phytocannabinoid δ9-THC. W.S. Hyatt, S.M. Zimmerman and W.E. Fantegrossi. Hendrix Col., AR and Univ. of Arkansas for Med. Sci.


B30 661.3 Eating high fat chow enhances sensitivity, but does not impact the development of sensitization, to apomorphine-induced yawning in rats. M.G. Baladi, Y.M. Thomas and C.P. France. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.


B32 661.5 Sensitivity to the rewarding and locomotor effects of amphetamine following early treatment with methotrexate and cytarabine in adolescent mice. A.M. Myers, E.B. Bisen-Hersh and E.A. Walker. Temple Univ.

B33 661.6 Pro-social effects of 3,4-methylenedioxymethamphetamine in mice. D.W. Curry, K.S. Murnane and L.L. Howell. Emory Univ.


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662. PHARMACOLOGY OF PAIN

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time: 12:30 PM-2:45 PM**


B51 662.16 Effects of cannabidiol or morphine on mechanical sensitivity and place conditioning induced by chemotherapy-induced peripheral neuropathy in mice. Q. Safdar, H. Neelakantan, E.A. Walker and S.J. Ward. Temple Univ.

663. GPCR SIGNALING

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:45 PM

B52 663.1 Role of Rac1 in A2B adenosine receptor and Epac1 signaling to extracellular signal-regulated kinase in human endothelial cells. M. Olah and L. Miller. Col. of Pharm., Ohio Northern Univ.


B58 663.7 The Nurr1 transcription factor is upregulated by the EP1 prostanoid receptor in monomethylarsonous acid-treated UROtsa cells. C.M. Sanchez, A.J. Gandolfi and J.W. Regan. Col. of Pharm., Univ. of Arizona.

B59 663.8 Withdrawn.


664. PROTEASE-ACTIVATED RECEPTORS

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:45 PM


B63 664.2 Ubiquitination of protease-activated receptor-1 reveals a new mode of signal regulation. N.J. Grimsey, P. Le and J. Trejo. UCSD.

B64 664.3 Regulation of protease-activated receptor-4 signaling and trafficking. T.H. Smith and J. Trejo. UCSD.

B65 664.4 Palmitoylation of PAR1 regulates the accessibility of C-tail YXXφ motifs to AP-2 and internalization. I. Canto and J. Trejo. UCSD.

B66 664.5 Regulation of protease-activated receptor-1 signaling and trafficking by extracellular loop 2 N-linked glycosylation. A.G. Soto and J. Trejo. UCSD.


B69 664.8 Thrombin stimulated glioblastoma cell adhesion is mediated by Rap1 and integrin activation. J. Sayyah, D. Stupack and J. Heller Brown. UCSD and Moores Cancer Ctr.

B70 664.9 Protease activated receptor 2-mediated activation of protein kinase A. S.J. Erb and Z.J. Wang. Unv. of Illinois, Chicago.


665. GRKS AND ARRESTINS
Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B76 665.5 Proteolytic activation of PAR1-PAR2 heterodimer by thrombin promotes beta-arrestin dependent ERK1,2 signaling. H. Lin and J. Trejo. UCSD.


666. CAMP SIGNALING AND COMPARTMENTATION
Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B82 666.2 Implication of reduced levels of intracellular cAMP in enhanced expression of Gi proteins and hyperproliferation of vascular smooth muscle cells from spontaneously hypertensive rats: cellular mechanisms. S. Gusan and M. Ananad-Srivastava. Univ. of Montreal.

B83 666.3 A homogenous bioluminescent, and fast assay for monitoring alteration in cAMP cellular and tissue cAMP and monitoring the modulation of Gs and Gi protein coupled receptors. S. Goueli and K. Hsiao. Promega Corp., Madison, WI.


B91 666.11 Lef1-mediated upregulation of Epac1 expression in chronic lymphocytic leukemic cells. L. Brown, F. Murray, L. Zhang and P.A. Insel. UCSD.

667. PHOSPHOINOSITIDE SIGNALING
Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

668. SYSTEMS PHARMACOLOGY/TOXICOLOGY—
ASTHMA AND COPD

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B98 668.1 In vitro and in vivo studies of antiasthmatic and mast cell stabilizing activity of Yemeni Sidr honey. A.A. Alzubier and P.N. Okechukwu. UCSF Univ., Malaysia.

B99 668.2 Epinephrine is required for the IL-13 induced increase in inflammatory cells in murine airways. V.J. Thanawala, N. Al-Sawalha, G.S. Forkuo, O. Omoluabi, B. Knoll and R. Bond. Univ. of Houston.

B100 668.3 Temporal lipid mediator profiles differ between plasma and bronchoalveolar lavage in mice exposed to tobacco smoke. M.L. Nording, J. Yang, L. Hoang, V. Zamora, D. Uyeminami, I. Espiritu, K.E. Pinkerton, B.D. Hammock and A. Luria. Umeå Univ., Sweden and Univ. of California, Davis.

B101 668.4 Inhibition of soluble epoxide hydrolase in mice exposed to tobacco smoke. M.L. Nording, J. Yang, L. Hoang, V. Zamora, D. Uyeminami, I. Espiritu, K.E. Pinkerton, B.D. Hammock and A. Luria. Umeå Univ., Sweden and Univ. of California, Davis.

B102 668.5 Role of beta2-adrenoceptor signaling and mitogen activated protein kinases in IL-13 induced mucus production in human airway epithelial cells. N. Al-Sawalha, I. Pokkunuri, O. Omoluabi, R. Bond and B. Knoll. Univ. of Houston.

669. SYSTEMS PHARMACOLOGY/TOXICOLOGY—
PULMONARY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B103 669.1 Doxycycline protects against right ventricular dysfunction and dilatation caused by acute pulmonary thromboembolism. E.M. Neto Neves, O.S. Santos, K.C. Ferraz, C.S. Ceron, M.D. Romano, L.G. Gali, B.C. Maciel and J.E. Tanus Santos. Univ. of São Paulo and State Univ. of Campinas, Brazil.

B104 669.2 G protein-coupled receptor arrays identify physiologically relevant targets in pulmonary artery smooth muscle cells: mRNA to function. D.S. McDonald, N. Aroonsakool, O. Kwon, P.A. Insel and F. Murray. UCSD.


670. ENDOTHELIUM AND ION CHANNELS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


671. ENDOTHELIAL MECHANISMS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B116 671.1 SIRT1 enhances endothelium-dependent relaxation through an eNOS-independent mechanism. C. Xu, P.M. Vanhoutte and Y. Wang. The Univ. of Hong Kong.

B117 671.2 Thyroid hormone affects both endothelial and vascular smooth muscle cells in rat arteries. Y. Cai, G.P.H. Leung and P.M. Vanhoutte. The Univ. of Hong Kong.


B119 671.4 Activated protein C promotes endothelial barrier protection through biased PAR1 signaling mediated by β-arrestin and dishevelled-2 scaffolds. U.J.K. Soh and J. Trejo. UCSD Sch. of Med.


B121 671.6 A phosphodiesterase 3B-based signaling complex integrates exchange protein activated by cAMP 1 and phosophatidylinositol 3-kinase signals in human arterial endothelial cells. D.H. Maurice. Queen's Univ., Canada.

B122 671.7 Calcium sensitization underlies endothelium-dependent hypoxic augmentation in the porcine coronary artery. P.M. Vanhoutte and C.K. Chan. Univ. of Hong Kong and Chonbuk Natl. Univ., South Korea.


B125 671.10 miR-150 prevents pulmonary inflammation by regulating interleukin-1R associated kinase-2 downstream of focal adhesion kinase. C. Rajput, M. Tauseef, P. Yazbeck, T. Thennes and D. Mehta. Univ. of Illinois at Chicago.

672. PHARMACOLOGY OF NEUROPROTECTION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B126 672.1 Date palm fruits grown in Oman ameliorate amyloid beta protein-induced cytotoxicity. M.E. Musthafa, S. Al-Adawi, A. Al-Asmi, R. Vaishnav, G.J. Gilles and N. Ramachandiran. Sultan Qaboos Univ., Oman and Univ. of New South Wales.


B128 672.3 Protection by a transdermal patch system for the prophylaxis against soman poisoning in rhesus monkey. Y. Cho. Agcy. for Defense Develop., Taejon, South Korea.


B130 672.5 Anti-oxidant and anti-apoptotic effects of fisetin in MPTP-induced PC12 cells. K.E. Benzeroual and M. Patel. Long Island Univ.


673. MECHANISMS OF GENE EXPRESSION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B135 673.2 A major constituent from Zanthoxylum nitidum, compound X, is a naturally occurring antagonist of the human and rat pregnane X receptor. C-Y. Ma and Y-P. Lim. Sch. of Pharm., Univ. of California Los Angeles (UCLA) and Cedars-Sinai Med. Ctr.


B140 673.7 Selective estrogen-receptor modulators genistein, resveratrol, and catechin fail to stimulate the hepatic expression of estrogen-responsive genes encoding the avian apolipoprotein II and vitellogenin. V.D. Bhatt, K. Chaudhary, A. Bin Ariff, R. Boggeti and W.N. Ratna. Arnold & Marie Schwartz Col. of Pharm., Long Island Univ.


B146 673.13 Changes in liver metabolic gene expression after radiation exposure. V.E. Wotring and C.P. Peters. NASA Johnson Space Ctr. and Bethul Univ., MN.


B148 673.15 Histone deacetylation is the primary epigenetic mechanism for silencing of tumor suppressor gene-tissue factor pathway inhibitor-2 in hepatocellular carcinoma cells. A. Moghe, D. Barker, S. Ghare, L. Gobejishvili, S. Joshi-Barve, A. Barve, C. McClain and S. Barve. Univ. of Louisville.


B150 673.17 Lactobacillus rhamnosus GG treatment potentiates intestinal hypoxia-inducible factor, promotes intestinal integrity, prevents inflammation, and ameliorates alcohol-induced liver injury. Y. Wang, Y. Liu, I. Kirpich, C. McClain and W. Feng. Univ. of Louisville.

B151 673.18 Hypoxia-induced lipid accumulation involves a HIF-α independent, oxidative stress-mediated regulation of FGF-21 in HepG2 cells. Y. Liu, Y. Wang, C.J. McClain and W. Feng. Univ. of Louisville.

674. DEVELOPMENTAL PHARMACOLOGY/TOXICOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B152 674.1 The African clawed frog (Xenopus laevis) is sensitive to pyrene exposure during early development. D.B. Snoke, K.E. Rosato, E.M. Richardson and S.L. Whittemore. Keene State Col., NH.


B155 674.4 Organophosphate pesticide exposure affects zebrafish developmental physiology. H. Garcia, N. Hole, F. Radoniqi, H. Schmidt, G. Orona and E.A. Fradinger. Whittier Col., CA.


Physiology

675. MICROVASCULAR MOLECULAR BIOLOGY/GENETIC APPROACHES

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D2 I 676.1 Decreased telomerase activity converts the mechanism of FND from NO to H2O2 in human and mouse arterioles. A.M. Beyer and D.D. Gutterman. Med. Col. of Wisconsin.

D3 II 676.2 The impact of arterial network structure on electrical communication. C.H.T. Tran, E.J. Vigmond, D. Goldman and D.G. Welsh. Univ. of Calgary, Canada and Univ. of Western Ontario.


D5 II 676.4 Calcium sparks, BK and SK channels regulate myogenic tone in the gerbil spiral modiolar artery. G. Krishnamoorthy, K. Reimann and P. Wangemann. Med. Col. of Wisconsin.

D6 I 676.5 Identification of voltage-activated calcium currents in renal afferent and efferent arterioles of the rat. S.V. Smirnov, K. Loutzenhiser and R. Loutzenhiser. Univ. of Bath, U.K. and Univ. of Calgary, Canada.


D8 I 676.7 A functional role for N-cadherin in mediating mechanotransduction in arteriolar vascular smooth muscle cells. Z. Sun, Z. Li and G.A. Meiningier. Univ. of Missouri-Columbia.


D10 I 676.9 Neurovascular unit regulation by adenosine triphosphate. H.H. Dietrich. Washington Univ.


D12 I 676.11 Cilostazol, a phosphodiesterase 3 inhibitor, enhances prostacyclin receptor-mediated cAMP accumulation and ATP release in erythrocytes of healthy humans and humans with type 2 diabetes. S. Knebel, E.A. Bowles, R.S. Sprague and A.H. Stephenson. Saint Louis Univ.


D18 I 676.17 S-nitrosylation of β-catenin and p-120 catenin: a novel regulatory mechanism in endothelial hyperpermeability. P. Zamorano, N. Marin, R. Carrasco, M. Boric, W.N. Durán and F.A. Sánchez. Southern Univ. of Chile, Valdivia, Catholic Univ. of Chile and UMDNJ-New Jersey Med. Sch.


677. LYMPHATIC AND VENULAR FUNCTION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D24 II 677.4 Interplay between NO, prostaglandins and K<sub>ATP</sub> channels in the lymphatic pumping dysfunction observed during experimental intestinal inflammation. P-Y. von der Weid, R. Mathias and S. Rehal. Univ. of Calgary, Canada.


D33 I 677.13 Placental growth factor is a potent dilator of uterine and mesenteric veins isolated from pregnant rats. M. Mandala, S. Kostin and G. Osol. Univ. of Vermont and Univ. of Calabria, Italy.

678. ISCHEMIA-REPERFUSION/FREE RADICAL BIOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D38 I 678.5 Ethanol preconditioning protects against ischemia/reperfusion-induced cardiac damage via calcitonin gene-related peptide and is initiated by a transient receptor potential vanilloid 1-dependent mechanism. M. Wang, M.Y. Zuidema and R.J. Korthuis. Univ. of Missouri-Columbia.

D39 II 678.6 Ischemia-induced mobilization of lysosomal iron predisposes rat hepatocytes to ischemia-reperfusion injury. X. Zhang, J. Schwartz and J. Lemasters. Med. Univ. of South Carolina.

D40 I 678.7 Effects of endogenously and exogenously elevated bilirubin on myocardial ischemia reperfusion injury. B. Bakrania and A. Bulmer. Griffith Univ., Australia.


D45 II 678.12 Forty five minutes of ischemia and 24 hours of reperfusion in the Wistar rat induce an acute pre-revalen injury which is not improved by 4 days of pre-ischemia treatment with spironolactone. D.M. Montes Acuña, J.F. López-Rodríguez, M.Z. Calvo-Turrubiartes, N.L. Dávila Varela, L. Lamazaures-Azura and M. Rodríguez-Martínez. Sch. of Med. Autonomous Univ. of San Luis Potosi, Mexico.

D46 I 678.13 Molecular mechanisms underlying netrin-1 postconditioning induced cardioprotection against ischemia-reperfusion injury. J.O. Bouhidel and H.L. Cai. UCLA.


D57 II 679.4 Superficial neprins in BALB/c mice facilitate in vivo multiphoton imaging. I. Schiessl and H. Castrop. Univ. of Regensburg, Germany.

680. INFLAMMATION/LEUKOCYTE-ENDOTHELIUM INTERACTIONS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D58 I 680.1 Effects of circulating C-reactive protein levels on EPC function. B. Nissen, K. Fasing, J. Greiner, B. Stauffer and C. DeSouza. Univ. of Colorado Boulder.
D74 I 680.17 Blunting of endothelium dependent dilation in adipose tissue arteries by tumor necrosis factor alpha is lost after high fat feeding. J.P. McCullagh, G.D. Henson, A.J. Donato and L.A. Lesniewski. Univ. of Utah and VA Salt Lake City Hth. Care Syst.


681. ATHEROSCLEROSIS/THROMBOSIS/PLATELETS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D82 I 681.1 Atherosclerosis development is differentially regulated in whole genome versus bone marrow-derived haploinsufficient NFAT5/ApoE null mice. J.A. Halterman, H.M. Kwon and B.R. Wamhoff. Univ. of Virginia and Univ. of Maryland Baltimore.


D84 I 681.3 Enhancement of autophagy by simvastatin through inhibition of Rac1-mTOR signaling pathway. Y-M. Wei, Y. Zhang, X-X. Li, M. Xu and P-L. Li. Virginia Commonwealth Univ.


D89 II 681.8 Subendothelial pericytes in the intima of venous bypass grafts catalyze thromboembolic and atherosclerotic processes. S. Nees, B. Gansera and G. Juchem. Univ. of Munich and Hosp. Bogenhausen, Munich.


D96 I 681.15 Thrombotic and thrombolytic factors in human plasma with aging. K.A. Field, E.P. Murray and M.F. Field. Sch. of Gerontol., Univ. of Southern California and Saint Mary’s Col. of California.

D97 II 681.16 Seasonal variation in thrombotic and thrombolytic factors in human plasma. E.P. Murray, K.A. Field and M.F. Field. Saint Mary’s Col. of California and Univ. of Southern California.


682. ANGIOGENESIS/MICROVASCULAR REMODELING/INJURY AND REPAIR

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


**D103 II** 682.4 NG2 inhibition decreases endothelial cell sprouting along venules: a novel in situ angiogenesis assay to investigate multicellular interactions. P.C. Stapor, T. Ahsan and W.L. Murfee. Tulane Univ.

**D104 I** 682.5 The importance of aquaporin 1 for vascular smooth muscle cell migration after vascular injury. J. Stubbe, S.H. Johansen and B.L. Jensen. Univ. of Southern Denmark.


**D110 I** 682.11 Endothelial signaling of matrix-bound and diffusible VEGF. E.A. Logsdon, L. Woo and F. Mac Gabhann. Johns Hopkins Univ.

**D111 II** 682.12 Expression of recombinant canine sFlt1 as an experimental anti-angiogenic agent. L.B. Payne, I.P. Herring and W.R. Huckle. Virginia Tech.


**D113 II** 682.14 Suppression of vascular network formation by human cardiac endothelial cells with low concentrations of doxorubicin is due to the inhibition of endothelial cell proliferation. E. Konorev and Z. Sun. Univ. of Hawaii-Hilo Col. of Pharm.


**D117 II** 682.18 Role of p47phox and Nox2 in the promotion and impairment of collateral growth. M. DiStasi, D. Ingram, S. Miller and J. Unthank. Indiana Univ., Indianapolis.

**D118 I** 682.19 Hypoxia-inducible factor-2α regulates intestinal inflammation and colon cancer. Y. Shah and X. Xue. Univ. of Michigan.

683. ANGIOGENESIS AND VASCULAR GROWTH

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

**D119 I** 683.1 Fetal endothelial colony forming cells from pregnancies complicated by intrauterine growth restriction have reduced vasculogenic capacity. S.L. Bourque, P. Sipos, C. Sibley, P. Baker, S. Davidge and I. Crocker. Univ. of Alberta and Univ. of Manchester.


**D121 I** 683.3 High salt diet suppresses the angiogenic competency of bone marrow-derived mononuclear cells. J.R. Genthe and A.S. Greene. Med. Col. of Wisconsin.

**D122 I** 683.4 Potency of endothelial progenitor cells compared to bone marrow mononuclear cells in the restoration of angiogenesis. C.C. Kaczorowski, T.J. Stodola, D.N. Didier and A.S. Greene. Med. Col. of Wisconsin.


**D126 II** 683.8 Shear stress upregulates PLGF protein expression in an endothelial cell/vascular smooth muscle cell coculture system. N.A. Rashdan and P.G. Lloyd. Oklahoma State Univ.


D134  I  684.6    Phosphoinositide dependent kinase 1 contributes to intermittent hypoxia-induced hypertension. J.M. Osmond, X.A. DeLeon, B.R. Walker and N.L. Kanagy. Univ. of New Mexico.


D140  II  684.12    Regional blood flow changes underlying the hypotensive action of 5-HT: studies using Doppler and microsphere technologies. B.M. Seitz, A.M. Dorrance, G.D. Fink and S.W. Watts. Michigan State Univ.


D142  II  684.14    Gene silencing of HIF prolyl-hydroxylase 2 in the renal medulla attenuated sodium retention in Dahl S rats. Q. Zhu, M. Liu, W. Han, P-L. Li and N. Li. Virginia Commonwealth Univ.


D144  II  684.16    Critical cardiac and renal developmental windows for atenolol exposure in embryos of the chicken Gallus gallus. J.J. Rossitto and W. Burggren. Univ. of North Texas at Denton.


D150  II  684.22    Sensitization of rats with low dose of angiotensin II through multiple signaling pathways in lamina terminalis. Z. Zhang, B. Xue, F. Guo, T. Beltz and A.K. Johnson. Univ. of Iowa.


685. CEREBRAL CIRCULATION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D159 II 685.2 tPA contributes to aggravation of endothelin- and thromboxane-induced cerebrovasoconstriction after hypoxia/ischemia through upregulation of ERK MAPK. W. Armstead, H. Kaczynski, J. Riley, D. Cines and A. Higazi. Univ. of Pennsylvania.

D160 I 685.3 The effects of a 5 second bend over maneuver on cerebral perfusion and autoregulation upon standing from squat. R.F. Bentley, J.J. Walsh, J.M. Kellawen and M.E. Tschakovsky. Sch. of Kinesiol. and Hlth. Studies, Queen's Univ., Canada.


D162 II 685.5 Cerebrovascular oxidative stress and endothelial dysfunction in response to aldosterone is Nox2-mediated. S. Chrissobolis, F.M. Faraci and C.G. Sobey. Monash Univ., Australia and Univ. of Iowa.


D165 II 685.8 Impaired dynamic cerebral autoregulation in type 2 diabetes patients is associated with elevated oxidative stress. S.H. Deo, L.C. Vianna, A. Kim, M.C. Zimmerman and P.J. Fadel. Univ. of Missouri-Columbia and Univ. of Nebraska Med. Ctr.

D166 I 685.9 Mechanism of neurovascular unit regulation by glutamate. H.H. Dietrich. Washington Univ.

D167 II 685.10 TRPV4 channels tune astrocytic endfoot Ca2+ to optimize neurovascular coupling. K.M. Dunn, R.L. Baylie and M.T. Nelson. Univ. of Vermont.


D173 II 685.16 NOX4 upregulation increases superoxide and mitochondrial dysfunction in brain endothelial cells. J.N. Horne, D.N. Krause, M.F. Kemper, S.P. Duckles and J.H. Weiss. Univ. of California, Irvine.


D178 I 685.21 The effects of melatonin and/or forced exercise on reorganization of corticospinal tract after focal cerebral ischemia in rats. S. Lee, M. Lee and Y. Hong. Grad. Sch. of Inje Univ. and Col. of Biomed. Sci. and Engin., Inje Univ., South Korea.


D180 I 685.23 Role for $\alpha,\beta_3$ in the regulation of Ca$^{2+}$ dynamics and myogenic tone development in rat cerebral arteries. R. Mutti, S.E. Brett and D.G. Welsh. Univ. of Calgary, Canada.


D184 I 685.27 Chronic hypoxia differentially modulates age-dependent responses of ovine middle cerebral arteries to VEGF. J. Silapanisong, M.C. Hubbell and W.J. Pearce. Loma Linda Univ.


D189 II 685.32 Lower body muscle tensing is an effective countermeasure to initial orthostatic hypotension-induced cerebral hypoperfusion upon standing from a squatted position. J.J. Walsh, R.F. Bentley, J.M. Kellawan and M.E. Tschakovsky. Sch. of Kinesiol. and Hlth. Studies, Queen's Univ., Canada.


686. DIABETES AND INSULIN RESISTANCE I

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D205  II  686.12  Interactive changes between macrophages and adipocytes. L. Xie, T.M. Ortega, S. Mora and S.K. Chopes. Univ. of North Dakota, Kansas Sate Univ. and Univ. of Liverpool Sch. of Biomed. Sci.


D207  II  686.14  Ang (1-7) reduces ANG II-induced insulin resistance by increasing Akt phosphorylation via a Mas receptor-dependent mechanism in rat skeletal muscle. E.J. Henriksen, M. Prasannarong and F.R. Santos. Univ. of Arizona and Mahidol Univ., Thailand.


687.  DIABETIC RENAL DISEASE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D221  II  687.2  Nuclear transcription factor kappa B (NF-kB) mediates ROS and PKC-induced decrease in TRPC6 protein expression in human glomerular mesangial cells. R. Ma, Y. Wang and M. Ding. Univ. of North Texas Hlth. Sci. Ctr.


D224  I  687.5  Hydrogen sulfide mitigates diabetic nephropathy through NMDA receptor-mediated renal remodeling. S. Kundu, A. Tyagi, D.M. Coley, P. Sathnur and U. Sen. Univ. of Louisville.


D226  I  687.7  Mitochondrial function and superoxide production is reduced in the diabetic kidney and restored by AMPK activation. Y.H. You, L.L. Dugan, R.K. Naviaux and K. Sharma. UCSD.
688. HORMONE AND AUTACOID EFFECTS ON THE KIDNEY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D229 I 688.3 Cellular localization of P0 (adenine) receptor in rat kidney. B.K. Kishore, Y. Zhang, I.L. Pop, H. Gevorgyan, C.E. Müller and J. Peti-Peterdi. Univ. of Utah and VA Med. Ctr., Univ. of Southern California and Univ. of Bonn.


D232 II 688.6 Endothelin-1-induced inhibition of NKCC2 activity is blunted in thick ascending limbs from angiotensin II-hypertensive rats. V.D. Ramseyer and J.L. Garvin. Wayne State Univ. and Henry Ford Hlth. Syst.

D233 I 688.7 Tumor necrosis factor alpha activates RhoA and decreases NO synthase type 3 expression in rat thick ascending limbs. V.D. Ramseyer, N. Hong and J.L. Garvin. Wayne State Univ. and Henry Ford Hlth. Syst.

689. RENAL EPITHELIAL ACID-BASE MECHANISMS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D236 I 689.3 Insight into the structural differences in transmembrane segment 1 between NBCe1-A and AE1. Q. Zhu, D. Newman, L. Kao, W. Liu, R. Azimov and I. Kurtz. UCLA.

D237 II 689.4 The cysteines in NBCe1-A extracellular loop 3 form intra-molecular disulfide bonds that determines the transporter surface topography. Q. Zhu, L. Kao, R. Azimov, W. Liu, D. Newman and I. Kurtz. UCLA.

D238 I 689.5 Differential responses of proximal tubule Na+/H+ exchanger NHE3 to low pH: comparison between metabolic and respiratory acidosis. P.H.I. Silva, A.C.C. Girardi and N.A. Rebouças. Univ. of São Paulo.


690. RENAL HEMODYNAMICS AND GLOMERULAR FILTRATION RATE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D244 II 690.5 PDGF receptor antagonist with imatinib mesylate improves renal hemodynamics independent of changes in blood pressure in Cyp1a1-Ren2 transgenic rats with ANG II-dependent malignant hypertension. M-Y. Kwak, C.G. Howard and K.D. Mitchell. Tulane Univ.


D246 II 690.7 Instigation of NALP3 infl ammasome activation and glomerular injury in mice on the high fat diet: role of acid sphingomyelinase gene. K.M. Boini, M. Xia, J.A. Abas and P-L. Li. Virginia Commonwealth Univ.


D252  I  690.13  Inhibition of K\textsubscript{7} channels causes rat renal vasoconstriction in vivo. C.M. Sorensen, N-H. Holstein-Rathlou and M. Salomonsson. Univ. of Copenhagen.


D254  I  690.15  Nebivolol-induced vasodilation of renal afferent arterioles involves β3 adrenergic receptor activation. M-G. Feng and L-G. Navar. Tulane Univ.

D255  II  690.16  Renal responses to severe haemorrhage in conscious lambs. F.G. Smith, M. Samhan and W. Qi. Univ. of Calgary, Canada.


D258  I  690.19  Chronic direct renin inhibition with alisiken normalizes blood pressure and improves renal hemodynamics in Cyp1a1-Ren2 transgenic rats with ANG II-dependent malignant hypertension. C.G. Howard and K.D. Mitchell. Tulane Univ.


D261  II  690.22  The classic renovascular (Goldblatt) hypertension is mediated by succinate/GPR91 signaling. A.D.M. Riquier-Brison, H.A. Gevorgyan and J. Peti-Peterdi. Univ. of Southern California.


691.  OXIDATIVE STRESS AND THE KIDNEY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D263  I  691.1  Pravastatin decreases superoxide production by thick ascending limbs. R. Soca and J. Garvin. Henry Ford Hosp.


D265  I  691.3  Boldine treatment ameliorates kidney damage in rats with 5/6 nephrectomy chronic renal failure. V. Velarde, G. Gomez, C. Cespedes and C.P. Vio. Pontifical Catholic Univ. of Chile.


D267  I  691.5  Activation of Nrf-2 enhances the function of human renal glomerular endothelial cells. Z. Luo, J. Bhupatkar, W.J. Welch and C.S. Wilcox. Georgetown Univ.

D268  II  691.6  Acid sphingomyelinase gene knockout ameliorates hyperhomocysteinemic glomerular injury in mice lacking cystathionine β-synthase. K.M. Boini, M. Xia, C-X. Li, J. Xiong and P-L. Li. Virginia Commonwealth Univ.


D270  II  691.8  Disordered oxygen metabolism in early chronic kidney disease. P. Singh, H. Pham, M. Sharik, A. Murphy, S. Petroysan, S. Thomson and R. Blantz. UCSD.

D271  I  691.9  Role of different reactive oxygen species in homocysteine-induced NALP3 infl ammasome activation in mouse podocytes. J. Abais, K. Boini, M. Xia and P-L. Li. Virginia Commonwealth Univ.

D272  II  691.10  Inhibition of NADPH oxidase attenuates hyperhomocysteinemia-induced NALP3 infl ammasome activation in mouse glomeruli. J. Abais, K. Boini, M. Xia and P-L. Li. Virginia Commonwealth Univ.


692. OXIDATIVE STRESS

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D278 II 692.4 Functional characterization of the interaction between oxidative and xenobiotic stress response proteins SKN-1/Nrf and WDR-23 in *C. elegans*. C.K. Leung and K.P. Choe. Univ. of Florida.


D282 I 692.8 NADPH oxidase 4 induces cardiac arrhythmia in zebrfish through ROS. Y. Zhang, H. Shimizu, K.L. Siu, J-N. Chen and H.L. Cai. UCLA.


D284 II 692.10 Moderate hyperoxia treatment increases glutathione levels during direct LPS-induced lung injury in mice. R.D. Britt, M. Velten and L.K. Rogers. The Ohio State Univ. and Nationwide Children's Hosp.

D285 I 692.11 Apurinic/apyrimidinic endonuclease 1 inhibits oxidative stress in gastric epithelial cells during *H. pylori* infection through binding and inhibition of Rac1. R. Chattopadhyay, S. Das, E. Hall, A. Ablack, P. Ernst and S. Crowe. UCSD and Univ. of Virginia.


D288 II 692.14 Effect of some antioxidant vitamins on some enzymes of ocular tissues exposed to potassium bromate. V.E. Osagie and P.N. Okolie. Ambrose Alli Univ. and Univ. of Benin, Nigeria.


693. STEM CELLS AND CELL GROWTH, DEVELOPMENT AND DIFFERENTIATION

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D291 I 693.1 Protein O-GlcNAcylation – a novel cell survival signal in cardiac stem cells. A. Zafir, Q. Li, R. Bolli and S.P. Jones. Univ. of Louisville.

D292 II 693.2 Eph and ephrin expression during C2C12 myogenesis. X. Fu and M. Du. Washington State Univ.


D295 I 693.5 M-cadherin modulates phosphorylation of beta-catenin N-terminus and promotes myogenic differentiation in a TCF/LEF-independent manner. Y. Wang and S.E. Alway. West Virginia Univ. Sch. of Med.


D299 I 693.9 Liquid medium culture effect on *Eucalyptus* shoots: growth and development in bioreactor. V.C.C.C. Hydro and D.C.S. Runho. Univ Paulista, Brazil.

**694. TRANSPORTERS**

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time:* 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D301 I 693.11 Endothelium differentiation and regeneration from human adipose-derived stem cell by shear stress. Y.-J. Chang, S.-C. Lin, S. Chien and C.-C. Wu. Natl. Cheng Kung Univ. and Hosp., Taiwan and UCSD.


D303 II 694.2 Analysis and expression pattern of *slc12a* genes. M. Di Fulvio. Wright State Univ.


D305 II 694.4 Novel KCC3 mouse models to study ACCPN, a degenerative neuropathy disorder. J. Ding, J. Ponce-Coria and E. Delpire. Vanderbilt Univ. Sch. of Med.


D311 II 694.10 Functional expression of MRP4 in the ciliary epithelium of the eye. R.M. Pelis and M. Coca-Prados, Dalhousie Univ., Canada and Yale Univ.


D315 II 694.14 Inner gate residues contribute to sugar and Na+ binding in SGLT1. X. Jiang, D.D.F. Loo, B.A. Hirayama and E.M. Wright. UCLA.


D332 II 695.4 L-type Ca2+ channel current from on-cell patch is augmented by H2O2 in rat aortic smooth muscle-derived A7r5 cells. R. Ochi and S.A. Gupte. Univ. of South Alabama.


D332 II 695.6 N-type Ca2+ channel regulation by the light chain 1 of the microtubule associated protein B (MAP1B). M.A. Gandini, D.R. Henriquez, A. Sandoval, C. Gonzalez-Billault and R. Felix. Cirevesta-IPN, Mexico City, Univ. of Chile and Natl. Autonomous Univ. of Mexico, Tlalnepantla.


D331 I 695.15 Caveolin-3 regulates subcellular targeting of Kir2.1 channels. Z. Yang and K. Hu. The Ohio State Univ.

D332 II 695.16 Microglial Kv1.3 channels as a potential target for Alzheimer's disease. D.P. Jenkins, I. Maezawa, H. Wulff and L-W. Jin. Univ. of California, Davis, Davis and Sacramento.


D334 II 695.18 Disease causing mutations affect ENaC gating. V. Kucher, N. Boiko and J.D. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

D335 III 695.19 Pickpocket1 is a Drosophila acid-sensing Na+ channel necessary for proprioception. N. Boiko, V. Kucher, B.A. Eaton and J.D. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

696. LUNG ION CHANNELS AND FLUID HOMEOSTASIS (POSTERS)

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D337 II 696.2 Comparison of two types of δENaC channels cloned from human lungs. H. Ji, R. Zhao, H. Nie and S. Matalon. Univ. of Texas Hlth. Sci. Ctr. at Tyler, China Med. Univ. and Univ. of Alabama at Birmingham.


D343 II 696.8 Influenza M2 inhibits CFTR activity through its ion channel function. J.D. Londino, C. Atkins, J. Noah, A. Lazrak and S. Matalon. Univ. of Alabama at Birmingham and Southern Res. Inst.


697. LUNG PHYSIOLOGY: AIRWAY EPITHELIAL CELL BIOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D354 II 697.6 Diesel exhaust particulate matter has both direct and indirect effects on cardiomyocyte function. M.W. Gorr, J.D. Rodeman, E. Cormet-Boyaka and L.E. Wold. Nationwide Children's Hosp. and The Ohio State Univ.
698. LUNG PHYSIOLOGY: ALVEOLAR EPITHELIAL CELL BIOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D360 II 698.6 Proliferation of human alveolar epithelial cells downregulates ACE-2 activity. V.X. Dang and B.D. Uhal. Michigan State Univ.


699. HYPOXIA-INDUCED GENE EXPRESSION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D371 II 699.4 Egr1 plays a key role in fetal programming of gender-dependent PKCε gene expression patterns in the developing heart. M. Chen and L. Zhang. Loma Linda Univ.

D372 I 699.5 Direct inhibitory effect of hypoxia on cardiomyocyte proliferation in fetal rat hearts. W. Tong, F. Xiong, Y. Li and L. Zhang. Loma Linda Univ.


D375 II 699.8 The DNA glycosylase Ogg1 is required for hypoxia-induced activation of VEGF transcription in pulmonary artery endothelial cells. V.M. Pastukh, G.C. Bardwell, M. Patel, A-B. Al-Mehdi and M.N. Gillespie. Univ. of South Alabama.

D376 I 699.9 Mitochondrial biogenesis in hypoxic rat pulmonary artery endothelial cells: possible involvement of DNA oxidation. M.V. Ruchko, O.M. Gorodnya and V.M. Pastukh. Univ. of South Alabama Col. of Med.

D377 II 699.10 Metabolomics reveals the role of hypoxia-inducible factors in hypoxia-induced liver metabolic shift. A. Ou, F. Li, K. Krausz, Y.M. Shah and F.J. Gonzalez. NCI/NIH and Univ. of Michigan Sch. of Med.

D378 I 699.11 Inhibition of hypoxia inducible factor 1 alpha improves the metabolic phenotype in C57BL/6Jmice with diet-induced obesity. M-K. Shin, L. Drager, S. Bevans-Fonti, D.Y. Yoo, S. Aja, S. Bhanot and V. Polotsky. Johns Hopkins Univ., Univ. of São Paulo and Isis Pharmaceut., Carlsbad, CA.

D379 II 699.12 Differential anoxia and hypoxia tolerance in two color morphs of the green crab, Carcinus maenas. C.A. Toombs, J.A. Jost and M. Frederich. Univ. of New England and Bradley Univ., IL.
700. HYPOXIC PULMONARY VASOCONSTRICTION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D381 II 700.2 Novel role for copper transport protein CTR1 in hypoxia induced pulmonary hypertension. A.M. Zimnicka, J. Chen and J.X-J. Yuan. Univ. of Illinois at Chicago.


701. AUTONOMIC CONTROL OF VISCERAL FUNCTIONS (POSTERS)

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D385 I 701.1 Evidence that activation of both vagal and glossohyparyngeal afferents cause the release of 5-HT in the NTS. P.S. Hosford, J. Millar and A.G. Ramage. University Col. London and Barts and The London Sch. of Med. and Dent.

D386 II 701.2 Selective effects of inhaled methacholine on 3rd generation bronchial blood flow and airway dimensions in awake sheep. S.W. White, D. McLeod, G. Parsons, R. Gunther, D. Cottey and A. Quail. Univ. of Newcastle, Australia, Univ. of California, Davis, Sacramento and John Hunter Hosp., New Lambton, Australia.

D387 II 701.3 Multiple factors working in concert regulate blood pressure over a hibernation bout in the Syrian hamster. M. Saenz, J.S. Hamilton, S. Chau, J. Horowitz, C. Chen and B. Horwitz. Univ. of California, Davis.

D388 II 701.4 Calcium permeability in NMDA receptors in NTS baroreceptive neurons is not decreased at low temperature in Syrian hamsters, a hibernating species. S-i. Sekizawa, J. Horowitz, B. Horwitz and C. Chen. Univ. of California, Davis.

D389 II 701.5 Central TRPV1 signaling regulates systemic blood glucose levels and hepatic PEPCK protein expression. J.D. O’Hare, K. Miyata, T.L. Fourrier, A.M. Krantz, A.V. Derbenev and A. Zsombok. Tulane Univ.

D390 II 701.6 Prolonged TRPV1 activation increases frequency and amplitudes of glutamatergic events in NTS neurons. M.E. Hofmann, J.A. Fawley and M.C. Andersen. Oregon Hth. & Sci. Univ.


D392 II 701.8 Experimental spinal cord injury alters the dose response of vagal motoneurons to TRH. G.M. Holmes and E.M. Swartz. Penn State Col. of Med.

D393 I 701.9 Perivagal capsaicin alters the response of vagal motoneurons to thyrotropin releasing hormone. G.M. Holmes, E.M. Swartz and R.A. Travagli. Penn State, Hershey.

D394 II 701.10 The effects of oxytocin on gastric motility are mediated by different neuronal pathways in an iodoacetamide model of functional dyspepsia. G.M. Holmes and R.A. Travagli. Penn State, Hershey.


D396 II 701.12 Group III metabotropic glutamate receptors activate selectively pancreas-projecting neurons in the dorsal motor nucleus of the vagus that control endocrine secretions. T. Babic, K.N. Browning and R.A. Travagli. Penn State Col. of Med.


D400 II 701.16 POMC-GLP-2R signaling and action in the control of feeding behavior and gastric motility. X. Guan, X. Shi, D. Li, X. Li, Y. Wang, B. Chang and L. Chan. Baylor Col. of Med. and Univ. of Texas MD Anderson Cancer Ctr.


702. NEURAL CONTROL OF CARDIORESPIRATORY FUNCTION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D407 II 702.6 Caudal ventrolateral medulla activation by acute hypoxia is independent of changes in arterial blood pressure. T.L. King, C.M. Heesch, S. Friskey, B. Ruyle, D.D. Kline and E.M. Hasser. Univ. of Missouri-Columbia.

D408 I 702.7 The ventilatory response to muscle metaboreflex stimulation during concurrent hypercapnia. R.M. Bruce and M.J. White. Sch. of Sport and Exer. Sci., Univ. of Birmingham, U.K.

D409 II 702.8 Blockade of P2X purinergic receptors of the lateral parabrachial nucleus reduces hypoxia-induced tachypnea. M.F. Menezes, J.V. Menani and P.M. De Paula. UNESP, Araraquara, Brazil.


D411 II 702.10 Arterial pressure and ventilation in sodium-depleted rats. P.M. De Paula, M.T. Favero and J.V. Menani. FOAR-UNESP, Araraquara, Brazil.


D413 II 702.12 The role of melanin concentrating hormone in central chemoreception: a knockdown study by siRNAs in the lateral hypothalamus. N. Li, A. Li and E.E. Nattie. Dartmouth Col.


D415 II 702.14 Cardiovascular deconditioning augments baseline breathing as well as peripheral and central chemoreflex responses. Z. Zhou, T.L. King, D.D. Kline, C.M. Heesch and E.M. Hasser. Univ. of Missouri-Columbia.

D416 I 702.15 Activation of nucleus tractus solitarii neurons that project to the rostral ventrolateral medulla or hypothalamic paraventricular nucleus: role of acute hypoxia. B.C. Ruyle, C.M. Heesch, T.L. King, D.D. Kline and E.M. Hasser. Univ. of Missouri-Columbia.


D418 I 702.17 Serotonin 2A receptors augment synaptic transmission in the nucleus tractus solitarii. J.R. Austgen and D.D. Kline. Univ. of Missouri-Columbia.

703. NEURAL MECHANISMS IN CARDIOVASCULAR DISEASE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D422 II 703.4 Effect of acetylcholinesterase blockade with pyridostigmine on baroreflex and cardiovascular autonomic control in heart failure rats, six to seven weeks after coronary artery ligation. J.P.J. Sabino, C.A.A. da Silva, R. Fazan, Jr. and H.C. Salgado. Sch. of Med. of Ribeirão Preto and Univ. of São Paulo, Ribeirão Preto.


D424 II 703.6 Effect of pyridostigmine on hemodynamics and arrhythmias acutely after myocardial infarction in anesthetized rats. F.M. Santos, C.A. Silva, H.C. Salgado and R. Fazan, Jr. Sch. of Med. of Ribeirão Preto and Univ. of São Paulo, Ribeirão Preto.


D427 I 703.9 Nonclassical G protein coupled receptor kinase 5 regulation of angiotensin II type 1 receptor in CATH.a neurons. C.W. Engler, K.K.V. Haack and I. Zucker. Univ. of Nebraska Med. Ctr.
D428 II 703.10 Angiotensin type 1a receptors and reactive oxygen species mediate nuclear factor-κB activation in the subfornical organ during slow-pressor angiotensin-II hypertension. A. Li, C.N. Young and R.L. Davison. Cornell Univ. and Weill Cornell Med. Col.

D429 I 703.11 Physical (in)activity leads to neuroplastic changes in the rostral ventrolateral medulla. S.L. Speirs, N.A. Mischel and P.J. Mueller. Wayne State Univ.


D432 II 703.14 A cafeteria-style diet induces obesity and increases lumbar sympathetic nerve activity in rats. M.S. Muntzel and D.A. Al-Naimi. Lehman Coll., CUNY.


D441 I 703.23 Regulation of tyrosine hydroxylase by ET₃ receptors in the olfactory bulb of DOCA-salt hypertensive rats. M.J. Guli, V.P. Morales, C.V. Soria, S.I. Hope, L.G. Bianciotti and M.S. Vatta. Sch. of Pharm. and Biochem. and Univ. of Buenos Aires.


D443 II 704.2 Poikilocapnic hyperoxic hyperventilation precedes onset of CNS oxygen toxicity: evidence for the hypothesis that hyperbaric hyperoxia stimulates medullary CO₂-chemoreceptors and respiration prior to seizure. R. Pilla, M. Matott, C.S. Landon and J.B. Dean. Univ. of South Florida.

D444 I 704.3 Sex-specific pattern of respiratory control persist in adult mice KO for nuclear progesterone receptors. V. Joseph, A. Dallongeville and V.D. Doan. Laval Univ., Canada.


D446 I 704.5 Ventilatory long-term facilitation is altered in tryptophan hydroxylase 2 knockout mice. S.J. Hickner, M. Angoa-Perez, D.M. Kuhn and J.H. Mateika. Wayne State Univ. Sch. of Med. and John D. Dingell VA Med. Ctr.


D452 I 704.11 Spinal respiratory plasticity is impaired by two models of systemic inflammation, lipopolysaccharide and severe intermittent hypoxia. A.G. Huxtable, T. Peterson, S.M. Smith, J.J. Watters and G.S. Mitchell. Univ. of Wisconsin-Madison.

**705. SYMPATHETIC DYSREGULATION IN OBESITY**

**Poster**
SUN 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


**D471** II 704.30 Comparison of the respiratory effects of GAL-021 in BK α subunit knockout (Slo1/-) and wild-type mice. S.M. Baby, T. Hoshi, S. Peng, S.L. Dax, F.J. Golder, D.E. MacIntyre and J.C. Mannion. Galleon Pharmaceut., Horsham, PA and Univ of Pennsylvania.

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**D454** I 704.13 Inactivity-induced phrenic motor facilitation following intermittent neural inactivity is dependent on spinal atypical PKC. N.A. Baertsch and T.L. Baker-Herman. Univ. of Wisconsin-Madison.


**D456** I 704.15 HIF-1α gene deletion in the nucleus tractus solitarii blunts ventilatory acclimatization to hypoxia. A.D. Go, Z. Fu, R.S. Johnson and F.L. Powell. UCSD.


**D460** I 704.19 Relationship between total expired air, peak airflow, and cough number in reflex cough. K.W. Hegland and P.W. Davenport. Univ. of Florida.


**D462** I 704.21 The opioid-induced suppression of augmented (‘sigh’) breaths is dose-dependent and prevented by co-administration of naloxone. H.J. Bell and G. Pankuch. Penn State Col. of Med.

**D463** II 704.22 The effects of two common injectable laboratory anesthetics on the regulation of augmented (‘sigh’) breaths. H.J. Bell, J. Moore, P. Haouzi and A. Van De Louw. Penn State Col. of Med.


**D471** II 704.30 Comparison of the respiratory effects of GAL-021 in BK α subunit knockout (Slo1/-) and wild-type mice. S.M. Baby, T. Hoshi, S. Peng, S.L. Dax, F.J. Golder, D.E. MacIntyre and J.C. Mannion. Galleon Pharmaceut., Horsham, PA and Univ of Pennsylvania.
070. CENTRAL REGULATORY SYSTEMS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D480  I  705.9  Upregulation of orexin receptor 1 contributes to increased sympathetic output in obese Zucker rats. D-P. Li and H-L. Pan. Univ. of Texas MD Anderson Cancer Ctr.


D483  I  706.3  Effects of central orexin 1 receptor blockade on locus coeruleus neurons with lateral hypothalamic input. A.J. Verberne. Univ. of Melbourne.


D485  I  706.5  Cardiovascular effects after glutamate microinjection into the RVLM of MSG obese conscious rats. M.C. Martins-Pinge and N.V. Cunha. State Univ. of Londrina, Brazil.


D488  I  706.8  Increased group I metabotropic glutamate receptor activity contributes to hyperactivity of presym pathetic paraventricular neurons in hypertension. D-P. Li and H-L. Pan. Univ. of Texas MD Anderson Cancer Ctr.

707. BLOOD-BRAIN BARRIER, BRAIN BLOOD FLOW, AND METABOLISM

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D490  II  707.2  Effect of inhibiting interleukin-1β with neutralizing antibody on tight junction protein expression after brain ischemia in ovine fetus. X. Chen, G.B. Sadowska, J. Zhang, E.E. Cummings, Y.P. Lim and B.S. Stonestreet. Women & Infants Hosp. of Rhode Island and ProThera Biologics, East Providence, RI.


D492  II  707.4  The involvement of hypoglycemia in brain glycogen decrease during exhaustive exercise. T. Matsui and H. Soya. Univ. of Tsukuba, Japan.


D495  I  707.7  The effect of hemorrhagic shock and resuscitation on blood-brain barrier integrity. Q. Hao, B. Miyazawa, M. Kutcher, R. Vilardi, M.A. Matthey and M.J. Cohen. UCSF.


708. BRAIN DEVELOPMENT AND AGING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


710. COGNITION AND BEHAVIOR

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D500 I 709.1 EEG brain wave band differentiation during a eustress state of humor associated mirthful laughter compared to a distress state. L. Berk, P. Cavalcanti and G. Bains. Loma Linda Univ.


D503 II 709.4 The role of muscarinic receptors in prefrontal excitability and fear extinction. E. Santini, M.T. Sepulveda-Orengo and J.T. Porter. Nova Southeastern Univ. and Ponce Sch. of Med., PR.

D504 I 709.5 Behavioral, physiological, and morphological outcomes under dynamic oxygen environments in zebrafish. C. Marks, F.B.G. Moore, K.P. Kaut and B. Bagatto. Univ. of Akron.


710. NEURODEGENERATIVE AND NEUROTOXIC DISORDERS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D506 I 710.1 Adenylyl cyclase inhibitors reverse the neurotoxic effects of manganese on post-synaptic dopamine D2 receptors. M. Nelson, C. Ojo, T. Adams, M.A. Carroll and E.J. Catapan. Medgar Evers Col., NY.


D508 I 710.3 EETs pre-treatment improves mitochondrial dynamics against Aβ-induced damage in cultured hippocampal astrocytes. P. Sarkar, I. Zaja, M. Bienengaerbe, S. Canfield and D.R. Harder. Med. Col. of Wisconsin.

D509 II 710.4 Cold acclimation and central administration of homocysteic acid in rats: a potential model for schizophrenia. C. Barney, L. Chase, C. Davis, G. Flores, J. Kemink, J. Logan, M. McMurray, L. Reif, A. Sayfie, C. Strahle and A. Wagner. Hope Coll., MI.


711. NEUROINFLAMMATION/NEUROPROTECTION/ISCHEMIA

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D519 II 711.8 Brain inflammatory mediators induced by high fat diet are significantly blunted with the deletion of MCP-1. B.T. Gordon, J. McClellan, E.A. Murphy, M.D. Carmichael and J.M. Davis. Univ. of South Carolina Sch. of Med.

D520 I 711.9 Exercise and neuroprotection in an animal model of multiple sclerosis. B. Pryor and L. White. Univ. of Georgia.


712. GESTATION, FETAL, AND NEONATAL BIOLOGY, INCLUDING MAMMARY GLAND AND LACTATION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D531 II 712.4 Low sodium intake is associated with low birth weight and size only when given in the second half of gestation. F.R. Siqueira, R.M. Souza, I.B. Oliveira, L.N.S. Furukawa and J.C. Heimann. Univ. of São Paulo Sch. of Med.


D533 II 712.6 Acute hypoxic hypoxia decreases active caspase-3 in fetal ovine hippocampus. E.I-L. Chang and C.E. Wood. Univ. of Florida Col. of Med.

D545 II 714.6 Non-peptide agonist of the receptor MAS, AVE 0991, increases PPARα expression in muscle of rats fed fructose-rich diet. É.G. Mario, R.A.S. Santos and L.M. Botion. Fed. Univ. of Minas Gerais, Brazil.

D546 I 714.7 Critical role of MCP-1 in n-6 polyunsaturated fatty acids-induced cardiac ER stress in diet-induced obesity. S. Ghosh, S. Halder and R. Bahnival. Univ. of British Columbia-Okanagan, Canada.


715. PROTEIN, AMINO ACID, AND CARBOHYDRATE METABOLISM, GROWTH, CONNECTIVE TISSUE, BONE, IMMUNOENDOCRINOLOGY

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D550 I 715.3 Reduced lung glutamate production is the cause of decreased systemic glutamate availability in hyperdynamic sepsis. G.A. Ten Have, M.P. Engelen, R.R. Wolfe and N.E. Deutz. Donald W. Reynolds Inst. on Aging, Little Rock.


716. PHYSIOLOGICAL GENOMICS OF EXERCISE, RESPIRATION, SKELETAL MUSCLES, NUTRITION, ENDOCRINE METABOLISM, AND THE GI SYSTEM

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D556 I 716.3 Combined analysis of gene and microRNA expression in natural killer cells in response to exercise. S. Radom-Aizik, F. Zaldivar, Jr. and D.M. Cooper. Univ. of California, Irvine.

D557 II 716.4 SIRT1-independent epigenetic effects of resveratrol mediated through the estrogen receptor. L.A. Wakeling, F. Alatawi, L.J. Ions, J. Hesketh and D. Ford. Newcastle Univ., U.K.

D558 I 716.5 Hepatocyte nuclear factor 4α in coordination with retinoic acid receptors increases all-trans-retinoic acid-dependent CYP26A1 gene expression in hepatocytes. R. Zolfaghari, Y. Zhang and A.C. Ross. Penn State.


D562 I 716.9 Gender-specific pulmonary hypertension and altered skeletal muscle function in lung-specific Tnfrα overexpressing mice. K. Tang, Y. Gu, N.D. Dalton, K. Peterson, P.D. Wagner and E.C. Breen. UCSD.
PhenoMiner: an interactive tool for physiologists integrating phenotype data using multiple ontologies.


Physiological Pathways tool allows intuitive linking of genotype and phenotype data to biological processes in a graphical format.


CREAL: a language for describing biological systems from a macro to a molecular scale.

MONDAY, APRIL 23

Across Societies – Experimental Biology

718. COMPUTERS IN RESEARCH AND TEACHING

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 11:30 AM-1:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Monday only.

T29 718.1 University student evaluation of e-mail communication for academic purposes. F. El-Sabban. Col. for Women, Kuwait Univ.


T31 718.3 Influence of prior online course experience on the perceived benefit of an online professional development course. M. Byse and M. Lakes Matyas. The American Physiol. Soc., Bethesda.


719. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES III

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 12:30 PM-2:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Monday only.


T35 719.3 Perceptions of second year medical students to interactive tools, games, and audience response systems incorporated to teach pharmacology. A.L. Gorman and A. Berry. Univ. of Central Florida Col. of Med.


T37 719.5 Learning the cardiac cycle with a puzzle. F.K. Marcondes. Piracicaba Dent. Sch., Brazil.

T38 719.6 A virtual pharmacology course in a PBL curriculum. K. Karpa. Penn State Col. of Med.


T41 719.9 A new pedagogy for ion channels: they're permeases, not pores!. P.H. Nelson. Benedictine Univ., IL.

T42 719.10 First steps taken for introducing science advocacy into the curriculum at the University of South Florida: teaching tomorrow’s researchers how to translate science for the public and policymakers. J.B. Dean and K.D. Liller. Univ. of South Florida.


720. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES IV

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 1:30 PM-3:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Monday only.

T47 720.1 The effect of expanding versus uniform retrieval practice on the retention of selected physiology concepts. J. Dobson. Georgia Southern Univ.

Anatomy

722. ANATOMY: FORM AND VARIATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B245 722.9 Musculocutaneous nerve transit through a supernumerary head of the biceps brachii: implications for lateral antebrachial cutaneous and musculocutaneous nerve entrapments, diagnosis, and treatment. J.M.A. Miller and R. T release. Geffen Sch. of Med. at UCLA.
### 723. ANATOMY: FUNCTIONAL ANATOMY AND BIOMECHANICS

#### Poster

**Presentation time:** 12:30 PM-2:00 PM

**MON 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

<table>
<thead>
<tr>
<th>Poster Title</th>
<th>Authors</th>
<th>Institution</th>
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<tr>
<td>723.2 The expansion and recoil mechanism of the skin of alligators and its implications for their feeding mechanism.</td>
<td>B.H. Dubansky and D.G. Homberger.</td>
<td>LSU.</td>
</tr>
<tr>
<td>723.3 The dirk-tooth Smilodon and the cookie-cutter Xenosmilus, both saber-tooth ambush predators, show differences in killing bite strategy, forelimb musculoskeletal proportions and shoulder and elbow joint ranges of movement, demonstrating there V.L. Naples.</td>
<td>Northern Illinois Univ.</td>
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<td>723.5 Withdrawn.</td>
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<td>723.6 Vertebral dimensions vary among prehensile and nonprehensile primate tails.</td>
<td>J.M. Organ and H.L. King.</td>
<td>Saint Louis Univ. Sch. of Med.</td>
</tr>
<tr>
<td>723.13 Study of structural failure of the blood-gas barrier and the epithelial-epithelial cell contacts in rested and exercised chicken, Gallus domesticus.</td>
<td>J.N. Maina and A.S. Jimoh.</td>
<td>Univ. of Johannesburg and Univ. of Witwatersrand, South Africa.</td>
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</table>
724. ANATOMY: MUSCLE

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B276 724.2 Hypertrophy of the subclavious muscle accompanied by atrophy of the pectoralis muscles post-mastectomy. F. Carey and B.M. Jones. Univ. of New Mexico.


725. ANATOMY: NEURAL

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B283 725.2 Sensory contributions to the spinal accessory nerve in humans. K.E. Boehm. A. T. Still Univ., MO.

B284 725.3 The morphology and clinical significance of the meningovertebra ligaments in the lumbosacral epidural space. Z. Ding and B. Shi. Southern Med. Univ., China.


B287 725.6 Ultrastructural investigation of the aortic depressor nerve in Wistar and Wistar-Kyoto rats. M.M. de Amorim, L.O.N. da Silva, V.A.A. Mendes, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B288 725.7 Aortic depressor nerve differences between Wistar and Wistar-Kyoto rats. V.A.A. Mendes, M.M. de Amorim, L.O.N. da Silva, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B289 725.8 Influence of painful procedures in the neonatal period in motor and sensory functions of Wistar rats during development. E.C. do Carmo, N.L.B. Machado, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B290 725.9 Neuronal counting in the spinal cord dorsal horn of male adult Wistar rats after noxious stimuli during neonatal period. N.L.B. Machado, L.S. Sanada, E.C. do Carmo, A.L.R. de Oliveira and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto and UNICAMP, Campinas, Brazil.

B291 725.10 Longitudinal morphometric study of the cervical vagus nerve in young Wistar-Kyoto rats. L.B. Fontanesi, M.C.L. Schiavoni, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.


B293 725.12 Lateral and longitudinal ultrastructural study of the recurrent laryngeal nerve in adult rats. R.S. Ferreira, M.C.D. Oliveti and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B294 725.13 Is the phrenic nerve myelinated fiber distribution affected in short term experimental diabetes? A.C.L. Alcântara, N.M. Tanaka and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B295 725.14 Does hypertension affect morphometric parameters of phrenic nerves? A.R. Rodrigues, R.S. Ferreira, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.


B297 725.16 The structure of a phalloid organ of buffalo weaver (Bubalornis niger) and its sensory nerve endings? a light- and electron microscopic study. Z. Halata and T.R. Birkhead. 1st Med. Fac., Charles Univ., Czech Republic and Univ. of Sheffield.

B298 725.17 Morphometry of nerves responsible for sensory innervation of the hind limbs in rats. L.O.N. da Silva, V.A.A. Mendes, M.M. de Amorim, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B299 725.18 Sampling method for morphometry of the myelinated fibers of sural nerves in adult rats. F.B.C. Silveira, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B300 725.19 Two nerve morphometry methods performed through the same computer program: are they comparable? A.P. Bilego Neto, F.B.C. Silveira, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

726. ANATOMY: CARDIOVASCULAR

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B302 726.1 Role of LEK1 in cardiac disease and function. P.M. Miller, E. Dees and D.M. Bader. Vanderbilt Univ.

B303 726.2 Cadaveric research: informing current heart surgery techniques. K.L. Losenno, M. Johnson and M. Chu. Univ. of Western Ontario.


B311 726.10 Videoscopic images of unique septal and medial papillary muscle complexes recorded from reanimated human hearts. M.G. Bateman and P.A. laizzo. Univ. of Minnesota, Minneapolis.


B315 726.14 Epicardial HIF1 regulates vascular precursor cell invasion into the myocardium through the VEGF signaling pathway. J. Tao, Y. Doughman, K. Yang, D. Ramirez-Bergeron and M. Watanabe. Case Western Reserve Univ.

727. ANATOMY: GASTROINTESTINAL AND UROGENITAL

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B316 727.1 Immunohistochemical localization of PACAP and VIP receptors in major salivary glands and the effect of PACAP on saliva secretion in mice. N. Nonaka and M. Nakamura. Showa Univ., Japan.


B318 727.3 Autotaxin, a potent inducer of cell motility and differentiation, is differentially expressed in visceral and parietal mesothelia. E.L. Shelton, C.C. Hong and D.M. Bader. Vanderbilt Univ.


B321 727.6 A novel staging system to assess the severity of colorectal polyposis in patients with FAP. Z.A. Lu, E. Hawk, P. Lynch and S. Patterson. Johns Hopkins Univ. and MD Anderson Cancer Ctr.


728. BONES, CARTILAGE AND TEETH: MOLECULAR MECHANISMS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B328 728.5 The effect of quercetin on oxidative stress-induced bone-like cells (UMR 106-01 BSP). B. McCowan, M. Bria and E.E. Joseph. La Sierra Univ., CA.

729. BONES, CARTILAGE AND TEETH: EXERCISE; BIOMECHANICS; BIOENGINEERING

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B329 729.1 Changes in semicircular canal morphology in response to selective breeding for high voluntary wheel running. H. Schutz, H.A. Jammiczyk, B. Hallgrimsson and T. Garland, Jr. California Polytech State Univ., San Luis Obispo, Univ. of Calgary, Canada and Univ. of California, Riverside.

B330 729.2 Effects of mechanical shear on anisotropic tissue engineered construct as potential TMJ repair. A. Mathema and D.K. Mills. Louisiana Tech Univ.


B335 729.7 Changes in femoral bone geometry compensate the lower bone mass and mineralization degree in ovariectomized Wistar rats. H. Fonseca, D. Moreira-Goncalves, R. Ferreira, F. Amado, M.P. Mota and J.A. Duarte. Univ. of Porto, Univ. of Aveiro and UTAD, Portugal.

730. MUSCLE: STEM CELLS AND REGENERATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B337 730.2 The role of vascular endothelial growth factor in mechanically stimulated muscle-derived stem cell repair. S. Beckman, L. Mikar and J. Huard. Univ. of Pittsburgh.

B338 730.3 Satellite cell pool size expansion is affected by skeletal muscle characteristics. F. Macaluso, N.E. Brooks, C.U. Niesler and K.H. Myburgh. Stellenbosch Univ. and Univ. of KwaZulu-Natal, South Africa.


B340 730.5 The myomere-myoseptal intersections in a lamprey (Petromyzon marinus) and a shark (Squalus acanthias). B.M. Wood, R.J. Andermann and D.G. Homberger. LSU.

Biochemistry and Molecular Biology

731. FUNDAMENTAL MECHANISMS IN GENE REGULATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A5 731.5 An intrinsically unstructured domain in MBD2 recruits the histone deacetylase core complex of NuRD and modifies kinetics of DNA binding. D.C. Williams, M. Desai, G.D. Ginder and N.M. Walavalkar. Virginia Commonwealth Univ.

732. HIGHER ORDER AND ALTERNATIVE CHROMATIN STRUCTURES
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM

733. NON-CODING RNAs IN GENE REGULATION AND CHROMOSOME STRUCTURE
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A15 733.1 Regulation of microRNA expression by AUF1 through dicer. J.M. Johnson, K. Tominaga, M. Gorospe and K. Abdelmohsen. Univ. of Maryland Eastern Shore and NIA/NIH, Baltimore.

734. REGULATION AND MODIFICATION OF TRANSCRIPTION FACTORS
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A20 734.4 Transient exposure to hydrogen peroxide inhibits degradation of phosphorylated IκBα. Y. Lee, J. Choi and D-m. Jue. The Catholic Univ., South Korea.

735. RNA POLYMERASE PAUSING AND ELONGATION
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A26 735.1 Molecular basis of RNA polymerase II transcription fidelity. D. Wang. UCSD Sch. of Pharm. and Pharmaceut. Sci.
736. RNA POLYMERASE STRUCTURE

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


737. TRANSCRIPTIONAL ASSEMBLIES AND MECHANISMS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


738. TRANSCRIPTIONAL INITIATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A30 738.1 Footprinting analysis of the interactions between *E. coli* RNA polymerase and promoter DNA that produce very long abortive transcripts. M. Thandar, A. Lee and L.M. Hsu. Mount Holyoke Col.

A31 738.2 Crosslinking very long abortive transcripts to *E. coli* RNA polymerase: an approach to elucidate forward hyper-translocation. R. Wieland and L.M. Hsu. Mount Holyoke Col.

739. MECHANISM OF DNA REPLICATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A32 739.1 Successful computational prediction of residues important for function in DNA polymerase III alpha subunit. R. Parasuram, R. Sharma, P.J. Beuning and M.J. Ondrechen. Northeastern Univ.

A33 739.2 Acetylation of replication and repair proteins regulates genome fidelity. L. Balakrishnan and R.A. Bambara. Univ. of Rochester Med. Ctr.

A34 739.3 The structure and kinetics of an unusual DNA polymerase I from the thermophilic bacterium, *Rhodothermus marinus*. N.S. Omattage, M.A. Rubio Gomez, E. Kornberg, B. Duffany, R. Dow, L. Spicer and E. Wu. Univ. of Richmond.


A37 739.6 Withdrawn.

A38 739.7 *E. coli* and *S. cerevisiae* clamp loaders, γ complex and RFC, actively close clamps. J. Hayner and L. Bloom. Univ. of Florida.


740. DNA PROTEIN INTERACTIONS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A40 740.1 The binding of G-quadruplex DNA to insulin: from single molecule to bulk methods. K. Sinniah, S. Lynch, C. Timmer and A. Witte. Calvin Col., MI.

A41 740.2 Investigation of the thermodynamics of DNA interactions with the LL-37 peptide. C.E. Dodson, R.K. Zachary and M.L. Craig. Mary Baldwin Col., VA.

A42 740.3 The roles of the N-terminal metal coordinating residues in DNA binding and oligomerization of *Deinococcus radiodurans* Dps-1. K.H. Nguyen and A. Grove. LSU.

A43 740.4 The role of protein sequence and global conformation in DNA binding specificity of members of the Cro family. M.R. Nelson, K. Olson and M.H.J. Cordes. Univ. of Arizona.

A44 740.5 Characterization of a MarR homolog in *Vibrio vulnificus*. T. Lemon and A. Grove. LSU.

A45 740.6 Complex formation between LL-37 and CpG DNA: thermodynamic properties and effects in a prostate cancer progression model. M.L. Craig, C. Dodson, A.S. Gupta and P.D. Deeble. Mary Baldwin Col., VA.

A46 740.7 Dependence of DNA-protein cross-linking via guanine oxidation upon local DNA sequence. Z.A. Perez and E. Stemp. Mount St. Mary’s Col., CA.

741. DNA REPLICATION MECHANISMS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A47 741.1 An active site mutant allele of human Pol ε is a mutator in vitro and in vivo. A. Ayuk Agbor and Z.F. Pursell. Tulane Univ. Sch. of Med.

MONDAY BIOCHEMISTRY

742. DNA
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A49 742.1 The use of molecular approaches to identify changes in soil microbial communities during storage. V. Freeman, N. Patel, S.A. Larson and C. Bailey. Univ. of Nebraska-Lincoln.
A50 742.2 Rapid bacterial DNA extraction from stool samples. M. Duggan, T. Parrish and P. Williams. Evogen Inc., Lenexa, KS.

743. THE SPLICEOSOME: FITTING THE PIECES TOGETHER
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A51 743.1 Investigation of the role of the proteasomal subunit rpn10 in pre-mRNA splicing. E.C. Merkhofer and T. Johnson. UCSD.
A52 743.2 A role for stem-loop 4 of U1 snRNA in splice site pairing. S. Sharma, S. Wongpalee and D. Black. HHMI and UCLA.

744. COORDINATING TRANSCRIPTION WITH RNA PROCESSING
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A53 744.1 Yeast mRNA 5’triphosphatase, Cet1p, represses the accumulation of RNA polymerase II towards the 5’end of active coding sequence in vivo: implications for promoter proximal pausing. S. Lahudkar, G. Durairaj and S.R. Bhaumik. Southern Illinois Univ. Sch. of Med.

745. RIBONUCLEOPROTEINS
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


746. RIBOSWITCHES
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A57 746.1 Investigating the role of sterics and hydrogen bonding in the preQ1 riboswitch binding site. L.W. Ryon and I.T. Suydam. Seattle Univ.
A58 746.2 Role of the cofactor in the catalytic mechanism of the glmS ribozyme. J. Viladoms Claverol and M.J. Fedor. The Scripps Res. Inst.

747. RNA AND DISEASE
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A59 747.1 Gene expression profiling of oxidative stress on vascular tissue in Puerto Rican diabetic patients undergoing coronary artery bypass grafting. E. Albino-Rodriguez, E. Soltero, L. Ferder and J. Dutil. Ponce Sch. of Med. and Damas Hosp., PR.
A62 747.4 Convergent transcription at the ataxin-7 locus produces dsRNA fragments that are processed by Dicer-1. P.D. Ladd, J.M. Ward, N.S. Lomas, V.V. Pineda and A.R. La Spada. UCSD and Univ. of Washington.

748. RNA SPlicINg
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A65 748.2 Computational prediction of alternative splice site selection. A. Busch and K.J. Hertel. Univ. of California, Irvine.
749. PROTEIN TARGETING AND TRANSLocation

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A66 748.3 Synergy between chromatin remodeling complexes and pre-mRNA splicing. S.K. Pradhan, E. Soule and T.L. Johnson. UCSD.
A67 748.4 Autoregulation of SUS1: a splicing dependent regulation of histone H2B ubiquitination. M.A. Hossain, S. Venkataramanan and T.L. Johnson. UCSD.

A70 749.2 Identification of the activator binding residues in protein kinase C theta C1B domain. G.M. Rahman, S. Sanker, N. Lewin, B.V.V. Prasad, P.M. Blumberg and J. Das. Univ. of Houston, Baylor Coll. of Med., NCI/NIH.

750. ADAMS AND OTHER PROTEASES

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


751. PROTEASE: STRUCTURE AND REGULATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A75 751.2 The role of a second shell hydrophobic interaction in trypsin-fold serine protease function. A. Batt, H. Rafidi and T. Baird, Jr. San Francisco State Univ. and Univ. of California, Davis.
A76 751.3 Probing the role of a “first shell” interaction in trypsin-fold serine proteases. A. Sharma and T. Baird, Jr. San Francisco State Univ.

752. PROTEIN AGGREGATION AND AMYLOID DISEASES

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A80 752.3 Interesting effects including apoptosis induced by protein aggregation of Gts1p with polyQ-tail in yeast. K. Kuroda, M. Šanada and M. Ueda. Grad. Sch. of Agr., Kyoto Univ.
A82 752.5 Abeta-polyacrolein is neurotoxic in an amyloid-independent manner. C.S. Theisen and N.W. Seidler. Kansas City Univ. of Med. and Biosci.
A84 752.7 Investigating the effect of the oligopeptide repeat region on prion propagation. C. Langlois and T. Serio. Brown Univ.
A85 752.8 Amyloid beta oligomers trigger death receptors-mediated apoptosis in cerebral endothelial cells. S. Fossati, J. Ghiso and A. Rostagno. NYU Sch. of Med.
A86 752.9 Glycosylation and phosphorylation induce alternative structural conformations in tau’s proline-rich domain. M.A. Brister, A.A. Bielska and N.J. Zondlo. Univ. of Delaware.
A87 752.10 The role of protein oxidation in the onset of the transthyretin amyloidoses. L. Zhao, N. Reixach and J. Buxbaum. The Scripps Res. Inst.
753. CO- AND POST-TRANSLATIONAL PROTEIN TARGETING

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A88 753.1 Cell-specific processing and release of the pro-hormone candidate tumor suppressor, Ecrf4, from the epithelial cell surface. X. Dang, S. Podvin, R. Coimbra, B. Ellicriri and A. Baird. UCSD Sch. of Med.


754. UBIQUITIN PATHWAY AND PROTEASOME TARGETING

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A93 754.1 Human RMND5 proteins function as E3 ubiquitin ligases in prostate cancer cells. A. Louw, J. Harvey and J. Bentel. Royal Perth Hosp. and Univ. of Western Australia.

A94 754.2 Mutational and kinetic analysis of the endosome-associated deubiquitinating enzyme, AMSH. C.W. Davies, M-I. Kim, L.N. Paul and C. Das. Purdue Univ.


A96 754.4 An autoregulatory feedback loop between nuclear receptor SHP and Mdm2 that controls Mdm2, SHP and p53 protein stability. Z. Yang, Y. Zhang and I. Wang. Univ. of Utah Sch. of Med.

A97 754.5 Complementary rather than redundant CYP3A4 ubiquitination by UBC7/gp78 and UbcH5a/CHIP E2/E3 systems. Y. Wang and M.A. Correa. UCSF.


755. CHEMISTRY IN THE SERVICE OF MEDICINE

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:25 PM-1:55 PM


756. ENZYME MECHANISM

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A104 756.3 Protein splicing of a temperature-dependent intein from an extreme thermophile. K.M. Colelli, J.N. Reitter and K.V. Mills. Col. of Holy Cross, MA.

A105 756.4 Protein splicing facilitated by highly similar inteins from two extreme thermophiles. J.E. Williams, J.N. Reitter and K.V. Mills. Col. of Holy Cross, MA.


A108 756.7 Calcium-dependent interactions and electron transfer in NADPH oxidase 5. C-C. Wei, N. Reynolds and C. Palka. Southern Illinois Univ. Edwardsville.

A109 756.8 Structural insights into the mechanism of acetalactate decarboxylase. V. Marlow, D. Rea, M. Wills and V. Fülöp. Univ. of Warwick, U.K.

A110 756.9 Characterization of the metal binding in NADPH oxidase 5 by fluorescence, isothermal titration calorimetry, and circular dichroism. C.D. Palka, N. Reynolds, A. Tatro and C-C. Wei. Southern Illinois Univ. of Edwardsville.


756. ROLE OF DYNAMICS IN ENZYME CATALYSIS

Poster

Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

A128 757.1 Solution structures of CaM-iNOS and CaM-eNOS peptide complexes: effects of a phosphomimetic CaM mutation. M. Piazza, T. Dieckmann and J.G. Guillemette. Univ. of Waterloo, Canada.

A129 757.2 Do the inter-nucleotide domain loops act as an entropy sink in the catalytic activity and regulation of 3-phosphoglycerate dehydrogenase? C. Meehan, B. Falk and E. Bell. Univ. of Richmond.

A130 757.3 Probing subunit interactions in 3-phosphoglycerate dehydrogenase. B. Falk and E. Bell. Univ. of Richmond.

758. SIGNALING AND METABOLISM

Poster

Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM


A132 758.2 Improvement of cell survival by ammonium ions in glutamine-deprived cells. A. Abusneina and E.R. Gauthier. Laurentian Univ., Canada.


A134 758.4 Analysis of ethanol metabolic enzymes in primary human mammary epithelial cells and MCF-10A cells: possible participation of CYP2E1 in ethanol-induced oxidative stress and epidermal growth factor receptor activation. L. Rodríguez-Fragoso, A. Leon Buitimea, F. Lauer, T. Thompson, H. Bowels and S. Burchiel. Fac. of Pharm., Autonomous Univ. of State of Morelos, Mexico and Univ. of New Mexico Col. of Pharm.

A135 758.5 NAD(P)H oxidase-dependent H2O2 production and RyR-IP3R activation are required for insulin-induced GLUT4 translocation and glucose uptake in skeletal muscle cells. A. Contreras-Ferrat, C. Vasquez, A. Espinosa, S. Lavandero, A. Klip and E. Jaimovich. Univ. of Chile and Hosp. for Sick Children, Toronto.

A136 758.6 Hydrogen sulfide regulates hypoxic signaling in T cells. T.W. Miller, T. Song, A. Amarnath, D.H. Fowler and D.D. Roberts. NCI/NIH.


A138 758.8 Endoglin is a key mediator of BMP2-mediated adipogenesis. A. Reese. Univ. of Delaware.
A139 758.9 The JAK kinase Tyk2 and the signal transducer and activator of transcription 3 are required for brown adipose tissue differentiation. A.C. Larner, M. Derecka, A. Gornicka, K. Szczepanek, M. Morgan, V.B. Raje, J. Sisler and S. Keller. Virginia Commonwealth Univ. and Univ. of Virginia.


A141 758.11 Evidence for activation of AMP kinase in nephropathic cystinosis. M. Taub and F. Cutuli. Univ. at Buffalo.


A143 758.13 PKA-induced interaction of phosphorylated PDE3A and Big1 (brefeldin A-inhibited guanine nucleotide exchange protein 1) in cytosolic fractions from human myocardium may be important in regulation of BIG1 function. F.A. Khan, N. Szabo-Fresnais, J. Krall, J. Moss, M. Vaughan, M. Movsesian and V.C. Manganelli. NHLBI/NIH and Univ. of Utah.

A144 758.14 Effects of lysophosphatidic acid on CCN1 expression in human prostate cancer cell lines. Z. Zhang, C.R. Bailey and K.E. Meier. Washington State Univ.

A145 758.15 Regulation of PASK function by mTOR signaling pathway. C.K. Kikani and J.P. Rutter. Univ. of Utah.

A146 758.16 PASK kinase regulates hepatic lipid metabolism through activating SREBP-1. X. Wu, I. Dorweiler, A. Walkup and J.P. Rutter. Univ. of Utah.

A147 758.17 Protein stability of wild type and mutant forms of the RET tyrosine kinase. Q. Vega and S. Maslovski. Montclair State Univ., NJ.

759. METABOLISM AND DIABETES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A151 759.4 Analysis of the metabolic changes occurring during the development of metabolic disorder induced by a high-fat diet. A.V. De la Rosa Medina, I. Sanchez Gutierrez, R. Reynoso and L.M. Salgado. CICATA and Autonomous Univ. of Querétaro, Mexico.


A156 759.9 Extracts of purple sweet potato protect pancreatic ß-cells from oxidative stress. C-Y. Lin, Y-Y. Li, T-Y. Chiang and T-L. Jeng. Asia Univ., Taiwan and Council of Agr. Taichung, Taiwan.


A158 759.11 H2S and L-cysteine increase the glucose utilization via the PIP3-mediated insulin-dependent (PI3K/AKT) and the insulin independent (SIRT1/AMPK/PPARγ) signaling cascades in U937 human monocytes exposed to high glucose. P. Manna and S.K. Jain. LSU Hlth. Shreveport.

A159 759.12 Cell cholesterol levels determine glucose uptake and insulin resistance in skeletal muscle. P. Lianos, A. Contreras-Ferrat, C. Osorio-Fuentealba, A. Espinosa, C. Hidalgo and E. Jaimovich. Univ. of Chile.


760. NUCLEAR RECEPTORS IN METABOLIC SYNDROMES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


761. SIGNAL TRANSDUCTION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A168 761.3 Construction of non-visual arrestins with enhanced specificity for individual G protein-coupled receptors. L.E. Gimenez and V.V. Gurevich. Vanderbilt Univ.

A169 761.4 Glucagon-like peptide-1 signals to PKB and mTORC1 via the activation of the insulin-like growth factor receptor (IGF1R) in islets of Langerhans. N.M. Mostafa, C.E. Moore and T.P. Herbert. Univ. of Leicester, U.K.

A170 761.5 Non-visual arrestins function as simple scaffolds assembling the MKK4–JNK3a2 signaling complex. X. Zhan, T.S. Kaoud, K.N. Dalby and V.V. Gurevich. Vanderbilt Univ. and Univ. of Texas at Austin.

A171 761.6 The cAMP-dependent protein kinase signaling pathway is a key regulator of P body foci formation. K.H. Shah, V. Ramachandran and P.K. Herman. The Ohio State Univ.

A172 761.7 Bone morphogenetic protein 2 and casein kinase 2 regulate the differentiation of osteoblasts. A.M. D’Angelo, B. Bragdon, J. Bonor and A. Nohe. Univ. of Delaware.


A175 761.10 The redirection of adipocyte to osteoblast through the alteration of the casein kinase 2 interaction with the bone morphogenetic protein 2 pathway. L.M. Gurski, B. Bragdon and A. Nohe. Univ. of Delaware.


A177 761.12 Conformational switching on AKAP7 modulates the phosphorylation dynamics of anchored PKC. J.M. Redden, E. Greenwald, J. Saucerman and K. Dodge-Kafka. Univ. of Connecticut Hlth. Ctr. and Univ. of Virginia.


A179 761.14 Genetic depletion of the phosphatase PHLPP1 upregulates receptor tyrosine kinase signaling. G.X. Reyes and A.C. Newton. UCSD.

A180 761.15 The effects of the O-xylosyltransferase mutation on Wg, Hh, and Dpp signaling. A. Liu. Univ. of Delaware.

A181 761.16 Effect of pathway-interconnectors in SEB induced apoptosis related events in human PBMCs. E.A. Banwarth, H. Schneider and C. Mendis. Univ. of Wisconsin-Platteville.

A182 761.17 Characterization of the EMT response in Crybb2Phil mutants. V.H. Roop. Univ. of Delaware.


762. NEUROBIOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

763. PROTEIN PHOSPHORYLATION AND DEPHOSPHORYLATION

Poster

**Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D**

Presentation time: 12:25 PM-1:55 PM


A214 763.3 Endogenous and psychostimulant substrates but not blockers stimulate dopamine transporter phosphorylation at a proline-directed site. S. ChallaSivaKanaka, J.D. Foster and R.A. Vaughan. Univ. of North Dakota.

A215 763.4 Protein kinase C α phosphorylates argininosuccinate synthase at serine 328 in endothelial cells to affect nitric oxide production. R.J. Haines, K.D. Corbin, L.C. Pendleton and D.C. Eichler. Univ. of South Florida and Univ. of North Carolina at Chapel Hill, Kannapolis.

A216 763.5 Phosphorylation of argininosuccinate synthase at T131 correlates with changes in NO production. L.C. Pendleton, R.J. Haines, K.D. Corbin and D.C. Eichler. Univ. of South Florida and Univ. of North Carolina at Chapel Hill, Kannapolis.

764. ADAPTER PROTEINS

Poster

**Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D**

Presentation time: 12:25 PM-1:55 PM


765. MAP KINASES

Poster

**Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D**

Presentation time: 12:25 PM-1:55 PM

A219 765.1 TAK1 kinase signaling regulates Nrf2 and intestinal homeostasis. A.N. Simmons and J. Ninomiya-Tsuji. North Carolina State Univ.

766. PHOSPHATASES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A221  765.3  The endocrine disruptors cadmium chloride and sodium arsenate induce human lung adenocarcinoma cell proliferation by activating the estrogen receptor-mediated signaling pathway. R.D. Murphy, A.L. Smith, S.L. Todd, J.T. Elpers, B.N. Radde, C.M. Klinge and M.O. Huff. Bellarmine Univ. and Univ. of Louisville.

A222  766.1  The role of PHLPP in regulating cell migration in pancreatic cancer. A. Smith and T. Gao. Univ. of Kentucky.

A223  766.2  Structural and functional studies of plant glucan phosphatases. S. Husodo and M.S. Gentry. Univ. of Kentucky.


A226  766.5  PPP1CC2 levels are highly regulated in testis to ensure normal spermatogenesis and male fertility. S. Dasgupta, N. Sinha and S. Vijayaraghavan. Kent State Univ.

A227  766.6  A simple Arg to Lys mutant of protein phosphatase 1 exhibits catalytic efficiencies toward monoanionic substrates superior to wild type. Y. Chu, A.C. Hengge and N.H. Williams. Utah State Univ. and Univ. of Sheffield, U.K.

A228  766.7  High resolution structure of the phosphatase VHZ explains unexpected substrate specificity, and suggests the presence of metavanadate at the active site. V.I. Kuznetsov, S.J. Johnson and A.C. Hengge. Utah State Univ.

A229  766.8  The phosphoramidase competency of prototypical phosphatase motifs. M.P. Haney and A.C. Hengge. Utah State Univ.

A230  766.9  Identification of methylation-dependent protein phosphatase 2A activity correlated with changes in insulin secretion and glucose tolerance in mice with hypomorphic expression of the LCM1 protein carboxyl methyltransferase. K.B. MacKay, S. Clarke and S. Young. UCLA.


768. SERINE/THREONINE KINASE

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A237  768.3  Resolving the structure of Bcy1, the regulatory subunit of yeast protein kinase A. L.M. Fernández-Núñez, N. González Bardec, S. Rossi, D. Blumenthal and S. Moreno. Univ. of Buenos Aires and Univ. of Utah.


A239  768.5  Discrepancies in purified and cellular PKMα inhibition profiles invalidate its proposed role as a mediator of memory. C.L. Schramm, A.X. Wu-Zhang, S. Nabavi, L. Xie, L. Xie, P.E. Bourne, R. Malinow and A.C. Newton. UCSD and Hunter Col, CUNY.

769. SMALL GTPASES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A240  769.1  Regulation of activation of Rac1 and Cdc42 GTPases in CHRF-288-11 cells. R.P. Bhullar and B. Xu. Univ. of Manitoba.


770. TYROSINE KINASES

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM


771. CONSTRUCTING NETWORKS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM


772. NETWORKS AND TIME

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM


773. BIOPHYSICS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM

A250 773.5 The N-terminal actin binding domain (ABD1) of dystrophin is in a closed conformation in solution and undergoes a conformational transition upon binding to F-actin. K. Mallela and S. Singh. Univ. of Colorado Anschutz Med. Campus.

774. GENOMICS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM

A256 774.5 Nanoanatomy Museum: creating a protein family ProfileGrid database. A. Roca. ProfileGrid.org, Irvine.

775. HIGH-CONTENT MICROSCOPY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM

A257 775.1 Comparison of the redox potential in the endocytic pathway of different cell types by imaging live cells via FRET. S. Zilikana, J. Lee, C. Provoda and K-D. Lee. Kalamazoo Col. and Univ. of Michigan.
232

776. PROTEOMICS

Poster

Mon, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM


A262 776.4 Isolation and functional studies of eukaryotic ribosomes using HaloTag surface display and imaging technology. M. Urh, D. Daniels and J. Mendez. Promega, Madison, WI.


A265 776.7 Specific O-GlcNAcylated peptide enrichment with improved photocleavable chemical/enzymatic tagging methodology. G. Han, J. Ma, X. Liu and G.W. Hart. Johns Hopkins Sch. of Med.

A266 776.8 Direct Detect IR-based system revolutionizes biomolecule quantitation. J. Doty, EMD Millipore, Danvers, MA.


A268 776.10 Proteomic profiling of mouse liver under conditions of hepatitis C virus-mediated oxidative damage and CuZnSOD deficiency. P. Ramachandran, V.C. Chu and T-T. Huang. Stanford Univ.

A269 776.11 Optimizing peptide yields from human hair. J.A. Steenstra, P. Clifford and G. Parker. Utah Valley Univ.


777. QUANTITATIVE BIOLOGY

Poster

Mon, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

A273 777.1 Robust and sensitive control of nitrogen sequestration in Escherichia coli. M. Kim, Z. Zhang, D. Yan, A. Groisman and T. Hwa. UCSD and Indiana Univ. Sch. of Med.


778. SYNTHETIC BIOLOGY

Poster

Mon, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

A276 778.1 Protein kinase A is required for resistance to the lysosomotropic drugs quinacrine and chloroquine in the fission yeast, Schizosaccharomyces pombe. Z. Yuan, Y. Wang and S. Marcus. Univ. of Alabama.

779. ORGANELLE QUALITY CONTROL

Poster

Mon, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

781. CELL DIVISION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A280 781.1 Myosin-II is necessary for septum formation in Aspergillus nidulans. X. Wang, W. Du, B.L. Hoge, L. Jackson-Hayes and T.W. Hill. Rhodes Col., TN.

A281 781.2 Myosin light chain plays a role in cell division in the fungus Aspergillus nidulans. K.E. Wendt, M. Pluta, L. Jackson-Hayes and T.W. Hill. Rhodes Col., TN.

782. CELL MIGRATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A283 782.2 LL-37/CpG oligonucleotide complex formation and its effects on prostate cancer progression. A.S. Gupta, M.L. Craig and P.D. Deeble. Mary Baldwin Col., VA.


A287 782.6 Attenuated L1 expression by glioma cells results in decreased cell migration on monolayer co-cultures. H. Bhatti and D. Galileo. Univ. of Delaware.

A288 782.7 BIG2, an ARF guanine nucleotide-exchange protein, regulates cell migration via effects integrin β1 cycling and actin cytoskeleton remodeling. C.-C. Li, X. Shen, A. Aponte, R-F. Shen, E.M. Billings, J. Moss and M. Vaughan. NHLBI/NIH.


A291 782.10 Chronic exposure to cadmium increases in the metastatic phenotype of breast cancer cells. E.M. Ponce, N.B. Aquino and M.C. Louie. Dominican Univ. of California.


783. BIOENERGETICS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A293 783.1 Mutations that affect the directionality of electron transfer in photosystem 1. S.L. Badshah. Arizona State Univ.

A294 783.2 Differential effects of radio frequency magnetic fields in vitro and in vivo. C.F. Martino, L. Portelli, G. Ackerman and F. Barnes. Univ. of Nevada Reno and Univ. of Colorado Boulder.

A295 783.3 Modulation of H₂O₂ production in vitro by low level magnetic fields. C.F. Martino and P. Castello. Univ. of Nevada Reno and Univ. of Colorado Boulder.

784. CYTOCHROME P450

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A298 784.3 Insecticide toxicity and characterization of cytochrome P450 CYP6BB1 and CYP6p10 in Aedes sollicitans larvae. C. Suwanchaichinda and L.B. Brattsten. Rutgers Univ.


A300 784.5 Relative contribution of hepatic CYP3A and CYP2E1 to oxidative stress upon CHIP E3 ligase knockdown. S. Kim, C. Patterson and M.A. Correia. UCSF and Univ. of North Carolina at Chapel Hill.

A301 784.6 Role of SLC10A1 SNPs in regulating cytochrome P450 expression. O. Varechtchouk, A. Chaudry and E. Schuetz. SUNY at Geneseo and St. Jude Children’s Res. Hosp.


**785. OXIDATIVE PHOSPHORYLATION**

**Poster**

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 1:05 PM-2:35 PM


A306 785.2 Effect of propionylcarnitine on mitochondrial energy metabolism in elderly rat heart. J. Kerner, A. Virmani, A. Koverech and C. Hoppel. Case Western Reserve Univ. and Sigma-Tau, Pomezia, Italy.

**786. METABOLIC BRANCHPOINTS/LIPID CHANNELING**

**Poster**

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 1:05 PM-2:35 PM


**787. ENZYMES OF LIPID METABOLISM**

**Poster**

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 1:05 PM-2:35 PM


A310 787.3 Glycosomal localization of dihydroxyacetone phosphate acyltransferase LmFAT is important for lipophosphoglycan biosynthesis. N. Patel, T. Zhu, S. Dhalladoo and R. Zufferey. St. John's Univ., NY.


A314 787.7 Investigations into how a lyso-glycerophospholipid acyltransferase alters headgroup acylated glycerophospholipid levels in Escherichia coli. T.A. Garrett. Vassar Col.


**788. LIPID TRAFFICKING**

**Poster**

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 1:05 PM-2:35 PM


A320 788.2 VLDL selection into VLDL transport vesicle is regulated by CideB. S. Tiwari, S. Siddiqi, A. Mani and S.A. Siddiqi. Col. of Med., Univ. of Central Florida.

**789. LIPIDOMICS**

**Poster**

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 1:05 PM-2:35 PM


A322 789.2 Omega-3 fatty acids cause dramatic changes in TLR-4 and purinergic eicosanoid signaling in macrophages. P. Norris and E. Dennis. UCSD.
790. REGULATION OF LIPID METABOLISM

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A325 790.3 Regulation of yeast phosphatidate phosphatase by fatty acids. S. Fakas and G. Carman. Rutgers Univ.


A327 790.5 Mechanism of AMPK suppression of LXR-dependent Srebp-1c transcription. J. Yang. Univ. of South Alabama Col. of Med.

A328 790.6 Para-aminobenzoic acid is an alternate aromatic ring precursor of coenzyme Q biosynthesis in mammalian cells. L. Xie, K.J. Williams, B. Marbois, J. Tang and S.J. Bensinger. UCLA.

A329 790.7 ACSL1 multi-tissue knockout mice are resistant to diet- and age-induced obesity and insulin resistance. T.J. Grevenoed, D.S. Paul, L.O. Li and R.A. Coleman. Univ. of North Carolina at Chapel Hill.

A330 790.8 Transcription factor Reb1p regulates DGK1-encoded diacylglycerol kinase in Saccharomyces cerevisiae. Y. Qiu, S. Fakas and G. Carman. Rutgers Univ.

A331 790.9 The role of phosphatidate phosphatase in the biosynthesis of phosphatidylcholine via the CDP-choline pathway. G-S. Han and G.M. Carman. Rutgers Univ. and Rutgers Ctr. for Lipid Res.


A333 790.11 Bile acids induce diacylglycerol kinase-θ expression in HepG2 liver cells. K. Cai and M.B. Sewer. Skaggs Sch. of Pharm. and Pharmaceut. Sci., UCSD.


791. STRUCTURAL BIOLOGY AND MECHANISMS OF MEMBRANE LIPID ASSEMBLY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


792. TISSUE-SPECIFIC REGULATION OF LIPID METABOLISM

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A340 792.1 Alteration of sphingolipid metabolism during 4-HPR induced cell death in the ARPE-19 human retinal pigment epithelial cell line. T. Duncan, W. Samuel, R.K. Kutty and T.M. Redmond. NEI/NIH.

A341 792.2 Molecular dissection of syndecan-1 mediated triglyceride-rich lipoprotein clearance. J.C. Gonzales, E.M. Foley, P.L. Gordts and J.D. Esko. UCSD.

793. NOVEL METABOLIC ROUTES OF GLYCOCONJUGATE ASSEMBLY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A342 793.1 Intracellular fate of the non-human sialic acid N-glycolyneraminic acid. A.K. Bergfeld, O.M.T. Pearce, S. Diaz, T. Pham and A. Varki. UCSD.

794. ROLES OF GLYCOCONJUGATES IN METABOLISM AND DISEASE

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A349 795.7 Intracellular and extracellular human lysyl oxidase-like 2 in metastatic breast cancer cells. L. Xu, K. Rebecchi, R. Nightengale and M. Mure. Univ. of Kansas.

795. EXTRACELLULAR MATRIX GLYCIOBIOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


796. PROTEIN-CARBOHYDRATE RECOGNITION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


797. DRUG DEVELOPMENT AND APOPTOSIS: LINKING TUMOR REGRESSION TO CELL DEATH

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A354 797.1 Development of a small anti-cancer molecule targeting both the intrinsic and extrinsic pathways of apoptosis. V. Titorenko, A. Goldberg and A. Beach. Concordia Univ., Canada.


A359 797.6 The inhibitory effects of curcumin and coumarin analogues on the NF-κB pathway in heptocellular carcinoma. K.A. Hanson and N. Hopkins. Tulane Univ.

A360 797.7 GSK3beta regulates Bcl2l12 and Bcl2l12A anti-apoptosis signaling in glioblastoma and is inhibited by LiCl. Y-R. Hong, C-C. Lin, C-H. Chou and S-L. Howng. Kaohsiung Med. Univ., Taiwan.


A362 797.9 Effect of xanthopterin and isoxanthopterin on nitric oxide production by a RAW264.7 cell line. R.P. Metzger, P. Abadi, S. Mascuch, L. Gerwick and A. de Peyster. San Diego State Univ. and UCSD.


798. APOPTOSIS AND CELL STRESS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A366 798.3 Ghrelin prevents TBI-induced neuronal apoptosis via induction of mitochondrial uncoupling protein 2. L.S. Gaston and N. Lopez. Kalamazoo Col. and UCSD.


A368 798.5 Leptin reduces hypoxia-reoxygenation-induced Fas/FasL gene overexpression and apoptosis in human L02 cells. S. Zhou, G. Chen, X. Li, S. Li, N. Guo, M.G. Irwin, Z. Xia and Z. Hei. The Third Affiliated Hosp. of Sun Yat-sen Univ., China and Univ. of Hong Kong.


A373 798.10 Cytotoxicity and active component in bitter melon (Momordica charantia) seed extracts. E. Chripps, R. Jayini, A.M. Malkawi, M.A. Mottaleb and R. Islam. Missouri State Univ.

A374 798.11 AKIP1 regulation of PKA and NF-κB in the heart. M. Sastri, P. Chang, H.N. Fridolfsson, M. Paneerselvam, D. Ng, S. Taylor and H.H. Patel. Univ. of San Diego and UCSD.


A381 798.18 Attachment capabilities of erythroleukemia cells to normal human fibroblasts. C. Barnes and P.J. Bircbkichler. Slippery Rock Univ., PA.


A383 798.20 Tissue transglutaminase response in myelogenous leukemia cells following the addition of 8-bromoadenosine 3',5'-cyclic monophosphate. L.T. Miller and P.J. Bircbkichler. Slippery Rock Univ., PA.


A385 798.22 Adherence analysis between human erythroleukemia cells and human lung fibroblasts. C.D. Dover. Slippery Rock Univ., PA.

A386 798.23 ATP release is altered in a mouse model for Duchenne muscular dystrophy and signals for proteins that promote cell death. D. Valladares, G. Almarza, M. Pavez and E. Jaimovich. Univ. of Chile.


A389 798.26 Induction of apoptosis by tungsten carbide-cobalt nanoparticles in JB6 cells involves ROS generation through both extrinsic and intrinsic apoptotic pathways. M. Ding, J. Zhao, L. Bowman, S. Leonard and V. Castranova. NIOSH, Morgantown, WV.

A390 798.27 Proteasome inhibitor epoxomicin prevents cardiomyocyte apoptosis through regulation of gene expression. D. Li and G. Babu. UMDNJ, Newark.


799. BIOCHEMICAL PHARMACOLOGY

Poster

MON: 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A395 799.3 The pronociceptive activity of spinal dynorphin A is not due to sensitization of wide dynamic range neurons. A. Cai, K. Bannister and A. Dickenson. Univ. of Arizona and University Col. London.

A397  799.5 Mechanisms of resistance to quaternary ammonium compounds and other antimicrobials in Salmonella enterica. S. Stamm and D. Herson. Univ. of Delaware.

800. BIOCHEMICAL MEDIATORS OF THE HOST-PATHOGEN INTERACTION
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

A402  800.1 Tetracycline therapy against phytoplasma causing yellowing disease of date palms. M.S. Montasser, A.M. Hanif, H.A. Al Awadhi and P. Suleman. Univ. of Kuwait.
A403  800.2 Isotuberculosinol: an immunomodulatory diterpenoid from Mycobacterium tuberculosis. R.J. Peters. Iowa State Univ.
A404  800.3 Proteolytic processing of Hendra virus fusion protein in cells of the bat reservoir host. F. El Najjar and R.E. Dutch. Univ. of Kentucky.
A405  800.4 A yeast-two hybrid screen against HPV16 capsid proteins indicates dynactin 6 is a potential cellular factor involved in HPV16 infection. A.M. Schlegel, J.A. Chapman and S.K. Campos. Univ. of Arizona.

801. RELATIONSHIP OF HOST AND PATHOGEN
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM


802. DRUG DESIGN AND NEW TARGETS FOR M. TUBERCULOSIS
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM


803. ENZYMEOLOGY OF M. TUBERCULOSIS TARGET PROTEINS
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

804. STRUCTURAL BIOLOGY OF MACROMOLECULES FROM M. TUBERCULOSIS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


805. THE CELL BIOLOGY OF MYCOBACTERIA

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


Nutrition

806. BREASTFEEDING: DETERMINANTS, INITIATION, DURATION

Poster
(Sponsored by: Lactation RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C1 I 806.1 Dimensions of workplace breastfeeding support and the duration of breastfeeding. Y. Bai, S.M. Wunderlich and A.D. Fly. Montclair State Univ. and Indiana Univ.

C2 II 806.2 Comparison of early sucking dynamics of breastfeeding infants born by either Caesarean section and vaginal birth. J.C. Kent, V. Sakalidis, T. Williams, A. Hepworth, C. Garbin, M.J. Paech, P. Hartmann and D. Geddes. Univ. of Western Australia.


C4 II 806.4 Storage capacity of the human breast. J.C. Kent, T. Williams, V. Sakalidis, P.E. Hartmann and C.T. Lai. Univ. of Western Australia.


C7 I 806.7 Workplace accommodations to support breastfeeding in New Jersey. S. Gaits, Y. Bai and S.M. Wunderlich. Montclair State Univ., NJ.

C8 II 806.8 Nurse knowledge and attitudes towards breastfeeding in Arizona. T. Foster and D.M. Winham. Arizona State Univ.

C9 I 806.9 Infant formula samples: association between sources and breastfeeding outcomes at one month postpartum. A. Thurston, J. Holden and J.C. Chezem. Ball State Univ.


807. BREASTFEEDING AND HUMAN MILK: EFFECT ON THE RECIPIENT INFANT AND/OR LACTATING MOTHER

Poster
(Sponsored by: Lactation RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C11 I 807.1 Factors associated with weight change up to 12 months postpartum in HIV-infected women: findings from the HIV prevention of mother-to-child transmission Kesho Bora trial. C. Cames, A. Cournil and K. Bork. Res. Inst. for Develop. (IRD), Montpellier.


808. NUTRITIONAL ASSESSMENT AND STATUS IN OLDER POPULATIONS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C18 I 808.1 The relationship between the use of blood pressure medication, a low-sodium diet, and health and nutrition literacy among community-dwelling hypertensive older adults. S. Jones, H. Young and L. Miller. Sch. of Nursing, Univ. of California Davis Hlth. Systs., Sacramento and Univ. of California, Davis.


C22 I 808.5 Comparing diet quality based on a dietary screening tool and the DASH Diet Index in obese, older women. N.E. Beebe, S. Manganti, L. Katkowski, M. Benson, M.J. Delmonico and I.E. Lofgren. Univ. of Rhode Island.


C24 II 808.7 The feasibility of incorporating whole grains into the diet of older populations. S.A. Gorski, R. Rosen, E.A. Arndt and L. Marquart. Univ. of Minnesota, St. Paul and ConAgro Foods Inc., Omaha.

C25 II 808.8 An assessment the actual nutrition practice in elderly. A. Abdulaveva and E. Dalenov. Medical University of Astana, Kazakhstan.

809. CORRELATES, CONSEQUENCES AND TREATMENT OF OBESITY IN OLDER ADULTS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C26 I 809.1 Dietary characteristics associated with abdominal obesity in congregate meal participants. K.N. Porter and M.A. Johnson. Univ. of Georgia.


810. OSTEOPOROSIS AND BONE METABOLISM IN THE AGING

Poster

(Sponsored by: Aging and Chronic Disease RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


**811. CHILD NUTRITION AND GROWTH: ISSUES AND CHALLENGES**

**Poster**

*(Sponsored by: Nutritional Epidemiology RIS)*

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)*


C41 I 811.2 Freshman Health Initiative Survey: a pilot study. **R. Schnoll, R. Curran and S. Burroughs.** Brooklyn Col. of CUNY.

C42 I 811.3 Prevalence and determinants of overweight and obesity in a national sample of 5-12 years old Lebanese children. **L. Nasreddine, F. Naja, C. Akl, N. Adra, A. Sibai and N. Hwalla.** American Univ. of Beirut.


C47 II 811.8 Measured versus estimated resting energy expenditure in a clinic population of obese youth. **S. Henes, R. Hickner, D. Cummings, J. Houmard, K. Kolasa, S. Lazorick and D. Collier.** Georgia State Univ. and East Carolina Univ.


C49 II 811.10 Breakfast consumption among Mexican American adolescents. **I. Maximo, L. Hernandez, Y. Dong, A.V. Wilkinson, L. Strong, M.L. Bondy, M.R. Spitz and M.R. Forman.** Univ. of Texas at Austin, Univ. of Texas Sch. of Publ. Hlth., Austin, Univ. of Texas MD Anderson Cancer Ctr. and Baylor Col. of Med.

C50 I 811.11 Dietary intake, physical activity and overweight and obesity in Mexican American adolescents. **Y. Zhu, L. Hernandez, Y. Dong, A. Wilkinson, L. Strong, M.L. Bondy, M.R. Spitz and M.R. Forman.** Univ. of Texas at Austin, Univ. of Texas Sch. of Publ. Hlth., Austin, Univ. of Texas MD Anderson Cancer Ctr. and Baylor Col. of Med.


**812. GLOBAL HEALTH: DIETARY INTAKES AND HEALTH OUTCOMES IN DIVERSE POPULATIONS**

**Poster**

*(Sponsored by: Nutritional Epidemiology RIS)*

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)*


C57 II 812.2 Sources of sodium according to income levels in the Brazilian National Dietary Survey. **A. de Moura Souza, I. Nogueira Bezerra, R. Alves Pereira and R. Sichieri.** State Univ. of Rio de Janeiro Univ. of Michigan Sch. of Publ. Hlth. and Univ. of North Carolina at Chapel Hill.

C58 II 812.3 School-age children might be the best source of information for their digestive health. **S. Kranz, M. Brauchla and K. Miller.** Purdue Univ. and Kellogg Co., Battle Creek.
813. WEIGHT MANAGEMENT IN REAL LIFE

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C60 I 812.5 An examination of certain foods which may predict a zinc deficiency. S. Cadet, B. Harland and D. Oberleas. Howard Univ. and Texas Tech Univ. Emeritus.


C64 I 812.9 Dietary intakes, acculturative stress and cultural adaptation of marriage migrant women according to dietary life adaptation. J-M. Kim, H.S. Lee and M.H. Kim. Hanbuk Univ., South Korea.


C68 II 813.2 Increased BMI is associated with lower iron status and increased inflammation and oxidative stress in postpartum women. J.M. Jorgensen, Z. Yang, B. Löønnerdal, C.J. Chantry, L.H. Allen and K.G. Dewey. Univ of California Davis, Davis and Sacramento and USDA, Davis.

C69 I 813.3 Prepregnancy BMI and gestational weight gain as determinants of pregnancy complications and outcomes by race/ethnicity. D. Shin and W.O. Song. Michigan State Univ.

C70 II 813.4 Association of body fat indicators with lipid concentrations in U.S. children aged 6-11. M. Masters, K. Stanek-Krogstrand and J.A. Albrecht. Univ. of Nebraska-Lincoln.

C71 I 813.5 Healthy minds but unhealthy bodies: graduating with a 4-year college degree and 7 pounds of body fat. S.S. Gropper, L.J. Connell, K. Simmons and P. Ulrich. Auburn Univ.

C72 II 813.6 Comparison between self-reported nutrient intake from 24-h recall and Food Frequency Questionnaire, at baseline, among Spanish overweight and obese participants in a metabolic trial. M-J. Soto-Méndez, E. Martínez-de-Victoria, G. Lobo, J. Boza, M. Kellerhals, A. Pérez-de-la-Cruz, A. Gil, M-D. Mesa and C-M. Aguiler. CeSSIAM, Guatemala City, Univ. of Granada, Hosp. Virgen de las Nieves, Granada and The Coca-Cola Co., Atlanta and Brussels.


C79 I 813.13 Changes in knowledge, preferences, auto-efficacy and resource availability after a summer program on physical activity promotion. A. Pérez-Lizaur, L.I. Moreno, C. Chaires and K. Haau. Univ. Iberoamericana, Mexico.

814. FEEDING YOUNG CHILDREN

Poster
(Sponsored by: Community and Public Health Nutrition RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C81 I 814.1 Perceptions of key parental benefits from practices that promote intake of calcium-rich foods and beverages in preadolescent children. S.S. Wong, C. Gunther, M. Reicks, R. Richards, C.M. Bruhn, M. Cluskey, S. Misner, C. Watters and M. Bellalos. Oregon State Univ., The Ohio State Univ., Univ. of Minnesota, St. Paul, Brigham Young Univ., Univ. of California, Davis, Univ. of Arizona, Univ. of Hawaii and Washington State Univ.

C82 II 814.2 Quantitying vitamin D production from sunlight exposure. M.G. Kimlin. Queensland Univ. of Technol., Australia.


C84 II 814.4 Socio-cultural factors associated with child feeding practices among Hmong, Latino and White parents. Y. Zhao, A. Roche, C. Wolff and K. Goto. California State Univ., Chico.


C88 II 814.8 Food safety knowledge, attitudes, behaviors and intended behaviors of middle schoolers. V. Quick, K. Corda and C. Byrd-Bredbenner. Univ. of Minnesota, Minneapolis, Univ. of Texas at San Antonio and Rutgers Univ.

C89 I 814.9 Developing and pre-testing nutrition messages for Asian Indian mothers. S.R. Momin and B. Olson. Michigan State Univ.


C91 I 814.11 Attitudes of nutrition education teachers and dietitians on implementation of school breakfast program in Korea. Y.-S. Choi and H. Oh. Daegu Univ., South Korea.

815. NUTRITION EDUCATION

Poster
(Sponsored by: Nutrition Education RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C93 II 815.2 Stepping up to the challenge: the development, implementation, and assessment of a statewide, regional leadership program for child nutrition directors. J.J. Bergman, D. Beall and S. Zidenberg-Cherr. Univ. of California, Davis and California Dept. of Educ., Sacramento.


C96 I 815.5 Head Start preschool administrators’ barriers, motivators, and facilitators to implementing nutrition education. S. Rigginsbee, V. Carraway-Stage, A. Dipper and M. Anderson. North Carolina State Univ.


C100 I 815.9 Exposure to calcium-rich foods lessons increases nutrition knowledge among 5th-grade students. J. Linnell, M. Briggs and S. Zidenberg-Cherr. Univ. of California, Davis.


C102 I 815.11 Comparison of parent and child reported fruit and vegetable preferences. K. Nanney, V. Carraway-Stage, T.B. Cox, H. Spangler, A. Martin, M. Borges, A. Worf and L.S. Goodell. North Carolina State Univ.
816. CHILDLHOOD OBESITY: WHEN SHOULD WE INTERVENE?

Poster
(Sponsored by: Obesity RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C106 I 815.15 Skipping breakfast and having snacks of middle school students in Incheon and factors affecting their dietary habits. H-J. Chung and J-I. Park. Inha Univ., South Korea.


817. REDEFINE OBESITY: BODY WEIGHT VERSUS ADIPOSITY

Poster
(Sponsored by: Obesity RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


818. OBESITY, INFLAMMATION AND CHRONIC DISEASE MODULATION BY DIETARY PHYTONUTRIENTS

Poster
(Sponsored by: Obesity RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C121 I 818.6 Nutraceutical values of muscadine against obesity and metabolic complications in vivo. V. Gourineni, N. Shay, S. Chung and L. Gu. Univ. of Florida and Oregon State Univ.

MONDAY NUTRITION


C124 I 818.9 Psychological determinants of dietary adherence and intervention outcome in obesity: self-efficacy, dietary and physical exercise counseling. G.M. Trovato, G.F. Martines, F.M. Trovato, P. Pace, C. Pirri, A. Tonzuoso and D. Catalano. Univ. of Catania, Italy.

C125 II 818.10 Broccosprout extract inhibits the nasal allergic response to diesel exhaust particles in atopic individuals. A.M. Wong, Z. Li, M. Garcia-Lloret, A. Zarlin, G. Thomas, Y. Zhang, A. Nel and D. Heber. UCLA.


819. OBESITY AND METABOLIC SYNDROME

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C128 II 819.2 The diagnostic efficacy of anthropometric and body composition cut-off values in assessing risk factors for cardiovascular disease among university students. S. Nichols and A-M. Edwards. Univ. of West Indies, Trinidad and Tobago.


C130 II 819.4 Anthropometric antecedents of metabolic syndrome and its components among university students. S. Nichols and A-M. Edwards. Univ. of West Indies, Trinidad and Tobago.

C131 I 819.5 The association between serum estrogen, fat mass and type II diabetes in the Boston Puerto Rican Health Study. L. Landry and K.L. Tucker. Tufts Univ., Boston and Northeastern Univ.


C133 I 819.7 Associations among adiposity, inflammation, and iron status in overweight/obese pregnant women. C.P. Stewart, S. Shahab-Ferdows, F.Y.J. Chen, A.H. Lindsay, B. Lönnerdal and J.C. King. Univ. of California, Davis, USDA, Davis and Children’s Hosp. Oakland Res. Inst.


C136 II 819.10 Self perception of body weight status and willingness to adopt healthy eating and activity behaviors among Kentucky adults. C. Wang, L. Huang and C. Butler. Kentucky State Univ.


C139 I 819.13 Ascorbic acid-induced reduction in adiponectin is not improved by alpha tocopherol and is accompanied by a small reduction in protein levels of peroxisome proliferator-activated receptor gamma in 3T3-L1 adipocytes. V. Narayanan, L. David and C. Kane. Florida Intl. Univ.


C143 I 819.17 Acute effects of pistachios on glucose, insulin, gut hormones and satiety in persons with metabolic syndrome. C.W.C. Kendall, J. Campbell, A.L. Jenkins and D.J.A. Jenkins. Univ. of Toronto and Glycemic Index Labs., Toronto.


C145 I 819.19 Non-alcoholic fatty liver disease reversal by a comprehensive nutritional-physical exercise intervention. G.M. Trovato, D. Catalano, A. Pennisi, F.M. Trovato, P. Pace, G.F. Martines and C. Pirri. Univ. of Catania, Italy.

C146 II 819.20 Fat distribution, insulin resistance and serum adiponectin of older women with and without metabolic syndrome. P. Chongwatpol, J.R. Hermann, A. Bogale and B.J. Stoecker. Oklahoma State Univ.

C147 I 819.21 The effect of beverage choice at an ad libitum meal caloric intake and post-meal appetite and glycemia in healthy young men. D. El Khoury, S. Panahi, B.L. Luhovyy and G.H. Anderson. Univ. of Toronto.


C150 II 819.24 BOLD (beef in an optimal lean diet) effects on metabolic syndrome: a preliminary analysis. A.M. Hill, M. Rousseau, S.G. West and P.M. Kris-Etherton. Penn State and Univ. of South Australia.


C152 II 819.26 Relationships between features of metabolic syndrome and fatty acid composition of the diet, plasma, and adipose tissue in older adults. A.M. Rose, M. Asp, A. Collene and M.A. Belury. The Ohio State Univ.


C154 II 819.28 Soybean or fish oil increases adiponectin and nitric oxide levels and decreases blood pressure in metabolic syndrome. I. Dichi, A.N.C. Simão, M.A.B. Lovozoy, H.K. Morimoto, T.N.C. Simão and J.B. Dichi. Univ. of Londrina, Brazil.

C155 I 819.29 Activation of angiotensin type 2 receptor rescues high-fat diet-induced adipocyte size increase in young male mice. S. Nag, M.A. Khan and T. Hussain. Auburn Univ.

C156 II 819.30 A moderate carbohydrate-restricted diet results in weight loss and improves clinical parameters of metabolic syndrome in adult men and women and addition of egg yolk further improves inflammation. C.N. Blesso, C.J. Andersen, J. Barona, B. Volk, J.S. Volek and M.L. Fernandez. Univ. of Connecticut.


C158 II 819.32 Effects of brown seaweed and licorice on blood glucose and weight loss in moderately overweight subjects. S. Talbott, T. Talbott, E. Dingler and J. Talbott. SupplementWatch, Draper, UT.


C172 II 819.46 HPMC supplementation reduces weight gain, intestinal permeability, inflammation, and insulin resistance in diet-induced obese mice. H. Kim, G. Bartley, S.A. Young and W. Yokoyama. Univ. of California, Davis, USDA, Albany, CA and The Dow Chem. Co., Midland, MI.


C174 II 819.48 Inhibition of HO-adiponectin-dependent pathways contributes to metabolic syndrome-like phenotype in spontaneously hypertensive rats on a high fat diet. N. Puri, K. Sodhi and N.G. Abraham. Univ. of Toledo.

820. ENERGY BALANCE, MACRONUTRIENT AND WEIGHT MANAGEMENT

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)
(Cosponsored by: Obesity RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C182 I 820.3 A review of dietary energy density and obesity. J.P. Karl and S.B. Roberts. USDA at Tufts Univ.


C186 I 820.7 Dietary leucine and supplementation have similar effects in the prevention and alleviation of high-fat diet-induced obesity. K.J. Petenze, A. Frederung and S. Klaus. German Inst. of Human Nutr. in Potsdam-Rehbruecke.

C187 II 820.8 Body weight reduction by exercise is more effective than by dietary restriction even when dietary condition is equal except for energy. T. Yamada, S-I. Kurasawa, M. Matsuaki and A. Tanaka. Kanto Gakuin Univ. and Kagawa Nutr. Univ., Japan.


C189 II 820.10 Variability in results from predicted resting energy expenditure as compared to measured resting energy expenditure in Korean farmers. A.F. Arif Tsani, S-Y. Ko, S-E. Yeon and E-K. Kim. Gangneung-Wonju Natl. Univ., South Korea.

C190 I 820.11 Smaller decreases in protein and greater decreases in fat may be associated with exercise training before body mass reduction. A. Nakashima, R. Nishijima and K. Okamura. Osaka Univ. of Hot. and Sport Sci.


C192 I 820.13 Moderate caloric restriction results in significant loss of fat mass, limited decline in resting energy expenditure and preservation of fat-free mass. J.C. Chezem, A. Thomas and J. Holden. Ball State Univ. and Target Metabolism, Carmel, IN.


C195 II 820.16 Black pepper consumption does not influence 24-hour energy expenditure or respiratory quotient in overweight postmenopausal women. A. O’Connor, K.D. Corbin, D.C. Nieman and A. Swick. Univ. of North Carolina at Chapel Hill Nutr. Res. Inst. and Appalachian State Univ.

C196 I 820.17 Ingestion of nutrition bars high in protein or carbohydrate do not impact 24-hour energy intake or respiratory quotient in overweight young adults. C.M. Trier and C.S. Johnston. Arizona State Univ.


C200 I 820.21 Skipping breakfast is associated with lower physical activity energy expenditure in young healthy women. A.P. Marquez, S. Forester, M. Witbracht, C. Campbell, M. Gustafson and N. Keim. Univ. of California, Davis and USDA, Davis.

C202 I 820.23 A nine month strength training program increases resting metabolic rate. J.C. Aristizabal, D. Freidenreich, B. Volk, B. Kupchak, K. Ballard, W. Kraemer and J. Volek. Univ. of Connecticut and Sch. of Nutr., Univ. of Antioquia, Colombia.


C204 I 820.25 Macronutrient absorption from almonds: the measured energy value of almonds in the human diet. S.K. Gebauer, J.A. Novotny and D.J. Baer. USDA, Beltsville, MD.


C210 I 820.31 The use of environmental cues to reduce obesity. A.K. Thaw and M. Redhead. Millsaps Col., MS.


C215 II 820.36 Reconsidering protein, energy, and diet-induced thermogenesis. C. Moulton, G. Wilson, L. Norton and D. Layman. Univ. of Illinois at Urbana-Champaign.


C219 II 820.40 Dietary fructose was not a causal factor in rise in obesity prevalence between 1970 and 2008. T.P. Carr and T.J. Carden. Univ. of Nebraska-Lincoln.

821. EFFECTS OF DIETARY BIOACTIVE COMPONENTS ON EXPERIMENTAL MODELS OF CHRONIC DISEASE RISK

Poster

(Sponsored by: Dietary Bioactive Components RIS)

MON. 7:30 AM—SANDIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C221 II 821.2 Grape seed extract and delta tocotrienol alone and in combination ameliorates histopathological features in C57BL/6J mouse fed high-fat diet. S. Sodhani, S. Juma, P. Vijayagopal, C. Prasad, V. Imrhan and N. Mills. Texas Woman’s Univ.


C228  I  821.9 The behavioral actions of creatine vary with duration of intake. K.E. D’Anci, P.J. Allen and R.B. Kanarek. Salem State Univ. and Tufts Univ.


822. DIET AND CANCER: MOLECULAR TARGETS

Poster

(Sponsored by: Diet and Cancer RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C237  I  822.3 Combination of polymethoxyflavonoids and atorvastatin for colon cancer inhibition. M. Song, P. Qiu, J. Zheng, N. Charoensinphon and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


C239  I  822.5 Cinnamon extract inhibits angiogenesis in zebrafish and human endothelial cells by suppressing VEGF and PKC-mediated MAP kinase. R.R. Bansode, P. Randolph and M. Ahmedna. North Carolina A&T State Univ.


C242  II  822.8 Effect of ketone treatment and glycolysis inhibition in brain cancer cells (U87MG) and rat primary cultured neurons exposed to hyperbaric oxygen and amyloid beta. A. Bennett, C. Ari, S. Kesl, J. Luke, D. Diamond, J.B. Dean and D. D’Agostino. Univ. of South Florida, Byrd Alzheimer’s Inst. and James A. Haley Veterans Hosp., Tampa.

C243  I  822.9 Parthenolide’s anti-leukemic stem cell activity is enhanced by the inhibition of dipeptidyl peptidase 8 and 9. P. Spagnuolo, R. Hurren, M. Gronda, N. MacLean and A. Schimmer. Princess Margaret Hosp., Toronto.

C244  II  822.10 Broccoli-derived compounds modulate androgen upregulation of C-C chemokine ligand 2 and enhancement of monoocyte attraction to prostate cancer cells. E-K. Kim, Y-S. Kim, L. Yu, J.A. Milner and T.T.Y. Wang. Univ. of Maryland College Park, NCI/NIH, Rockville and USDA, Beltsville.


C249  I  822.15 Medicinal herbs inhibit castrate-resistant prostate cancer via mechanisms involving AMPK. Y. Zhao and J. Whelan. Univ. of Tennessee, Knoxville.


823. ANTIOXIDANT AND ANTI-INFLAMMATORY EFFECTS OF DIETARY BIOACTIVE COMPONENTS

Poster

(Sponsored by: Dietary Bioactive Components RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C261 I 823.3 Effect of oregano essential oils on lipid oxidation in storage eggs enriched with dietary omega-3 fatty acids. C. Ariza-Nieto, R. Ortiz, D. Vasquez, O. Mayorga and G. Afanador. CORPOICA, Bogota and Natl. Univ. of Colombia.

C262 II 823.4 Antioxidant and anti-inflammatory properties of tamarillo fruit (Cyphomandra betacea Sendt.) extracts on LPS-activated RAW 264.7 macrophages. X. Villegas-Ruiz, G.K. Harris, M.E. Barcenas-Pozos and C. Jordan. Univ. de las Americas Puebla, Mexico and North Carolina State Univ.

C263 I 823.5 Purple potato, even after processing, suppress oxidative stress and inflammatory markers in high-fat diet consuming pigs. S. Radhakrishnan, L. Reddivari, S.B. Smith, S.W. Kim and J. Vanamala. Colorado State Univ., Texas A&M Univ. and North Carolina State Univ.


C265 I 823.7 Anti-oxidant and anti-inflammatory activity of tocopherol isomers modulates the Nrf-2 and NfkB activation in Caco-2 human intestinal cell line. I. Elisia and D. Kitts. Univ. of British Columbia.


C268 II 823.10 Raw and cooked African green leafy vegetables have greater antioxidant and cellular protective properties than spinach. A. Oelofse, N.P. Mavhungu, J. Serem, M. Bester and K.G. Duodu. Univ. of Pretoria, South Africa.


C270 II 823.12 Resveratrol decreases inflammation and oxidative stress in the mdx mouse model of Duchenne muscular dystrophy. B.S. Gordon, P. Weed, E. Learner, D. Schoenling and M.C. Kostek. Univ. of South Carolina.


C274 II 823.16 The major metabolites of 5-hydroxy nobiletin inhibit lipopolysaccharide-induced inflammation in macrophages. H. Xiao, S. Guo, J. Zheng and X. Wu. Univ. of Massachusetts Amherst and Ocean Univ. of China, Qindao.


C276 II 823.18 Influence of dietary red palm oil on antioxidant status in male Wistar rats. A. Ayeleso, O. Oguntibeju and N. Brooks. Cape Peninsula Univ. of Technol., South Africa.


C280 823.22 The increase in flow-mediated vasodilation induced by grape polyphenols is positively correlated with increased expression of inducible nitric oxide. J. Barona, J. Lee, Y. Park and M.L. Fernandez. Univ. of Connecticut and Univ. of Antioquia, Colombia.

C281 823.23 The photoprotective effects of almond phytonutrients in a three-dimensional human skin tissue model. J.A. Evans, J. Garlick, E.J. Johnson, X-D. Wang and C-Y.O. Chen. USDA and Tufts Univ.

C282 823.24 Tert-butyl-hydroquinone augments intracellular glutathione concentrations and induces antioxidant gene expression in organogenesis-stage rat conceptuses grown in whole embryo culture. K.E. Sant, J.M. Hansen and C. Harris. Univ. of Michigan and Emory Univ.


C284 823.26 Anti-inflammatory effects of 4'-hydroxy nobiletin, the major metabolite of nobiletin. X. Wu, S. Guo, G. Xu, J. Zheng and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


C288 823.30 Diverse effects of a low dose supplement of lipitated curcumin in healthy middle aged people. R.A. DiSilvestro, E. Joseph and J. Bomser. The Ohio State Univ.


C290 823.32 Comparison of the effects of paired organic and conventional wines with different total polyphenol concentrations on plasma antioxidant status. K. Ricklefs, K. Rasmussen and K.R. Martin. Arizona State Univ.


C301 823.43 Impact of brewing conditions on the antioxidant capacity of green tea. E. Sharpe and R. Bradley. Clarkson Univ., NY and Baxtry Univ. Res. Inst., WA.

C302 823.44 Lipid extracts from edible blue-green algae reduce the production of pro-inflammatory cytokines by inhibiting nuclear translocation of NF-κB in RAW 264.7 macrophages. C.S. Ku and J. Lee. Univ. of Connecticut.
824. OBESITY, INFLAMMATION AND NUTRIGENOMICS

Poster

(Sponsored by: Diet and Cancer RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C305 I 824.3 Turmeric and black pepper inhibit lipoperoxidation in cooked burger. Y. Zhang, Z. Li, R-P. Lee, J. Huang, S. Henning and D. Heber. UCLA Ctr. for Human Nutr.


C310 II 824.8 Differential effects of added dietary fructose or/and fat on adipose tissue gene expression in a juvenile pig obesity model. G. Solano-Aguilar, S. Jang, S. Laskman, A. Molokin, G. Bruna, A. Mitchell and J. Urban. USDA, Beltsville, MD and Seysa, Toledo, Spain.

C311 I 824.9 Influence of fructose consumption on inflammatory gene expression in liver and brain in a pig model of juvenile obesity. S. Jang, A. Molokin, S. Laskman, K. Panickar, G. Bruna, J.F. Urban, Jr. and G. Solano-Aguilar. USDA, Beltsville, MD and Seysa, Toledo, Spain.


C313 I 824.11 Anti-obesity and inflammatory effects of Lactobacillus sp. OPK-3 is isolated from kimchi in cell line and in animal model. J-E. Park, Y-J. Moon, S-H. Oh and Y-S. Cha. Chonbuk Natl. Univ. and Woosuk Univ., South Korea.


825. INTESTINAL PHYSIOLOGY AND DIGESTIVE FUNCTION

Poster

(Sponsored by: Experimental Animal Nutrition RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C318 I 825.3 Intestinal damage in weaning pigs following a nutritional insult is transient. C.L. Levesque, K. de Ridder, L.D. Skinner and C.F.M. de Lange. Univ. of Guelph, Canada.

C319 II 825.4 Effects of resistant starch of common and native potato on broiler performance. C. Ariza-Nieto, D. Rodriguez, M. Ariza-Nieto and G. Afnanador. CORPOICA, Bogota, Natl. Univ. of Colombia and Cornell Univ.


C321 II 825.6 Ethanol and unsaturated fat diet-induced liver injury is associated with intestinal inflammation in a mouse model of alcoholic liver disease. I. Kirpich, W. Feng, Y. Wang, Y. Liu, S. Barve and C. McClain. Univ. of Louisville.

826. MEASURING DIET AND NUTRITIONAL STATUS

Poster

(Sponsored by: International Nutrition Council (INC))

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

827. NUTRITION-RELATED CHRONIC DISEASE

Poster

(Sponsored by: International Nutrition Council (INC))

MON, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C327 II 826.6 Association between ferritin, transferrin receptor and retinol biomarkers obtained from dried blood spots and anthropometric measures in Kenyan children. E.H. Haddad, M. Ndiku, V.H. Haddad, K. Bahjri and J. Sabaté. Loma Linda Univ. and Univ. of Eastern Kenya.


828. DIET, PHYSICAL ACTIVITY, FOOD SECURITY TRENDS AND PATTERNS

Poster

(Sponsored by: International Nutrition Council (INC))

MON, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C337 II 828.2 Assessment of nutrition status and pulse consumption patterns in adolescent girls from Huletegna Choroko Keble, Halaba Special Woreda - Southern Ethiopia. G.A. Zello, K. G/Michael, A. Chala and J. Jaffe. Col. of Pharm. and Nutr., Univ. of Saskatchewan, Hawassa Univ., Ethiopia and Univ. of Regina, Canada.

C338 I 828.3 Energy contribution on non-breast milk items reported for 5-month-old, low-income infants in metropolitan Quetzaltenango, Guatemala. J. Alvey, M. Vossenaar, C.M. Doak and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.


C341 II 828.6 The pattern of offering ritual fluids (agüitas) to infants and toddlers in the Guatemalan highlands in metropolitan Quetzaltenango. C.M. Doak, R. van der Staare, I. van Beukoms, M. Campos, M. Vossenaar and N.W. Solomons. VU Univ., Amsterdam and CeSSIAM, Guatemala City.
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829. PRENATAL NUTRIENT PROGRAMMING

Poster
(Sponsored by: Medical Nutrition Council (MNC))

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C343 I 829.1 Maternal fructose consumption during gestation increases body weight and fat mass in young adult offspring. R.C. Bell, N. Patel, C. Lineker, A. Hoedl, H. Budge and M.E. Symonds. Univ. of Alberta and Univ. of Nottingham, U.K.


C346 II 829.4 Fetal overgrowth is associated with early perturbations in amniotic fluid glucose, insulin and insulin like growth factors in mothers with and without gestational diabetes. D.K. Tisi and K.G. Koski. Sch. of Dietetics and Human Nutr., McGill Univ.


830. NUTRITION AND THE MICROBIOME

Poster
(Sponsored by: Medical Nutrition Council (MNC))

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C353 II 830.4 Omega-3 supplementation prevents intestinal inflammation by inhibiting the expansion of an intestinal pathobiont in IL-10− mice. S. Devkota, V. Leone, Y. Wang, M. Musch, D. Antonopoulos and E. Chang. Univ. of Chicago and Argonne Natl. Lab.

C354 I 830.5 Gut microbiota modulates metabolic and nutrient sensing signaling pathways in obesity. F. Duca, Y. Sakar and M. Covasa. INRA, Jouy en Josas, France and Western Univ. of Hlth. Sci.

C355 II 830.6 Human gut microbiota changes after consumption of almonds or pistachios. V. Mai, M. Fredborg, M. Ukhanovala, W. Xiaoyu, S. Daniel, J.A. Novotny, S. Gebauer and D. Baer. Univ. of Florida, Univ. of Aarhus, Denmark and USDA, Beltsville, MD.


C357 II 830.8 Comparison of diets containing whole grain oats versus low bran oat flour on insulin sensitivity and fecal microbiota composition in C57BL/6J mice. M. Lefeuvre, N. Hergert and G. Rompato. Utah State Univ.


C360 I 830.11 Enteric microbiome of breastfed infants on complementary feeding regimens with different iron exposure. N.F. Krebs, L. Sherlock, C.E. Robertson, J. Westcott, D. Culbertson, L. Feazel and D. Frank. Univ. of Colorado Denver, Aurora and Univ. of Colorado Boulder.

831. DIET-GENE INTERACTIONS IN THE ETIOLOGY OF OBESITY AND WEIGHT-RELATED COMORBIDITIES

Poster

(Sponsored by: Medical Nutrition Council (MNC)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C362 I 831.1 Fructose, high fructose corn syrup and sucrose solutions: a comparison of their effects on the hypothalamic control of food intake. T.W. Castonguay and D. Colley. Univ. of Maryland College Park.

C363 II 831.2 Comparison of physiological, sensory, and personality attributes in 6-n-propylthiouracil tasters and non-tasters. M.-J. Ludy, M. Patil and R.D. Mattes. Bowling Green State Univ. and Purdue Univ.


Pathology

832. ANGIOGENESIS, THROMBOSIS AND COAGULATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM

B169 832.1 Fibrinolytic resistance and prothrombotic phenotype is altered in mice lacking α(1,3)-fucosyltransferase-IV and -VII. H. Wang, L.C. Mackey, J.M. Rose and J.W. Homeister. Univ. of North Carolina at Chapel Hill.


B176 832.8 Exchange transfusion therapy and its effects on real-time microcirculation in pediatric sickle cell anemia patients. W.J. To, J.W. Miller, M.G. Miguelino, J. Li, X. Lin, P. Chen, R. Green and A.T.W. Cheung. Univ. of California, Davis Med. Ctr. and UCSD.


B179 832.11 Cavin1 deficiency results in abnormal vascular function in mice. C. Rippe, S. Albinsson and K. Sward. Lund Univ., Sweden.


833. EPITHELIAL BIOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Epithelial Pathobiology

Presentation time: 11:30 AM-1:30 PM

Differential contribution of desmoglein 2 and 3 to cell adhesion and intracellular signaling in keratinocytes. E. Hartlieb, V. Spindler and J. Waschke. Ludwig Maximilians Univ., Munich.


Integrin-&{beta}1 participates in the spreading, adhesion, and migration of human adipose tissue-derived stem cells. X. Bai, Y. Yan and Z. Bosnjak. Med. Col. of Wisconsin.


Reduction in the intestinal epithelial glutathione redox potential may regulate proliferation in the neonatal murine gut. A. Richardson, L.S. Myers, S-C. Song, L. Ray, A. Berardinelli, J. Hansen and P.W. Denning. Univ. of California, Davis and Univ. of Namur, Belgium.


Effects of claudins-6, -7 or -9 overexpression on migration and invasiveness of breast and hepatocellular cancer cells. B. Salas, E.P. Rendon-Huerta and L.F. Montaño-Estrada. UNAM, Mexico City.


Reduction in the intestinal epithelial glutathione redox potential may regulate proliferation in the neonatal murine gut. A. Richardson, L.S. Myers, S-C. Song, L. Ray, A. Berardinelli, J. Hansen and P.W. Denning. Univ. of California, Davis and Univ. of Namur, Belgium.


Molecular pathogenesis and treatment of breast cancer

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM


Progesterone receptor B through Sp1 induces the phosphatase and tensin homologue deleted from chromosome 10 (PTEN) gene promoter activity and cell death in breast cancer cell lines. C. Guido, F. De Amicis, M. Santoro, P. Avena, I. Perrotta, I. Casaburi, S. Panza, S. Marsico and S. Andò. Univ. of Calabria, Italy.

Leptin increases HER2 stability through HSP90 in breast cancer cells. C. Giordano, D. Vizza, D. Rovito, I. Barone, D. Bonofiglio, S. Panza, M. Lanzino, S. Fuqua, S. Catalano and S. Andò. Univ. of Calabria, Italy and Baylor Col. of Med.


835. INNATE IMMUNITY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER; EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM


B208 835.2 Role and contribution of conserved p38 MAP kinase pathway in Caenorhabditis elegans immunity during Proteus vulgaris infection. K. Balamurugan and G. JebraMercy. Alagappa Univ., India.


B215 835.9 Expression of pentraxin 3 in the lungs of human, horse, cattle and pig. M. Soron and B. Singh. Univ. of Saskatchewan.


B217 835.11 Expression of TLR10 in human lungs and neutrophils. Y. Balachandran, S. Knaus and B. Singh. Univ. of Saskatchewan.


B227 835.21 Changes in the expression of phosphate transporters, inflammatory markers, and bone cytokines with increasing age. M.S. Loayza, L. Shum, V. Ferguson, M. Levi and K. King. Univ. of Colorado Sch. of Med. and Univ. of Colorado Boulder.


B230 835.24 In vivo 129 murine model of salmonella infection is a powerful tool to examine human clinical isolates. J. Harrington, L. Eckmann and D. Guiney. UCSD.

Pharmacology and Experimental Therapeutics

836. GPCR LIGAND DEVELOPMENT

Poster

MON, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


837. GPCR MODIFICATIONS AND TRAFFICKING

Poster

MON, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B9 837.2 REEPs, an ER adapter protein family, have differential effects on GPCR expression. T. Angelotti, V. Ho and C. Hurt. Stanford Univ.


839. KINASES AND PHOSPHATASES
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B29 839.3 The CB1 cannabinoid receptor stimulates cooperative signaling between integrin receptors and Flik-1 vascular endothelial growth factor receptors to regulate FAK tyrosine phosphorylation in neuronal cells. G.D. Dalton and A.C. Howlett. Wake Forest Sch. of Med.

B30 839.4 A fostricin sensitive protein phosphatase, serine/threonine protein phosphatase 4 is required for faithful chromosome segregation and mitotic progression into anaphase. R. Honkanen, B. Theobald and K. Bonness. Univ. of South Alabama.

B31 839.5 Maturation of protein kinase C masks its C1 domains. C.E. Antal, S. Skovso and A.C. Newton. UCSD and Univ. of Copenhagen, Frederiksborg.

B32 839.6 Activation of PKCζ or PKCε as an approach to increase morphine tolerance in respiratory depression and lethal overdose. H-Y. Lin, P-Y. Law and H.H. Loh. Univ. of Minnesota, Minneapolis.

B33 839.7 Scaffolding of the coflin pathway by β-arrestins. A. Lin and K. DeFea. Univ. of California, Riverside.

840. ENDOTHELIAL DYSFUNCTION
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B34 840.1 Endothelial NOS-independent release of nitric oxide in the aorta of the spontaneously hypertensive rat. Y. Zhao, S.W.S. Leung and P.M. Vanhoutte. Univ. of Hong Kong.

B35 840.2 Hypertension and CaM kinase II isoforms in the endothelium of murine mesenteric arteries. C. Charbel, F. Toussaint, A. Blanchette, L.R. Villeneuve and J. Ledoux. Montreal Heart Inst. and Univ. of Montreal.


B38 840.5 Effect of aging in the mechanisms of endothelium-dependent and -independent vasorelaxation of [Ru(terpy)(bdq)NO+3+] (TERPY) in spontaneously hypertensive rats. F.C. Munhoz, S.R. Potje, R.S. Silva, L.M. Bendhack and C. Antoniiali. State Univ. of São Paulo, Aracatuba and Univ. of São Paulo, Ribeirão Preto.

B39 840.6 Mechanisms of oxLDL on endothelial biomechanics. M-J. Oh, T-P. Shentu and I. Levitan. Univ. of Illinois at Chicago, Univ. of California, Riverside.

B40 840.7 In vivo administration of LPS reduces dexmedetomidine-induced contraction in isolated rat aortae. M.M. Manio, R.Y.K. Man, P.M. Vanhoutte and J.K.F. Ng. The Univ. of Hong Kong.


B42 840.9 Lipocalin-2 mediates linoleic acid-induced endothelial dysfunction. E. Song, P. Fan, A. Xu, P.M. Vanhoutte and Y. Wang. The Univ. of Hong Kong.


841. VASCULAR CELL PROLIFERATION AND ANGIogenesis
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B48 841.1 Tie-2-Cre-mediated inactivation of lipid phosphate phosphatase-3 results in vascular defects. I. Chatterjee and K.K. Wary. Univ. of Illinois at Chicago.

B49 841.2 Sphingosine kinase-1 regulates VEGF-A induced angiogenesis by mediating the interaction between VEGFR2 and S1P1. A.M. Chavez, K.R. Chava and D. Mehta. Univ. of Illinois at Chicago.

842. PERIPHERAL AND CENTRAL VASCULAR PHARMACOLOGY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B54 842.1 Melatonin inhibits NO-dependent activation of large conductance, calcium-activated K channels (BKCa) in porcine coronary artery smooth muscle cells. P. Shukla, C. Sun and S. O'Rourke. North Dakota State Univ.

B55 842.2 Expression of TNF-R1 and Fas in coronary arteries of type 2 diabetic mice. H. Yokoo, S. Yamamoto and Y. Hattori. Univ. of Toyama, Japan.


B57 842.4 Recruitment of the vascular endothelium into neurovascular coupling. T. Longden and M.T. Nelson. Univ. of Vermont.


B60 842.7 Palmitoylthanolamide reduces the severity of brain trauma in a mouse model of controlled cortical impact injury. S. Cuzzocrea, A. Ahmad, D. Impellizzeri, E. Mazzon and E. Esposito. Univ. of Messina and IRCCS Neurol. Ctr. Bonino-Pulejo, Messina.


B64 842.11 Withdrawn.

B65 842.12 TLR4 overexpression after orthotopic liver transplantation contributes to acute lung injury in rats. X. Chi, M. Ge, A. Zhang, G. Luo, Z. Xia and Z. Hei. The Third Affiliated Hosp. of Sun Yat-sen Univ., China and Univ. of Hong Kong.


843. NEUROTRANSMISSION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B70 843.2 Activation of adenosine 2A receptors enhances norepinephrine transport into perivenuous sympathetic nerves in normotensive, but not DOCA-salt hypertensive rats. S. Sangsiri and J.J. Galligan. Michigan State Univ.

B71 843.3 Impaired K+ channel function leads to increased catecholamine secretion by adrenal chromaffin cells in DOCA-salt hypertension. M.J. Fhane, J.J. Galligan and G.M. Swain. Michigan State Univ.


B74 843.6 Cleavage of L-glutamate decarboxylase 65 is associated with brain injury. J-Y. Wu. Florida Atlantic Univ.

**MONDAY**

### 844. NEUROTUMMER TRANSPORTERS

**Poster**

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:30 PM-2:45 PM


B81 844.6 Interaction of environment and chronic methylphenidate on anxiety-like behavior and dopamine receptors in adolescent rodents. K.E. Gill, T. Beveridge and L.J. Porrino. Wake Forest Univ.


### 845. NEURONAL AND GLIAL GROWTH/DIFFERENTIATION

**Poster**

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:30 PM-2:45 PM


B88 845.6 Free radicals are important for dendritic growth in rat embryonic sympathetic neurons. V. Chandrasekaran, C. Lea and P. Lein. Saint Mary’s Col. of California and Univ. of California, Davis Sch. of Vet. Med.

### 846. ALZHEIMER’S DISEASE APPROACHES

**Poster**

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:30 PM-2:45 PM


B94 846.6 β-Endorphin inhibits the expression of amyloid precursor protein in SK-N-SH neuroblastoma cells expressing high levels of mutant APP. R. Boggeti, V.D. Bhatt and W.N. Ratna. Long Island Univ. Arnold & Marie Schwartz Coll. of Pharm.
847. PHARMACOLOGY OF LEARNING AND MEMORY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B98  847.4  The effect of oral creatine monohydrate supplementation on cognitive function in young women. M. Skelton and E. Dells-Leeper. Stetson Univ., FL.


B102  847.8  Modulation of behavior by methylphenidate. S.A. Carmack, K.K. Howell and S.G. Anagnostaras. UCSD.

848. CLINICAL PHARMACOLOGY AND TOXICOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B104  848.2  Interaction of eNOS and iNOS polymorphisms supports the role of genes related to nitric oxide bioavailability in migraine pathophysiology. F. Magazoni Gonçalves, M.R. Luizon, A.M. de Oliveira, J.G. Speciali, F. Dach and J.E. Tanus dos Santos. State Univ. of Campinas, Brazil and Univ. of São Paulo, Ribeirão Preto.


B106  848.4  A study of the prevalence of orthostatic hypotension and risk of falls among older patients presenting to the community health and psychiatry health center. L.T. Smith and M. Gossell-Williams. Univ. of West Indies, Jamaica.


B111  848.9  Mechanistic and pharmacologic role of placental growth factor in experimental ulcerative colitis in rats. X. Deng, X. Xiong, T. Khomenko, L. Chen, S. Szabo and Z. Sandor. VA Long Beach Med. Ctr. and Univ. of California, Irvine.


B113  848.11  Lactobacillus rhamnosus GG supplementation attenuates chronic alcohol-induced liver injury by inhibiting hepatocyte apoptosis. C. Wang, Y. Wang, Y. Liu, C.J. McClain and W. Feng. Univ. of Louisville.

849. PHARMACOKINETICS/PHARMACODYNAMICS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B115  849.2  Pharmacokinetic and pharmacodynamic interactions of indolealkylamine drugs of abuse. A. Yu. Univ. at Buffalo, SUNY.


850. PHASE I/PHASE II DRUG METABOLISM

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:45 PM


B123 850.6 Application of kinetic isotope effects and molecular modeling in understanding the mechanistic complexities of CYP4F12. R.S. Foti, Amgen Inc., Seattle.

B124 850.7 Cytochrome P450 2J2 metabolizes the endocannabinoid, anandamide. V. Walker and P.F. Hollenberg. Univ. of Michigan.


B129 850.12 Breast milk represses UDP-glucuronosyltransferase 1A1 expression in the gastrointestinal tract, increasing the risk for severe hyperbilirubinemia and brain damage. R. Fujiwara, S. Chen and R.H. Tukey. UCSD.


851. DRUG DISCOVERY AND DEVELOPMENT

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:45 PM


B140 851.10 A selective reversible azapeptide inhibitor of human neutrophil proteinase 3 derived from a high affinity FRET substrate. B. Korkmaz, C. Kellenberger, M. Cadene, M-C. Viaud-Massuard and F. Gauthier. INSERM, Tours, CNRS, Marseille, Orléans and Tours.


B144 851.14 Subcutaneous tissue response of mice to calcium hydroxide-based pastes combined with chlorhexidine or to chlorhexidine gel used as intracanal medication. G. Faria, M.S.S. Pereira, L.A.B. Silva, M.C. Kuga, M. Tanomaru-Filho, J.M.G. Tanomaru and M.A. Rossi. UNESP, Brazil and Univ. of São Paulo, Ribeirão Preto.


852. MECHANISMS OF CELL INJURY/DEATH

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B148 852.2 Distinct roles of mitochondria- and ER-localized BCl-xL in apoptosis resistance and Ca2+ homeostasis. C.O. Eno, E.F. Eckenrode, K.E. Olberding, G. Zhao, K. White and C. Li. Univ. of Louisville and Rosalind Franklin Univ.


B150 852.4 Multiple cell-death mechanisms are triggered in hepatotoxicity induced by acrolein, an environmental pollutant and lipid peroxidation product. M. Mohammad, D. Avila, J. Zhang, J. Jokinen, G. Arteel, C. McClain, S. Barve and S. Joshi-Barve. Univ. of Louisville and Louisville VA Med. Ctr.


B159 852.13 Combination photodynamic therapy + sphingolipid analog LCL85 leads to autophagy, defective apoptosis and long-term sensitization. D. Separovic, N. Joseph, P. Breen, Z.H. Saad and A. Bieiwaska. Wayne State Univ. and Med. Univ. of South Carolina.

B160 852.14 Regulation of glycogen phosphorylase by the main-laforin complex. V.V. Dukhade, T.M. Bridges and M.S. Gentry. Univ. of Kentucky Col. of Med.
Physiology

853. VASOMOTOR CONTROL: ENDOTHELIUM/ SMOOTH MUSCLE/NERVES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D1 I 853.1 Transient myogenic response provides insight to mechanotransductive pathways in vascular smooth muscle cells. B.E. Carlson, N. Haydar and D.A. Beard. Med. Col. of Wisconsin and Milwaukee Sch. of Engin.

D2 II 853.2 Recruitment of dynamic cerebral artery endothelial Ca^{2+} signals by the TRPA1 channel activator AITC. M.S. Taylor, X. Qian, M. Francis, S. Earley and V. Solodushko. Univ. of South Alabama Col. of Med. and Colorado State Univ.

D3 I 853.3 Endothelium-dependent modulation of cerebral artery myogenic tone by cyclopiazonic acid. R. Tam, P.M. Kerr, K. Ondrusova and F. Plane. Univ. of Alberta and Grant MacEwan Univ., Canada.

D4 II 853.4 Downregulation of the α2-isoform of the Na,K-pump inhibits EDHF-like responses in rat mesenteric small arteries. C. Aalkjaer, N.M. Nielsen and V. Matchkov. Aarhus Univ., Denmark.

D5 I 853.5 The functional role of bestrophins and TMEM16A in rat mesenteric small arteries. C. Aalkjaer, V.S. Nielsen and V. Matchkov. Aarhus Univ., Denmark.


D7 I 853.7 Interaction between eNOS translocation and phosphorylation in flow-induced NO production. M.P. Boric, X. Figueroa, D.R. González and W.N. Durán. Pontifical Catholic Univ. of Chile, Univ. of Talca, Chile and UMDNJ-New Jersey Med. Sch.

D8 II 853.8 NO-dependent vasodilation is coupled to coordinated activation of connexin- and pannexin-based hemichannels in endothelial cells. M. Lillo, P. Gaete, J. Saez and X. Figueroa. Pontifical Catholic Univ. of Chile.

D9 I 853.9 Key role of pannexin-based hemichannels in flow-induced nitric oxide production in resistance arteries. F.R. Perez, P. Gaete, M. Boric and X. Figueroa. Pontifical Catholic Univ. of Chile.

D10 II 853.10 CGRP released from perivascular sensory nerves downregulates NO signaling through activation of pannexin-based hemichannels in mesenteric resistance arteries. P. Gaete, M. Lillo, F. Pérez and X. Figueroa. Pontifical Catholic Univ. of Chile.

D11 I 853.11 Differential roles for α_{1} versus α_{2}-adrenoreceptor activation of mouse mesenteric arterial networks in vivo. E.B. Westcott and S.S. Segal. Univ. of Missouri-Columbia.


D16 II 853.16 Role of SIRT1 in resistance exercise-induced changes in vascular function. L.R. Servidio, S.A. Roberts, M.L. Laycock and M.B. Harris. The Col. of William and Mary.

D17 I 853.17 Effects of exercise training duration on SIRT1 and eNOS expression in rat aortas. R.M. Hoffman, M. Olesiak and M.B. Harris. The Col. of William & Mary.


D20 II 853.20 Adenosine does not vasodilate skeletal muscle arterioles via secondary nitric oxide or prostaglandin production. C.L. Murrant, F. Muckle and K. Inch. Univ. of Guelph, Canada.


D32  853.32  Increased circulating microparticles in diabetic rats mediate leukocyte adhesion in intact venules. C. Stork and P. He. West Virginia Univ.

D33  853.33  Increased nitric oxide is necessary but not sufficient to increase permeability in the absence of calcium influx in intact rat venules. M. Wang, D. Yuan and P. He. West Virginia Univ. and Tasty Microcirc. Res. Ctr., Beijing.


D38  855.5  Sphingosine-1-phosphate from erythrocytes modulates water and macromolecule permeability in rat microvessels. F.-R.E. Curry, J.F. Clark and R.H. Adamson. Univ. of California, Davis.


D41  855.8  Rho-dependent upregulation of endothelial contractility and adhesion disassembly contributes to the enhanced permeability responses to inflammation in diabetic venules. D. Yuan and P. He. West Virginia Univ.


D43  855.10  Perivascular resident macrophages in the inner ear are essential for blood-labyrinth-barrier integrity. X. Shi. Oregon Hlth. & Sci. Univ.
857. MICROVASCULAR PHARMACOLOGY/ THERAPEUTICS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D52 II 857.2 Hypothermia protects against myocardial microvascular damage (no-reflow) even when initiated after coronary artery reperfusion. S.L. Hale and R.A. Kloner. Good Samaritan Hosp. and Keck Sch. of Med., Univ. of Southern California.

D53 I 857.3 SKA-31, an enhancer of SKCa2 and IKCa channels, increases coronary flow in normotensive rats. R.C. Mishra, D. Belke, H. Wulff and A.P. Braun. Univ. of Calgary, Canada and Univ. of California, Davis.

D54 II 857.4 Quercetin glucuronide preserves cardiac function in porcine hearts during perfusion with human whole blood by inhibiting platelet/neutrophil activation and preserving venular barrier function. G. Juchem, A. Bauer, J. Postach, B. Reichart and S. Nees. Univ. of Munich.


858. MICROVASCULAR PATHOPHYSIOLOGY/TUMOR MICROCIRCULATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D57 II 858.2 Loss of flow mediated dilation accompanies endothelial dysfunction in the preconditioned state. M.D. Frame and A.M. Dewar. Stony Brook Univ.

D58 I 858.3 NO and O2•− interactions as a function of ratio of NO and O2•− production in the microcirculation. S. Kar and M. Kavdia. Wayne State Univ.


859. MICROVASCULAR MECHANICS/ HEMODYNAMICS/RHEOLOGY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D62 I 859.3 Effect of systemic hematocrit on blood velocity profiles in arterioles. O. Yalcin, C.-Y. Lee, S. Ranu, M. Jivani, P. Johnson and P. Cabrales. UCSD.

D63 II 859.4 Shear stress generated by different fluid compositions induces differential endothelial signaling in intact venules. S. Xu, D. Yuan and P. He. West Virginia Univ.

D64 I 859.5 Electroacupuncture increases cerebral blood flow in a clinically relevant model of ischemic stroke. H. Lei, G. Davis-Gorman, P. McDonagh and L. Ritter. Univ. of Arizona.

D65 II 859.6 Vasoactive agents result in coordinated changes in vascular smooth muscle cell elasticity and extracellular matrix adhesion. Z. Hong, Z. Sun, Z. Li and G.A. Meininger. Univ. of Missouri-Columbia.


D69 II 859.10 Simvastatin and GGTI-2133, a gernaylgeranyl transferase inhibitor, increase erythrocyte deformability, but inhibit low oxygen tension-induced ATP release. K.M. Clapp, M.L. Ellsworth, R.S. Sprague and A.H. Stephenson. Saint Louis Univ.


D75  II  859.16 The risks of chronic internal diseases among the workers of uranium-processed enterprise in Kazakhstan. F. BekenoVA and A. Abduldayeva. Med. Univ. of Astana, Kazakhstan.


860. MICROVASCULAR FLOW REGULATION/ OXYGEN DELIVERY/NETWORKS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D78  I  860.1 Real-time contrast-enhanced ultrasound for the determination of flowmotion within skeletal muscle. S. Rattigan, E.M. Bradley, S.M. Richards and M.A. Keske. Univ. of Tasmania, Australia.

D79  II  860.2 Measurement of contraction-induced blood flow in mouse gastrocnemius muscle by optical imaging of fluorescent microspheres. A. Freire Valls, A. Sulaeman, P.D. Wagner and E.C. Breen. Pompeu Fabra Univ., Spain and UCSD.

D80  I  860.3 Oxygen dependence of respiratory rate (VO2) in rat spinotrapezius muscle in situ measured with phosphorescence quenching microscopy. A.S. Golub and R.N. Pittman. Virginia Commonwealth Univ.


D85  II  860.8 Simulation of metabolic blood flow regulation in heterogeneous microvascular networks: effects of hematocrit variations. B.C. Fry and T.W. Secomb. Univ. of Arizona.


D91  II  860.14 Inter-individual differences in rapid vasodilation in older males with and without type 2 diabetes. J.M. Kellman, M.F. Bravo, J.S. Moynes, J.J. Walsh, R.F. Bentley and M.E. Tschakovsky. Sch. of Kinesiol and Hlth. Studies, Queen’s Univ., Canada.

D92  I  860.15 Ankle position modifies tibialis anterior muscle perfusion and oxygenation in the human leg. R.B. Crater, B. Zhang and A.R. Hargens. UCSD.


D100  I  860.23 Nitric oxide availability is reduced in sickle cell disease even in presence of low amounts of intravascular cell-free hemoglobin. P. Deonikar and M. Kavdia. Wayne State Univ.

D101  II  860.24 The ratio of C-peptide to insulin is critical for low oxygen tension-induced ATP release from human erythrocytes. J. Richards, A.H. Stephenson, M.L. Ellsworth and R.S. Sprague. Saint Louis Univ.
D102 I 860.25 Effects of photoperiod, light intensity, and their interaction on blood physiological variables of modern broilers grown to heavy weights. H.A. Olanrewaju, J.L. Purswell, S.D. Collier and S.L. Branton. USDA, Starkville, MS.


D104 II 861.2 Aging impairs electrical conduction along resistance artery endothelium via enhanced signal dissipation through KCa channels. E. Behringer and S. Segal. Univ. of Missouri-Columbia.


D109 I 862.1 Co-regulation of transcellular and paracellular leak across microvascular endothelium by dynamin and Rac. W.L. Lee, S. Armstrong, V. Khajoe, C. Wang, T. Wang, J. Tigdi, J. Yin, W.M. Kuebler, M. Gillrie, S. Davis and M. Ho. Univ. of Toronto and Univ. of Calgary, Canada.

D110 II 862.2 Sphingolipids signal rapid loss of P-glycoprotein transport activity at the blood-brain barrier. D.S. Miller, C.R. Campos, B.T. Hawkins and R. Cannon. NIEHS/NIH, Research Triangle Park and Univ. of Washington Sch. of Med.

D111 I 862.3 Increased formation of functional caveolae due to increased content of fibrinogen. N. Muradashvili, S.J. Khundmiri, R.L. Benton and D. Lominadze. Univ. of Louisville.

D112 II 862.4 Matrix metalloproteinase-9 in homocysteine-induced intestinal microvascular endothelial paracellular and transcellular permeability. C. Munjal, N. Tyagi, D. Lominadze and S.C. Tyagi. Univ. of Louisville.

D113 I 862.5 Hypoxia/reoxygenation stress increases organic anion transporting polypeptide 1a4-mediated transcellular transport at the blood-brain barrier: relevance to CNS drug delivery. P.T. Ronaldson, L.M. Slosky and L. Sanchez-Covarrubias. Univ. of Arizona.


D115 I 862.7 Infection of human pericytes by HIV-1 disrupts the integrity of the blood-brain barrier. M. Toborek and S. Nakagawa. Univ. of Miami Miller Sch. of Med. and Univ. of Kentucky Med. Ctr.


D121 II 863.1 Hydrogen peroxide mediates oxidant-dependent stimulation of arterial smooth muscle L-type calcium channels. G.C. Amberg and N.L. Chaplin. Colorado State Univ.

864. CARDIAC FUNCTION AND DYNAMICS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D132 II 864.2 Understimulation of murine cardiac hemodynamics using invasive catheters. C. Constantiındınes, S. Angeli, F. Kossivas and P. Ktorides. Univ. of Cyprus.

D132 III 864.3 Infrared contrast imaging, a new visualization technology for vascular, metabolic and physiological monitoring. R.Y. Sostek. Harvard Apparatus, Holliston, MA.

865. PERIPHERAL CIRCULATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D154 II 865.4 Polyamine supplementation reduces oxidative stress and reverses vascular endothelial dysfunction with aging. R.A. Gioscia-Ryan, M.C. Zigler, D.R. Seals, A.L. Sindler and T.J. LaRocca. Univ. of Colorado Boulder.


D156 II 865.6 Flow mediated dilation variation based on normotensive rat strain. J. Heimlich and D.M. Pollock. Georgia Hlth. Sci. Univ.


D159 I 865.9 Polyamine supplementation enhances autophagy and reverses age-related arterial stiffening. T.J. LaRocca, R.A. Gioscia-Ryan, B.S. Fleenor and D.R. Seals. Univ. of Colorado Boulder.


D163 I 865.13 Endothelium-dependent dilation is inversely related to hematocrit among healthy young and older adults. G.L. Pierce, A.J. Donato, T.J. LaRocca, K.L. Jablonski and D.R. Seals. Univ. of Colorado Boulder, Univ. of Iowa and Univ. of Utah.

D164 II 865.14 Estimating peripheral blood pressure from central blood pressure by a transfer function method. W.C. Rose, K.A. Schell, A. DiSabatino and M.E. Stillabower. Univ. of Delaware and Christiana Care Hlth. Syst., Newark, DE.


D166 II 865.16 Acute effects of intermittent pneumatic compression-induced hemodynamics on vascular function in humans. R.D. Sheldon, B.T. Roseguini, M.H. Laughlin and S.C. Newcomer. Purdue Univ. and Univ. of Missouri-Columbia.

D167 I 865.17 Sodium nitrite treatment restores vascular endothelial function in old mice with CKD. A.L. Sindler, M.C. Zigler, M. Yoshizawa, C. Baylis and D.R. Seals. Univ. of Colorado Boulder and Univ. of Florida.

866. VASCULAR PATHOBIOLOGY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D168 I 866.1 Influence of cellular magnesium concentration on fibroblast phenotype differentiation. C.M. Battis, T. Kombi, G. Dubyak and A. Romani. Case Western Reserve Univ. Sch. of Med. and Cedarville Univ., OH.


D173 II 866.6 Obesity impairs alpha 1 adrenergic receptor mediated contraction in carotid arteries. A.M. Dorrance and J.L. McClain. Michigan State Univ.


D176 VI 866.9 Time course of doxorubicin accumulation and dysfunction in the rat aorta. N.M. Gibson, D.S. Hydock and R. Hayward. Univ. of Northern Colorado.


867. RENAL ION TRANSPORT, TRAFFICKING AND REGULATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D


D195 II 867.6 The trans-tubular K gradients reveal long-term adaptation in mice to Na-deficient, high K diets. K.M. Echtenkamp, L.I. Hatcher, R.J. Cornelius and S.C. Samson. Univ. of Nebraska Med. Ctr. and Univ. of Nebraska at Omaha.


D200  I  867.11  ENaC is active in the ASDN in the absence of mineralocorticoid. E. Mironova, V. Bugaj and J. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.


D204  I  867.15  Calmodulin and CaM kinase II govern MARCKS-mediated PIP2-dependent regulation of ENaC. A.A. Alli, H.F. Bao, A.A. Alli, S. Aldrugh, Y. Zhou, L. Yu and D.C. Eaton. Emory Univ.

D205  II  867.16  Identification of critical residues within the extracellular loop of the epithelial sodium channel. S.R. Swann, T. Whisnant and R.E. Booth. Texas State Univ.-San Marcos.

D206  I  867.17  ENaC activity is increased by collecting duct-specific endothelin B receptor knockout. V. Bugaj, E. Mironova, D. Kohan and J.D. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Utah.


D209  II  867.20  Aldosterone and Ang II complementary stimulate ENaC activity during systemic salt restriction. M. Mamenko, O.L. Zaiika and O. Pochynyuk. Univ. of Texas Hlth. Sci. Ctr. at Houston.


D211  II  867.22  Renal proximal tubule ion transporters are discrepantly regulated by parathyroid hormone in acute versus chronic hyperparathyroidism. R. Murray, N. Lesousky, S.J. Khundmire and E.D. Lederer. Univ. of Louisville and Robley Rex VA Med. Ctr.


D228 I 867.39 EAST/SeSAME syndrome mutations partially disrupt trafficking of homomereric Kir4.1 channels and produce non-functional heteromeric Kir2.3/Kir4.1 channels. B. Ortega, D. Li, B-Y. Kim, J.B. Wade and P.A. Welling. Univ. of Maryland Sch. of Med.


868. RENAL PATHOLOGY, TOXICOLOGY AND CYSTIC DISEASES
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D233 I 868.3 Role of calcineurin in polycystin protein trafficking to the primary cilium in LLCtPK cells. A.L. Gilder, H.C. Chaplin and M.J. Caplan. Yale Univ. and Univ. of Washington.


D247 I 868.17 Endothelin ETα receptor blockade does not attenuate the rise in early markers of acute kidney injury following bilateral renal ischemia. E.I. Boesen and K.E. Zoll. Georgia Hlth. Sci. Univ. and Univ. of Evansville, IN.


D250 II 868.20 Involvement of TNF-α receptor type 2, but not the type 1, in angiotensin II-induced renal tissue injury in mice. P. Singh, L. Bahrami, A. Castillo and D.S.A. Majid. Tulane Univ. Sch. of Med.
869. DIABETES AND INSULIN RESISTANCE II

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D254 II 869.4 Fasting hyperglycemia blunts the regression of impaired glucose tolerance in older adults after lifestyle modification. S.K. Malin and J.P. Kirwan. Cleveland Cln.


D262 II 869.12 A carbohydrate restricted-high fat diet reduces blood pressure in spontaneously hypertensive rats without causing insulin resistance. T. Jallil, J. Bosse, V. Dolinsky, Q-J. Zhang, E.D. Abel and J.D. Symons. Univ. of Utah and Univ. of Manitoba.


D265 I 869.15 Activation of malonyl-CoA/fatty acid synthase axis is an early event in the effects of insulin in human skeletal muscle myotubes: implication for obesity linked insulin resistance. V. Ritov, A. Chacon, E. Menchikova, J. DeLany and J. Dube. Univ. of Pittsburgh.


D267 I 869.17 Impaired fasting glucose and enhanced endothelin-1 vasoconstrictor tone. J. Ma, K. Diehl, D. Templeton, J. Greiner, B. Stauffer and C. DeSouza. Univ. of Colorado Boulder.


D273 I 869.23 Duration of fast alters fasting glucose levels, response to oral glucose load, and weight in the mouse. P. Schork and K.M.S. Johnson. Beloit Col., WI.


870. VASCULAR SMOOTH MUSCLE

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D279 I 870.5 Interplay between gap junctions and K2P-channels: the switch from PDBu-elicted contraction to the dilation of the thoracic aorta. R. Bychkov, L. Cubano, S. Hayoz and H. Maldonado. Univ. Central del Caribe, PR.


D281 I 870.7 In vitro tolerance after incubation with nitroglycerin is due to increased reactive oxigen species in the endothelial cells. V.B. de Rezende Dias, B.R. Silva, L. Pernomian and L.M. Bendhack. Univ. of São Paulo.


D283 I 870.9 TLR-9 activation potentiates the role of ERK1/2 in thromboxane A_{2}-induced contractions in uterine but not in resistance arteries. S. Gouloupolou, T. Matsumoto and R.C. Webb. Georgia Hlth. Sci. Univ. and Hoshi Univ., Japan.


D285 I 870.11 Integrin-dependent and -independent potentiation of BKCa channel current by cell stretch. P. Gui, A.P. Braun and M.J. Davis. Univ. of Missouri-Columbia and Univ. of Calgary, Canada.

D286 II 870.12 Protein kinase A-mediated inhibition of T-type Ca^{2+} channels in the cerebral circulation. O.F. Harraz and D.G. Welsh. Univ. of Calgary.


D291 I 870.17 Role of L-type voltage dependent calcium and large conductance potassium channels in adenosine A_{1} receptor mediated vasoconstriction through Cyp4a. S.S. Kunduri, M.A. Nayeem, D.S. Poonoth, S. Tilley and S.J. Mustafa. West Virginia Univ. and Univ. of North Carolina at Chapel Hill.

D292 II 870.18 Enhancement of the large conductance, Ca^{2+}-activated K^{+} (BK) channel current by cGMP-dependent protein kinase requires multiple phosphorylation sites on the C-terminal tail. B.D. Kyle, S. Hurst and A.P. Braun. Univ of Calgary, Canada.

D293 I 870.19 Probenecid protects vascular contractile of thoracic aorta in rats under hypotonic condition by blocking pannexin-1. B. Li, X. Kong, X. Guan and Q. Xia. Zhejiang Univ., China.


D296 II 870.22 Comparison of the tolerance on the venous relaxation induced by nitroglycerin and by the new nitrite donor cis-[Ru(bpy)_{2}(py)(NO2)](PF6). M. Paulo, R.S. da Silva and L.M. Bendhack. Univ. of São Paulo, Ribeirão Preto.


D300 II 870.26 Phenytoin potentiates the production of reactive oxygen species in endothelial cells from hypertensive but not in normotensive rat aorta. B.R. Silva, L. Pernomian and L.M. Bendhack. Univ. of São Paulo, Ribeirão Preto.


D304 II 870.30 Hypoxia attenuates the ability of cyclic guanine-dependent protein kinase to increase BK channel activity. R.B. Thorpe, J.M. Williams and W.J. Pearce. Loma Linda Univ.


D308 II 870.34 Pharmacological studies of BK and L-type Ca^{2+} channel function in mesenteric arteries and veins from obese patients. H. Xu, R.E. Watson, P. Yenumula, R. Fernandes, C.N. Pereira-Hicks, G.D. Fink and J.J. Galligan. Michigan State Univ.

D309 I 870.35 Differences in phosphorylation-mediated K+ channel regulation between vascular smooth muscle cells from cremaster and cerebral resistance vessels. Y. Yang, A.P. Braun, M.J. Davis and M.A. Hill. Univ. of Missouri-Columbia and Univ. of Calgary, Canada.


871. LUNG PHYSIOLOGY: VASCULAR REGULATION AND SMOOTH MUSCLE CELL BIOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


872. HYPERTENSION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D319 II 872.2 Overexpression of Na/Ca exchanger-1 in vascular smooth muscle leads to elevated basal blood pressure and increased responses to angiotensin II. L. Chen, M. Li, W.G. Wier, J. Wang and J. Zhang. Univ. of Maryland Sch. of Med.


D321 II 872.4 Peripheral macrophage depletion impairs phenylephrine mediated contraction in aorta from stroke prone spontaneously hypertensive rats, but does not alter the effect of perivascular fat. A.M. Dorrance, P.W. Pires, J.L. McClain and S.W. Watts. Michigan State Univ.

D322 I 872.5 The differential contribution of splanchic and renal nerves to the maintenance of Dahl salt-sensitive hypertension. J.D. Foss, J.W. Osborn and G. Fink. Univ. of Minnesota, Minneapolis and Michigan State Univ.

D323 II 872.6 Effect of differentially selective S1P receptor agonists on cardiovascular function after acute and long-term administration in rats suggestive of subtype-specific bradycardia (S1P1) and hypertension (S1P3). R.M. Fryer, A. Muthukumaran, P.C. Harrison, S.G. Nodop Mazurek and G.A. Reinhardt. Boehringer-Ingelheim Pharmaceuts. Inc., Ridgefield, CT.

D324 I 872.7 Morphological characterization of intrinsic cardiac nervous system in left ventricular hypertrophy. M. Gomez, A. Reynoso, R. Giles and G. Flores. Autonomous Univ. of Puebla, Mexico.


D327 II 872.10 Atherogenic index of plasma: a significant indicator for the onset of atherosclerosis during menopause in hypertensive females of Southeast Nigeria. J.C. Igweh. Delta State Univ., Nigeria.
D328 I 872.11 Progression of microalbuminuria in SHR is associated with diminished expression of proteins that belong to the receptor-mediated endocytosis macromolecular complex. B.H. Inoue, M.O. Machado and A.C. Girardi. Univ. of São Paulo.


D330 I 872.13 A small molecule inhibitor of signal transducer and activator of transcription 3 protects against angiotensin II-induced vascular dysfunction and hypertension. A.W. Johnson and F.M. Faraci. Univ. of Iowa.


D335 II 872.18 Proteasome inhibition attenuates angiotensin II-induced hypertension and vascular remodeling. S. Li, X. Wang and D. Martin. Univ. of South Dakota.


D344 I 872.27 Effects of testosterone on vascular reactivity in male Sprague-Dawley rats fed a high salt diet. A.K. Oloyo, Y. Momoh, O. Sofola and A. Oyekan. Univ. of Lagos, Nigeria and Texas Southern Univ.

D345 II 872.28 The role of plasma IL-6 and IL-10 during DOCA-salt hypertension. M. Ongele, R. Duan and D.L. Lee. Howard Univ.


D353 II 872.36 PPAR-α regulates NOX2 and SOD expression in the heart during angiotensin II hypertension. J.L. Wilson, K. Sankavaram, R. Duan, J.S. Allard and D.L. Lee.
873. LUNG PHYSIOLOGY: PULMONARY HYPERTENSION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D358 I 873.3 Use of protein chaperones to correct BMP receptor processing errors in hereditary pulmonary arterial hypertension. A. Frump and M. de Caestecker. Vanderbilt Univ.


D364 I 873.9 Glucose-6-phosphate dehydrogenase regulates pulmonary artery smooth muscle cell phenotype. S. Chettimada, R. Gupta and S. Gupta. Univ. of South Alabama.


D370 I 873.15 Role of mitochondrial reactive oxygen species and actin polymerization in PKC-dependent constriction of small pulmonary but not mesenteric arteries. J.B. Snow, M.A. Sands, L.V. Gonzalez Bosc, B.R. Walker and T.C. Resta. Univ. of New Mexico.


D372 I 873.17 Hsp90 inhibition prevents monocrotaline-induced pulmonary hypertension in rats, as revealed by high resolution echocardiography. C. Dimitropoulou, L. Meadows, Y. Su, S. Litwin and J.D. Catravas. Med. Col. of Georgia.


D378 I 873.23 Model of pulmonary hypertension induced by reversible pressure-overloaded left heart failure in rats. M. Chovanec and J. Herget. 2nd Med. Sch., Charles
874. GENETICS, GENOMICS, EPIGENETICS AND HYPERTENSION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D382 I 874.3 Long-term interactions between the ACE/Ang II/AT1a receptor axis and the ACE2/Ang(1-7)/Mas receptor axis in wild-type C57BL/6J and AT1a receptor-knockout mice. B.N. Ellis, X.C. Li, E. Miguel-Qin and J.L. Zhuo. Univ. of Mississippi Med. Ctr.


D389 II 874.10 AT1A receptor-mediated blood pressure and renal effects of long-term infusion of a low dose of angiotensin II in C57BL/6J and AT1a receptor-knockout mice. E. Miguel-Qin, X.C. Li, B. Ellis and J.L. Zhuo. Univ. of Mississippi Med. Ctr.


D395 II 874.16 Identification of Rtel1, Edn3, and Dnajc5 as candidate genes for rat chromosome 3 blood pressure quantitative trait loci by gene expression profiling under multiple salt-loading conditions. G.T. Cicila, A. MsCweeney, K.M. Pettee, S. Yang, S.A. Khuder and S.J. Lee. Univ. of Toledo Col. of Med. and Life Sci.


State Univ.


876. CARDIOVASCULAR AND RENAL MECHANISMS IN OBESITY AND DIABETES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D421 I 876.9 Combined effect of advanced glycation end products and physiologically relevant dynamic shear stress on endothelial cell functions. Z. Maria, W. Yin and D.A. Rubenstein. Oklahoma State Univ.


877. OBESITY AND SATIETY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D425 I 876.13 Melanocortin 4 receptors in the paraventricular nucleus of the hypothalamus do not mediate chronic metabolic or cardiovascular effects of leptin after established obesity in mice. S.M. Hamza, J.H. Dubinion, A. Adi and J.E. Hall. Univ. of Mississippi Med. Ctr.


D429 II 877.4 Effects of the cacao flavanol (-)-epicatechin on a rat model of metabolic syndrome. G. Ceballos, G. Chamorro, P. Ortiz, G. Gutierrez and F. Villarreal. Grad. Sch. of Med.-IPN, Mexico City and UCSD.


D432 II 877.7 NALP3 inflammasome activation in the coronary arterial wall of obese mice. M. Xia, K. Boini, J. Abais, X. Li, M. Xu and P-L. Li. Virginia Commonwealth Univ.


D439 II 877.14 Body weight and body fat gain due to ovarian hormone loss is attenuated by inhibiting angiotensin converting enzyme or angiotensin type 1 receptors in Dahl salt-sensitive female rats. H. Ji, W. Zheng, B. Bajaj, X. Wu, J. Liu and K. Sandberg. Georgetown Univ.

878. NOVEL REGULATORY MECHANISMS IN BLOOD PRESSURE CONTROL

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D444 II 878.5 Female spontaneously hypertensive rats have greater increases in NOS in mesenteric arteries than males. M.A. Zimmerman, G.R. Crislip and J.C. Sullivan. Georgia Hlth. Sci. Univ.


879. REGULATION OF BLOOD PRESSURE AND RENAL FUNCTION: IMMUNE CELLS AND INFLAMMATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

880. SEX DIFFERENCES IN BLOOD PRESSURE AND FLUID VOLUME HOMEOSTASIS

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D454 I 880.1 Female spontaneously hypertensive rats have higher expression of TGF-β and Smad signaling in mesenteric arteries following the development of hypertension. A.J. Tipton and J.C. Sullivan. Georgia Hlth. Sci. Univ. and Univ. of Mississippi Med. Ctr.


D458 I 880.5 Effect of castration on cardiac index in the spontaneously hypertensive rat. D. Martin, B. Kjellsen and T. Messenger. Univ. of South Dakota.

881. CELL VOLUME, OSMOREGULATION AND WATER TRANSPORT

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D460 II 881.2 Na+-dependent transport of taurine is found only on the abluminal membrane of the blood-brain barrier. H. Raszgado-Flores, A. Mokashi and R. Hawkins. Rosalind Franklin Univ.

D461 I 881.3 Role of aquaporin2 in the increased urinary flow of K-adapted mice. J.I. Contreras, L.R. Gullixson, C. Pyle, E. Mezzetti, X. Chen and S. Novotny. Univ. of South Dakota.


D463 I 881.5 Osmosensitive gene expression in *C. elegans* is regulated by conserved signaling mechanisms that control protein translation initiation. E. Lee and K. Strange. Mount Desert Island Biol. Lab., ME.

D464 II 881.6 Proteostasis in *C. elegans* is maintained during extreme osmotic stress by reduced translation with resultant increases in molecular chaperone capacity. K. Burkewitz, K. Choe, E. Lee, A. Deonarine and K. Strange. Mount Desert Island Biol. Lab., ME.

D465 I 881.7 Evidence for a Na/K pump in nematocytes isolated from sea anemones. R. Morabito, A. Marino, G. La Spada, N.C. Adragna and P.K. Lauf. Univ. of Messina and Wright State Univ.

D466 II 881.8 Sea water acidification alters cell volume regulation and discharge in jellyfish. A. Marino, R. Morabito, G. La Spada, P.K. Lauf and N.C. Adragna. Univ. of Messina and Wright State Univ.

D467 I 881.9 Regulation of myo-inositol in tilapia (Oreochromis mossambicus) brain during hyperosmotic stress. A.M. Gardell, R. Sacchi and D. Kültz. Univ. of California, Davis.

D468 II 881.10 Hyperosmotic stress induces the myo-inositol pathway by several orders of magnitude in tilapia (Oreochromis mossambicus) gill epithelium. R. Sacchi, A.M. Gardell and D. Kültz. Univ. of California, Davis.

D469 I 881.11 Expression and functions of inositol monophosphatase in seawater adapted euryhaline teleosts such as the European eel (*Anguilla anguilla*) and tilapia (Oreochromis mossambicus). S. Kalujnaia, S. Gellatly and G. Cramb. Sch. of Med., Univ. of St. Andrews, U.K.


D471 I 881.13 PTG (protein targeting to glycogen) regulates the osmoprotective transcription factor NFAT5 via SHP-1 phosphatase. X. Zhou, M.B. Burg and J.D. Ferraris. Uniformed Svcs. Univ. of Hlth. Sci. and NHLBI/NIH.
882. INTRACELLULAR PH AND ACID/BASE TRANSPORT

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D473 I 882.1 Structural and functional changes in the C-terminal regulatory tail of the Na\(^{+}\)/H\(^{+}\) exchanger mediated phosphorylation-induced regulation. X. Li and L. Flieget. Univ. of Alberta.


D475 I 882.3 Electrogenicity and anion selectivity of the sodium/bicarbonate transporter NBCe1 determined by a single mechanism. S. Lee and I. Choi. Emory Univ.

D476 II 882.4 The role of carbonic anhydrase II on HCO\(_3\)-initiated transport through the SLC4A4 transporter NBCe1A. F.J. Moss and W.F. Boron. Case Western Reserve Univ.


D478 II 882.6 Regulation of the Na\(^{+}\),HCO\(_3\)-cotransporter NBCn1 (SLC4A7) by a constitutively active ErbB2 receptor in MCF-7 breast cancer cells. A. Gorbatenko, C.W. Olesen, G. Lauritzen, E. Valen and S.F. Pedersen. Univ. of Copenhagen.

D479 I 882.7 Immunochemical techniques identify Na\(^{+}\)-coupled HCO\(_3\) transporters in chemosensitive neurons of the medullary raphé. A.A. Coley, V.A. Ruffin, U. Hopfer and W.F. Boron. Case Western Reserve Univ.


D481 I 882.9 Mathematical modeling of the role of carbonic anhydrase II and IV on the influx of CO\(_2\) in a Xenopus oocyte. R. Occhipinti, R. Musa-Aziz and W.F. Boron. Case Western Reserve Univ. and Univ. of São Paulo.

883. ATPASE-DRIVEN ION PUMPS

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D483 II 883.2 Modulation of cardiac Na\(^{+}\),K\(^{-}\)-ATPase and cell viability by ischemia/reperfusion injury and ouabain preconditioning. S.V. Pierre, A. Belliard, Y. Sottejeau and Q. Duan. Univ. of Toledo Col. of Med.

884. ION CHANNELS (POSTERS)

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D484 I 884.1 Discovery of novel small molecule CFTR inhibitor through structural modification of compound from Thai plant: mechanism and anti-diarrheal efficacy. S. Sawsawirojwong, S. Suksmarram, V. Chatsudhipong and C. Muanprasat. Fac. of Sci., Mahidol Univ. and Fac. of Sci., Srinakharinwirot Univ., Thailand.


D487 II 884.4 The N-terminus of CIC-3 determines membrane localization. F.S. Lamb and M.M. Collins. Vanderbilt Univ. and Univ. of Iowa.


D489 II 884.6 Chronic ethanol ingestion increases epithelial sodium channel activity in C57BL/6 jug. D. Trac, E. Brewer and M.N. Helms. Emory Univ.: Sch. of Med. and Children’s Healthcare of Atlanta.

D490 I 884.7 The effects of synthetic ASIC1a peptide on glial proliferation. J.C. Guercio and E. Petroff. Montclair State Univ.

D491 II 884.8 A Deg/ENaC cation conductance regulates migration and cell cycle progression in gliomas. A.K. Rooij, C.M. McNicholas and C.M. Fuller. Univ. of Alabama at Birmingham.

D492 I 884.9 Association of epithelial Na\(^{+}\) channel and acid-sensitive ion channel subunits with lipid rafts in high grade gliomas. J.N. Chebukati, C.M. McNicholas and C.M. Fuller. Univ. of Alabama at Birmingham.
D493 II 884.10 microRNA 29b is upregulated in pulmonary artery smooth muscle cells from patients with idiopathic pulmonary arterial hypertension and inhibits K+ channel expression and function. N.M. Pohl, A. Yamamura, H. Yamamura, A. Makino and J.-X.-J. Yuan. Univ. of Illinois at Chicago.

D494 I 884.11 Molecular determinant of KCa3.1 that affects cell proliferation? K.L. Hamilton and D.C. Devor. Univ. of Otago, New Zealand and Univ. of Pittsburgh.


885. REGULATION OF EPITHELIAL TRANSPORT PROTEINS, ION AND WATER CHANNELS, AND MODULATORY FACTORS I

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D497 I 885.1 Normalization of CFTR brush border membrane trafficking defects in the intestines of myosin 1a/6 double mutant mice. N.E. Hoeckstra, M. Mark and N. Ameen. Yale Univ.


D499 I 885.3 CFTR dependent bicarbonate secretion in native small airway epithelia. A.K.M. Shamsuddin and P.M. Quinton. UCSD and Univ. of California, Riverside.


D503 I 885.7 DIDS causes Src-dependent inhibition of Na,K-ATPase in the ciliary epithelium and slows aequorhumor secretion by the intact porcine eye. N.A. Delamere, A. Mandai and M. Shahidullah. Univ. of Arizona.

D504 II 885.8 Activation of AT2 receptors reduces renal AT1 receptor function and enhances ACE2 activity in obese Zucker rats. G. Ali and T. Hussain. Sch. of Pharm., Auburn Univ.


D508 II 885.12 Role of PKCα in hypertonically-stimulated urea permeability. Y. Wang, J.D. Klein, O. Froehlich and J.M. Sands. Emory Univ.


D517 I 885.21 Visualization of exocytosis and vesicle trafficking in inner medullary collecting duct. K.-P. Yip, J. Amin and B. Cha. Univ. of South Florida.


886. SCHOLANDER AWARD

Poster

Mon, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D525 II 886.4 Cardiovascular plasticity during hypoxic development in snapping turtle and alligator embryos. J. Eme, K.B. Tate, C.E. Slay, Z.F. Kohl, J.W. Hicks and D.A. Crossley II. Univ. of North Texas and Univ. of California, Irvine.

D526 I 886.5 Molecular mechanisms regulating cardiac contractility: subfunctionalization of fish-specific paralogs of troponin C in Danio rerio. C.E. Genge and G.F. Tibbits. Simon Fraser Univ., Canada.


D528 I 886.7 In vitro effects of acute exposure to hyperglycemic conditions on endothelium-dependent vasodilation in mourning doves (Zenaida macroura). C.L. Jarrett and K.L. Sweazea. Sch. of Nutr. and Hth. Promotion, Arizona State Univ.


D531 II 886.10 Decreased expression of adipose fatty acid transporters CD36 and FATP1 contributes to increased plasma free fatty acids during prolonged fasting in northern elephant seal pups. J.A. Viscarra, R. Rodriguez, J.P. Vazquez-Medina, C.D. Champagne, S.H. Adams, D.E. Crocker and R.M. Ortiz. Univ. of California Merced, Univ. of California, Santa Cruz, Univ. of California, Davis and Sonoma State Univ., CA.

D532 I 886.11 Hydration state of bats may explain frequency of arousals from torpor. M. Ben-Hamo, A. Muñoz-Garcia, C. Korine and B. Pinshow. Ben-Gurion Univ. of Negev, Israel.


D534 I 886.13 Competing energy demands in the hawkmoth Manduca sexta. H.L. Contreras and G. Davidowitz. Univ. of Arizona.


D538 I 886.17 ROS scavenging mimics anoxia by enhancing GABA receptor-mediated electrical suppression in anoxia-tolerant turtle cortex. D.W. Hogg, M.E. Pameneter and L.T. Buck. Univ. of Toronto and UCSD.


D543 II 886.22 Anaerobic energy stores in emperor penguin muscle: implications for muscle metabolism and dive performance. C.L. Williams, K. Sato, K. Shiomii and P.J. Pongonis. Univ. of California, Irvine, UCSD and Univ. of Tokyo.


D545 II 886.24 The effect of prolonged hypoxic exposure on chemoreceptor morphology of bowfin (Amia calva) with and without access to air. C.S. Porteus, P.A. Wright and W.K. Milsom. Univ. of British Columbia and Univ. of Guelph, Canada.


D547 II 886.26 Examination of avian renal tissue for the presence of sodium-glucose co-transporters. J.M. Isaacs and E.J. Braun. Univ. of Arizona.

D548 I 886.27 Quantification and analysis of advanced glycation end products in avian plasma. M. Gu, D. Ferguson and E.J. Braun. Univ. of Arizona.
D549 II 886.28 Neural responses to looming objects in the dragonfly. E. Gaffin-Cahn and R. Olberg. Union Col., NY.


D551 II 886.30 The effects of pyrene exposure on gill O2 respiration and osmoregulation in channel catfish. A. Rehan, N.J. Goertzen, S. Gayam and E.K. Stabenau. Bradley Univ., IL.

**887. MITOCHONDRIAL BIOENERGETICS IN COMPARATIVE AND INTEGRATIVE PHYSIOLOGY**

*Poster*

**Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)**


D553 II 887.2 Evolution of hypoxia-responsive cytochrome c oxidase genes. C. Moyes, K. Kocha and J. Pearlstein. Queen’s Univ., Canada.

D554 I 887.3 Beating anoxia: mitochondrial plasticity in the turtle heart. G.L.J. Galli and J. Richards. Univ. of Manchester and Univ. of British Columbia.

D555 II 887.4 The multifaceted metabolism of reactive oxygen species by mitochondria. J. Treberg. Univ. of Manitoba.


D557 II 887.6 Reversible suppression of mitochondrial respiration in skeletal muscle of the freeze tolerant wood frog Rana sylvatica. C. Hughey, J. Shearer, K.B. Storey and D.S. Hittel. Univ. of Calgary and Carleton Univ., Canada.


D559 II 887.8 Antioxidant enhanced spare capacity in cardiomyocytes as a protective response to oxidative stress induced by hypoxia and redox cycling agent. R. Legmann, J. Melito and D. Ferrick. Seahorse Bioscience, Billerica, MA.

D560 I 887.9 Miner1, mutated in Wolfram syndrome, is an endoplasmic reticulum protein that regulates cellular redox status and Ca2+ homeostasis. S.E. Wiley, A. Andrejev, G. Perkins, J.E. Dixon and A. Murphy. UCSD.


**888. MITOCHONDRIAL FUNCTIONS**

*Poster*

**Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)**

889. NEURAL CONTROL OF VISCERAL AND METABOLIC FUNCTION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D585 I 889.3 The effects of apelin-13 on cardiovascular function can be mediated by modulating the excitability of SFO neurons. L. Dai, P.M. Smith and A.V. Ferguson. Queen’s Univ., Canada.

D586 II 889.4 Nesfatin-1 alters synaptic activity in neurons in the nucleus of the solitary tract. A. Mizume and A.V. Ferguson. Queen’s Univ., Canada.


D590 II 889.8 Orexigenic and obesity effects of estrogen deficiency can be attenuated by half-day food deprivation either during the light phase or the dark phase. S. Taguchi, K. Mabuchi, A. Takano, Y. Harus, K. Morimoto and A. Takamata. Nara Women’s Univ., Japan.

D591 I 889.9 Involvement of orexin A and melanin concentrating hormone neurons of the lateral hypothalamic area in the food intake response to reduced glucose availability. A. Takamata, S. Taguchi, S. Ikeda, E. Aida and K. Morimoto. Nara Women’s Univ., Japan.

D592 II 889.10 LPLRFamide causes anorectic effects associated with the brain stem in rats. R.I. Webster and M.A. Cline. Radford Univ., VA.

D593 I 889.11 Nicotinic acetylcholine receptors in supraoptic nucleus neurons: potential role in regulation of food intake. Z. Song. Univ. of Colorado Sch. of Med.

D594 II 889.12 Neuropeptide Y is associated with changes in appetite-associated nuclei but not food intake in a hypophagic avian model. B.A. Newmyer, P.B. Siegel and M.A. Cline. Radford Univ. and VPI and State Univ.

D583 I 889.1 Specific oral amino acids induce a protective response. J. Jordi, S. Camargo, C. Boyle-Neuner, T. Lutz and F. Verrey. Univ. of Zurich.

D584 II 889.2 Role of brain melanocortin receptor 5 in physical activity in rats. C. Shukla and C.M. Novak. Kent State Univ.
891. CENTRAL AUTONOMIC REGULATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D603 I 891.7 Metabolic and cardiovascular adjustments to hemorrhage in [TGR(ASrAogen)] rats and (mRen2)27 rats. D.C. de Lima, H.A. Shaltout, C.C. Coimbra and D.I. Diz. Fed. Univ. of Minas Gerais, Brazil and Wake Forest Univ. Sch. of Med.


D605 I 891.9 Colocalization of estrogen receptor β with spinally projecting and vasopressinergic neurons in the hypothalamic paraventricular nucleus during pregnancy. K.M. Coldren, R.J. Brown, D.D. Kline, E.M. Hasser and C.M. Heesch. Univ. of Missouri-Columbia.


D607 I 891.11 Neuropeptide Y type 1 receptors are expressed in preautonomic oxytocinergic neurons of the paraventricular nucleus SHR. J.C. Cruz, M.T. Cavalleri and L.C. Michelinelli. Univ. of São Paulo.


D611 I 891.15 Hypertension and pregnancy are accompanied by differential changes in GABAA and NMDA receptor subunit expression in the hypothalamic paraventricular nucleus. S. Cork, P. Chazot and S. Pyner. Sch. of Biol. and Biomed. Sci., Durham Univ., U.K.


D613 I 891.17 Bardet Biedl syndrome genes are required for autonomic control of the circulation. D.A. Morgan, V.C. Sheffield and K. Rahmouni. Univ. of Iowa and HHMI.


D616 II 891.20 Neuropeptide Y type 1 receptors are expressed in pre-autonomic neurons in the hypothalamic paraventricular nucleus. N.M. Clute-Reinig, P.A. Cassaglia and V.L. Brooks. Oregon Hlth. & Sci. Univ.


892. MOLECULAR SENSORS IN AFFERENTS NEURONS THAT CONTRIBUTE TO PAIN, FATIGUE, AND ACTIVATION OF AUTONOMIC REFLEXES IN HEALTH AND DISEASE (POSTERS)

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D619 I 892.1 Acid sensing ion channels (ASICs) in muscle skeletal afferents are heteromultimers with ASIC3 in muscle skeletal afferents being a necessary component. M. Gautam and C.J. Benson. Univ. of Iowa.

D620 II 892.2 GLT-1 over-expression mitigates chronic bladder inflammation and GLUR1 trafficking. K. Roman and R.L. Stephens, Jr. The Ohio State Univ.

D622  II  892.4  Acute inflammation alters the response to stretch in mouse extensor digitorum longus muscle afferents. K.A. Wilkinson and S. Hochman. Emory Univ.


D624  II  892.6  Evidence for chemosensitive fibers in the aortic depressor nerve in mice but not in rats. H.M. Stauss, D.A. Morgan and K. Rahmouni. Univ. of Iowa.


893. NEURAL CONTROL AND AUTONOMIC REGULATION: TRAINEE FEATURED TOPIC

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D630  II  893.4  (Pro)renin receptor over-expression induces angiotensin II-independent NADPH oxidase activation through PI3K - ERK signaling in neuronal cells. H. Peng, W. Li, D. Seth, N.L. Gabriel and Y. Feng. Tulane Univ.

D631  I  893.5  Downregulation of AT1 receptor in the RVLM induced by mesenchymal stem cells treatment prevent the hypertension and sympathetic hyperactivity in 2K-1C Wistar rats. E.B. Oliveira-Sales, E. Maquigussa, P. Semedo, L.G. Oliveira, N.O.S. Câmara, C.T. Bergamaschi, M.A. Boim and R.R. Campos. Fed. Univ. of São Paulo.


D641  I  893.15  Intravenous ascorbic acid does not block the pressor or sympathetic nerve response to ischecmic fatuging rhythmic handgrip exercise. M.D. Muller, R.C. Drew, J. Cui, C. Blaha, J. Mast and L.I. Sinoway. Penn State Hershey Heart and Vasc. Inst.


894. CONTROL OF BREATHING: CHEMORECEPTION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D644  I  894.1  Regulation of ventral surface chemoceptors by purinergic signaling. I.C. Wenker, A. Takakura, T. Moreira and D.K. Mulkey. Univ. of Connecticut and Univ. of São Paulo.
D645 II 894.2 P2Y1-receptors are expressed by CO₂/H⁺-insensitive neurons in the retrotrapezoid nucleus and contribute to the peripheral drive to breathe. I.C. Wenker, A. Takakura, T. Moreira and D.K. Mulkey. Univ. of Connecticut and Univ. of São Paulo.

D646 I 894.3 Vesicular release of ATP by brainstem astrocytes evoked by changes in pH. V. Kasymov, N. Marina, S. Kasparov and A.V. Gourine. University Col. London and Univ. of Bristol.


D650 I 894.7 Central melanotin modulates the ventilatory response to hypercapnia but not to hypoxia in anesthetized rats. A.P. Sanchez, A. Delchiaro, J.F.G. Giácomo, J.P. Pupin and M.C. Luzzi. Fac. of Med. of Catanduva, Brazil.

D651 II 894.8 The role of Ca²⁺ and Bₗ channels in the firing rate response of locus coeruleus neurons to CO₂: controlling the chemosensitive gain. A.N. Imber, C.D. Graham and R.W. Putnam. Wright State Univ.


D656 I 894.13 GABAergic neurons in the medullary raphe possess network independent chemosensitivity in situ. K.E. Iceman, G.B. Richerson and M.B. Harris. Univ. of Alaska Fairbanks and Univ. of Iowa.


D661 II 894.18 Functional expression of calcium sensing receptor in rat vagal pulmonary sensory neurons. Q. Gu, M. Kagira and C. Gilbert. Mercer Univ. Sch. of Med.


D663 II 894.20 Hydrogen sulfide contributes to the enhanced chemoreflex ventilatory response to acute hypoxia in heart failure rats. R. Del Rio, N.J. Marcus, G. Stein and H.D. Schultz. Univ. of Nebraska Med. Ctr.


895. CONTROL OF BREATHING: RHYTHM GENERATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D666 I 895.1 Identification of lung priming area in frog brainstem, adjacent to the lung oscillator, distinct from the buccal oscillator: homologous to RTN/pFRG? M. Baghadaddwala, M. Ducherger and R.J.A. Wilson. Univ. of Calgary, Canada.


896. COMPENSATORY RESPONSES TO ACUTE OR CHRONIC HYPOXIA EXPOSURE (POSTERS)

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D672 I 896.3 Oxidative stress in the respiratory response to intermittent hypoxia in athletes and sleep apnea patients: similar mechanisms but opposite outcomes. V. Pialoux. Univ. Lyon 1, Villeurbanne.


D675 II 896.6 Severe hypoxia in isolated adult turtle brainstems decreases respiratory motor burst clustering, frequency, and amplitude. M.E. Bartman and S.M. Johnson. Univ. of Wisconsin-Madison.


897. HYPOXIA/OXYGEN SENSING, SIGNAL TRANSDUCTION, SECOND MESSENGERS, AND TRANSMITTERS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D679 II 897.2 Activation of TASK-2 by hypoxia: is it via ROS, AMPK or H₂S? E.A. Martin, J.R. Papre ck and D. Kim. Chicago Med. Sch.

D680 I 897.3 Mitochondrial content of carotid body type I cells decreases during the maturation of the hypoxic response. J.E. Paulet, H-T. Tran, H. Jordan, R. Pye, D. Ladle and C. Wyatt. Wright State Univ.

D681 II 897.4 Ion channel regulation by the Lkb1-AMPK signaling pathway: the key to carotid body activation by hypoxia and metabolic homeostasis at the whole body level. A.M. Evans, D.G. Hardie, C. Peers, P. Kumar and C.N. Wyatt. Univ. of Edinburgh, Univ. of Dundee, Univ. of Leeds, Univ. of Birmingham and Wright State Univ.

D682 I 897.5 Intermittent hypoxia induces Fra-1 in rat carotid body cells expressing leptin. S. Messenger, J.M. Moreau and J. Ciriello. Univ. of Western Ontario.

D683 II 897.6 Immunohistochemical expression and nitration of MnSOD in the adrenal gland and the carotid body of rats exposed to chronic intermittent hypoxia. E. Moya, P. Arias and R. Iturriaga. Pontifical Catholic Univ. of Chile.

D684 I 897.7 Carotid body afferent activity stimulation by PACAP is mediated through PKC pathway. A. Roy and R.J.A. Wilson. Hotchkiss Brain Inst., Calgary, Canada.


898. INTERMITTENT HYPOXIA/OXIDATIVE STRESS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D687 I 898.1 VEGF upregulation and vascular area enlargement induced by intermittent hypoxia in the rat carotid body is not secondary to oxidative stress. R. Iturriaga, E.A. Moya and R. Del Rio. Catholic Univ. of Chile.


D689 I 898.3 Combined acute intermittent hypoxemia and a high glucose/lipid load augments oxidative stress and exaggerates postprandial hyperglycaemia. H.S. Griffin, K. Pugh, A.J. Wadley, J.E. Turner, S. Aldred, S. Taheri, P. Kumar and G.M. Balanos. Univ. of Birmingham, U.K.


899. CONSEQUENCES OF CHRONIC INTERMITTENT HYPOXIA

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D693 I 898.7 FosB in NTS contributes to persistent increase in mean arterial pressure during exposure to chronic intermittent hypoxia. Q. Wu, B. Cherry and S. Mifflin. Univ. of North Texas Hlth. Sci. Ctr.


D695 I 898.9 Corticosterone modulation of miniature excitatory postsynaptic currents is altered following exposure to CIH. Y. Fan and S. Mifflin. Univ. of North Texas Hlth. Sci. Ctr.


D700 II 899.1 Intracellular recordings of respiratory and pre-sympathetic neurons in the ventrolateral medulla of rats submitted to chronic intermittent hypoxia. D.J.A. Moraes, D.B. Zoccal and B.H. Machado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.

D701 II 899.2 Chronic intermittent hypoxia (cih) alters respiratory rhythemogenesis within the preBötzinger complex. A.J. Garcia, A. Doi, T. Malashchenko, A. Wei, G. Kumar, N.R. Prabhakar and J-M. Ramirez. Seattle Children's Res. Inst., Univ. of Washington and Univ. of Chicago.


D703 I 899.4 Pattern of breathing in a mouse model of Down syndrome. L.R. DeRuisseau, S.L. Murphy, S.A. Zabycz and K.C. DeRuisseau. Le Moyne Col. and Syracuse Univ.


D705 I 899.7 Intermittent hypoxia alters circulating leptin levels and the activity of pro-omielanocortin hypothalamic arcuate nucleus neurons. J.M. Moreau, S.A. Messenger and J. Ciriello. Univ. of Western Ontario.

D706 II 899.8 Colocalization of angiotensin converting enzyme 1 and FosB in the median preoptic nucleus following intermittent hypoxia. K.E. Faulk, W.D. Knight, J.T. Little and J.T. Cunningham. Univ. of North Texas Hlth. Sci. Ctr.


D710 II 899.12 Neuropeptide Y signaling in altered catecholamine synthesis during intermittent hypoxia. G.K. Kumar, G. Raghuraman and N.R. Prabhakar. Univ. of Chicago.


900. NEUROENDOCRINOLOGY/NEUROIMMUNOLOGY

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D712 I 900.1 Oxidative stress in hypothalamic neurons may explain the impaired vasopressin secretion observed during sepsis. P.J. Basso, G.R. Oliveira-Pelegrin and M.J.A. Rocha. Univ. of São Paulo, Ribeirão Preto.


D714 I 900.3 Thermal stimulation of vasopressin and oxytocin release from explants of the hypothalamo-neurohypophyseal system. C.D. Sladek, Z. Song and W. Stevens. Univ. of Colorado Sch. of Med.

D715 II 900.4 Does estrogen have immunomodulatory effects on pregnant women diagnosed with multiple sclerosis. A. Brown, K. McNair, R. Rawson, T. Sibley and E. Raynes. Tennessee State Univ.
901. NEURONAL EXCITABILITY (ION CHANNELS AND TRANSPORTERS)

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


902. NEUROPLASTICITY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D720 II 901.3 Evaluating a possible role for persistent inward currents in firing rate saturation. A.L. Revill and A.J. Fuglevand. Univ. of Alberta and Univ. of Arizona.


D722 II 901.5 Neuronal and non-neuronal steady-state pH and recovery from NH4⁺-induced acid loads. V.A. Ruffin and W.F. Boron. Case Western Reserve Univ.

903. NEUROTRANSMISSION AND SIGNALING MOLECULES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D728 II 903.1 Mechanisms regulating norepinephrine-mediated α₂-IPSCs in the rat locus coeruleus. S.L. Barclay and C. Ford. Case Western Reserve Univ. and Cedarsville Univ.


D730 II 903.3 Evidence that glial cells modulate synaptic transmission in the NTS neurons sending projections to RVLM. D. Accorsi-Mendonça, L.G.H. Bonagamba and B.H. Machado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.


904. CENTRAL NERVOUS SYSTEM: OTHER

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D734 II 904.2 Corticotropin-releasing factor involves in promotive effect of restraint on neuronal activation by methamphetamine. Z. Yuan and Y-W. Lin. Tzu Chi Univ., Taiwan.


905. BIOMEDICAL ENGINEERING

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D742 I 905.1 Development and characterization of novel extracellular mimicking blended electrospun scaffolds: effect of scaffold hydrophobicity on endothelial cell growth. N. Nosoudi, W. Yin and D.A. Rubenstein. Oklahoma State Univ.


D749 II 905.8 Physiological analysis of the ZO-1 actin binding region on cell adhesion and function in epithelial cells. A.M. Loar, G.A. Winkler, R.C. Brady and J.M. King. Trinity Univ., TX.


D752 II 905.11 A computational model of neural activation, force generation and intracellular bioenergetics during muscle fatigue. D. Callahan, B. Umerberger and J. Kent-Braun. Univ. of Massachusetts Amherst.

D753 II 905.12 Mathematical modeling of myeloma bone disease. B.P. Ayati. Univ. of Iowa.


D757 II 905.16 Tracer washout from an organ is predicted from the tracer center of mass. J.B. Bassingthwaighte, G.M. Raymond and J.S. Chan. Univ. of Washington.


D759 II 905.18 Mechanisms of the anti-inflammatory action of pulsatile laminar flow: role of AMPK in chromat remodeling. L. Flores, Y-S. Li and S. Chien. UCSD.


D763 II 905.22 Neoblast markers piwi and vasa are expressed during regeneration and reproduction in Aeolosoma viride. Y. Hsieh, C. Chu and J. Chen. Inst. of Zoology, Taiwan.


906. EXTRACELLULAR MATRIX
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:00 PM


B236 906.4 MMP expression by intervertebral disc cells is responsive to changes in extracellular osmolarity. Y. Cui, S. Lee, J. Yu and J. Urban. Univ. of Oxford.

B237 906.5 Tissue tension supports the in vitro co-culture of ras-keratinocytes and myofi broblasts. P. Barua, C.C. Lam and M.B. Vaughan. Univ. of Central Oklahoma.

907. DEVELOPMENT AND GROWTH: CRANIOFACIAL
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:00 PM

B238 907.1 Six3 expression is augmented in the facial primordia of mice with misexpression of six2 associated with frontonasal dysplasia. T. Hynd, B. Fogelgren, S.J. Somponpun, S.F.T. Fong and S. Lozanoff. Univ. of Hawaii.

B239 907.2 EsrP1 and EsrP2 expression in the developing midface and kidney of mice with frontonasal dysplasia and renal hypoplasia. T. Hong, T. Hynd and S. Lozanoff. Univ. of Hawaii Sch. of Med.

B240 907.3 Decreased expression of Wnt9b and Ube2ql1 in the face of CL/Fr mouse embryos at E11.5 based on microarray analysis. B.N. Takagi, T. Hynd, S.J. Somponpun, K. Nonaka and S. Lozanoff. Univ. of Hawaii Sch. of Med. and Kyushu Univ., Japan.


B244 907.7 Mesenchymal condensation sets the stage for intramembranous bone development. J. Jabalee and T.A. Franz-Odendaal. Mount Saint Vincent Univ., Canada.


B248 907.11 Investigating the developmental processes of nasal contour shape. A.D. Wheat. Univ. of Tennessee, Knoxville.


B252 907.15 A novel gene Crispld2 may contribute to facial dysmorphology in a chicken model of Crouzon’s syndrome. X. Li, S. Tropp, N. Young, B. Hallgrimsson and R. Marcucio. UCSF, San Francisco Gen. Hosp. and Univ. of Calgary, Canada.

908. DEVELOPMENT AND GROWTH: LIMBS
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:00 PM


B255 908.3 Femoral growth plate is sensitive to loss of cardiac shunt in the American alligator. T. Owerkowicz, J. Yang, J.M. Blank, J. Eme and J.W. Hicks. California State Univ., California Poly State Univ., San Luis Obispo, Univ. of North Texas and Univ. of California, Irvine.


909. DEVELOPMENT AND GROWTH: GENE AND PROTEIN EXPRESSION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B260 909.2 Identification of a regulatory region within the EMX2 locus that is active in the neural tube. J.P. Schober, C.U. Pira and K.C. Oberg. Loma Linda Univ. Sch. of Med.

B261 909.3 Essential role of Zp54, the human RCK/p54 (DDX6) homologue, in zebrafish neuronal development. C.-C. Yeh, S.-J. Lee and C.-Y. Chu. Natl. Taiwan Univ.

B262 909.4 Functional defects in mice somatotropes caused by ablation of leptin receptors is reversed, in vitro, by stimulation with ghrelin. C.-C. Yeh, S.-J. Lee and C.-Y. Chu. Natl. Taiwan Univ.


910. DEVELOPMENT AND GROWTH: BIRTH DEFECTS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B268 910.4 Analytic view of simultaneous occurrence of sacralisation and congenital anomalies. R. Singh. CSM Med. Univ., India.


911. BIOENGINEERING

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


912. EPIGENETICS AND REGULATORY RNAs

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


913. STEM CELLS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B274 913.1 Changes in adult fibroblast populations with passaging reduce reprogramming efficiency. E.J. Su, T. Downing and S. Li. Univ. of California, Berkeley and UCSF.

B276 913.3 Breastmilk contains primitive stem cells from the lactating breast with multi-lineage differentiation potential. F. Hassiotou, L. Filgueira, N. Trengove, C. Tat Lai and P. Hartmann. Univ. of Western Australia, Crawley.

B277 913.4 Embryonic transcription factor upregulation during normal lactation and breast oncogenesis. F. Hassiotou, A. Beltran, N.J. Trengove, C. Tat Lai, P. Hartmann, L. Filgueira and P. Blancafort. Univ. of Western Australia and Univ. of North Carolina at Chapel Hill.

B278 913.5 Umbilical cord matrix stem cells trophic ability and use as a drug delivery vehicle for treatment of melanomas. K.M. Davis. A.T. Still Univ., MO.


B280 913.7 Cell fusion phenomena was detected after xenogenic intra-uterus transplantation of Ds-red porcine amniotic fluid-derived stem cells into EGFP bearing mice. S-Y. Peng, C-J. Chou and S-C. Wu. Natl. Taiwan Univ.

B281 913.8 Effects of laminar shear stress on expression of MT1-MMP in rat bone marrow-derived mesenchymal stem cells. W.H. Qin. Hubei Univ. of Med., China.

914. STEM CELLS: AGING AND DISEASE

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


915. STEM CELLS: WOUND HEALING AND TISSUE REPAIR

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B288 915.1 Identification of neural crest-like synovial stem cells. F. Huang, Z. Tang and S. Li. Univ. of California, Berkeley.


916. WOUND HEALING

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


917. REGENERATIVE MEDICINE

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B304 917.3 Proliferation, osteogenic and chondrogenic differentiation of equine-derived bone marrow mesenchymal stem cells on bacterial cellulose scaffolds. P.M. Favi, C. Stephens, N. Neilsen, R. Hammonds, R. Benson and M. Dhar. Univ. of Tennessee, Knoxville.


B308 917.7 Tissue engineering bone by recapitulating developmental and repair programs offers improved biological outcomes. C.S. Bahney, D. Hu, T. Miclau and R. Marcucio. UCSF.

918. NEUROBIOLOGY: NEURAL CELL BIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B311 918.3 Developing henna-haematoxylin stain as alternative to Nissl stain in delineating the cytoarchitecture of the neocortex and archicortex of the cerebrum. J.N. Alawa, O. Gideon, B. Adetiba and C.B. Alawa. Ahmadu Bello Univ., Nigeria.


B313 918.5 HIF-1alpha and COX-2 expression and mouse brain capillary remodeling during adaptation to hypoxia and re-oxygenation after prolonged moderate hypoxia. G. Benderro and J.C. LaManna. Case Western Reserve Univ.


B316 918.8 The death of neurons derived from familial Alzheimer’s disease pluripotent stem cells is no different from the death of neurons derived from normal controls. M.A. Shaner, S.H. Yuan and L.S. Goldstein. UCSD.

919. NEUROBIOLOGY: DEVELOPMENT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B317 919.1 AChR clustering is increased by neuregulin. S.M. Booth and W.A. Grow. Midwestern Univ., AZ.

B318 919.2 MyoD and myogenin are required for agrin-induced AChR clustering. E.E. Anderson and W.A. Grow. Midwestern Univ., AZ.

B319 919.3 Embryonic origin of microglial progenitors and their routes of entry into the mouse developing central nervous system. W.Y. Chan, T.C. Ng, G.W.H. Chow and P. Rezaie. Sch. of Biomed. Sci., The Chinese Univ. of Hong Kong and The Open Univ., U.K.

B320 919.4 Optogenetic regulation of peripheral sensory or motor axons during chick embryogenesis. A.A. Sharp and S. Fromherz. Southern Illinois Univ. Sch. of Med.

920. NEUROBIOLOGY: BEHAVIOR; NEUROPSYCHIATRIC DISORDERS; DISEASE; AGING

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B321 920.1 Tumor-derived IDO affects the lifespan in a mouse model of glioblastoma. D.A. Wainwright and M.S. Lesniak. Univ. of Chicago.

B330 920.10 Switch in amyloid clearance mechanisms leads to vascular fragility in cerebral amyloid angiopathy. M.K. Zabel, M. Schrag, A. Crofton, S. Tung, H.V. Vinters and W.M. Kirsch. Loma Linda Univ. and UCLA.

921. NEUROBIOLOGY: NEUROPROTECTION AND NEUROIMMUNOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:00 PM

B331 921.1 In vitro generated microglia derived from blood precursors. S. Etemad, M. Ruitenberg and L. Filgueira. Univ. of Western Australia and Univ. of Queensland Sch. of Biomed. Sci., Australia.
B332 921.2 Potent suppressive effect of resveratrol and apigenin on pro-inflammatory responses in lipopolysaccharide and IFN-γ-activated microglia and macrophages: implications for Alzheimer’s disease therapies. L. Ooi. Univ. of Western Sydney Sch. of Med.
B334 921.4 Extracellular phosphorylation is a novel target for regenerative medicine against spinal cord injury. Y. Takei, K. Suehiro, K. Shimizu and G. Tsujimoto. Kyoto Univ.
B337 921.7 Distribution of nicastrin in the central nervous system of APP/PS1 double transgenic mice. S. Luo and G. He. Chongqing Med. Univ., China.

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922. GENE REGULATION DURING GROWTH AND DEVELOPMENT

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A1 922.1 Liganded thyroid hormone receptor induces nucleosome removal and histone modifications to activate transcription during adult stem cell development. Y-B. Shi. NICHD/NIH.


A3 922.3 Expression and characterization of the Cyr61 gene in Medaka fish. R. Monzon and L. Varley. Saint Xavier Univ., IL.

A4 922.4 The role of Brahma-related gene 1 in regulating the expression of microRNAs in colonic smooth muscle cells. M. Chen and P. Herring. Indiana Univ. Sch. of Med.

A5 922.5 Hepatocyte maturation is arrested in mouse liver lacking the splicing factor SRSF3 (SRp20). S. Sen and N.J. Webster. VA San Diego Healthcare Syst.


A9 922.9 Role of actin polymerization during early s-looping of the vertebrate embryonic heart. Q. Chu-LaGraff, K. Benn, J.L. LaGraff and A. Ramasubramanian. Union Col., NY.


A13 922.13 FOXC1 regulates BMP-SMAD activity in a context dependent manner during osteogenic development events. F.B. Berry and F. Mirzayans. Univ. of Alberta.


A17 922.17 Age-dependent regulation of non-coding RNAs in male germ cell development. A.C.S. Luk, S.H. Ng, W-Y. Chan and T-L. Lee. The Chinese Univ. of Hong Kong Sch. of Biomed. Sci.

923. INTERPLAY BETWEEN CHROMATIN STRUCTURE AND THE TRANSCRIPTION MACHINERY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


924. CHANGES IN CHROMATIN DURING GENE ACTIVATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


925. CHROMATIN ARCHITECTURE AND ASSEMBLY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A23 925.1 Transcription factor access to their sites in chromatin. M. Floer and A. Gjidoda. Michigan State Univ.

A24 925.2 Structural studies of the histone chaperone Hif1, a component of the Hat1 chromatin assembly complex. A. Bigeh, E. Pickle, M.J. Bagley, N. Seangmany and R.N. Duttan. Univ. of San Diego.
926. CHROMATIN CHANGES IN DEVELOPMENT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A26 926.2 Characterization of the cell morphology differences between pre-diapause and diapause embryos of the killifish Austrofundulus limnaeus. L. Toni and P. Padilla. Univ. of North Texas.

927. CHROMATIN REMODELING

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A27 927.1 Role of the Ccr4-Not complex in histone acetylation. S. Mehrotra and A. Vancura. St. John’s Univ., NY.


928. DYSREGULATION OF GENE EXPRESSION IN DISEASE

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A31 928.3 Changes in genes methylation of the TLR pathway in livers of mice fed DDC. J. Oliva and S.W. French. LA BIOMED.


A33 928.5 Relationship of gene expression and sex hormone receptors in primary breast carcinoma and metastases from the same patient. S.A. Andres and J.L. Wittliff. Univ. of Louisville.

A34 928.6 The β-catenin/Tcf-4 pathway regulates high mobility group a1 expression in colorectal cancers. J.A. Deng, A.T. Brock, B.M. Bush and T.F. Sumter. Winthrop Univ., SC.


A38 928.10 Establishment of an NIH-3T3 transiently transfected Ikaros system to study its effects on gene expression. M. Meyer, T. Van der Steen and G. Dorsam. North Dakota State Univ.

A39 928.11 Deregulation of E-cadherin and MTA2 in tamoxifen-resistant breast cancer cells. M.M. Hathaway and M.C. Louie. Dominican Univ. of California.

A40 928.12 Genetic association of SIX1 gene variants and primary open-angle glaucoma in Caucasians. R. Shaw, Y. Wang, Y. Chen, H. Du and K. Zhang. UCSD.

929. REGULATION OF TRANSCRIPTION BY SIGNAL TRANSDUCTION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A43 929.3 Estrogen and vitamin D control of transcription in MCF-7 cells. J.N. Magill and J.M. Schmitt. George Fox Univ., OR.


A47 929.7 PKCε regulates MCP-1 expression at the transcription level in vascular smooth muscle cells. J. Ren, S. Morgan, Y. Si and B. Liu. Univ. of Wisconsin-Madison.

931. TRANSCRIPTIONAL REGULATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A51 931.1 Activation of transcription of hepatic HMG-CoA reductase by insulin requires tristetraprolin. G.C. Ness and J. Edelman. Univ. of South Florida.


A53 931.3 Identification of protein-interacting partners of USF2 in erythroid cells. J. Masannat, J. Barrow and J. Bungert. Univ. of Virginia.


A56 931.6 The characteristics and roles of TamR, a MarR family transcriptional regulator from Streptomyces coelicolor. H. Huang and A. Grove. LSU.

A57 931.7 The ELL component of the SEC complex facilitates RNA polymerase II pause site entry and release. J.S. Byun and K. Gardner. NCI/NIH.

A58 931.8 Diaphanous 1 negatively regulates cortisol biosynthesis in H295R human adrenocortical cells. D. Li, H. Wang and M. Sewer. Skaggs Sch. of Pharm. and Pharmac. Sci., UCSD.

A59 931.9 Role of the twist proteins and ADD1 in the regulation of the CHRD1 gene. J. Casasnovas, H.L. Franco and C.L. Cadilla. Univ. of Puerto Rico Sch. of Med.

A60 931.10 Towards predicting the behavior of E. coli LacI and FadR transcription factors to variations in their operator sequences. T.S. Maity, R. Jha, C. Strauss, J. Dunbar and C. Kuske. Los Alamos Natl. Lab.


A65 931.15 Characterization of a novel overexpression system in Haloferax volcanii. B. Huff, J. Hilty, J. Hemmingsen and M.E. Ginn-Pease. Capital Univ., OH.


A69 931.19 VMP1 is a novel inducible gene which activation is a switch for autophagy. A. Lo Re, M.I. Molejón, A. Ropolo, V. Boggio and M.I. Vaccaro. Univ. of Buenos Aires.

932. COUPLING OF DNA REPAIR AND REPLICATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A70 932.1 Expression and purification of the human xeroderma pigmentosum F (XPF/ERCC1) complex in bacterial cells for protein binding assays and crystallographic studies. J. Anduaga, K. Duprez, E. Hilario and L. Fan. Univ. of California, Riverside.


A72 932.3 A dominant role for an error-prone DNA polymerase in recombination drives evolution. R.T. Pomerantz, I. Kurth, M. Goodman and M. O'Donnell. Rockefeller Univ. and Univ. of Southern California.
934. CELL CYCLE REGULATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A80 934.1 Extracellular ATP induces the inactivation of FoxO transcription factors and cell cycle progression of MCF-7 cells. P.G. Scodelaro Bilbao and R.L. Boland. Natl. Univ. - CONICET, Bahia Blanca, Argentina.

A81 934.2 The disruption of the mitotic cell cycle by isoinositols death in Saccharomyces cerevisiae. B.A. Hanson, P. O’Connor, J. Munezero and V. Croglio. Canisius Col., NY.

A82 934.3 Structure of human Mad1 C-terminal domain reveals its kinetochore-targeting function. S. Kim, H. Sun, D. Tomchick, H. Yu and X. Luo. Univ. of Texas Southwestern Med. Ctr.

A83 934.4 Whi3p localizes to cytoplasmic foci during slow growth at high OD in Saccharomyces cerevisiae. J.P. Degallier, J. Tembreull, K. Theede and S.P. Segal. Winona State Univ., MN.


**939. TELOMERE LENGTH REGULATION**

**Poster**

**Presentation time:** 12:25 PM-1:55 PM


**A96** 309.2 NOVEL TELOMERE-ANCHORED PCR APPROACH FOR STUDYING SEXUAL STAGE TELOMERES IN ASPERGILLUS NIDULANS. K.E. Kirk, N. Wang, S. Rizvydeen, P. Kuprys, T. Hauer, M. Vahedi, S. Davis and P. Mirabito. Lake Forest Col., IL and Univ. of Kentucky.

**940. RIBOSOMES: REGULATION OF ACCESS TO MRNA**

**Poster**

**Presentation time:** 12:25 PM-1:55 PM

**A97** 310.1 SPECIFIC DOMAINS IN YEAST EUKARYOTIC INITIATION FACTOR (eIF) 4G BIAS THE RNA UNWINDING SPECIFICITY OF eIF4F TOWARDS DUPLEXES WITH A 5'-OVERHANG. V. Rajagopal, E-H. Park, A.G. Hinnebusch and J.R. Lorsch. Johns Hopkins Univ. Sch. of Med. and NICHD/NIH.

**941. RNA-BASED REGULATION: A DIVERSITY OF MECHANISMS**

**Poster**

**Presentation time:** 12:25 PM-1:55 PM


**A99** 311.2 LONG NON-CODING RNA NEAT 1 & 2 REGULATES PHOSPHORYLATION OF SR PROTEINS AND PKCJaII SPlicing DURING 3T3L1 ADIPOGENESIS. D.R. Cooper, G. Carter, P. Li, J. Watson and N.A. Patel. Univ. of South Florida and J.A. Haley Veterans Hosp.

**A100** 311.3 TRANSGENE REGULATION IN PLANTS BY ALTERNATIVE SPLICING OF A SUICIDE EXON. M.C. Hammond, S.F. Hickey, M. Sridhar, A. Westermann, Q. Qin, P. Vijayendra and G. Liou. Univ. of California, Berkeley and Univ. of Wuerzburg.

**942. CATALYTIC RNA**

**Poster**

**Presentation time:** 12:25 PM-1:55 PM

**A101** 313.1 TRANSLATION INITIATION OF NON-LTR RETROTRANSPOSONS BY HDV-LIKE SELF-CLEAVING RIBOZYMES. D.J. Ruminski and A. Luptak. Univ. of California, Irvine.

**A102** 313.2 THE ROLES OF PERIPHERAL DOMAINS IN HDV-LIKE RIBOZYMES. N.J. Riccitelli, J. Webb and A. Luptak. Univ. of California, Irvine.

**943. MOLECULAR RECOGNITION OF RNA**

**Poster**

**Presentation time:** 12:25 PM-1:55 PM

**A103** 315.1 DEVELOPMENT OF BOVINE IMMUNODEFICIENCY VIRUS (BIV) TAT PEPTIDE ANALOGS AS INHIBITORS OF BIV TRANSCRIPTION. J.J. Grist, H.J. Wright and E.D. Collins. San Jose State Univ.

**A104** 315.2 SEQUENCE SELECTIVE RECOGNITION OF DOUBLE HELICAL RNA USING NUCLEOBASE-MODIFIED PNA. E. Rozners, T. Zengeya, T. Muse and P. Gupta. Binghamton Univ.


**944. NON-CODING RNAs**

**Poster**

**Presentation time:** 12:25 PM-1:55 PM


**A107** 319.2 tRNA WOBBLE-URIDINE MODIFICATION PATHWAYS PLAY CRITICAL ROLES IN MAINTAINING GROWTH UNDER NUTRIENT LIMITATION BY ALTERING THE TRANSLATIONAL CAPACITY OF THE CELL. S. Laxman and B.P. Tu. Univ. of Texas Southwestern Med. Ctr.

**A108** 319.3 A NORMAL-TUMOR SWITCH ALTERS THE ACTIVITY OF KLF4-MiR-206 SIGNALING IN BREAST CANCER. C-C. Lin and J.M. Ruppert. West Virginia Univ.


**A110** 319.5 IDENTIFICATION OF PRO-METASTATIC SIGNATURES IN VESICLES RELEASED FROM BREAST CANCER PRIMARY TUMORS. S. Pinto and D.M. Duelli. Lake Forest Col. and Rosalind Franklin Univ. of Med. and Sci.
945. RNA FOLDING
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A111 945.1 Use of 2-aminopurine to detect positional ambiguity in group II single-nucleotide bulge loops. E.L. McMichael and M.J. Serra. Allegheny Col., PA.

946. RNA STRUCTURE AND DYNAMICS
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A114 946.2 Thermodynamic investigation of the dinucleotide bulge of domain V of group II intron. S.L. Mhlanga and N. Grover. Colorado Col.
A115 946.3 Thermodynamic examination of bulge sequence, ion binding, and helical context of 2X2 and 2X1 bulges in RNA. P. Mahajan and N. Grover. Colorado Col.
A116 946.4 Thermodynamic examination of small symmetric and asymmetric loops containing A•C and G•U base pairs in the context of group I intron. E. Shishkova and N. Grover. Colorado Col.
A117 946.5 Thermodynamic comparison of dinucleotide bulges in DNA and RNA. W.C. Lockwood and N. Grover. Colorado Col.

947. RNA STRUCTURE AND TRANSLATION
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM

948. RNA STRUCTURE, FUNCTION AND REGULATION
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A120 948.1 Analysis of junctions in RNA with coaxial stacked helices. K.N. Fuhr, C. Laing, N. Kim and T. Schlick. Long Island Univ., NYU, Wilkes Univ., PA and NYU Sch. of Med.
A121 948.2 Investigating the role of the nematode-specific FAR family of proteins. K.A. Neutzling, A.C. Foudjet, P. Comella, M. Schlotterback and J. Bath. Concordia Col., MN.

949. RNA TRANSPORT AND LOCALIZATION
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A123 949.2 Characterizing the role of Puf3 in sexual development of Cryptococcus neoformans. J.N. Kaur and J.C. Panepinto. Univ. at Buffalo SUNY.

950. RNA TURNOVER
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A124 950.1 Activity induces Arc mRNA degradation that is dependent upon translation and NMDA receptor activation. S.L. Farris and O. Steward. Univ. of California, Irvine.
A125 950.2 Ribosomal protein transcripts as an endogenous source of nucleotide precursors in Cryptococcus neoformans. D. Banerjee and J. Panepinto. Univ. at Buffalo SUNY.

951. RNA-BASED GENE REGULATION
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
952. SMALL RNAs

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952.3 Dissecting the interactions between human argonaute proteins and RISC components. Y-C. Chen, J-W. Huang and C-Y. Chu. Natl. Taiwan Univ.

952.4 Rapidly evolving microRNAs retain their targets by a co-evolution mechanism. M. Ramaiah, E.Y. Shum and M.F. Wilkinson. UCSD.


953. FACTORS MODULATING PROTEIN QUALITY CONTROL

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953.1 Influx of acetyl-CoA into the ER lumen regulates the induction of autophagy during the UPR. L. Puglielli and M. Pehar. Univ. of Wisconsin-Madison.

954. PROTEIN QUALITY CONTROL AND DISEASE

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954.3 Manipulating the ERAD pathway to regulate GABAR receptor protein homeostasis. D. Han and T. Mu. Case Western Reserve Univ.

954.4 The ER chaperones BiPand Jem1/Scj1 are genetic modifiers of TorsinA, the AAA+ ATPase associated with the neurological disease primary torsion dystonia. L.F. Zacchi, H-C. Wu, K. Niemeyer, S. Bell, M. Zolkiewski and J. Brodsky. Univ. of Pittsburgh and Kansas State Univ.

954.5 Protein disulfide isomerases promote the endoplasmic reticulum associated degradation of diverse substrates using different mechanisms. S. Grubb, L. Guo, E.A. Fisher and J.L. Brodsky. Univ. of Pittsburgh and NYU.

954.6 The ER lumenal chaperone, Lhs1/GRP170, plays a unique role in the degradation of the epithelial sodium channel. T.M. Buck, L. Plavchak, O. Kashlan, T.R. Kleymen and J.L. Brodsky. Univ. of Pittsburgh.


955. MOLECULAR CHAPERONES: MECHANISM AND FUNCTION

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955.1 Low-level oxidative stress increases chaperone protein activity and alters steroid receptor-hsp90 heterocomplex formation. O.J. Stone, H.R. Franklin and P.J.M. Murphy. Seattle Univ.
956. PROTEASES IN DISEASE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A154 956.1 Cisplatin-induced, coordinated transcriptional reprogramming of neutrophil proteinase-3 and other proteases in cisplatin-resistant ovarian cancer cells. I. Garcia-Bassets and A. Almenar-Queralt. UCSD.


A159 956.6 Impaired lysosomal maturation of pro-cathepsin D to active cathepsin D in a childhood neurodegenerative lysosomal storage disease. G. Chandra, A. Saha, M.R. Moralle, Z. Zhang, C. Sarkar, S. Peng and A.B. Mukherjee. NICHD/NIH.


A161 956.8 The pro-inflammatory but not protective effects of protease-activated-receptor-2 in the airway require β-arrestin-2. H. Nichols and K. DeFea. Univ. of California, Riverside.


957. PROTEASOMES: STRUCTURE AND REGULATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A163 957.1 Ubiquitin chain trimming recycles the substrate binding sites of the 26 S proteasome and promotes degradation of lysine 48-linked polyubiquitin conjugates. C-W. Liu, N-Y. Zhang, A.D. Jacobson and A. MacFadden. Univ. of Colorado Sch. of Med. and Med. Col. of Wisconsin.

958. REGULATION OF PROTEIN SYNTHESIS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A166 958.3 Hepatic HRI eIF2α kinase-mediated translational suppression activates nuclear factor kappa B in response to heme-deficiency stress. Y. Liu and M.A. Correa. UCSF.


959. FRONTIERS IN MECHANISTIC ENZYMOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


960. METABOLIC ENGINEERING: FROM ANTIBIOTICS TO BIOFUELS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


961. ENERGETICS AND DESIGN

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A175 961.1 The search for novel substrate specificity in mutants of L-alanine dehydrogenase. H. Aldeborogh and E. Mundorff. Vassar Col.

962. ENZYME INHIBITORS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A176 962.1 Investigation of 2-fold disorder of inhibitors and relative potency by crystallizations of HIV-1 protease in ritonavir and saquinavir mixtures. F.M. Olajuyigbe, N. Demitri and S. Geremia. Univ. of Florida and Univ. of Trieste, Italy.


A181 962.6 An equation to model fluorescent probe displacement by non-fluorescent competitive ligands. J.D. Beckmann, E.D. Martin and K. Gaffney. Alma Col., MI.


963. ENZYME KINETICS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A183 963.1 Cysteine sulfenic acid decarboxylase activity of Aedes aegypti aspartate-1-decarboxylase: the structural basis of its substrate selectivity. P. Liu, H. Ding, B.M. Christensen and J. Li. Virginia Tech and Univ. of Wisconsin-Madison.

A184 963.2 Property of the antioxidant activity using xanthine oxidase reaction. N. Masuoka, A. Maeta, W. Kamimura and I. Kubo. Okayama Univ. of Sci., Japan and Univ. of California, Berkeley.


A186 963.4 Determining the effect of dithiolethione compounds on the activity of human glyceraldehyde-3-phosphate dehydrogenase. J.T. Chavis III, J. Neal, C. Switzer, D.A. Wink, Jr. and E. Garcin. Univ. of Maryland Baltimore County and NCI/NIH.


A189 963.7 ATP alters IKK-2 inhibitor affinity for IKK2 enzyme and reveals non-equivalent inhibitor binding sites. Y.J. Liu, K. Stevens and R. Mourey. Gilead Sciences, Seattle.

A190 963.8 Understanding the role of tyrosine 381 in the activity of E. coli aminopeptidase N. P. Crawford, B. Kimberley, C. Kassl, N. Nelson, M. Anliker, F.C. Golich and M.W. Crowder. Augustana Col., IL and Miami Univ., OH.

A191 963.9 Redox regulation of rice endosperm ADP-glucose pyrophosphorylase. A. Tuncel and T. Okita. Washington State Univ.
964. ENZYMES AS DRUG TARGETS
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A201 964.5 Dynamics of induced-fit in HIV reverse transcriptase specificity and resistance. K.A. Johnson, S. Kirmizialtin, V. Nguyen, A. Li and R. Elber. Univ. of Texas at Austin.

A202 964.6 A new approach for the identification of allosteric binding sites in proteins. P. Striebeck and D.J. Manstein. Hannover Med. Sch., Germany.


A206 964.10 Development of an LC-MS/MS based biochemical assay to evaluate isoprenylcysteine carboxyl methyltransferase as a cancer target. P. Bingham and K. Maegley. Pfizer, La Jolla.


965. AGING METABOLISM
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A210 965.1 A novel anti-aging compound extends longevity by remodeling neutral lipid metabolism. V. Titorenko, A. Beach, V. Richard and M. Burstein. Concordia Univ., Canada.


A213 965.4 Decline in adipogenesis contributes to peripheral subcutaneous fat loss in older humans. G. Caso, M.A. McNurlan, I. Mileva, S. Stein and M.C. Gelato. Stony Brook Univ. Med. Ctr.


966. CANCER CELL METABOLISM
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A217 966.3 Role of hyaluronidases in prostate cancer metastasis. L. Labrada, L. Gurski and K. van Golen. Univ. of Delaware.


967. METABOLISM AND CANCER

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A222 967.2 Mutational activation of P13'-kinase-α dramatically accelerates BRAFV600E or KRASG12D-induced lung tumorigenesis. C.L. Trejo, S. Greenberg, V. Marsh, W. Phillips and M. McMahon. UCSF and Peter MacAllum Inst., East Melbourne.


A224 967.4 Inhibition of CYP 3A4 with novel synthetic coumarin and flavanone analogs. D.A. Swift and N. Hopkins. Tulane Univ.


A228 967.8 BRAFV600E, and P13K'activated signaling pathways cooperate to regulate phosphorylation of ribosomal protein S6 in human melanoma cells. J.M. Silva and M. McMahon. UCSF.

968. METABOLISM AND NEURODEGENERATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A231 968.3 Effects of orange juice and vitamin C on the expression of some selected genes (TNFR, Sod3, p53, Pgr) in Sprague-Dawley rat brain. O.A. Ebuiehi, A.B. James, Y. Salami and I. Mbgeadichie. Univ. of Lagos, Nigeria.

969. METABOLISM AND NUTRITION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A236 969.5 Using Drosophila as a model system to study cold tolerance. D. Luor, K. Parikh, D. Shain and N. Yakoby. Rutgers, The State Univ. of New Jersey, Camden.

A237 969.6 Decreased phosphorylation of histone H3 serine 10 by genistein is associated with the transcriptional upregulation of ATF3 in DLD-1 colon cancer cells. Y. Zhang, R.S. Strakovsky, H. Chen and Y-X. Pan. Univ. of Illinois at Urbana-Champaign.


A239 969.8 Isparkogen breakdown pathways using fluorescent derivatives of glucose. P. Clifford, B. Lundbeck, M. Bernart and G. Parker. Utah Valley Univ.


A241 969.10 The effects of betaine supplementation on Pcyp2a/- (ETKO) mice. S. Sivanesan and M. Bakovic. Univ. of Guelph, Canada.


A245 969.14 Vitamin C regulates iron uptake from transferrin – a novel role for ascorbate in iron metabolism? D.R. Richardson, S. Chikhani, V. Richardson and D.J.R. Lane. Univ. of Sydney.

970. CELL PROLIFERATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A248 970.3 Intersectin 1 is required for neuroblastoma tumorigenesis. A. Russo and J. O’Bryan. Univ. of Illinois at Chicago.

A249 970.4 On the mechanism of Pasteurella multocida toxin induced mitogenesis: mTOR mediated upregulation of survivin and aurora kinase B in cultured cells. H. Oubrahim, A. Wong, B. Wilson and P.B. Chock. NHLBI/NIH and Univ. of Illinois at Urbana-Champaign.

971. CYTOKINE AND GROWTH FACTOR SIGNALING

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A250 971.1 The structural basis for neuropilin-ligand interactions. M. Parker, X. Li, H-F. Guo, P. Xu and C.W. Vander Kooi. Univ. of Kentucky.

A251 971.2 Ligand induced activation of VEGFr during angiogenesis. X. Li, P. Xu, J.E. Toombs, M.W. Parker, R.A. Brekken and C.W. Vander Kooi. Univ. of Kentucky and Univ. of Texas Southwestern Med. Ctr.


A255 971.6 Chondrocyte phenotype of mice expressing reduced levels of perlecan/HSPG2, an essential component of cartilage. D.A. Lowe, P.P. Srinivasan and C. Kirn-Safran. Univ. of Delaware.


A257 971.8 Brain-derived neurotrophic factor receptor TrkB exists as a preformed dimer in living cells. I. Maruyama and J. Shen. Okinawa Inst. of Sci. & Technol.


972. G PROTEINS AND PROTEIN KINASES

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A262 972.3 The role of PkCa in septum formation in Aspergillus nidulans. J.L. Henley, L. Jackson-Hayes, T. Hill, D. Loprete, O. Dawodu, C. Delbove and A. Poullard. Tougaloo Col., MS, Rhodes Col., TN and Rust Col., MS.


A265 972.6 Epidermal growth factor receptor transactivation and fibronectin matrix assembly by the G-protein coupled receptor, GPER, requires a transmembrane signaling complex consisting of PTPN12, integrin α5β1, and MMP-3. H.T. Magruder and E.J. Filardo. Brown Univ. and Rhode Island Hosp.

A266 972.7 The CC-type chemokine receptor 1 is constitutively associated with jarestin2: role of receptor domains. C.T. Gilliland, C. Salanga, J. Trejo and T. Handel. UCSD.


973. GTPASES
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

A272 973.1 Bacterial GTPases may be regulators of cell wall assembly. J.N. Winters, N. Rizzo and P.E. March. Emmanuel Col., MA.


A274 973.3 The cpSRP54-cpFtsY interaction in the chloroplast SRP pathway. Z.M. Lu, S. Chandrasekar and S. Shan. Wabash Col. and Caltech.

A275 973.4 Expression and purification of Cdc42 and PBD46. E.J. Evans and P.D. Adams. Wabash Col. and Univ. of Arkansas.

974. HORMONE RECEPTORS
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM


A277 974.2 AKAP79 controls β1-adrenergic receptor trafficking by multiple regulatory mechanisms. X. Li and S. Bahouth. Univ. of Tennessee Hlth. Sci. Ctr., Memphis.

A278 974.3 Regulation of estrogen receptors and CREB-binding protein following traumatic brain injury. I. Zee and K.A. Duncan. Vassar Col.


A280 974.5 MED1 coactivation of androgen receptor-dependent transcription is mediated by a newly discovered noncanonical binding motif. F. Jin and J. Fondell. UMDNJ, Piscataway.

975. INTEGRATION AND ORGANIZATION OF SIGNALING PATHWAYS
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM


A283 975.3 Biochemical and mutational analysis of intracellular regions of the plexin-B1 guidance receptor as a R-RasGAP. S. Kim, P.K. Hota and M. Buck. Case Western Reserve Univ.

976. SIGNALING IN BACTERIAL RECEPTOR SYSTEMS
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

A284 976.1 IL-1beta loss contributes to reduced toxicity of the TRIF-biased TLR4 agonist monophosphate lipid A. C.A. Embry, S. Ganhapudhi, D. Desta and T. Mitchell. Stetson Univ., Inst. for Cell. Therapeut., Louisville and Univ. of Louisville Sch. of Med.

977. TOXINS
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM


A286 977.2 Gene expression profile of staphylococcal enterotoxin B and lipopolysaccharide-induced human PMBCs. C. Mendis. Univ. of Wisconsin-Platteville.

978. PROTEOMICS AND BIOINFORMATICS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A294 978.7 Improving a software system for protein active site determination. G.J. Dodge, C. Corwin, H.J. Bernstein and P.A. Craig. Rochester Inst. of Technol. and Dowling Col., NY.


A297 978.10 An expanded self-antigen peptidome and proteome is carried by the human lymph as compared to the plasma. C.C. Clement and L. Santambrogio. Albert Einstein Col. of Med.


979. GLOBAL ANALYSIS OF PROTEIN FUNCTION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A300 979.1 Proteomic analyses of genes regulated by heterogeneous nuclear ribonucleoproteins A/Bs in Jurkat cells. Y-m. Yeh, P-R. Huang, C-C. Wu and T-C.V. Wang. Chang Gung Univ., Taiwan.

980. PROTEIN PROFILING IN NORMAL AND DISEASE STATES

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A301 980.1 Transmembrane-176A and 176B proteins are directly linked to cancer pathology. V.K. Valluri, W. Podevin, Q. Bui, V. Nguyen and M.P. Cuajungco. California State Univ., Fullerton.


981. GENOMICS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A304 981.1 Use of AFLP to study the genetic variability of Leishmania sp. C.M. Restrepo, E. Pérez Lao, C. De La Guardia, O.E. Sousa, J.E. Calzada and R. Lleonart. INDICASAT, Univ. of Panama and Gorgas Commemorative Inst., Panama.


982. TOXICOGENOMICS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

983. COMPUTATIONAL APPROACHES IN SYSTEMS BIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A310 983.4 Comparative analysis of M. pneumoniea models using the cytoSEED plugin for metabolic model visualization. N.L. Hazekamp, J. Kammeraad, B. Bockstege and M. DeJongh. Hope Col., MI and Univ. of Notre Dame.


A312 983.6 Identifying drug response signatures using genome-scale metabolic network analysis of human cell line expression data. D. Zielinski, M. Mo and B. Palsson. UCSD.


984. SURFACE PLASMON RESONANCE

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


985. FUNCTIONAL PROTEOMIC STUDIES

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


986. ORGANIZATION OF THE SECRETORY PATHWAY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A320 986.1 Regulation of I-kappa-B kinase pathway by CARMA 1•Bcl-10•MALT-1 complex promotes SNARE complex formation and secretion in platelets. M. Banerjee, Z. Karim, J. Zhang and S.W. Whiteheart. Univ. of Kentucky.

A321 986.2 An unconventional Rab GTPase is involved in the regulation of unique secretory organelles in Toxoplasma gondii. J. Heng, K. Kremer and M. Meissner. Univ. of Glasgow.

987. MEMBRANE BIOGENESIS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Organelle Dynamics

Systems Biology

Presentation time: 12:25 PM-1:55 PM

988. MEMBRANE TRANSPORT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A324 988.2 The actions of SNAREs and Munc18 in neuronal vesicle fusion. J. Shen. Univ. of Colorado Boulder.

A325 988.3 Short-hairpin RNA-mediated silencing of NKCC1 in COS7 cells and its effect on cell volume. S.A. Alshahrani and M. Di Fulvio. Wright State Univ.

A326 988.4 Role of cystein residues in the normal operation and assembly of K+-Cl- cotransporter isoform 2. G. Carpentier, L. Caron, M. Jacob-Wagner and P. Isenring. Laval Univ., Canada.


A329 988.7 The V-ATPase subunit d: new roles for functionally and structurally coupling of V1-Vo. E. Weber and K.J. Parra. Univ. of New Mexico.

A330 988.8 Isolation and mass spectrometric analysis of native protein complexes in rat liver mitochondrial contact sites. K. Lee, J. Kerner and C. Hoppel. Case Western Reserve Univ.


A332 988.10 A new functional role of potassium. X. Wu, J. Lee and H. Kim. Univ. of Nebraska-Lincoln.


989. SIGNALING TO THE CYTOSKELETON

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A336 989.2 NMR analysis of actin binding protein cofillin. N.J. Audette, S. Yan, D. Kudryashov and T. Polenova. Univ. of Delaware and The Ohio State Univ.

990. LIPID REGULATION OF PROTEIN FUNCTION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A338 990.2 The role of an ER-localized metalloprotease in yeast cell wall integrity. K.A. Hecht, V.A. Wytiaz and J.L. Brodsky. Univ. of Pittsburgh.


991. LIPID SIGNALING, INFECTION AND Atherosclerosis

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A344 991.5 Defining the role of SREBP2 in viral infection. A.G. York and S.J. Bensinger. UCLA.


993. LIPID SIGNALING

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A351 993.3 Isozyme-specific interaction of protein kinase C δ with mitochondria dissected using live cell fluorescence imaging. A.X. Wu-Zhang and A.C. Newton. UCSD.


A354 993.6 PTEN binding properties for different model membrane morphologies. A. Gericke, A.H. Ross, K.E. King, B.M. Neuman and Z. Jiang. Worcester Polytech Inst., Univ. of Massachusetts Med. Sch. and NHLBI/NIH.

994. LIPIDS AND CONTROL OF GENE EXPRESSION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A356 994.2 Acid ceramidase represses steroidogenic factor 1-dependent gene transcription by binding to the receptor in the nucleus of H295R human adrenocortical cells. N.C. Lucki, D. Li, S. Bandyopadhyay, E. Wang, A.H. Merrill and M.B. Sewer. Skaggs Sch. of Pharm. and Pharmacut. Sci., UCSD and Georgia Tech.


A359 994.5 The role of Nro1p in recognition and signaling the presence of dietary unsaturated fatty acids. M. Willey, J. Stukey and V. McDonough. Hope Col., MI.

995. LIPIDS AND INFLAMMATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A361 995.2 Oleic acid attenuates trans-10, cis-12 (10,12) conjugated linoleic acid-mediated inflammatory signaling in primary human adipocytes. M.A. Reardon, S. Gobern, K. Martinez, C.C. Chung, T. Reid and M. McIntosh. Univ. of North Carolina at Greensboro.

A362 995.3 FTY720-phosphate (gilenya) selectivity of S1P1 GPCG requires motifs in intracellular loop 1 and transmembrane domain 2. G. Tigyi, W.J. Valentine, V.I. Godwin, D.A. Osborne, D. Liu, Y. Fujiiwa, J. Van Brocklyn, R. Bittman and A. Parrill. Univ. of Tennessee Hlth. Sci. Ctr., Univ. of Memphis, The Ohio State Univ. and Queens Col., CUNY.


996. LIPIDS IN PATHOGENIC PROCESSES

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

997. PROTEIN-LIPID INTERACTIONS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A366 997.1 Fatty acids and their bioactive derivatives as ligands for human PPARα – a comparison to murine PPARα.

A367 997.2 Phosphorylation of Prdx6 mediated by MAP kinase induces conformational change with concomitant increase in its phospholipase A2 activity.

A368 997.3 Characterization of the effects of lipid-binding on the chaperone activities of 70-kDa heat-shock proteins.
C.M. McCallister and N. Nikolaidis. California State Univ., Fullerton.

A369 997.4 Characterization of the lipid-binding sites of HSPA1A, a member of the 70-kDa heat shock protein family.
G. Donnelly, C.M. McCallister, D. Le and N. Nikolaidis. California State Univ., Fullerton.

A370 997.5 Structural properties of functional HDL and variants of apoA-I.

A371 997.6 Assessing aggregation and membrane binding of LLO domains.
Q. Huang, Y. Wang and M. Roberts. Boston Col. and UCSD.

A372 997.7 Human apoA-I lysine residues promote association with lipopolysaccharides and phosphatidylglycerol bilayers.

A373 997.8 Impact of hydrophobic lipophilic molecules on worm burden in BALB/c mice infected with Heligmosomoides polygyrus.
A.C. Foudjet. Concordia Col., MN.

998. NEW METHODOLOGIES FOR TARGET DISCOVERY AND TARGET VALIDATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A374 998.1 Development of a Parkinson’s disease model in medaka fish.

A375 998.2 In vitro evidence that peptides derived from the candidate tumor suppressor gene esophageal cancer-related gene 4 internalize into cells through the innate immunity receptor complex.
S. Podvin, X. Dang, A. Kurabi, R. Coimbra, B. Eliceiri and A. Baird. UCSD.

A376 998.3 A high-throughput screen for inhibitors of xenobiotic detoxification in nematodes.

A377 998.4 A novel, time resolved immunofluorescence screening assay to assess PAR2 ligand binding.

999. TARGETED CANCER DRUG DEVELOPMENT: DEFINING MOLECULAR PROFILES OF SENSITIVITY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A378 999.1 Androgen receptor regulation by microtubule-targeting chemotherapeutics in prostate cancer.
S. Martin and N. Kyprianou. Univ. of Kentucky.

A379 999.2 Thermodynamic characterization of a riboflavin-dendrimer platform for targeted drug delivery applications.

A380 999.3 Dualistic role of tumor-directed antibodies on carcinoma progression.
O.M. Pearce, P.C. Soto, P. Secrest, N. Varki, P. Crocker, J. Bui and A. Varki. UCSD and Col. of Life Sci., Univ. of Dundee, U.K.

A381 999.4 Synergistic anti-tumor effect by a combination treatment with the dietary flavonoid luteolin and the chemotherapy drugs Tasigna or Adrucil in human pancreatic cancer cells.

A382 999.5 A copper complex, ghn-12, as a sensitization of DNA to UVA offers potential for a novel photochemotherapy.

A383 999.6 Anti-angiogenic effects of zoledronic acid on osteotropic breast cancer cells.

A384 999.7 Differential sensitivity of melanoma cell lines with differing B-Raf mutational status to the new oncogenic B-Raf kinase inhibitor UAI-201.

A385 999.8 The effect of benzoxazolene analogues on endothelial cell morphology and tube formation.
1000. CHEMICAL PROBES AND THEIR USE IN IDENTIFYING NEW THERAPEUTIC TARGETS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A386 1000.1 Activity-based probes for penicillin-binding protein imaging. O. Kocaoglu, B. Lanning, L. Cozy, R. Calvo, D. Kearns and E.E. Carlson. Indiana Univ.

1001. MEMBRANE PROTEINS AS DRUG TARGETS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A388 1001.2 Biological evaluation of cyclized cystine knot peptides targeting human melanocortin receptors. J. Bao, M. Cai, D. Craik and V. Hruby. Univ. of Arizona and Univ. of Queensland, Australia.


A390 1001.4 Relative location of transmembrane regions of GABAA receptors probed by cysteine substitution and crosslinking. J.A. Hicks, C.M. Borghese, R.A. Harris and J.R. Trudell. Univ. of Texas at Austin and Stanford Univ. Sch. of Med.


1002. NEW TARGETS FOR DRUG DISCOVERY: ANTIBACTERIALS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A393 1002.1 Characteristic features of human catalytic light chain, 22F6, showing the suppression of influenza virus infection by the different way. N. Fujimoto, E. Hifumi and T. Uda. Oita Univ. and CREST of JST, Saitama, Japan.

A394 1002.2 Characterization of an anti-pathogenic lactonase from Palk Bay metagenome. S.T. Karutha Pandian, C. Nithya and D. Viszwapriya. Alagappa Univ., India.


1003. NEW TARGETS FOR DRUG DISCOVERY: NUCLEAR HORMONE RECEPTORS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


POSTER PRESENTERS:
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Where: E-Poster Counter, Hall D Lobby

Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
Nutrition

1004. INNOVATIVE TOOLS FOR ASSESSMENT OF DIET, PHYSICAL ACTIVITY, AND RELATED BEHAVIORS

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C1 I 1004.1 Development and validation of a quantitative FFQ for Guam. R.T. LeonGuerrero, R. Novotny, L. Wilkens and M. Chong. Univ. of Guam, Univ. of Hawaii at Manoa.

C2 II 1004.2 Mediterranean diet adherence is decreasing in healthy subjects over the years 1996-2010 also in Mediterranean area. G.M. Trovato, G.F. Martinez and D. Catalano. Univ. of Catania, Italy.


C4 II 1004.4 Classification of the items (ingredients) in a 40-day rotating menu offered to day-care center attendees in a government-sponsored program (SOSEP) according to the Monteiro scale of food-processing. M.J. Soto-Méndez, L. Hernández and N.W. Solomons. CeSSIAM, Guatemala City.


C7 I 1004.7 Pre-pregnancy micronutrient intake assessed by food frequency questionnaire in the Alberta Pregnancy Outcomes and Nutrition Study. S.M. Ramage, C. Berglund, L.J. McCargar and R.C. Bell. Univ. of Alberta.


C9 I 1004.9 Comparison of the InBody 520 bioimendence analyzer to air displacement plethysmography for body composition measurements in a healthy adult population. A. Barber, K. Hobb and M. Kern. San Diego State Univ.


1005. APPLICATIONS AND CHALLENGES OF PUBLIC USE DATA SETS FOR SECONDARY ANALYSIS NUTRITION RESEARCH

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


1006. LONGITUDINAL AND CROSS-SECTIONAL ANALYSIS OF ASSOCIATIONS BETWEEN DIET AND HEALTH OUTCOMES

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C16 I 1006.1 Adherence to Mediterranean diet assessed using various a priori scores is associated with reduced 6-year risk of metabolic syndrome in French adults. N. Ahluwalia, C. Lassalle, S. Hercberg, L. Fezeu, D. Lainon and E. Kesse-Guyot. Univ. de Paris13, INSERM U557, Bobigny and INSERM UMR1260, Marseille.

C17 II 1006.2 Autoimmune disease in anorexia nervosa and bulimia nervosa. A. Gerhardt. Univ. of California, Davis, Sacramento.

C18 I 1006.3 Long-term physical illness in anorexia nervosa and bulimia nervosa. A. Gerhardt. Univ. of California, Davis, Sacramento.
1007. APPLICATION OF NOVEL STATISTICAL METHODS FOR USE IN NUTRITIONAL EPIDEMIOLOGY

**Poster**

**(Sponsored by: Nutritional Epidemiology RIS)**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


1008. DIETARY SUPPLEMENTS AS A POPULATION EXPOSURE IN CAUSATION, PREVENTION, AND MANAGEMENT OF DISEASE

**Poster**

**(Sponsored by: Nutritional Epidemiology RIS)**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


1009. INFLUENCES OF WATER AND BEVERAGE CONSUMPTION ON NUTRITION AND HEALTH STATUS

**Poster**

**(Sponsored by: Nutritional Epidemiology RIS)**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C27 1009.4 Heat-processed carcinogens: what can we learn from the “coffee - cancer paradox”? J.R. Coughlin. Coughlin & Assocs., Viejo, CA.

1010. NUTRITION EDUCATION IN DIVERSE POPULATIONS

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C29 1010.2 Lessons learned in conducting nutrition-related research in African American older adults. O.T. Babatunde, A. Campa and S.P. Himburg. East Carolina Univ. and Florida Intl. Univ.


C31 1010.4 Dietary habits and degree of satisfaction with meal service by students with visual impairment. H-J. Chung and H-J. Park. Inha Univ., South Korea.

C32 1010.5 Head Start preschool teachers’ willingness to implement nutrition and agricultural-based learning centers in the classroom. C.E. Dunham, R. Cash, V. Carraway-Stage and L.S. Goodell. North Carolina State Univ. and Bright Horizons at North Carolina State Univ.


C34 1010.7 Correction of eating habits and prevention of weight gain by nutrition education in Korean college students. S.Y. Bu. Kyungil Univ., South Korea.

1011. PREVENTING CHILDHOOD OBESITY

**Poster**

**(Sponsored by: Nutrition Education RIS)**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


Familial determinants of body mass index in Colombian 5-18-year-old children. I.G. Casanova, A.D. Stein, O.L. Sarmiento and M. Pratt. Emory Univ. and Sch. of Med., Univ. of los Andes, Colombia.


Don’t forget about dad: exploring paternal influences on children’s weight status and eating behaviors. R.L. Vollmer, M. Sigman-Grant and A.R. Mobley. Univ. of Connecticut and Univ. of Nevada, Las Vegas.

The regularity of breakfast could drive teenager to consume more fruits and vegetables. D. Shin and S-M. Lee. Kyungnam Univ., South Korea.

Summer camp promotes anthropometric changes in overweight youth in Fresno, California. G. George, C. Schneider, D. Ginsburg and L. Kaiser. Univ. of California, Davis.


Incongruence between mother perceptions and preschooler’s actual weight status using BMI categories. A. Lindsay, A. Hite, T. Byington, M. Lu and M. Sigman-Grant. Univ. of Nevada, Las Vegas and Sch. of Community Hlth. Sci., Univ. of Nevada, Reno.


Genetic polymorphisms in AHR and CYP1A2 are associated with habitual caffeine consumption and are modified by age and smoking. A.R. Josse, L.A. Da Costa, H. Campos and A. El-Sohemy. Univ. of Toronto and Harvard Sch. of Publ. Hlth.


Contribution of total and central adiposity to systemic adipokines during weight loss. N. Gletsu-Miller and E. Lin. Purdue Univ. and Emory Univ.

Leptin and adiponectin are both suppressed upon activation of nucleotide oligomerization domain containing protein 1 during adipocyte differentiation. J.S. Purohit, P. Hu, J. Chen and L. Zhao. Univ. of Tennessee, Knoxville.
1013. PROTEIN AND AMINO ACID METABOLISM

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

TUE 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C68 II 1013.10 Dose and time dependent effects of leucine or carbohydrate supplements to reduce AMPK and eEF2 phosphorylation and extend postprandial muscle protein synthesis in rats. G.J. Wilson, D.K. Layman, C.J. Moulton and P.J. Garlick. Univ. of Illinois at Urbana-Champaign.


C72 II 1013.14 The abundance of the mRNA translation initiation inhibitor PDCD4 in I6 myotubes is regulated by mTORC1 and the proteasome. O.J. Adegoke, D.M. Kakade and N. Islam. York Univ., Canada.

C73 I 1013.15 Fractional synthesis rate of creatine from arginine in healthy adult men. C. Tomlinson, M. Rafii, R. Kamaleswaran, R.O. Ball and P.B. Pencharz. The Hosp. for Sick Children, Toronto, Univ. of Toronto and Univ. of Alberta.

C74 II 1013.16 Constitutive activation of mTOR pathway by leucine causes heart hypertrophy which can be blocked by rapamycin. J. Davoodi and S. Hutson. Virginia Tech and Univ. of Tehran.

C75 I 1013.17 Effects of methionine supplementation on cysteine and glutathione production in malnourished infants. C.O. Green, A. Badaloo, J.W. Hsu, C. Taylor-Bryan, M. Reid, T. Forrester and F. Jahoor. Univ. of West Indies, Jamaica and USDA and Baylor Col. of Med.


C78 II 1013.20 Dietary cod protein improves skeletal muscle regeneration partly through its high levels of arginine, lysine, glycine and taurine. J. Dorr, N. Leblanc, C. Côté and H. Jacques. Laval Univ., Canada.


C84 II 1013.26 Analysis of extracellular levels of serotonin in rat amygdala after oral administration of large amounts of tryptophan. F. Yoshizawa, M. Honda and K. Sugahara. Utsunomiya Univ., Japan.

C85 I 1013.27 Precursors for citrulline synthesis: facts and artifacts. J.C. Marini. USDA/ARS, Baylor Col. of Med.


C90 II 1013.32 Partially hydrolyzed soy protein shows enhanced transport of amino acids compared to nonhydrolyzed protein across an intestinal epithelial cell monolayer. N.J. McGraw, N. Napawan, M. Toland, J. Schulze, B. Tulk and E.S. Krul. Solae LLC, St. Louis and Univ. of California, Davis.


Abstract 1013.36 moved to Session 387 at 3:45 PM.

1014. LIPID AND FATTY ACID METABOLISM AND TRANSPORT

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C95 I 1014.1 High fasting ghrelin concentrations are related to low fatty acid flux in overweight subjects. Y. Hovhannisyan, J. Lee, M. Ramos-Roman, D. Bradford, M. Valdez and E. Parks. Univ. of Texas Southwestern Med. Ctr.


C100 II 1014.6 Development of a whole-body model of vitamin A metabolism in neonatal rats treated with oil or vitamin A and retinoic acid based on compartmental analysis of retinol tracer kinetics. L. Tan, A.E. Wray, M.H. Green and A.C. Ross. Penn State.


C105 I 1014.11 Rab2 plays a role in lipid metabolism in the intestine. B. Chung and A. Schürmann. German Inst. of Human Nutr., Nuthetal.

DIETARY FACTORS AFFECTING LIPID METABOLISM

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT

HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C107 I 1015.1 Effects of retinoid catabolism on the gene expression in primary rat hepatocytes and hepatoma cells. Y. Li and G. Chen. Univ. of Tennessee, Knoxville.

C108 II 1015.2 Palm olein increases plasma cholesterol moderately compared with olive oil in healthy individuals. T. Tholstrup, J. Hjerpsted and M. Raff. Fac. of Life Sci., Copenhagen Univ.


C114 II 1015.8 Practical utility of lipid predictive equations in a diabetic population. S.E. Horton, K.A. Sauder, P.M. Kris-Etherton and S.G. West. Penn State.


C116 II 1015.10 Conjugated linoleic acid-induced lipolysis in 3T3-L1 adipocytes. S.M. Ippagunt and K.M. Barnes. West Virginia Univ.


POLYUNSATURATED FATTY ACIDS AND HEALTH

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT

HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C120 I 1016.1 Association between erythrocyte n-3 fatty acid levels and the risk of depression: case-control study in Korea. Y. Park. Hanyang Univ., South Korea.

C121 II 1016.2 The effect of dietary fat and omega-3 fatty acids on whole body lipid oxidation. C. Ainslie-Waldman, L.R. Young, M.S. Kurzer, S.K. Raatz and A.S. Csallany. Univ. of Minnesota, St. Paul and USDA, Grand Forks.

C122 II 1016.3 Fish oil supplementation as adjunct therapy for periodontitis. A. Coates, M. Bartold, T. Hughes and P. Howe. Sch. of Hlth. Sci., Univ. of South Australia and Sch. of Dent., Univ. of Adelaide.

C123 II 1016.4 Twice-weekly consumption of farmed Atlantic salmon increases plasma content of phospholipid n-3 fatty acids. M.J. Picklo, T.A. Rosenberger, G.S. Burr, W.R. Wolters and S.K. Raatz. USDA, Grand Forks, Univ. of North Dakota and USDA, Franklin, ME.


C125 II 1016.6 Effect of chronic fish oil supplementation on renal function parameters of healthy and cachectic rats. R. Fernandez and I. Coelho. Fed. Univ. of Parana, Brazil.


C128 II 1016.9 Estimating the RBC omega-3 index from dried samples collected on filter paper. W.S. Harris. OmegaQuant LLC, Sioux Falls, SD.


C133 II 1016.14 The effect of dietary fatty acids on the recruitment of brown-like adipocytes in inguinal white adipose tissue. M. Zhao, H. Guo and X. Chen. Univ. of Minnesota, St. Paul.


C137 II 1016.18 EPA decreases mRNA and protein for endocannabinoid receptors in myoblasts. J. Kim, Y. Li and B.A. Watkins. Univ. of Connecticut.

C138 I 1016.19 Omega-6 to omega-3 fatty acid ratio and higher-order cognitive functions in 7-to-9-year-olds. K. Will, C.L. Cheatham and J. Stegall. Univ. of North Carolina at Chapel Hill, Kannapolis.

C139 II 1016.20 EPA and DHA increase insulin receptor in proliferating but reduce GLUT4 in differentiated C2C12. J. Kim, Y. Li and B.A. Watkins. Univ. of Connecticut.

1017. ANTIOXIDANT MICRONUTRIENTS

**Poster**

*(Sponsored by: Vitamins and Minerals RIS)*

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C141 II 1017.2 Dietary zinc intake is inversely associated with systolic blood pressure in obese Korean women. J. Kim and S. Lee. Daegu Univ., South Korea.

C142 II 1017.3 Adequate vitamin B-6 is associated with increased antioxidant enzyme activity in critically ill surgical patients. Y-C. Huang, C-H. Cheng, F-P. Chen and T-Y. Chiang. Sch. of Nutr., Chung Shan Med. Univ. and Taichung Veterans Gen. Hosp., Taiwan.

C143 II 1017.4 Variability of oxidant status in women of childbearing potential. T. Artz, T. Jallili, M. Goodman and M.A. Murtaugh. Univ. of Utah.


C145 II 1017.6 Antioxidant capacity of tomato paste is stable during growing season and shelf-life. B. Meckna, K.J. Reimers and A. Mark. ConAgra Foods, Omaha.


1018. WATER SOLUBLE VITAMINS

**Poster**

*(Sponsored by: Vitamins and Minerals RIS)*

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C153 I 1018.1 Changes in the carboxylase profile are associated with early and late differentiation stages of osteoblasts and adipocytes from human mesenchymal stem cells. E. Cordonier, T. Kaspuitis, J.D. Mills, Z. Han, A.K. Pannier and J. Zempleni. Univ. of Nebraska-Lincoln.

C154 II 1018.2 Urinary excretion of 3-hydroxyisovaleryl carnitine is elevated in lactating women consuming a biotin intake exceeding current recommendations. C.A. Perry, A. Gayle, O.V. Malyshева, J. Yan and M.A. Caudill. Cornell Univ.


1019. MICRONUTRIENT BIOAVAILABILITY

Poster
(Sponsored by: Vitamins and Minerals RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C159 I 1019.1 Biofortified maize (Zea mays L.) provides more bioavailable iron than standard maize: studies in poultry (Gallus gallus) and an in vitro digestion/Caco-2 model. E. Tako, O.A. Hoekenga, L.V. Kochian and R.P. Glahn. USDA, Ithaca and Cornell Univ.

C160 II 1019.2 α-Tocopherol absorption into a three-dimensional human skin tissue model. J.A. Evans, J. Garlick, E.J. Johnson, X-D. Wang and C-Y.O. Chen. USDA and Tufts Univ.

1020. B VITAMINS AND ONE-CARBON METABOLISM

Poster
(Sponsored by: Vitamins and Minerals RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C172 II 1020.4 Elevation of folate status in humans by 5-methyl-6S-tetrahydrofolate. S.W. Bailey and J.E. Ayling. Univ. of South Alabama.


1021. MICRONUTRIENT INTERVENTIONS

Poster
(Sponsored by: Vitamins and Minerals RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C178 I 1021.3 Effect modifiers for the safety and efficacy of iron intervention in the context of malaria: a review of data for an individual patient-based meta-analysis. S. Namaste, F. Ashour, A. Porter, R. Raghavan, S. Pilch and D.J. Raiten. NICHD/NIH and NLM/NIH.
C179  II  1021.4  Rapid screening for zinc deficiency using portable X-ray fluorescence in fingernails. K.A. Fu and J.J. Kahiyias. USDA at Tufts Univ.

C180  I  1021.5  Challenges and progress towards universal salt iodization in Ethiopia. T. G/ Egziabher and M. Girma. Hawassa Univ., Ethiopia and Oklahoma State Univ.


C184  I  1021.9  Vitamin D supplementation and muscle responses in early pubertal adolescents. C. Wright, E. Laing, J. Williams, N. Pollock, D. Hausman, C. Weaver, B. Martin, G. McCabe, M. Peacock, S. Warden, K. Hill and R. Lewis. Univ. of Georgia, Georgia Hlth. Sci. Univ., Purdue Univ. and Indiana Univ. Sch. of Med.


1022. SELENIUM

Poster

(Sponsored by: Vitamins and Minerals RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C194  II  1022.2  Selenium inhibits the histone acetyltransferase activity of KAT3B in macrophages. V. Narayan, R. Kodihalli and K.S. Prabhu. Penn State and MIT.

C195  I  1022.3  Association between selenium (Se) intake, plasma Se levels and disease progression in HIV-infected adults in Miami. R. Trivedi, A. Campa, S.S. Martinez, J.B. Page, S. Lai and M.K. Baum. Florida Intl. Univ., Univ. of Miami and Johns Hopkins Univ.


1023. DIET AND CANCER: ANIMAL STUDIES

Poster

(Sponsored by: Diet and Cancer RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C199  II  1023.2  Suppression of early colon cancer lesions by apigenin and naringenin in is part due to their downregulation of p21, TLR-4, and MCT-1 expression. W.D. Daniels, T.P. Garcia, R.J. Carroll, B.S. Patil and N.D. Turner. Texas A&M Univ.


**C204** I 1023.7 Effects of dehydroepiandrosterone treatment on liver steatosis using DMBA-induced mammary tumor obese Zucker rat model. R. Hakkak and S. Korourian. Univ. of Arkansas for Med. Sci. and Arkansas Children's Hosp.


**C206** I 1023.9 Comparative effects of soluble fiber (konjac glucomannan and oligofructose-rich inulin) and insoluble fiber cellulose on the colonic apoptotic response to acute azoxymethane challenge. W-T.I. Wu and H-L. Chen. Sch. of Nutr., Chung Shan Med. Univ., Taiwan.

**C207** II 1023.10 Effect of maternal methyl diet on epigenetic changes and mammary carcinogenesis in offspring. S. Bae, K. Cho, L. Mabasa, M.W. Walters and C.S. Park. North Dakota State Univ.

**C208** I 1023.11 Increased carcinoma-induced colon cancer in ER-βKO compared to wild type mice. R.S. MacDonald, J. Przybyszewski and D.B. Lubahn. Iowa State Univ. and Univ. of Missouri-Columbia.


**C210** I 1023.13 Quercetin decreases tumorigenesis in a high fat diet-enhanced mouse model of breast cancer. J. Steiner, J.M. Davis, J. McClellan, J. Green and E.A. Murphy. Univ. of South Carolina, NCI/NIH and Univ. of South Carolina Sch. of Med.


**C213** II 1023.16 The citrus flavonone hesperetin inhibits growth of aromatase-expressing MCF-7 tumor and reduces the effective dose in letrozole-treated mice. F. Li, L. Ye, F.L. Chan, S. Chen and L.K. Leung. The Chinese Univ. of Hong Kong and Beckman Res. Inst. of City of Hope.


**1024. DIET AND CANCER: TRANSLATIONAL, CLINICAL AND SURVIVORSHIP**

**Poster**

(Sponsored by: Diet and Cancer RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

**C215** I 1024.1 Lipocalin-2 serum levels decrease in a randomized dietary feasibility study for stage II-IV ovarian cancer survivors. C. Garcia-Prieto, R. Paxton, M. Berglund, M. Hernandez, R.A. Hajek, B.C. Handy, J. Brown and L.A. Jones. Univ. of Texas MD Anderson Cancer Ctr.

**C216** II 1024.2 A randomized parallel-group dietary feasibility study for stage II-IV ovarian cancer survivors. M. Berglund, R.J. Paxton, C. Garcia-Prieto, M. Hernandez, R.A. Hajek, B.C. Handy, J. Brown and L.A. Jones. Univ. of Texas MD Anderson Cancer Ctr.


**C218** II 1024.4 Influence of consumption of allyl isothiocyanate or cabbage and mustard on DNA integrity in humans. C.S. Charron, B.A. Clevendence, G.P. Albaugh, M. Kramer, B.T. Vinyard, J.A. Milner and J.A. Novotny. USDA, Beltsville, MD and NCI/NIH, Rockville.


**1025. DIETARY BIOACTIVE COMPONENTS OF MEDICINAL, FUNCTIONAL AND WHOLE FOODS INCLUDING PROBIOTICS AND FERMENTED FOODS**

**Poster**

(Sponsored by: Dietary Bioactive Components RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


**C221** II 1025.2 Polyphenolic and antioxidant properties of elderberry (Sambucus) fruits. A.M. Finn, S.E. Milliron, K.E. Hummer and T. Wilson. Winona State Univ. and USDA, OR.

**C222** I 1025.3 Fatty acid and dietary fiber content of the mesocarp of Hawaii grown avocados: potential for improved health benefits. J.K.T. Iwasaki, K. Dieron and M.L. Stewart. Univ. of Hawaii at Manoa.
C223 II 1025.4 Chemical compositions and antioxidant activity of roasted Maegmundung (Liriopple platyphylla tubers). K. Lee, B. Kim and E. Choe. Soonchunhyang Univ. and Inha Univ., South Korea.

C224 I 1025.5 Analyses of chemical constituents and chlorophylls of soy sprouts. K. Lee and Y. Kim. Soonchunhyang Univ., South Korea.

C225 II 1025.6 Extractable and non-extractable proanthocyanidins of Nonpareil, Carmel, and Butte California almonds. B. Bolling, A. Roto, K. Kimball and L. Xie. Univ. of Connecticut.


C240 I 1025.21 Increased qualities of doenjang (Korean soybean paste) prepared with mixed starter cultures and its inhibitory effects on induction of acute colitis in mice. K.Y. Park, J-K. Jeong, Y. Zheng and H.S. Choi. Pusan Natl. Univ. and NIAST, RDA, Suwon, South Korea.


C248 I 1025.29 Dairy-derived bioactive compounds as modulators of stromal, adipocyte-like and osteoblast-like cell metabolism. J. Ilich-Ernst, Y. Kim and O. Kelly. Florida State Univ.


C251 II 1025.32 Effects of whole eggs combined with other cooked breakfast foods on postprandial metabolism in older, overweight adults. D.L. McKay, C-Y.O. Chen, H. Rasmussen and J.B. Blumberg. USDA at Tufts Univ.


1026. CARDIOVASCULAR EFFECTS OF DIETARY BIOACTIVE COMPONENTS

Poster

(Sponsored by: Dietary Bioactive Components RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C258 I 1026.3 Association of vitamin D levels to blood pressure among blacks and whites. R.O. Sakamoto, S. Tonstad, K. Jaceldo-Sieg, E. Haddad, K. Oda and G. Fraser. Loma Linda Univ. and Univ. of Phoenix Sch. of Nursing, CA.


C260 I 1026.5 Low papaya consumption increases risk for low high-density lipoprotein cholesterol in Mexican college applicants. M.A. Mosley, F.C.D. Andrade, J.M. Vargas Morales, C. Aradillas-Garcia and M. Teran-Garcia. Univ. of Illinois at Urbana-Champaign and Autonomous Univ. of San Luis Potosí, Mexico.


C262 II 1026.7 Wild blueberry diets attenuate phenylephrine (Phe)-induced vasoconstriction via NO-sGC-cGMP signaling, but not the COX pathway in spontaneously hypertensive rats. A.S. Kristo, A.Z. Kalea, D.A. Schuschke and D. Klimis-Zacas. Univ. of Maine, University Col. London and Univ. of Louisville.


C264 I 1026.9 Aronia melanocarpa ( chokeberry) polyphenol rich extract reduces plasma cholesterol and improves antioxidant function in apolipoprotein E knockout mice. B. Kim, C.S. Ku, T. Pham, Y. Park, D. Martin, L. Xie, R. Taheri, J. Lee and B. Bolling. Univ. of Connecticut.


C268 I 1026.13 RGD-peptide lunasin inhibits PI3-kinase/Akt-mediated NF-κB activation in human and murine macrophages through interaction with αvβ3 integrins. A. Cam and E. Gonzalez de Mejia. Univ. of Illinois, Urbana.


C270 I 1026.15 Effect of soy nutos on inflammation, endothelial function, glucose, and insulin in adults with metabolic syndrome. E.J. Reverseri, C.D. LaSalle, C.T. Kappagoda and F.M. Steinberg. Univ. of California, Davis.


1027. NUTRITIONAL IMMUNOLOGY AND IMMUNE MODULATING NUTRACEUTICALS AND FUNCTIONAL FOODS

Poster
(Sponsored by: Nutrition Immunology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C281 II 1027.6 Population dynamics of leukocytes in blood during early activation of the chicken immune system by E. coli. V.J. Iseri and K.C. Klasing. Univ. of California, Davis.


C283 II 1027.8 Population dynamics of leukocytes in tissues during immune activation of the chicken immune system by E. coli. V.J. Iseri and K.C. Klasing. Univ. of California, Davis.

C284 II 1027.9 Lessertia frutescens (Sutherlandia), an African herb, modulates reactive oxygen species and nitric oxide generation by murine macrophages. W. Lei, J. Browning, Jr., P. Eichen, C-H. Lu, W. Folk and K. Fritsche. Univ. of Missouri-Columbia.


C286 I 1027.11 Effect of tomato and tocopherols intake on IgE level. M.F. Godoy, N. Slobodianik, F. Carrari and M. Insani. INTA, Buenos Aires and Sch. of Pharm. and Biochem., Buenos Aires.


C288 I 1027.13 Ethylamine increases intracellular protein levels of CCL3L1 in THP-1 cells. D.F. Driscoll, M.P. Nantz and S.S. Percival. Univ. of Florida.


C290 II 1027.15 GLUT-1 transporter expression is upregulated on human CD4+ and CD8+ T lymphocytes following T cell activation. H. Meng, W.J. Turbitt and C.J. Rogers. Penn State.


1028. THE DETERMINANTS OF FEEDING PRACTICES, DIETARY INTAKE AND NUTRITIONAL STATUS

Poster
(Sponsored by: International Nutrition Council (INC))

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C293 II 1028.2 Predictors of anemia in women of reproductive age from Colombia: results from a national survey. K. Kordas, Z.Y. Fonseca-Centeno, P.R. Ocampo Tellez and H. Pachon. Penn State, ICBF, Bogota and CIAT, Cali, Colombia.

C294 I 1028.3 Age of introduction of ten sentinel complementary foods as reported for 6- to 12-month old, low-income infants in metropolitan, Quetzaltenango (Western Highlands), compared to Guatemala City and Santo Domingo Xenaqoj (Central Highlands). M. Vossenaar, R. Campos, L. Hernández and N.W. Solomons. CeSSIAM, Guatemala City.


C296 I 1028.5 Reported changes in feeding practices during and after illnesses in 6- to 23-month-old children receiving continued breastfeeding in the Western Highlands of Guatemala. M. Vossenaar, R. Garcia, C.M. Doak and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.
1029. ADVANCING NUTRITION POLICY AND IMPROVING THE EFFECTIVENESS OF NUTRITION PROGRAMS

Poster

(Sponsored by: International Nutrition Council (INC))

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C312  II 1029.4  Perspectives of Nigerian policy actors concerning NCDs.  O.A. Adefeyemi and D. Pelletier.  Cornell Univ.


1030. NUTRITIONAL STATUS, DIET AND DISEASE

Poster

(Sponsored by: International Nutrition Council (INC))

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C316  I 1030.3  Stunting rates in young children aged 6 to 23 months in infants and toddlers born in metropolitan Quetzaltenango, Guatemala.  M. Reurings, C.M. Doak, M. Vossenaar and N.W. Solomons.  CeSSIAM, Guatemala City and VU Univ., Amsterdam.


C320 I 1030.7 Prevalence of rearing by an overweight/obese mother (early exposure to an obesogenic environment) among infants in an urban metropolitan area of the Guatemalan highlands. C.M. Doak, M. Reurings, M. Campos, M. Vossenaar and N.W. Solomons. VU Univ., Amsterdam and CeSSIAM, Guatemala City.


1031. INTERVENTION STUDIES AND GROWTH, MICRONUTRIENTS

Poster

(Sponsored by: International Nutrition Council (INC))

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C331 II 1031.8 Bioavailable carotenoid and cyanogen content of biofortified cassava after food preparation. M.R. La Frano, D. LaPorte and B. Burri. Univ. of California, Davis and USDA, Davis.


C335 II 1031.12 Relations between iron status and cognitive measures in Indian adolescents. S.P. Scott, M.J. Wenger, L. Murray-Kolb, S.A. Udipi, P.S. Ghugre, E. Boy and J.D. Haas. Penn State, Univ. of Oklahoma, SNDT Women’s Univ., India, HarvestPlus, Washington, DC and Cornell Univ.


1032. INTERVENTIONS FOR THE TREATMENT AND PREVENTION OF NUTRITION-RELATED DISEASE

Poster

(Sponsored by: Medical Nutrition Council (MNC))

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C342  II  1032.2  Exercise prevents fructose-induced hypertriglyceridemia in healthy young males. L. Egli, F. Theytaz, V. Campos, L. Hodson, P. Schneider, B. Fielding and L. Tappy. Univ. of Lausanne, Univ. of Oxford. and CHUV, Lausanne.

C343  I  1032.3  Effects of acute and chronic almond consumption on glycemia in adults at risk for diabetes. Y. Tan and R. Mattes. Purdue Univ.


C348  II  1032.8  Does high blood pressure increase perceived healthiness of foods with sodium claims on the label? C.L. Wong, J. Mendoza and M.R. L’Abbé. Univ. of Toronto and Univ. of Guelph, Canada.

C349  I  1032.9  Evaluating the impact of the nutrition facts table and front-of-pack nutrition rating systems on consumers’ product healthiness evaluations. T.E. Emrich, J.E. Mendoza and M.R. L’Abbe. Univ. of Toronto and Univ. of Guelph, Canada.

1033. NUTRITION AND INFLAMMATION

Poster

(Sponsored by: Medical Nutrition Council (MNC))

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C358  II  1033.9  Tumor progression locus 2 deletion attenuates alcohol-induced hepatic inflammatory foci and cytokine expression in mice. C.A. Peach, S. Hussain, C. Liu, X-D. Wang and A.S. Greenberg. USDA at Tufts Univ.

C360 1033.11 Dietary gangliosides improve intestinal integrity and function by decreasing sPLA2 independent NF-κB activation mechanism in a Caco-2 cell model of IBD by DSS. Q. Li, A.B.R. Thomsson, V.C. Mazurak, C.J. Field and M.T. Clandinin. Univ. of Alberta.


C364 1033.15 Palmitic acid induces but docosahexaenoic acid inhibits inflammasome-mediated secretion of IL-1β in monocytes by modulating the activation of Toll-like receptor 2. R.G. Snodgrass, S. Huang, I-W. Choi, J.C. Rutledge and D. Hwang. Univ. of California, Davis, USDA, Davis and Univ. of California, Davis, Sacramento.


Pathology

1034. MICROBIOLOGY, IMMUNOLOGY, AND GENERAL PATHOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM


B170 1034.2 Macrophages from patients affected by lysinuric protein intolerance exhibit an impaired phagocytosis. B.M. Rotoli, A. Barilli, R. Visigalli and V. Dall’Asta. Univ. of Parma.


B172 1034.4 The fecB ferrous iron uptake pathway contributes to the intracellular survival of F. tularensis LVS. C.A. Thomas-Charles and H. Zheng. Stony Brook Univ.

1035. NEUROLOGICAL INJURY

Poster

**TUE, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 11:00 AM-12:00 PM


B191 1035.4 Reversible tetracaine-controlled transactuator-inducible expression of neuron-targeted Cav-1 and recovery after neuronal injury. A.M.H. Grove, S.E. Kellerhals, C.M. Stary, H.H. Patel, P.M. Patel and B.P. Head. VA San Diego Healthcare Syst. and UCSD.


B196 1035.9 Status of muscle signaling pathways in the early pathogenesis of dystroglycanopathy-type muscular dystrophy. A.M. Beedle, G. Melick, C. Ball and M. Fortunato. Univ. of Georgia.

B197 1035.10 Impact of adenosine signaling on mutant LRRK2 induced neuronal injury. E. Steer and C. Chu. Univ. of Pittsburgh Sch. of Med.


1036. MECHANISMS OF CARDIAC PATHOBIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIB
HALLS A-D

Cardiac Pathobiology

Presentation time: 11:30 AM-1:30 PM


B212 1036.5 Flexible sensors to measure intravascular shear stress coupled with rapid and irregular atrial pacing. N. Jen, F. Yu, J. Lee and T. Hsiai. Univ. of Southern California.


B216 1036.9 Loss of cardiac muscle ring finger-1 augments right ventricular hypertrophy following chronic hypoxia-induced pulmonary hypertension. M. Paffett, S. Lucas, T. Anderson, M. Nysus, J. Norenberg, M. Willis and M. Campen. Univ. of North Carolina Col. of Pharm. and Univ. of North Carolina at Chapel Hill.


1037. CANCER CHEMOTHERAPY AND MECHANISMS OF TOXICITY I

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B3 1037.3 LBSO potentiate the effects of Hg in breast cancer cells. K.R. Sanchez, A. Ishaque and E. Egiebor. Univ. of Maryland Eastern Shore.


B5 1037.5 Anti-proliferative effects of carvacrol on human prostate cancer cell line, LNCaP. B. Patel, V.R. Shah and S.A. Bavadekar. Long Island Univ.


B7 1037.7 MCC-555 induces apoptosis through the combination of PPARγ-dependent and -independent pathways in pancreatic cancer cells. K-W. Min and S.J. Baek. Univ. of Tennessee, Knoxville.

1038. CANCER CHEMOTHERAPY AND MECHANISMS OF TOXICITY II

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B8 1038.1 Synergistic interaction between scriptaid and proteasome inhibitors enhances the sensitivity of human colorectal cancer cells to chemotherapeutic drugs. M.S. Abaza, A-M. Bahman and R. Al-Attiyah. Kuwait Univ.

B9 1038.2 Adenosine A2A receptor blockade slows growth of bladder and breast tumors. C. Cekic, D. Sag and J. Linden. La Jolla Inst. for Allergy and Immunol.


B12 1038.5 Disease stage-specific G protein-coupled receptor expression in clinical disorders: chronic lymphocytic leukemia as a model. T. Kataki, F. Murray, L. Zhang, C. Gray and P.A. Insel. UCSD.


B16 1038.9 The role of GPR30 in breast cancer cell migration. H. Doran and R.A. Ross. Sch. of Med. Sci., Univ. of Aberdeen, U.K.


1039. CORTICOTROPIN-RELEASING FACTOR

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B28 1039.3 Dopamine and isoproterenol depolarize corticotrophin releasing factor neurons in the bed nucleus of the stria terminalis: a potential neurocircuit involved in relapse. Y. Silberman, R.T. Matthews and D.G. Winder. Vanderbilt Univ. Sch. of Med.


B30 1039.5 Investigation of the role of corticotropin-releasing factor receptors within the central amygdala and basolateral amygdala during nicotine withdrawal in rats. Y. Ji, J.C. Alexander and A. Bruijnzeel. Univ. of Florida.

1040. DRUGS OF ABUSE—AMPHETAMINES AND OTHER STIMULANTS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B32 1040.2 Effects of methamphetamine self-administration and withdrawal on sleep in rhesus monkeys. M. Perez Diaz, M. Andersen, K.S. Murnane and L.L. Howell. Emory Univ.

B33 1040.3 Acute effects of d-methamphetamine, 3,4-methylenedioxyamphetamine, and 3,4-methylenedioxymethylamphetamine on wheel activity in rats. P.K. Huang, S.M. Aarde, T.J. Dickerson and M.A. Taffe. The Scripps Res. Inst.

B34 1040.4 Antagonism of 5-HT2A receptors attenuates the effects of amphetamine and 3,4-methylenedioxymethylamphetamine on wakefulness and dopamine overflow. K.S. Murnane and L.L. Howell. Emory Univ.


B36 1040.6 Methamphetamine-induced locomotor sensitization in C57BL/6 mice requires the MT1 melatonin receptor. A.J. Hutchinson, J. Ma, R.L. Hudson and M.L. Dubocovich. Univ. at Buffalo SUNY.


B40 1040.10 Determining the importance of changes in dopamine when modafinil is used as a treatment for cocaine dependence. A.J. Brewer III and R. De La Garza II. Baylor Coll. of Med. and Michael E. DeBakey VA Med. Ctr.

B41 1040.11 Enhancement and perceptual masking of a nicotine discriminative stimulus in rhesus monkeys. C.S. Cunningham and L.R. McMahon. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

B42 1040.12 Nicotinic acetylcholine and dopamine receptors contribute to the discriminative stimulus effects of nicotine in nonhuman primates. B.L. Blaylock and M.A. Nader. Wake Forest Univ. Sch. of Med.

B43 1040.13 The nicotinic subunit β4 plays a modulatory role on the anti-addictive action of varenicline. J. Dang, H.R. Arias and G. Jackson. Midwestern Univ., AZ.

1041. DRUGS OF ABUSE—OPIATES

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B46 1041.3 The effect of chronic morphine treatment on the abundance of cell signaling proteins in the guinea pig longitudinal muscle-myenteric plexus. B.G. Thompson, P. Li, K. Thayne, J. Masterson and D.A. Taylor. Brody Sch. of Med. at East Carolina Univ. and Intrepid Investments LLC, St. Thomas.

1042. DRUG-BEHAVIORAL INTERACTIONS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B52 1042.1 Effects of in utero cocaine exposure on cocaine-food delay discounting procedures in adult rhesus monkeys. R.E. Brutzer and M.A. Nader. Wake Forest Univ.

B53 1042.2 Assessing neurobehavioral function with the rat psychomotor vigilance task. C.M. Davis and R.D. Hienz. Johns Hopkins Univ. Sch. of Med. and Insts. for Behavior Resources, Baltimore.


B55 1042.4 Effects of early neurotoxicity from chemotherapeutic agents on learning, novelty, and drug reward. E.B. Bisen-Hersh, A.M. Myers and E.A. Walker. Temple Univ.

B56 1042.5 Effects of the melatonin receptor antagonist (MT2)/inverse agonist (MT1) luzindole on re-entrainment of wheel running activity and spontaneous homecage behaviors in C3H/HeN mice. E.B. Adamah-Biassi, I. Stepien, R.L. Hudson and M.L. Dubocovich. Sch. of Med. and Biomed. Sci., Univ. at Buffalo, SUNY.


B60 1042.9 SERT and BDNF heterozygous knockout mice display alterations in grooming activity and syntax. E. Kyzar, S. Gaikwad, J. Green, A. Roth, M. Pham, A. Stewart and A. Kaluett. Tulane Univ. Med. Sch.


1043. PHYSIOLOGY/BEHAVIOR

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B66 1043.1 Alpha1 and alpha2 adrenoceptors in the medial amygdaloid nucleus have different role on cardiovascular responses to acute restraint stress in rats. E.T. Fortaleza, A.A. Scopinho and F.M.A. Corrêa. Sch. of Med. of Ribeirão Preto, Brazil.

B67 1043.2 Sigma receptor ligands attenuate methamphetamine-induced hyperthermia but do not modulate IL-1B mRNA expression in select brain regions. M.J. Semerino, M.J. Robson, C. Mesangeau, S. Narayanan, C.R. McCurdy and R.R. Matsumoto. West Virginia Univ. and Univ. of Mississippi.


B70 1043.5 Characterization of imidazoline I2 receptor agonists-induced hyperthermia in rats. D.A. Thorn, X-F. An, Y. Zhang, M. Pigini and J-X. Li. Univ. at Buffalo, Res. Triangle Inst. and Univ. of Camerino, Italy.
1044. CNS PHARMACOLOGY—NEUROTRANSMITTER RECEPTORS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B72 1044.2 Dopamine transporter interacts with sigma-1R. A.M. North and H. Khoshbouei. Meharry Med. Col. and Univ. of Florida.

B73 1044.3 Neuronal nicotinic acetylcholine receptors are involved in nicotine-mediated reversal of ataxia in an animal model. C.S. Lambert, R.M. Philpot, M.E. Engberg and L. Wecker. Univ. of South Florida.

B74 1044.4 Immortalized hippocampal cell line H19-7 express endothelin system genes. B. Kanyicska and H. Liu. Univ. of Mississippi Med. Ctr.

B75 1044.5 Interactions between the orphan receptor GPR37L1 and the dopamine D1 receptor. R. Meyer and R.A. Hall. Emory Univ.

B76 1044.6 Chronic LSD administration produces changes in mPFC gene and protein expression relevant to schizophrenia, as determined by RNA-Seq and DIGE. D.A. Martin, D.E. Nichols and C.D. Nichols. LSU Hlth. Sci. Ctr., New Orleans and Purdue Univ.

1045. NEUROPSYCHIATRIC DISORDERS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B81 1045.5 Role of GluN2C-containing receptors in rodent schizophrenia-like phenotypes. B.G. Hillman, D. Stairs and S. Dravida. Creighton Univ.


1046. NEUROTOXICOLOGY—GENERAL

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B91 1046.3 Magnesium oxide nanoparticles induce cytotoxic and proinflammatoriy effects in Schwann cells and DRG neurons. V. Idikuda, A. Jaiswal, Y.Y.W. Wong, S. Leung, C. Daniels and J. Lai. Idaho State Univ.


1047. TRANSPORTERS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


1049. SMOOTH MUSCLE PHARMACOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B123 1049.2 Effects of metformin on bethanecol-induced bladder contractions. J.D. Peuler, J.K. Curtis and L.E. Phelps. Midwestern Univ., IL.

B124 1049.3 Contraction of rat vena cava by endothelin-1 is dependent on phospholipase-Cβ, but independent of IP₃ receptor activation. N.R. Tykocki, B.X. Wu, W.F. Jackson and S.W. Watts. Michigan State Univ.


B126 1049.5 Effect of arsenic and arsenic metabolites on LTCC and BKCa expression and activities in vascular smooth muscle. K. McPherson, C. Pace, R. Khalili and J.E. Angermann. Sch. of Community Hlth. Sci., Univ. of Nevada, Reno.

B127 1049.6 Contractions of rat vas deferens are mediated by α₁A- and α₁D-adrenoceptors. J.R. Docherty. Royal Col. of Surgeons in Ireland.


1050. MECHANISMS OF TOXICITY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B131 1050.3 Desferrioxamine attenuates doxorubicin-induced acute cardiotoxicity through TGF-β/Smad P53 pathway. O.A. Al-Shabanah. Col. of Pharm., King Saud Univ., Saudi Arabia.


1051. RENAL PHARMACOLOGY/TOXICOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B149 1051.3 Endothelium targeted anti-complement therapy protects renal allografts by modulating T cell response. C. Maldonado, S. Pushpakumar, C.V. Soni and G. Perez-Abadia. Univ. of Louisville.


B151 1051.5 Decreased renal and urinary nephrilysin protein expression in db/db mice. H. Chodavarapu, M. Bradshaw, E. Salem and K. Elased. Wright State Univ.


B154 1051.8 Prolyl hydroxylase domain/hypoxia. A. Ebiogwu and A. Oyekan. Texas Southern Univ.


B157 1051.11 Lipopolysaccharide impairs gap junction function and reduces rat kidney NRK-52E cell proliferation. Y. Wang, J. Wei, Z. Xia, Z. Hei and C. Luo. The Third Affiliated Hosp. of Sun Yat-sen Univ., China and Univ. of Hong Kong.


1052. DRUG METABOLISM DIVISION SESSION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B166 1052.2 P450 3A5 is primarily responsible for the formation of the most abundant oxidative metabolite of maraviroc. Y. Lu, C.W. Hendrix and N.N. Bumpus. Johns Hopkins Univ. Sch. of Med.


B168 1052.4 Hepatic PXR represses UGT1A1 gene expression during neonatal development. S. Chen and R.H. Tukey. UCSD.
1053. CARDIAC ELECTROPHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D3 I 1053.3 Dronedarone effects on atrial and ventricular electrophysiology in conscious dogs. L.A.A. Neves, J. Buening, J. Huang, P.B. Senese and M.R. Gralinski. CorDynamics Inc., Chicago.


D5 I 1053.5 Differences in ionic currents between myocardial and Purkinje cells of canine heart. M. Vassalle and L. Bocchi. SUNY Downstate Med. Ctr.


D7 I 1053.7 Novel stretchable electronics platform for simultaneous high-density electrical and optical recordings from ex vivo hearts. S.R. Gutbrod, J.I. Laughtner, M.S. Sulkin, L. Xu, A.P. Bonifas, M. Ying, A. Yu, J.A. Rogers and I.R. Efimov. Washington Univ. in St Louis and Univ. of Illinois at Urbana-Champaign.

D8 II 1053.8 Cardiomyocyte geometry and stretch effects on longitudinal conduction velocity. E. Pfeiffer, J. Stowe, J. Tan and A.D. McCulloch. UCSD.


1054. CARDIAC FUNCTION AND DYNAMICS II

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D15 II 1054.6 Short-term ACE inhibition produces long-term protection against NOS inhibitor-induced cardiac dysfunction. L.A. Biwer, H. Xu, C. Carroll, T. Broderick and T.M. Hale. Univ. of Arizona Col. of Med., Phoenix, Univ. of Rochester and Midwestern Univ., AZ.

D16 I 1054.7 Small left heart syndrome and post-coronary artery ligation outcomes in mice. S. Haskell, V. Peotta, G. Hermann, B. Reinking and R. Roghair. Univ. of Iowa.


D24  I  1054.15  Speckle tracking imaging in evaluation of left ventricular mechanics in a swine model of atrioventricular block during cardiac pacing: a comparison study with conventional right ventricular apical pacing therapy. W. Zhou, P. Benharash, K. Yamakawa and A. Mahajan. UCLA Sch. of Med.

D25  II  1054.16  Development of a fluorescent molecular rotor-based approach for concurrent measurement of blood viscosity and hemodynamics. M.P. Craig, M. Haidekker and J. Hove. Univ. of Cincinnati and Univ. of Georgia.

D26  I  1054.17  Increased angiogenesis as a mechanism for the preserved cardiac function in rats with chronic pressure overload. S. Gao, M. Park, Y. Tian, L. Yan, L. Lin, X. Zhao, R. Gelpi, D.E. Vatner and S.F. Vatner. UMDNJ, Newark.


1055. CORONARY CIRCULATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D32  I  1055.5  Uridine adenosine tetraphosphate (Up4A) as a novel coronary vasodilator in health and disease: role of purinergic P1 and P2 receptors. Z. Zhou, D.J. Duncker and D. Merkus. Erasmus MC, Rotterdam.


D34  I  1055.7  Modifying a high fat diet with mono- and poly-un-saturated fats improves coronary dysfunction. C.L. Oltman, B.L. Dake, W.I. Sivitz, M.A. Yorek and K.G. Lamping. Iowa City VA Med. Ctr. and Univ. of Iowa.


D42  I  1055.15  CaM kinase II and Ca2+-sensitization mediate enhanced KCl constriction in collateral-dependent coronary arteries of both sedentary and exercise-trained pigs. J.C. Robles and C. Heaps. Texas A&M Univ.


1056. TRANSIENT RECEPTOR POTENTIAL CHANNELS AND ENDOTHELIAL CALCIUM REGULATION IN NATIVE CELLS AND WHOLE VESSELS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D48 I 1056.5 TRPC1 and TRPV4 are expressed in sensory endings found in regions of ventricular endocardium where atrial volume receptors are located. F. Shenton, R.W. Banks and S. Pyner. Sch. of Biol. & Biomed. Sci., Durham Univ., U.K.


D50 I 1056.7 Unitary TRPA1-mediated Ca\(^{2+}\) influx events in primary cerebral artery endothelial cells. M.N. Sullivan, M. Francis, M.S. Taylor and S. Earley. Colorado State Univ. and Univ. of South Alabama Col. of Med.

D51 II 1056.8 The causal role of PKC in reduced endothelial Ca\(^{2+}\) signaling and impaired EDHF-mediated uterine vasodilation in diabetic pregnancy. N.I. Gokina and E. Linder. Univ. of Vermont.


D56 II 1056.13 PAR-1 induced AMPK-p38 MAPK signaling axis mediates STIM1 phosphorylation to prevent calcium entry through TRPC channels in endothelial cells. P. Sundivakkam, V. Natarajan, A.B. Malik and C. Tiruppathi. Univ. of Illinois at Chicago.


D59 II 1056.16 (-) Epicatechin induces calcium and translocation independent eNOS activation in endothelial cells via AKT/HSP90. I. Ramirez-Sanchez, G. Ceballos and F. Villarreal. Grad. Sch. of Med.-IPN, Mexico City and UCSD.

1057. DIABETIC CARDIOVASCULAR DYSFUNCTION: ROS-DEPENDENT AND -INDEPENDENT CAUSES AND COMPLICATIONS (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D63 II 1057.4 Role of BMP4 in eNOS uncoupling in type 2 diabetes. J.Y. Youn and H.L. Cai. UCLA.

D64 I 1057.5 The role of enhanced cardiac fibroblast glycosylation products on collagen synthesis. I. Ramirez-Sanchez, H. Aguilar, L. Maya-Ramos and F. Villarreal. Higher Sch. of Med.-IPN, Mexico City and UCSD.


D66 I 1057.7 Smooth muscle glutathione depletion contributes to increased myogenic tone in resistance arteries of type-2 diabetic mice. G.V. Velmurugan and C. White. Rosalind Franklin Univ. of Med. and Sci.


D68 I 1057.9 Type 2 diabetes-induced vascular dysfunction is associated with caveolin-1 and NADPH oxidase. M.A. Carrillo-Sepulveda, S. Goulopoulou, T. Matsumoto, M.A. Carrillo-Sepulveda, S. Goulopoulou, T. Matsumoto, M. Franklin Univ. of Med. and Sci.


D70 I 1057.11 Cardiac responses to intravenous glucagon-like peptide 1 are impaired in metabolic syndrome. S.P. Moberly, Z.C. Berwick, M. Kohr, K. Mather and J.D. Tune. Indiana Univ. Sch. of Med.


D76 I 1057.17 Ceramide mediates vascular dysfunction in diet-induced obesity by PP2A-mediated dephosphorylation of the eNOS-Akt complex. T. Ruan, A. Ravindran, O.-J. Zhang, E.D. Abel and J.D. Symons. Univ. of Utah.


D82 I 1057.23 Diabetes abolishes the cardioprotective effect of estrogen on systolic cardiac function. N. Santiago, M.B. Melo, M. Chappell, J. Varagic, R.A.S. Santos and M.J. Campagnole-Santos. Univ. of Minas Gerais, Brazil and Wake Forest Univ. Sch. of Med.


D88 I 1057.29 Brain-derived neurotrophic factor intensifies the early inflammatory response after myocardial infarction. G.V. Halade, T.A. Ramirez, J. Zhang, J.G. Hensler, Y-F. Jin and M.L. Lindsey. Univ. of Texas Hlth. Sc. at San Antonio and Univ. of Texas at San Antonio.


1058. EMERGING PARADIGMS IN MICROVASCULAR SIGNALING (POSTERS)

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D91 II 1058.2 Exclusive interaction between α1d-adrenergic receptor and pannexin 1 can mediate vasoconstriction. M. Billaud, A.W. Lohman, Y-H. Chiu, J.K. Sandilos, D.A. Bayliss and B.E. Isakson. Univ. of Virginia.


D93 II 1058.4 Myoendothelial contacts within the skeletal muscle arterial network: a potential mediator for divergent control of vascular tone. B.S. Kirby, A. Bruhl and S. Earley. Colorado State Univ.

D94 I 1058.5 eNOS inhibition is protective against oxygen glucose deprivation in brain microvascular endothelial cells by preemting eNOS uncoupling. P.S. Katz, E.A. Wappler, P.V. Katakam and D.W. Busija. Tulane Univ. Sch. of Med.

1059. NOVEL REGULATORS OF CARDIAC FIBROBLAST FUNCTION AND FATE (POSTERS)

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D105 II 1059.2 Scleraxis works synergistically with Smads to regulate collagen gene expression. R. Bagchi and M. Czubryt. Univ. of Manitoba.


D108 I 1059.5 Reversal of cardiac fibroblast-to-myofibroblast transformation by cyclic AMP. N. Aroonsakool, U. Yokoyama, D. Lu, F. Murray and P.A. Insel. UCSD.


D113 II 1059.10 G protein-coupled receptor regulation of cardiac fibrosis. A.N. Snead, S. He and P.A. Insel. UCSD.


D115 II 1059.12 ATP release and activation of P2Y2 receptors in the regulation of cardiac fibroblasts. D. Lu, S. Soleymani, R. Madakasshi and P.A. Insel. UCSD.


D117 II 1059.14 Cyclic AMP induces necroptotic cell death in cardiac fibroblasts. H. Yun, A.S. Wilderman, D. Lu, N. Aroonsakool and P.A. Insel. UCSD.


1060. COMMUNICATION BETWEEN CARDIAC CELLS AND THE EXTRACELLULAR MATRIX (POSTERS)

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D120 I 1060.1 Matrix metalloproteinase-28 deletion attenuates short-term left ventricular dysfunction but exacerbates cardiac rupture post-myocardial infarction in mice. Y. Ma, J. Zhang, T.A. Ramirez, A.M. Manicone and M.L. Lindsey. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Washington.

D122 I 1060.3 Cardiac-myocyte ablation of Talin1 results in a blunted hypertrophic response to chronic pressure overload. A.M. Manso, R. Li, N.M. Cruz, Y. Gu, S.M. Chang, B.J. Rasmussen, K.L. Peterson, D. Abel, S.J. Monkley, D.R. Critchley and R.S. Ross. UCSD Sch. of Med. and VA Healthcare San Diego Ctr., Univ. of Utah Sch. of Med. and Univ. of Leicester, U.K.

D123 II 1060.4 S1P induces CCN1 expression through RhoA/MRTF-a activation and protects cardiomyocytes against cell death. E. Ding, S. Miyamoto, X. Zhao, S.Y. Xiang, R.R. Neubig and J. Heller Brown. UCSD and Univ. of Michigan.

D124 I 1060.5 Age-dependent alterations to the cardiac extracellular matrix in heart failure: differences between ventricular and atrial remodeling. M.A. Horn, H. Graham, E. Bode, K. Dibb and A. Trafford. Univ. of Manchester.


D130 I 1060.11 Increased MMP8 and 12 activation correlates with elevated endostatin and angiostatin and impaired coronary collateral growth in the metabolic syndrome. T.Y. Dodd, L. Wiggins, A.M. Musiyenko, E. Smith and P. Rocic. Univ. of South Alabama.

D131 II 1060.12 Effect of desmin knockout on skeletal muscle extracellular matrix organization. A. Gilles and R.L. Lieber. UCSD.


D133 II 1060.14 Enhanced proliferation and cardiogenic differentiation of cardiac progenitor cells treated with a naturally derived cardiac extracellular matrix. K.M. French, J.A. DeQuach, K.L. Christman and M.E. Davis. Emory Univ. and UCSD.


D135 II 1060.16 Simulation of physiologic strain to aligned cells anchored in 3D affects proliferation, differentiation, and organization of the actin cytoskeleton. G. Doroudian, A. Gang, M. Curtis and B. Russell. Univ. of Illinois at Chicago.


1061. LUNG PHYSIOLOGY: AIRWAY RESPONSIVENESS AND SMOOTH MUSCLE CELL BIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D140 II 1061.2 Allergen-induced airway constriction in guinea pig lung slices is attenuated by arginase inhibition via increased nitric oxide production. R.B. Sopi, M. Simoons, M.J. Sanderson, H. Meurs and H. Maarsingh. Univ. of Groningen, Netherlands, Univ. of Prishtina, Kosovo and Univ. of Massachusetts Med. Sch.

D141 I 1061.3 Pharmacological activators of Kv7 potassium channels attenuate methacholine-induced constriction of rat airways. L.I. Brueggemann, S. Tate and K.L. Byron. Loyola Univ. Stritch Sch. of Med.


D143 I 1061.5 Respiratory syncytial virus infections augment airway reactivity in mice exposed to chlorine. W. Song, Z. Yu, N. Ambalavan, S. Garantziotis and S. Matafon. Univ. of Alabama at Birmingham and NIEHS/NIH, Research Triangle park.
1062. LUNG PHYSIOLOGY: DEVELOPMENT AND PLASTICITY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D147 II 1062.4 The hyperoxia-mediated decrease in tenasin-C in fetal lung fibroblasts inhibits cell migration. A. DeCoux, J. Chaplin, G. Wilson, J. Benjamin and S. Gebb. Univ. of South Alabama.


1063. CELL-CELL AND CELL-MATRIX ADHESIONS IN CONTROL OF LUNG FLUID BALANCE AND INNATE IMMUNITY: TALKING IS CRITICAL! (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D149 I 1063.1 Rap1 and afadin promote interactions between adherens junctions and tight junctions and regulate endothelial permeability. A.A. Birukova, N. Zebda, T. Wu, O. Dubrovskyi, N. Sarich and K.G. Birukov. Univ. of Chicago.

D150 II 1063.2 Src family kinases collaborate with distinct TNF-alpha-induced signaling pathways to regulate actin dynamics at cell-cell junctions and barrier function in endothelial cells. A.P. Adam, A. Lowery and P. Vincent. Albany Med. Ctr.

D151 I 1063.3 Cadherin ectodomains and cadherin-actin linkages regulate the endothelial barrier. S.K. Quadri, L. Sun and J. Bhattacharya. Columbia Univ.


D157 I 1063.9 Segment-specific tissue factor expression in mouse lung vasculature. S. Bhattacharya and M. Emin. Columbia Univ.

D158 II 1063.10 Real-time observation of cytoskeletal stresses and subsequent focal adhesion remodeling in live cells. S. Hu, N. Ye, D. Verma, F. Meng and F. Sachs. Univ. at Buffalo SUNY.


1064. CELLULAR SIGNALING

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D167 I 1064.3 Hyposmotic stress-induced cytoplasmic calcium increase involves TRPV4 and Src family kinase activation. A. Mandal, M. Shahidullah and N.A. Delamere. Univ. of Arizona.


D170 II 1064.6 Cardiac myocyte exosome stability and function: role of HSP60. T. Kuo, Z. Malik, K.S. Kott, L. Chen and A.A. Knowlton. Univ. of California, Davis.


D172 II 1064.8 Modified cell signaling with multivalent ligands targeting independent GPCR’s. C. Weber, N. Brabez, J. Vagner, V.J. Hruby, R.J. Gillies and R. Lynch. Univ. of Arizona and Moffitt Cancer Ctr., Tampa.

D173 I 1064.9 DNA-dependent protein kinase is critical for VCAM-1 expression upon TNF treatment through phosphorylation of p50 NF-κB: a critical involvement in vascular and lung inflammation. J. Ju, A. Naura, Y. Errami, H. Kim, J. Kim, A.A. Beg, C. Giardina and H. Boulares. LSU Hlth. Sci. Ctr.-New Orleans, Chonbuk Natl. Univ., South Korea, Moffitt Cancer Ctr., Tampa and Univ. of Connecticut.


D175 I 1064.11 Signaling from the natriuretic peptide system to ENaC: implications in primary cilium of renal epithelial cells. A.A. Alli, L-J. Guo, D.C. Eaton and H-F. Bao. Emory Univ.


1065. APOPTOSIS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D181 I 1065.1 Recruitment of OCRL and Inpp5B to phagosomes by Rab5 and APPL1 depletes phosphoinositides and attenuates Akt signaling. M. Bohdanowicz, D.M. Balkin, P. De Camilli and S. Grinstein. Hosp. for Sick Children, Toronto and Yale Univ.

D182 II 1065.2 Cytosolic phospholipase A2 mediates mechanical stretch-induced apoptosis via caspase-3 in human renal proximal tubular epithelial (HK-2) cells. L.D. Alexander. Midwestern Univ., AZ.


D185 I 1065.5 Anticancer effects of α, β-Momorcharin and its mechanism of action on different cancer cell lines. J. Singh and G. Manoharan. Univ. of Central Lancashire, U.K.

D186 II 1065.6 Tauoursoxycholic acid improves function in cold storage hearts. K. Porter, T. Mingo, G.A. Garry and M.G. Garry. Univ. of Minnesota, Minneapolis.

D187 I 1065.7 Spatio-temporal patterns of apoptotis and mitosis during organismal regeneration in a basal chordate. J.P. Gilman and R.J. Lauzon. Union Col., NY.

1066. MEMBRANE DOMAINS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1067. UBIQUITYLATION AND DEUBIQUITYLATION OF ION CHANNELS AND TRANSPORTERS (POSTERS)

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

**D194** I 1067.1 Ubiquitination of the plasma membrane KCa3.1 is not required for channel endocytosis but for its lysosomal targeting. **C.M. Balut and D.C. Devor.** Univ. of Pittsburgh.

**D195** II 1067.2 Loss of renal Nedd4-2 in adult mice leads to PHAII compensated by ENaC downregulation and ROMK upregulation. **Q. Staub, C. Ronzaud, D. Loffing, A. Debonneville, B. Yang, J. Stokes, R. Koesters, E. Hummler and J. Loffing.** Univ. of Lausanne, Univ. of Zurich, Univ. of Iowa and INSERM/Univ. Pierre et Marie Curie, Paris.

**D196** I 1067.3 Long QT syndrome type 3 caused by a PY-motif mutation leading to altered ubiquitylation and increased expression of Nav1.5 in knockin mice. **J. Rougier, M. Albesa, C.A. Remme, J. Ogrodnik, S. Petitprez, J. Bankston, R.S. Kass, C.R. Bezzina, W. Chung and H. Abriel.** Univ. of Bern, Univ. of Amsterdam and Columbia Univ.

**D197** II 1067.4 Prolactin-stimulated ubiquitination of the zinc transporter ZnT2 regulates zinc secretion. **Y.A. Seo and S.L. Kelleher.** Penn State and Penn State Col. of Med.


**D199** II 1067.6 Ubiquitination of vesicular acetylcholine transporter. **Y. Li, J.L. Freeling and A. Sample.** Univ. of South Dakota.

**D200** I 1067.7 cGMP induces the degradation of internalized NKCC2 in thick ascending limbs: role of the proteasome. **G. Ares and P. Ortiz.** Henry Ford Hlth. Syst.

**D201** II 1067.8 The influence of FAs complexity and architectures of cytoskeleton on morphology during cell initial spreading. **W.-Y. Lin, T.-J. Chen, C.-C. Wu and F.-C. Su.** Natl. Cheng Kung Univ., Taiwan.

1068. REGULATION OF EPITHELIAL TRANSPORT PROTEINS, ION AND WATER CHANNELS, AND MODULATORY FACTORS II

**Poster**

**Presentation time:** TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D


**D203** II 1068.2 Structural basis of Zn2+ activation of the epithelial Na+ channel. **J. Chen, K.L. Winarski, M.M. Myerburg, B.R. Pitt and S. Sheng.** Univ. of Pittsburgh.

**D204** I 1068.3 Regulation of ENaC by cholesterol: role of microvilli and PIP2. **H.-P. Ma.** Emory Univ. Sch. of Med.

**D205** II 1068.4 ROS production as a common mechanism of ENaC regulation by EGF, insulin and IGF-1. **D.V. Ilatovskaya, T.S. Pavlov, V. Levchenko and A. Staruschenko.** Med. Col. of Wisconsin and Inst. of Cytol., RAS, St. Petersburg.

**D206** I 1068.5 Crosstalk between insulin and IGF-1 receptors in principal cells: implication for ENaC-mediated sodium reabsorption. **D.V. Ilatovskaya, V. Levchenko, T.S. Pavlov and A. Staruschenko.** Med. Col. of Wisconsin.

**D207** II 1068.6 Inhibition of αENaC expression and ENaC activity following blockade of the circadian clock-regulatory kinases CK1δ/ε. **J. Richards, M. Mitzelfelt, L. Jeffers, K.-Y. Cheng, D.C. Eaton and M.L. Gumz.** Univ. of Florida and Emory Univ.

**D208** I 1068.7 Identification of ENaC intersubunit interfacing residues provides insight into conformational changes associated with channel gating. **D.M. Collier and P.M. Snyder.** Univ. of Iowa Carver Col. of Med.

**D209** I 1068.8 Epithelial sodium channel plasma membrane turnover is modified in channels containing δ subunits. **D. Alvarez de la Rosa, D.L. Wesch, P. Miranda and T. Giraldes.** Univ. of La Laguna and Hosp. N.S. Candelaria, Santa Cruz de Tenerife, +Spain.


**D211** II 1068.10 Estradiol increases the density and open probability of epithelial sodium channels in alveolar cells. **M.M. Greenlee, B.J. Duke and D.C. Eaton.** Emory Univ.

**D212** II 1068.11 Downregulation of the (pro)renin receptor by insulin is potentiated by high glucose in mouse renal collecting duct cells. **A.A. Gonzalez, M. Rajo, M. Kassan, K. Matrougui and M.C. Prieto.** Univesity of Zurich, UCL, Emory Univ., Santa Cruz de Tenerife, Spain.

**D213** II 1068.12 Mice disrupted for the ammonia channel RhCG compensate a physiological acid load of high protein diet. **L. Bounoure, S. Bourgeois, S. Druart, G. Kuhn, R. Müller, O. Fröhlich and C. Wagner.** Univ. of Zurich, UCL, Brussels and ETH, Zurich.

**D214** I 1068.13 Vacuolar H+-ATPase regulation by AMPK in the kidney proximal tubule. **M. Al-bataineh and N. Pastor-Soler.** Univ. of Pittsburgh.

1069. SODIUM AND WATER HOMEOSTASIS: GENETIC AND COMPARATIVE MODELS (POSTERS)

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D227 I 1069.1 Osmotic pressure of the cutaneous surface fluid of Rana esculenta. E.H. Larsen and H. Ramlov.
Univ. of Copenhagen and Roskilde Univ., Denmark.

Sch. of Dent. Med., Univ. of Nevada, Las Vegas and Univ. of Copenhagen.

D229 I 1069.3 Abundance of sea kraits correlates with precipitation. H.B. Lillywhite and M-C. Tu.
Univ. of Florida and Natl. Taiwan Normal Univ.


D245 II 1070.8 The role of polyamines in osmotic stress tolerance in Gulf killifish Fundulus grandis. Y. Guan. LSU.

D246 I 1070.9 Functions of ion transporting proteins NKA, NKCC and CFTR on the intestinal epithelia of fundulus grandis during osmotic challenge. Y. Meng and C. Bodinier. LSU.

D247 II 1070.10 Isolation of the TRPV4 osmoreceptor from the avian lower gastrointestinal tract. P.C. Warner and E.J. Braun. Univ. of Arizona.

1071. COMPARATIVE CARDIOVASCULAR AND RESPIRATORY PHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D251 II 1071.4 Fluctuations in oxygen influences facultative endothermy in bumblebees. E.M. Dzialowski, G. Tattersall, S. Nicol and P. Frappell. Univ. of North Texas, Brock Univ., Canada and Univ. of Tasmania, Australia.


D253 II 1071.6 The effect of temperature on the compliance of the rainbow trout heart. H.A. Shiels, H. Rizvi, A. Fenna and D. Samuel. Univ. of Manchester.


D255 II 1071.8 The effects of temperature on cardiac E-C coupling and intracellular Ca²⁺ buffering in trout cardiomyocytes. D.E. Warren and H.A. Shiels. Saint Louis Univ. and Univ. of Manchester.

D256 I 1071.9 Modulation of the onset of air-breathing of the siamese fighting fish and the blue gourami. J. Mendez Sanchez and W. Burggren. Univ. of North Texas.

D257 II 1071.10 Lung ventilation is an effector of the baroreflex in the cane toad (Rhinella marina). M.S. Hedrick, S.S. Hillman, R.C. Drewe and P.C. Withers. Univ. of North Texas, Portland State Univ., California Acad. of Sci., San Francisco and Univ. of Western Australia.

D258 I 1071.11 Chronic developmental hypoxia alters the cardiovascular baroreflex phenotype of embryonic common snapping turtles. D.A. Crossley II, K.B. Tate, M. Elfwing and J. Eme. Univ. of North Texas and Linköping Univ., Sweden.


D261 II 1071.14 The structure of giraffe resistance arteries from muscular beds correlates with the height above ground. C. Aalkjaer, T. Broegger, N. Tilienius and E.T. Broendum. Aarhus Univ., Denmark.

D262 II 1071.15 Sabertooth cat (Smilodon) attack involved inflicting pneumothorax. T. Wilson and L.P. Golbach. Winona State Univ., MN.

D263 II 1071.16 Post-exercise hyperpnea and cardiac asystole. P. Haouzi, A. Van De Louw and H.J. Bell. Penn State Col. of Med.

1072. COMPARATIVE METABOLIC PHYSIOLOGY, MUSCLE PHYSIOLOGY, AND OTHER COMPARATIVE PHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D264 I 1072.1 Cyanide influence on glycolytic oscillations. P.G. Sørensen and B.O. Hald. Univ. of Copenhagen.


D268 I 1072.5 Embryonic temperature produces persistent effects on the capacity for thermal acclimation in adult zebrafish. G.R. Scott, M.E. Schnurr, Y. Yin and I.A. Johnston. McMaster Univ., Canada and Sch. of Biol., Univ. of St. Andrews, U.K.

1073. LABORATORY SELECTION AND THE EVOLUTION OF PHYSIOLOGICAL TRAITS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D277 II 1073.2 Using a selective breeding strategy to create 7th generation rats that voluntarily run low and high nightly distances. M.D. Roberts, L. Gilpin, J. Knouse, A. Haynes, R. Toedebusch, L. Ebene, C. Moore, S. Naples and F.W. Booth. Univ. of Missouri-Columbia and Sch. of Med.


D279 II 1073.4 Mitochondrial DNA haplotype association in mice selectively bred for high voluntary wheel running. B. Wone, H. Schutz, T.H. Meek and T. Garland. Univ. of Arizona, California Poly State Univ., San Luis Obispo, Univ. of Washington and Univ. of California, Riverside.

D280 I 1073.5 Artificial selection for high aerobic capacity is protective against weight gain via thermogenesis? S.M. Torvinen, M. Silvennoinen, M. Mikkonen, L.G. Koch, S.L. Britton and H. Kainulainen. Univ. of Jyväskylä, Finland and Univ. of Michigan.

1074. PHYSIOLOGICAL ADAPTATIONS TO INACTIVITY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D282 II 1074.2 Electroacupuncture attenuated muscle atrophy induced by hindlimb suspension in rats. S. Lee, J. Hong, K. Kim and Q. Ni. Texas A&M Intl. Univ.


1075. SIGNALING IN MUSCLE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D284 I 1075.1 Phosphatidic acid and mechanical stimuli activate mTOR signaling via an ERK-independent mechanism. T.A. Hornberger and J-S. You. Univ. of Wisconsin-Madison.


D288 I 1075.5 Manipulating cytosolic ATPases alters both energetics and p38 MAPK activation in contracting fast-twitch muscles from the mouse. R.W. Wiseman, N. Pizzimenti and J. Brault. Michigan State Univ. and East Carolina Univ.


D292 I 1075.9 The generation of reactive oxygen and nitrogen species is not different during injurious lengthening contractions and non-damaging isometric contractions. D. Sloboda and S.V. Brooks. Univ. of Michigan.


D301 II 1075.18 The effects of IL-6 dosage and duration on the regulation of protein turnover in C2C12 myotubes. S. Gao and J. Carson. Univ. of South Carolina.


D306 I 1076.1 Muscle RING finger-1 inhibitors IGF1-dependent Akt activation and exercise-induced cardiac hypertrophy. K.M. Wadosky, J.E. Rodriguez and M.S. Willis. Univ. of North Carolina at Chapel Hill.


1077. AGING AND MUSCLE FUNCTION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D310 I 1077.1 The effects of calorie restriction on skeletal muscle glucose uptake and insulin signaling in 24-month-old rats. D.A. Sequea, N. Sharma, E. Arias and G.D. Cartee. Univ. of Michigan Sch. of Kinesiol.


1078. SKELETAL MUSCLE PHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D318 I 1078.1 Activin IIB receptor blockade improves muscular function in a mouse model of spinal muscular atrophy. M. Liu, E.R. Barton and H.L. Sweeney. Univ. of Pennsylvania.


D323 II 1078.6 Effects of glutamine supplementation on muscle function in a mouse model of spinal cord injury. K. Huey, C. Chamney, M. Godar and E. Garrigan. Drake Univ.


D325 II 1078.8 A novel method to measure glucose uptake by single skeletal muscle fibers reveals a similar level of insulin resistance for type IIA, IIB, IIX and IIB/X fibers from obese Zucker rat epididymal muscle. J.G. MacKrell and G.D. Cartee. Univ. of Michigan Sch. of Kinesiol.


D329 II 1078.12 The effects of cAMP on force of contraction and recovery from fatigue of fast twitch muscle is dependent on stimulation parameters. T.L. MacDonald and C.L. Murrant. Univ. of Guelph, Canada.


D334 I 1078.17 Impaired regeneration in ERRα-deficient skeletal muscle. S. LaBarge, M. McDonald and J. Huss. City of Hope.

D335 II 1078.18 Interleukin-6/JAK/STAT3-induced satellite cell proliferation is regulated through induction of Cyclin D1. M. Kurosaka and S. Machida. Tokai Univ., Japan.


D340 I 1078.23 Impact of antenatal inflammation on diaphragm muscle function in the preterm lamb. G.J. Pinniger, T. Lavín, A. Bakker, C. Berry, P. Noble and J.J. Pillow. Sch. of Women and Infant’s Hlth., Univ. of Western Australia.


D342 I 1078.25 The transcription factor ATF4 is an essential mediator of skeletal muscle atrophy. S.M. Ebert, S.D. Kunkel, M.C. Dyle, S.A. Bullard and C.M. Adams. Univ. of Iowa.

D344 I 1078.27 Effect of hypoxia on single skeletal muscle fiber contractility at physiological temperature. A.A. Shiah, L. Nogueira, P.G. Gandra and M.C. Hogan. UCSD.


D352 I 1078.35 Muscle size assessment with panoramic ultrasound: measurement reliability among varying body masses. E.J. Salley and E.S. Hayes. Taylor Univ., IN.

D353 II 1078.36 Norepinephrine in vivo restores the low phosphorylation levels of Akt and attenuates the high expression of atrophy- and autophagy-related genes in skeletal muscles of fasted mice. W.A. Silveira, D.A.P. Gonçalves, F.A. Graça, N.M. Zanon, I.C. Kettelhut and L.C.C. Navegantes. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.


1079. THERMAL PHYSIOLOGY: FROM ACUTE RESPONSES TO PROTECTIVE ADAPTATION (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D359 I 1079.1 Heat acclimation mediated cytoprotective memory: do epigenetic mechanisms play a role? A lesson from the heart. M. Horowitz. The Hebrew Univ. of Jerusalem.


D361 I 1079.3 Cardiovascular, autonomic, and thermoregulatory effects of repeated exertional heat stress in rats. H.M. Stauss, N. Choudhary, A. Nash, F.O. Liaboe and K.C. Kregel. Univ. of Iowa.


D363 I 1079.5 The impact of IL-6 supplementation on murine intestinal permeability and systemic cytokine levels following heat stroke. N.A. Phillips and T.L. Clanton. Univ. of Florida.


D366 II 1079.8 Integrative physiology of antidepressant drug action. C.A. Lowry, M.W. Hale, K.F. Dady, J.L. Lukkes, K.J. Kelly and C.L. Raison. Univ. of Colorado Boulder, La Trobe Univ., Australia and Univ. of Arizona.


D368 II 1079.10 KCa channels and EETs: major contributors to cutaneous thermal hyperemia. V.E. Brunt and...
C.T. Minson. Univ. of Oregon.


D376 II 1079.18 Mitochondria function and structure in brown adipose tissue is influenced by maternal low salt intake during the perinatal period. K.L. Lopes, E.A. Dos Santos, L.N.S. Furukawa and J.C. Heimann. Univ. of Sao Paulo and Karolinska Inst.

1080. THE LETHALITY OF TRAUMA: NEW INSIGHTS INTO THE PHYSIOLOGY OF HEMORRHAGE (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D379 I 1080.3 Activation of 5HT1A receptors in the nucleus tractus solitarius contributes to blood pressure compensation with blood loss and peripheral chemoreflex responses in the presence of acidosis. J.E. Vantrease, N. Dudek and K. Scroggin. Loyola Univ. Chicago, Maywood.


D385 I 1080.9 Tolerance to a hemorrhagic challenge during heat stress is improved with inspiratory resistance breathing. R.M. Brothers, M.S. Ganio, R.A.I. Lucas and C.G. Crandall. Texas Hlth. Presbyterian Hosp. Dallas, Univ. of Texas at Austin, Univ. of Arkansas and Univ. of Texas Southwestern Med. Ctr.


1081. CIRCADIAN AND BIOLOGICAL TIMEKEEPING

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D390 II 1081.2 Exercise capacity is influenced by thermal balance at onset of active/inactive phases of circadian cycle. F.S.M. Machado and C.C. Coimbra. Fed. Univ. of Minas Gerais, Brazil.


D392 II 1081.4 Comparison of clock gene expression across skeletal muscles of different origins and functions. E.M. Weekman, X. Zhang and K.A. Esser. Univ. of Kentucky.

D393 I 1081.5 Anti-phase expression of the BK channel (Kcnma1) alters circadian locomotor activity in mice. M. Lai, B. Wright, J. Whitt and A. Meredith. Univ. of Maryland.
1082. DIVING AND HYPERBARIA

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D396  II  1082.2  Simulation of experiments inhaling argon at 1 and 7 atmospheres. J.M. Melendrez, L.J. Caucha and J.C. Cruz. Natl. Univ. of Piura and Natl. Univ. of Tumbes, Peru.

D397  I  1082.3  Simulation of expired nitrogen after inhaling argon at 1 atmosphere. J.C. Cruz. Natl. Univ. of Piura, Peru.


D399  I  1082.5  High doses of pseudoephedrine taken 2 hours prior to “diving” to 132 feet of seawater (5 ATA) while breathing pure O2 increases risk for CNS oxygen toxicity in unanesthetized rats. R. Pilla, H.E. Held, C.S. Landon and J.B. Dean. Univ. of South Florida.

D400  II  1082.6  Neuroplasticity of CNS oxygen toxicity: increased risk of seizure due to hyperbaric preconditioning and kindling effect. R. Pilla, T. Fiorelli, H.E. Held, C.S. Landon and J.B. Dean. Univ. of South Florida.


D402  II  1082.8  Baseline plasma cGMP levels correlates with breath hold capacity in competitive breath hold divers. P. Lindholm, T.A. Schiffer, J.O. Lundberg and E. Weiztberg. Karolinska Inst.

D403  I  1082.9  Microparticle enlargement is a key point of vascular injury caused by decompression stress. M. Yang, T.N. Milovanova, M. Bogush, V. Bhopale and S.R. Thom, Univ. of Pennsylvania and Hosp. of Univ. of Pennsylvania.


D405  I  1082.11  Pseudomonas aeruginosa produce autoantibodies against HSP60 in rats. M. Havnes, C. Ahlén, A. Brubakk and O-J. Iversen. NTNU and SINTEF, Trondheim, Norway.

1083. FEVER AND HYPOTHERMIA

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D408  I  1083.3  Activity of preoptic area neurons supports thermal effector activation during fever. S.F. Morrison and D. Tupone. Oregon Hlth. & Sci. Univ.

D409  II  1083.4  Hyperthermia potentiates the IL-6 mRNA response to LPS in C2C12 muscle cells. S.S. Welc, D.L. Chen and T.L. Clanton. Univ. of Florida.


1084. TEMPERATURE REGULATION AND FLUID BALANCE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1085. GRAVITATIONAL AND SPACE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D430 I 1085.1 Impaired cerebrovascular autoregulation and CO₂ response are related to changes in systolic pressure after long-duration spaceflight. R.L. Hughson, K. Zuj, J.K. Shoemaker, A. Blaber, D.K. Greaves and P. Arbeille. Univ. of Waterloo, Canada, Univ. of Western Ontario, Simon Fraser Univ., Canada and Univ. of Tours, France.


1086. MUSCLE PLASTICITY AND GENE REGULATION/ EXPRESSION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D445 II 1086.4 Melatonin and/or therapeutic exercise induces autophagy-mediated muscles remodeling in collagenase-induced osteoarthritis rats. Y. Hong, H. Kim, S. Lee and Y. Hong. Inje Univ., South Korea.


D447 II 1086.6 Similar reductions in expression of proliferative genes are observed in skeletal muscle and organs with age. J.C. Jones and A.C. Dilger. Univ. of Illinois at Urbana-Champaign.


D451 II 1086.10 Markers of autophagy are elevated in cardiac tissue following doxorubicin administration. A.N. Kavazis, A.J. Smuder, K. Min and S.K. Powers. Mississippi State Univ. and Univ. of Florida.


D455 II 1086.14 Effects of varying exercise intensities on GDNF expression and neuromuscular junction morphology. A.M. Gyorkos, M. McCullough and J. Spitsbergen. Western Michigan Univ.


D457 II 1086.16 Differential myogenic and cell cycle gene translation following unaccustomed resistance loading may contribute to disparate myofiber hypertrophy potential during resistance training. M.J. Stec, A. Thalacker-McCormick, X. Cui, E. Merritt and M. Bamman. Univ. of Alabama at Birmingham.


D459 II 1086.18 A molecular mechanism for frequency dependent skeletal muscle fiber plasticity. E. Jaimovich, G. Jorquera, S. Buvinic and M. Casas. Univ. of Chile.


D465 II 1086.24 Rapamycin prevents muscle growth and the increase in mHClα induced by voluntary wheel running. B. Patchen and S.J. Swoap. Williams Col.

**1087. NEURAL CONTROL OF THE CIRCULATION DURING EXERCISE**

**Poster**

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)*

D470 I 1087.1 A role for central command in the generation of the exaggerated cardiovascular response to exercise in hypertension. N. Liang, M. Mizuno, R. Downey, J.H. Mitchell and S.A. Smith. Univ. of Texas Southwestern Med. Ctr. and Hiroshima Univ.


D474 I 1087.5 Sequential effects of training on GABAergic neurons in central autonomic areas. L.C. Michelin, T.T. Zampieri, S.D. Silva, Jr., A. Ceroni and A. Ruggeri. Univ. of São Paulo.


D476 I 1087.7 Characterize ASIC3 in muscle sensory neurons with femoral artery occlusion. J. Xing, J. Lu and J. Li. Penn State Col. of Med.

D477 II 1087.8 Neutralization of NGF attenuates augmented sympathetic nerve responses to activation of chemically sensitive muscle afferents in rats with femoral artery occlusion. J. Lu, J. Xing and J. Li. Penn State Col. of Med.

D478 I 1087.9 Baroreflex responsiveness is attenuated in African Americans during steady-state leg exercise. S.W. Holwerda, M.R. Samels and D.M. Keller. Univ. of Texas at Arlington.

D479 II 1087.10 Sympathetic response to fatiguing handgrip and muscle metaboreflex activation is attenuated in smokers compared to non-smokers. R. Drew, M.D. Muller, J. Cui, C. Blaha, J. Mast and L.I. Sinoway. Penn State Col. of Med.
1089. CONTROL OF BREATHING: DEVELOPMENT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D496 II 1089.4 Developmental changes in NMDA receptor subunits alter burst frequency of neonatal rat brainstem slices containing the preBötzinger complex. P.M. Getsy , D. Kaufman, K. Anagnostos and C.G. Wilson. Case Western Reserve Univ.

D497 I 1089.5 Supplementation of L-arginine and/or inhibition of arginase enhance the effect of inhaled NO on airway function of hyperoxia-exposed rat pups. A. Zaidi, A. Jafri and S.I.A. Zaidi. Solon High Sch. and Case Western Reserve Univ.

1090. DEVELOPMENT OF THE CONTROL OF BREATHING (POSTERS)

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D499 II 1090.2 Gestational stress promotes apneas in newborn rats. R. Kinkead, S. Fournier, S. Steele, C. Dolbec and A. Bairam. Univ. Laval, Canada and Univ. of Ottawa.


D505 II 1090.8 The effects of chronic nicotine exposure on chemosensitivity of medullary 5-HT neurons. J. Avraam, Y. Wu and G.B. Richerson. Univ. of Iowa.


1091. NEURAL CONTROL OF CARDIOVASCULAR FUNCTION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D511 I 1091.3 Inhibition of AT1 receptors alters remodeling of the guinea pig cardiac plexus following chronic MI. J.C. Hardwick, S.E. Ryan, M.J. Wilson, E.M. Southerland and J.L. Ardell. Ithaca Col. and East Tennessee State Univ.

D512 II 1091.4 Opioid receptors modulate excitatory cardiovascular reflex responses to myocardial ATP stimulation through a P2 receptor mechanism. L-W. Fu, S. Barvarz, J. Ho and J.C. Longhurst. Univ. of California, Irvine.

D513 I 1091.5 Comparison of the cardiovascular effects produced by interference with GABA transmission in the left and right sides of dorsomedial hypothalamus in conscious rats. M.A.P. Fontes and A.C. Oliveira. Fed. Univ. of Minas Gerais, Brazil.

D514 II 1091.6 Angiotensin II type 1A receptors in the brain mediate the effects of the brain RAS on fluid balance in the DOCA-salt model. A.M. Hilzendege, J.L. Grobe, A.L. Mark and C.D. Sigmund. Univ. of Iowa.

D516 II 1091.8 Effects of medullary administration of nitric oxide precursor on cardiovascular responses and neurotransmission during static exercise in stroke rats. A. Ally, S. Phattanarudee, E. Shafique and T. Mahner. South Col. Sch. of Pharm., TN, Chulalongkorn Univ., Thailand, Univ. of Chicago and Massachusetts Col. of Pharm. and Hlth. Sci.


D519 I 1091.11 Reduced translocation of the TRPV1 receptor in afferent neurons of cardiomyopathic rats. M.M. Nguyen, L.E. Stout, Q. Li and M.G. Garry. Univ. of Minnesota, Minneapolis.


D521 I 1091.13 Fos expression in the FoxP2 and Lmx1b neurons of the parabrachial nucleus following cardiovascular changes. R. Miller, M. Knuepfer and A. Loewy. Washington Univ. Sch. of Med.


D526 II 1091.18 Immunoreactivity for the NR1 subunit of the NMDA receptor occurs in spinally-projecting catecholamine and serotonin neurons of the rat ventral medulla. I.J. Llewellyn-Smith and P.J. Mueller. Flinders Univ., Australia and Wayne State Univ. Sch. of Med.

D527 I 1091.19 Hemodynamic responses to electrical stimulation of the aortic depressor nerve, in conscious rats, after α2 adrenergic receptor blockade. M.T. Durand, L.O. Dias, J.A. Castania and H.C. Salgado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo, Ribeirão Preto and State Univ. of Santa Cruz, Brazil.


D529 I 1091.21 Peripheral cardiac sympathetic dysfunction in the pre-hypertensive spontaneously hypertensive rat. J. Shanks, S. Manou-Statthopoulou, C-J. Lu, D. Li, D.J. Paterson and N. Herring. Univ. of Oxford.

D530 II 1091.22 PGE2 facilitates the activation of renal sensory nerves by a positive feedback mechanism involving activation of PLC and COX-2. U.C. Kopp and M.Z. Cicha. Univ. of Iowa Carver Col. of Med. and VA Med. Ctr.


D536 II 1091.28 A2a adenosine receptors modulate cardiopulmonary chemoreflex control of regional sympathetic outputs via activation of GABAergic neurons within the caudal portion of the nucleus of the solitary tract: functional and anatomical evidence. Z. Minic, I.J. Llewellyn-Smith, D.S. O'Leary and T.J. Scislo. Wayne State Univ. and Flinders Univ., Australia.

D537 I 1091.29 Long-term endurance training in older adults preserves cardiovascular control but does not heart rate responses to exercise. T.A. Luchshyn, K.N. Norton, J.C. Corakai and J.K. Shoemaker. Univ. of Western Ontario Sch. of Kinesiol.


D542  II  1091.34  Carotid baroreflex control of blood pressure to simulated hypotension in young and older women.  A. Kim, J.P. Fisher and P.J. Fadel.  Univ. of Missouri-Columbia and Sch. of Sport and Exer. Sci., Univ. of Birmingham, U.K.

D543  I  1091.35  Assessment of HD-X11 transmitter (DSI) for telemetric measurement of arterial pressure, electrocardiogram, heart rate and autonomic function in conscious mice.  R. Sabharwal and M.W. Chapleau.  Univ of Iowa and VA Med. Ctr.

D544  II  1091.36  Aldosterone acts in the nucleus of the solitary tract to alter stress responsiveness.  N. Cho, M. McCowan and D.A. Scheuer.  Univ. of Florida.


D551  I  1091.43  Ubiquitination is involved in the alteration of peripheral acetylcholine mediation in the aging heart.  J.L. Freeling and Y. Li.  Univ. of South Dakota.

D552  II  1091.44  Combined vasopressin V1a and oxytocin receptor antagonism prevents vasopressin-induced pressor response and sympathoexcitation in awake rats.  N.F. Rossi and M. Maliszewska-Scisio.  Wayne State Univ. and John D. Dingell VA Med. Ctr.

D553  I  1091.45  Role of cardiac output versus peripheral vasoconstriction in modulating the muscle metaboreflex pressor response during dynamic exercise and post-exercise muscle ischemia.  M.D. Spranger, J.A. Sala-Mercado, M. Coutos, J. Kaur, D. Stayer and D.S. O’Leary.  Wayne State Univ. Sch. of Med.


Acute hypernatremia increases the discharge of sympathetic-vasomotor neurons in the rostral ventrolateral medulla. S.D. Stocker. Penn State Col. of Med.


The cardiovascular responses to chemoreflex activation are not changed by isolated blockade of NMDA or non-NMDA receptors in the dorsomedial hypothalamus. N.T. Silva and A.S. Haibara. Fed. Univ. of Minas Gerais, Brazil.


Aldosterone (aldo) interacts with PKA, MAPKs and PLC pathway to sensitize angiotensin II-induced hypertension. B. Xue, Z. Zhang, F. Guo and A.K. Johnson. Univ. of Iowa.


The role of macrophage migration inhibitory factor in the paraventricular nucleus during acute stress. B. Erdos, R. Clifton, M.L. McCowan, C. Sumners and D.A. Scheuer. Univ. of Florida.


Baroreflex rhythms regulate synaptic amplification in sympathetic ganglia. M.G. Springer and J.P. Horn. Univ. of Pittsburgh.


1093. CARDIOVASCULAR ENDOCRINOLOGY, INCLUDING RENIN-ANGIOTENSIN-ALDOSTERONE

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D607  I  1093.7  Losartan attenuates cardiac remodeling but does not prevent vascular dysfunction in isoproterenol-treated rats. A.P. Davel, J.A. Victorio, S.P. Clerici and L.V. Rossoni. UNICAMP, Campinas and Univ. of São Paulo.


1094. NEUROENDOCRINOLOGY, HYPOTHALAMUS, PITUITARY, STRESS AND TRAUMA INCLUDING ADRENAL GLAND

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D618  II  1094.2  Negative regulation of the human growth hormone gene by insulin in primary pituitary cell cultures and a possible role for hypoxia inducible factor. H. Vakili, Y. Jin and P.A. Cattini. Univ. of Manitoba.
D619  I  1094.3  Effect of the peroxisome proliferator-activated receptor gamma agonist rosiglitazone on the hypothalamic GT1-7 cell line. V. Hwang, M.O. Fernandez and N.J. Webster. UCSD and VA San Diego Healthcare Syst.

D620  II  1094.4  Effect of brain specific deletion of PPARγ on puberty onset, hypothalamic gene expression and diet-induced obesity in C57BL/6 mice. M.O. Fernandez, S. Sharma, V. Hwang, J.M. Olefsky and N.J. Webster. UCSD and VA San Diego Healthcare Syst.

D621  I  1095.1  SIRT1 acutely modulates glucose sensing of POMC neurons in the hypothalamus. X. Shi, D. Li, L. Chan and X. Guan. Baylor Col. of Med. and Univ. of Texas MD Anderson Cancer Ctr.


1095. REPRODUCTION AND SEX HORMONES
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D628  II  1095.4  The importance of testes function in normal and impotent models. D. Li, S. Tsukerman, H. Ji, R. Naukam. Johns Hopkins Univ.


D630  II  1095.6  Depression and anxiety behaviors are influenced by sex and estrous cycle stage. J.K. Alvarado, J.S. Rivera, E.A. Jimenez, D.L. Ramos-Ortolaza and A. Torres-Reveron. Univ. of Puerto Rico and Nova Southeastern Univ., Ponce and Ponce Sch. of Med. and Hlth. Sci., PR.


1096. SEX DIFFERENCES IN RENAL FUNCTION AND DISEASE
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D637  II  1096.6  Role of the sex chromosomal complement (XX or XY) to impact blood pressure and natriuresis in the model of aldosterone escape. L. Li, S. Tsukerman, H. Ji, K. Sandberg and C. Ecelbarger. Georgetown Univ.


1097. BLOOD PRESSURE AND FLUID VOLUME REGULATION IN PREGNANCY AND DEVELOPMENTAL PROGRAMMING

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D641 I 1097.1 Pulmonary inflammation and airway hyperresponsiveness associated with placental ischemia-induced hypertension in rat dams and offspring. A.C. Johnson, R.S. Eskuri, J.S. Gilbert and J.F. Regal. Univ. of Minnesota Med. Sch. Duluth and Univ. of Oregon.


D645 I 1097.5 Sildenafil administration attenuates placental ischemia and sFlt-1 induced hypertension in pregnant rats. E.M. George, K. Cockrell, M. Arany and J.P. Granger. Univ. of Mississippi Med. Ctr.

D646 II 1097.6 Hyperinsulinemia increases blood pressure and pup weight in pregnant rats. A.T. Palei, E. George, K. Cockrell, M. Arany and J. Granger. Univ. of Mississippi Med. Ctr.


D648 II 1097.8 Effect of increased cortisol on heart rate in pregnant ewes. M. Keller-wood, E.M. Richards, D.A. Scheuer and C.E. Wood. Univ. of Florida.


1098. PHYSIOLOGICAL GENOMICS AND NOVEL TECHNOLOGIES OF CARDIOVASCULAR AND RENAL DISEASES

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D657 I 1098.5 Impact of SOD on endothelial cell-free radical distribution during eNOS uncoupling. S. Kar and M. Kavdia. Wayne State Univ.


1099. RENAL ORGANIC SOLUTE TRANSPORT

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1100. RENAL WATER TRANSPORT, UREA TRANSPORT AND COUNTERCURRENT MECHANISMS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D676 I 1100.1 Renomedullary interstitial hyaluronan is important for hydration-induced diuresis. P. Hansell, F. Palm and S. Stridh. Uppsala Univ., Sweden.


D680 I 1100.5 GPR91 deletion improves lithium-induced nephrogenic diabetes insipidus. L. Lam, H.A. Gevorgyan, A.D.M. Riquier-Brison and J. Peti-Peterdi. Univ. of Southern California.


1101. ORIGINS OF IMPaired CARdiovascular-renal Function AND Body fluid balance

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D689  I  1101.1 Antioxidant treatment during development prevents low birth weight, hypertension, and enhanced sensitivity to mild renal ischemia in offspring exposed to placental insufficiency. N.B. Ojeda, S. Wilkening, J. Dasinger, B.T. Alexander, G. Graves and P. Rhodes. Univ. of Mississippi Med. Ctr.


D691  I  1101.3 Gestational chronic intermittent hypoxia causes asymmetric growth restriction and alters cholesterol homeostasis in the liver of Sprague-Dawley rats. W. Iqbal, E. Barry, D. Hardy and J. Ciriello. Univ. of Western Ontario and McMaster Univ., Canada.


D693  I  1101.5 Dissection of the renal failure-3 QTL. N.C. Yeo, C. O’Meara, J. Lazar and H.J. Jacob. Med. Col. of Wisconsin.


D696  II  1101.8 A prospective, longitudinal study of the improvement of vascular function and cardiac autonomic control following renal transplantation. K.P. Ferrante, H.M. Stauss and R.S. Kall, Univ. of Iowa.

D697  I  1101.9 Hydrochlorothiazide exacerbates metabolic syndrome in the SHROB rat model. P. Ernsberger, A. Agarwal, B. Lute and R.J. Koletsky. Case Western Reserve Univ.


D701  I  1101.13 Role of angiotensin II in the hypertension and renal hemodynamic changes in rats with an altered nephrogenesis: age- and sex-dependent differences. F.J. Salazar, V. Reverte, A. Tapia, J. Gambini, I. Gimenez, J.M. Moreno and M.T. Llinas. Univ. of Murcia, Univ. of Valencia and Univ. of Zaragoza, Spain.


1102. DEVELOPMENTAL PROGRAMMING AND CARDIO-RENAL FUNCTION IN ADULTS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1103. WATER AND ELECTROLYTE HOMEOSTASIS:
PATHOPHYSIOLOGY AND PHYSIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D710 I 1103.11 Circadian expression of H,K-ATPase type 2 contributes to the stability of plasma K⁺ levels. G. Crambert, G. Centeno, D. Firsov and A. Salhi. INSERM, UPMC-CNRS, Paris and Univ. of Lausanne.


D714 I 1103.5 Regulated intramembrane proteolysis contributes to control of the osmoprotective transcription factor, NFAT5. Y. Izumi, M.B. Burg and J.D. Ferraris. NHLBI/NIH.

D715 II 1103.6 Estradiol prevents increased cortical AQP2 expression and urinary osmolality in rats subjected to ovariecotmy for 7 days. R. Norregaard, Y. Wang, W. Miller-Little and J. Frokiaer. Aarhus Univ., Denmark.

D716 I 1103.7 A single-amino acid mutation converts human aquaporin 5 to an anion channel. X. Qin and W.F. Boron. Case Western Reserve Univ.

D717 II 1103.8 Exploring CO₂ permeability of plant aquaporins. X. Qin, H. Hu, J.I. Schroeder and W.F. Boron. Case Western Reserve Univ. and UCSD.


D721 II 1103.12 Sodium reabsorption in the distal convoluted tubule is enhanced in the 11β-hydroxysteroid dehydrogenase type 2 knockout mouse. R.W. Hunter, L. Mullins, M.A. Bailey and J.J. Mullins. Univ. of Edinburgh.


D725 II 1103.16 Potassium adaptation is impaired in hypophysectomized rats. J.H. Youn and Y.T. Oh. Univ. of Southern California Keck Sch. of Med.


D729 II 1103.20 Angiotensin II receptor subtype 1a (at1ar) gene silencing in neurons of the subfornical organ prevents increased drinking behavior in bile duct ligated rats. J.D. Walch and J.T. Cunningham. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of North Texas Hlth. Sci. Ctr., Fort Worth.


D731 II 1103.22 Regulation of TRPV2 in magnocellular neurons of the supraoptic nucleus in rat. T.P. Nedungadi, J.D. Walch and J.T. Cunningham. Univ. of North Texas Hlth. Sci. Ctr. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

D732 I 1103.23 TRPC4 expression in supraoptic (SON) and paraventricular (PVN) magnocellular neurosecretory cells. T.P. Nedungadi, J.D. Walch and J.T. Cunningham. Univ. of North Texas Hlth. Sci. Ctr. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio.


1104. NEUROHUMORAL MECHANISMS OF BLOOD PRESSURE REGULATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D737  II  1104.2 Angiotensin II increases transient receptor potential vanilloid 4 channel expression and phosphorylation in hypothalamic cell line 4B. A. Saxena, T.P. Nedungadi, F. Carreno, M. Bachelor and J.T. Cunningham. Univ of North Texas Hlth. Sci. Ctr.


D739  II  1104.4 Tonic and reflex control of renal sympathetic nerve activity are altered by a discrete increase in sodium intake in renovascular hypertensive rats. C.G. Shimoura, G.S. Lincevicius, C. Bergamaschi and R. Campos. Fed. Univ. of São Paulo.


1105. RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM IN REGULATION OF BLOOD PRESSURE AND RENAL FUNCTION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D751  I  1105.3 Differential effects of ACE and chymase in the metabolism of exogenous angiotensin-(1-12) in Wistar-Kyoto rats. N. Moniwa, J. Varagic, S. Ahmad and C.M. Ferrario. Wake Forest Univ. Sch. of Med.

D752  II  1105.4 Effects of combination therapy with valsartan and aliskiren on arterial pressure, cardiac hypertrophy and urinary protein excretion in hypertensive rats. N. Moniwa, J. Varagic, S. Ahmad and C.M. Ferrario. Wake Forest Univ. Sch. of Med.


D755  I  1105.7 Lack of specificity for AT1 angiotensin receptor antibodies in Western blot analysis. M. Herrera, M.A. Sparks and T.M. Coffman. Duke Univ.

D756  II  1105.8 Stimulation of renal sodium transporters’ abundance and phosphorylation during chronic angiotensin II (All) infusion requires intrarenal All formation. N.K. Fletcher, A.A. McDonough, M.T.X. Nguyen, T. Janjulia, K.E. Bernstein and R.A. Gonzalez-Villalobos. Keck Sch. of Med. of Univ. of Southern California and Cedars-Sinai Med. Ctr.


D764  II  1105.16 Cyclooxygenase-2 inhibition prevents angiotensin II-induced oxidative stress but not hypertension in humans. V. Pialoux and S.B. Ahmed. Univ. Lyon 1, France and Univ. of Calgary, Canada.


1106. ALCOHOLIC AND NONALCOHOLIC FATTY LIVER DISEASES

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D767  II  1106.2 Dietary palmitate and palmitate accumulation in the steatotic rat liver confounds fructose-induced endoplasmic reticulum stress. C.R. Patel, V. Douard, M. Siegel and R. Ferraris. UMDNJ, Newark.

1107. BARRIER FUNCTION AND REPAIR

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D771  II  1107.4 Simulated microgravity modifies intestinal epithelial barrier function and alters expression of tight junction proteins. C.A. Stork, R.R. Marchelletta, G.K. Prisk and D.F. McCole. UCSD.


D773  II  1107.6 MUC17 expression is differently regulated by TLRs interaction with their ligands. S. Resta-Lenert and S. Ho. VA San Diego Healthcare Syst.

D774  I  1107.7 Expression of intestinal mucins may be affected by the dietary protein source. E.M. Onyango and B.M. Habiyambere. East Tennessee State Univ.

D775  II  1107.8 Localized mobilization of intracellular calcium promotes epithelial repair in vivo. E. Aihara and M.H. Montrose. Univ. of Cincinnati.

1108. INTESTINAL INFLAMMATION AND PATHOPHYSIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D776  I  1108.1 Lactobacillus rhamnosus GG and Bifidobacterium longum attenuate cytokine expression in the lungs of weanling mice with peritonitis-induced sepsis. L. Khailova, P. Wschmeyer and J.A. Dominguez. Univ. of Colorado Anschutz Med. Campus.

D777  II  1108.2 Antioxidant therapy targeted to the folate receptor ameliorates intestinal inflammation and injury in a model of colitis. S. Knight, K. Kundu, D. Weiss, N. Murthy and W.R. Taylor. Emory Univ. and Georgia Tech.


D780  I  1108.5 Toll-like receptor 5 (TLR5), but not TLR4 or 3, induces TNFα production by intestinal epithelial cells, which is enhanced by suppressor of cytokine signaling 3. I. Thagia and R. Rigby. Lancaster Univ., U.K.


D782  I  1108.7 Estrogen deficiency alters intestinal physiology to promote bone loss. J. Zhang, R. Irwin, S. Raehz, R. Britton and L.R. McCabe. Michigan State Univ.
1109. INTESTINAL SOLUTE TRANSPORT IN INFLAMMATION (POSTERS)

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D783 I 1109.1 The effect of Helicobacter typhlonius infection on colonic ion transport in the IL10 knockout mice. A. Lindstrom, S. Fan, M. Schultz and G. Butt. Univ. of Otago, New Zealand.

D784 II 1109.2 Leptin receptor deficiency causes intestinal hyperplasia and altered membrane abundance of glucose transporters. J.A. Dominguez and T. Rieg. Univ. of Colorado Anschutz Med. Campus, UCSD and VA San Diego Healthcare Syst.


D786 II 1109.4 Duox? a novel antimicrobial duodenal defense mechanism. M. Higashiya, Y. Akiba, S. Rudenkky, P.H. Guth, E. Engel and J.D. Kaunitz. UCLA and West Los Angeles VA Med. Ctr.

1110. LIVER PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D791 I 1110.5 Hydrogen sulfide protects against hepatocyte cell death and mitochondrial reactive oxygen during hypoxia. E. Norris, F. Schleser, C. Culperson and M.G. Clemens. Univerist of North Carolina at Charlotte.

D792 II 1110.6 Hepatic foxO1 acetylation is regulated by menin and influenced by insulin signaling. L. Wuescher, K. Angevine and E. Mensah-Osman. Univ. of Toledo Col. of Med.

1111. MECHANISMS OF INTESTINAL NUTRIENT, WATER AND ELECTROLYTE TRANSPORT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D795 II 1111.2 The gate residue F101 regulates coupling of Na and sugar cotransport in hSGLT1. B.A. Hirayama, D.D.F. Loo, X. Jiang and E.M. Wright. UCLA.

D796 I 1111.3 Comparative sugar transport by crustacean hepatopancreas and intestine. duka, a. and ahearn, g. a. dept. of biology, university of north florida, jacksonville, florida 32224. A. Duka and G.A. Ahearn. Univ. of North Florida.


D798 I 1111.5 Functional and structural regulation of urate handling by human SLC2A9 isoforms in the Xenopus laevis oocyte expression system. C.I. Cheeseman, K. Witkowska and T. Long. Univ. of Alberta.

1112. METAL ION TRANSPORT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D799 I 1112.1 Direct uptake of copper from ceruloplasmin by cells with and without CTR1, and potential involvement of a copper reductase. M. Ishida, D. Ramos, D. Mar, K.J. Lee and M.C. Linder. California State Univ., Fullerton.

D800 II 1112.2 Intestinal divalent metal-ion transporter-1 is critical for iron homeostasis but is not required for maintenance of Cu or Zn. A. Shawki, S.R. Anthony, Y. Nose, T. Barrientos De Renshaw, D.J. Thiele and B. Mackenzie. Univ. of Cincinnati Col. of Med. and Duke Univ. Sch. of Med.

D801 I 1112.3 No evidence that copper is a transported substrate of the iron transporter DMT1. A. Shawki, E.J. Niespodzany and B. Mackenzie. Univ. of Cincinnati Col. of Med.


Cyclosporin A, but not FK506 induces osmotic lysis of pancreas zymogen granules, intra-acinar enzyme release and lysosome instability by activating a K⁺ channel. F. Thévenod, W-K. Lee, M. Braun and C. Langelüddecke. Univ. of Witten/Herdecke, Germany and Univ. of Oxford.

Purinergic regulation of ion transport in capan-1 cell monolayers. J. Wang and I. Novak. Univ. of Copenhagen.


1113. PANCREATIC PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

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1114. CARDIOPROTECTION

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:30 PM-2:45 PM

S1 1114.1 Cardiac inflammation and dysfunction during dengue virus infection in mice. L. Kangussu, V. Costa, V. Olivon, M. Melo, F. Soriani, M. Rachid, R. Santos, M. Teixeira, D. Souza and D. Bonaventura. Fed. Univ. of Minas Gerais, Brazil.


S3 1114.3 Antioxidants N-acetylcysteine and allopurinol synergistically enhance cardiac HIF-1α and heme oxygenase-1 and attenuate postischemic myocardial injury in diabetic rats. X. Mao, Y. Liu, T. Wang, S. Lei, M.G. Irwin, P.M. Vanhoutte and Z. Xia. The Univ. of Hong Kong.

S4 1114.4 Lipocalin-2 mediated myocardial extracellular matrix remodeling is correlated with Akt/P38 activity in hearts. B. Yang, P.M. Vanhoutte and Y. Wang. The Univ. of Hong Kong.


S7 1114.7 Angiopoietin-1 reduces myocardial apoptosis and promotes cardiac repair via recruitment of hematopoietic progenitor cells in diabetic db/db mice. J-X. Chen and H. Zeng. Univ. of Mississippi Med. Ctr.


S13 1114.13 Acute, NO-mediated, effects of erythropoietin are not associated with its cardioprotective properties. M.I. Talan, I. Ahmet and E.G. Lakatta. NIA/NIH, Baltimore.


S16 1114.16 A2B adenosine receptors stimulate release of IL-6, CXCL1/IL-8 and vascular growth factor from cardiac stromal cells. S. Ryzhov, A.E. Goldstein, S. Novitskly, I. Biaggioni and I. Feoktistov. Vanderbilt Univ.


S18 1114.18 Cardiac myocyte-specific caveolin-3 overexpression alters β1-adrenergic receptor activity. A.R. Busija, D.M. Roth, P.A. Insel and H.H. Patel. UCSD.


S20 1114.20 Fibroblast's phenotypic changes in chronic heart failure-induced pulmonary fibrosis. M-F. Doursout, J. Chu, Y.Y. Liang, S.J. Dou and K. Uray. Univ. of Texas Med. Sch. at Houston.


1115. VASCULAR SYSTEMS PHARMACOLOGY

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:30 PM-2:45 PM

S22 1115.1 Vascular PI3K-Akt signaling contributes to peripheral NMDAR-mediated pressor response in conscious rats. M. McGee and A. Abdel-Rahman. East Carolina Univ.

S23 1115.2 Ethanol attenuation of peripheral NMDAR-mediated pressor response. M. McGee and A. Abdel-Rahman. East Carolina Univ.

S24 1115.3 Vasooactive effect of SWCNT exposure to oral mucosal arterioles. M.D. Frame, B. Sitharaman, S.M. Chowdhury and P. Avt. Stony Brook Univ.


S29 1115.8 Oxidative stress and NADPH oxidase participation on the hypertensive responses of [Ru(terpy)(bdq)NO]+3+ (TERPY) in spontaneously hypertensive rats. S.R. Potje, F.C. Munhoz, M.C. Hildebrand, R.S. Silva, L.M. Bendhack and C. Antoniali. State Univ. of São Paulo, Aracatuba and Univ. of São Paulo, Ribeirão Preto.


S34 1115.13 Enhanced catebolism to acetaldehyde in rostral ventrolateral medullary neurons accounts for the pressor effect of ethanol in SHR. M.M. El-Mas and A.A. Abdel-Rahman. Sch. of Med., East Carolina Univ.

S35 1115.14 Role of rostral ventrolateral medullary ERK/JNK/p38 MAPK signaling in the pressor effects of ethanol and its oxidative product acetaldehyde in SHR. M.M. El-Mas, M. Fan and A.A. Abdel-Rahman. Sch. of Med., East Carolina Univ.


S41 1115.20 Interdependence of PPARα/cytochrome P-450 epoxigenase and adenosine receptors in hypoxia-induced angiogenesis. Y. Rizvi, R. Kasturi, O. Mathew, C. Myung and A. Oyekan. Texas Southern Univ.


1116. CARDIOVASCULAR PHARMACOLOGY—THROMBOSIS

Poster


Presentation time: 12:30 PM-2:45 PM

Title: Transient receptor potential channel 6: role in hemostasis and thrombogenesis. E.V.P. Espinosa, J.P. Murad, H.J. Ting and F.T. Khasawneh. Western Univ. of Hlth. Sci.

Title: Depletion of platelet serotonin with a selective serotonin reuptake inhibitor does not improve survival in a mouse model of thromboembolism. H.F. Liu, C. Campbell, S. Hegde and A. McNamara. Theravance, South San Francisco.


1117. TARGETING MYOCARDIAL FUNCTION

Poster

Title: Antioxidants N-acetylcysteine and allopurinol attenuation of postischemic myocardial injury in diabetic rats involve Akt and STAT3 mediated eNOS activation. T. Wang, X. Mao, S. Qiao, S. Lei, K.F.J. Ng, M.G. Irwin and Z. Xia. The Univ. of Hong Kong.

Title: Glutathione dependent and independent salutary effects of NAC on HIV Tat proteinopathy. F. Chen, W. Lewis, J.M. Hollander, W.A. Baseler and M.S. Finkel. West Virginia Univ., Emory Univ. Sch. of Med., West Virginia Univ. Sch. of Med. and LA Johnson VA Med. Ctr., Clarksburg, WV.
S9 1117.3 Inhibition of protein kinase β2 attenuates NOS uncoupling and myocardial dysfunction in streptozotocin-induced diabetic rats. S. Lei, H. Li, T. Wang, Y. Liu, X. Mao, Z. Hei, M.G. Irwin and Z. Xia. Hong Kong Univ. and Sun Yat-sen Univ., China.


1118. PHARMACOLOGY AND WOMEN’S HEALTH

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Presentation time: 12:30 PM-2:45 PM


S55 1118.3 Ovarian hormones increase mitochondrial biogenesis in cerebrovascular endothelial cells. M.F. Kemper, S.P. Duckles and D.N. Krause. Univ. of California, Irvine.


1119. IMMUNE CELL PHARMACOLOGY

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Presentation time: 12:30 PM-2:45 PM

S59 1119.1 Cell-intrinsic adenosine A2A receptor signaling is required for T cell homeostasis and tumor surveillance. C. Cekic, D. Sag and J. Linden. La Jolla Inst. for Allergy and Immunol.
1121. REGENERATIVE PHARMACOLOGY

Poster

**Presentation time:** 12:30 PM-2:45 PM

**S76** 1120.9 Macrophage pro-angiogenic miRNA, miR-27b, is under NF-κB transcription regulation. H. Pan, B. Clarke and S.A. Wickline. Washington Univ. Sch. of Med.


**S79** 1120.9 Macrophage pro-angiogenic miRNA, miR-27b, is under NF-κB transcription regulation. H. Pan, B. Clarke and S.A. Wickline. Washington Univ. Sch. of Med.

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1122. PHARMACOPROTEOMICS

Poster

**Presentation time:** 12:30 PM-2:45 PM


**S84** 1122.5 Characterization and identification of red diamond back rattlesnake venom proteins. A.N. Joshi, S. Krishna, W.C. Grunwald, Jr. and D.R. Cool. Wright State Univ. and Central State Univ., OH.


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1123. OPIOID/CANNABINOID THERAPEUTICS

Poster

**Presentation time:** 12:30 PM-2:45 PM


**S87** 1123.2 Roles of MOP and NOP receptors in regulating buprenorphine-induced physiological responses in monkeys. C.M. Cremeans, E. Gruley, D.J. Kyle and M-C. Ko. Univ. of Michigan and Purdue Pharma LP, Stamford, CT.

**S88** 1123.3 Pharmacological characterization of NOP receptor agonists as abuse-free and constipation-free analgesics in monkeys. K.A. Wladischkin, R.C. Dysko, G.T. Collins, Y-A. Ko, G. Winger and M-C. Ko. Univ. of Michigan.
S97 1123.4 Opioid receptor activation alters beta-adrenergic receptor function in heart failure. J.E.J. Schultz, A.B. Natter, C. Dunn and C.S. Bolte. Univ. of Cincinnati and Univ. of Toledo.


1124. NATURAL PRODUCTS

Poster

Presentation time: 12:30 PM-2:45 PM


S101 1124.2 Anti-inflammatory activities of Cassia alata extract in complete Freund’s adjuvant arthritis in rats. A.T. Lewis and A.S.A. Levy. Univ. of West Indies, Jamaica.

S102 1124.3 Regulation of 3-methylindole metabolism by nuclear receptors. M.A. Gray and E.J. Squires. Univ. of Guelph, Canada.

1125. HISTORY OF PHYSIOLOGY

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S109 I 1125.1 Inquisitive doctor, reluctant patient: the story of Alexis St. Martin’s gastric fistula and America’s first physiologist, Dr. William Beaumont, who discovered gastric juice and the physiology of digestion (1822-1833; video shown by permission of the Macki J.B. Dean. Univ. of South Florida.

S110 II 1125.2 Zuntz revisited: contributions to exercise physiology. C.M. Tipton. Univ. of Arizona.

1126. TRANSLATIONAL PHYSIOLOGY

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S111 I 1126.1 Effect of severe burn and disuse on metabolism and overall activity levels in rats. L. Baer and C.E. Wade. Univ. of Texas Hlth. Sci. Ctr.-Houston.


S103 1124.4 Assessment of safety and embryotoxicity of (-)-epigallocatechin-3-gallate. L. Rodriquez-Fragoso, A.I. Gonsaga-Morales and J. Reyes Esparza. Autonomous Univ. of State of Morelos, Mexico.

S104 1124.5 Acute and repeated dose toxicity studies of methanol extract of Bauhinia variegata leaves. Y.A. Kulkarni and S. Warrier. SPP-Sch. of Pharm. & Technol. Mgmt. and SVKM’s NMIMS Univ., Mumbai.


S106 1124.7 Flavonoids and fibrate modulate ApoE4-induced processing of amyloid precursor protein in rat neuronal cells. V.R. Davra and K.E. Benzeroual. Long Island Univ.

S107 1124.8 Peripheral mechanisms involved in the pressor response to L-proline into the supraoptic nucleus. S.L. Azevedo, C. Busnardo and F.M.A. Corrêa. Univ. of São Paulo, Ribeirão Preto.


Physiology


S117 I 1126.7 From Bohr-Haldane effect on Hb-O2 binding to electrical regeneration in CHD. A.R. Delgado-Almeida. Univ. of Carabobo, FL.

S118 II 1126.8 β3 Integrin/PDGF receptor synergistic signaling mediates cardiac fibrosis in a mouse model of pressure overload hypertrophy. S. Balasubramanian, H. Kasigas, L. Quinones, A. Bradshaw and D. Kuppuswamy. Med. Univ. of South Carolina.

S120 II 1126.10 Comparative metabolic physiology of cynomolgus (Macaca fascicularis) and rhesus (Macaca mulatta): the nature of their naturally occurring diabetes and metabolic syndrome. B.C. Hansen, J. Wang, X. Wang, Y. Fang, C. Wang, J. Newcomb, E. Linden, P.B. Higgins, F. Gregoire and Y.J. Wang, Univ. of South Florida and Crown Biosci., Taicang, China and Kannapolis, NC.

1127. TARGETED PROTEOMIC ANALYSES OF HEART FAILURE (POSTERS)

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S123 I 1127.3 Mitochondrial mechanism of right ventricular failure. N. Qipshidze, N. Tyagi, N. Metreveli and S.C. Tyagi, Univ. of Louisville.


S125 I 1127.5 Proteomic analyses on mitochondria in rats model of heart failure. T. Liu, L. Chen, E. Kim and A. Knowlton. Univ. of California, Davis, St. Mary’s Hosp. of Daejeon Catholic Univ., South Korea.

S126 II 1127.6 Stress induced increase in protein O-linked-N-acetylgalcosamine levels is CaMKII dependent. L. Zou, C. Zou and J.C. Chatham. Univ. of Alabama at Birmingham.

S127 I 1127.7 Reactive aldehydes formed from peroxidation of n-6 and n-3 PUFAs have differential effects on mitochondrial function in heart. E.J. Anderson, H-B. Kwak, T.A. Mattoo, L. Katunga and K. Thayne. East Carolina Univ. and Inha Univ., South Korea.


S129 I 1127.9 Cardiac linker histones are differentially regulated following hypertrophic stimuli. M.S. Parvatiyar, S. Franklin, H. Chen, Y. Wang and T.M. Vondriska. David Geffen Sch. of Med. at UCLA.

1129. ENDOTHELIAL CELL BIOLOGY
Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S144 I 1129.3 Rate of desensitization of coronary vasoconstriction induced by polymers of angiotensin II is determined by the polymer molecular weight. D. Torres-Tirado and R. Rubio. Autonomous Univ. of San Luis Potosi, Mexico.


S146 I 1129.5 Reduction of contractions to phenoxyphrine by L-NAME in the carotid artery of mice with endothelial overexpression of endothelin-1. O. Baretella, F.Y.L. Li, S.K. Chung and P.M. Vanhouette. Univ. of Hong Kong.

S147 II 1129.6 The endothelial cells of ductus arteriosus have a unique gene profile to control vascular morphology. N. Liu, T. Yokota, S. Maekawa, U. Yokoyama, T. Kato and S. Minamisawa. Waseda Univ. and Yokohama City Univ., Japan.


S149 II 1129.8 Role of superoxide anion in coronary endothelial dysfunction in type 2 diabetic mice. Y.-F. Cho, M. Pangare and A. Makino. Univ. of Illinois at Chicago.

S150 I 1129.9 Hypoxia increases endothelial cell reactive oxygen species production and reduces thioredoxin 2 levels. S.E. Adesina, K.M. Porter, C.M. Hart and R.L. Sutliff. Emory Univ./Atlanta VA Med. Ctr.


S154 I 1129.13 Dynamics of focal adhesion kinase and paxillin in lamellipodial protrusion of migrating endothelial cells. V.-L. Hu, S. Lu, W. Yang and S. Chien. UCSD and Univ. of Illinois at Urbana-Champaign.


S157 II 1129.16 Endogenous H2S opposes vasoconstriction in conjunction with NO in rat aorta. D.A. Paredes, O. Jackson-Weaver, X. DeLeon and N. Kanagy. Univ. of New Mexico.


S159 II 1129.18 Hypoxia stimulates pulmonary artery endothelial proliferation via 5-lipoxygenase. K.M. Porter and R.L. Sutliff. Emory Univ. and Atlanta VA Med. Ctr.

S160 I 1129.19 Cytokines, glucose and angiotensin II and the expression of connexin 37, 40 and 43 in cultured microvascular endothelial cells. B. Braam, W. Zhuang and W.A. Cuppyles. Univ. of Alberta and Simon Fraser Univ., Canada.

S161 II 1129.20 PDEs are heterogeneously distributed in native endothelium of mesenteric arteries from mice. A. Blanchette, F. Toussaint, C. Charbel, P. Comtois and J. Ledoux. Heart Inst. of Montreal and Univ. of Montreal.


S163 II 1129.22 CaMKII regulates intracellular calcium stores of native endothelial cells from mesenteric arteries. F. Toussaint, C. Charbel, A. Blanchette, L. Villeneuve and J. Ledoux. Montreal Heart Inst. and Univ. of Montreal.


S171 II 1129.30 Stimulation of cyclooxygenase-2 pathway in human coronary artery endothelial cells by histamine involves ERK and p38 activation but not early growth response factor-1. X. Tan, V.V. Raveendran, H.H. Krishnan and K.N. Dileepan. Univ. of Kansas Med. Ctr.
1130. LUNG PHYSIOLOGY: ENDOTHELIAL CELL BIOLOGY AND FLUID BALANCE

Poster

**Presentation time:** 12:45 PM - 2:00 PM (I); 2:00 PM - 3:15 PM (II)


S175 I 1130.3 Membrane receptor disruption via bicarbonate stimulation of endogenous soluble adenylyl cyclase, AC10. S. Sayner, R. Kunstadt and J. Nix. Univ. of South Alabama.


S179 I 1130.7 Membrane localization of FK506-binding proteins FKBP51 and FKBP52, immunophilins that are part of the endothelial store-operated calcium entry heterocomplex. P.I. Kadeba, J.G. Scammell and D.L. Cioffi. Univ. of South Alabama.

S180 II 1130.8 Role of the TRPC4 proline rich region in regulation of the endothelial store-operated calcium entry. X. Wang, H. Chen, S. Wu and D.L. Cioffi. Univ. of South Alabama.

S181 I 1130.9 Loss of cell-surface sialic acids activates calcium entry in pulmonary endothelial cells. E.A. Cioffi, E.S. Crockett and D.L. Cioffi. Univ. of South Alabama.


S184 II 1130.12 Mitochondrial DNA damage-associated molecular patterns are released in response to oxidant stress in rat pulmonary artery endothelial cells. J.K. Hill, S. Mulekar, V.M. Pastukh and M.N. Gillespie. Univ. of South Alabama.


1131. NITRIC OXIDE/CARBON MONOXIDE/ VASOACTIVE MOLECULES

Poster

**Presentation time:** 12:45 PM - 2:00 PM (I); 2:00 PM - 3:15 PM (II)


S189 II 1131.2 Role of membrane permeability and extracellular diffusion in nitric oxide transport to the red blood cells. P. Deonikar and M. Kavdia. Wayne State Univ.


S193 II 1131.6 Hydrogen sulphide influences the excitability of neurons in the paraventricular nucleus of the hypothalamus. C.S. Khademullah and A.V. Ferguson. Queen’s Univ., Canada.

S194 I 1131.7 Complex interplay between pannexin 1 cysteine residues and channel regulation. A.W. Lohman, J.L. Weaver, M. Billaud, D.A. Bayliss and B.E. Isakson. Univ. of Virginia.

S195 II 1131.8 sGC in SMC acts as nitrite reductase leading to NO formation. K.J. Madrasi, N. Tsoukias and M. Joshi. Florida Intl. Univ.


1132. SHOCK
Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S203 I 1132.1 Trypsin and MMP-9 levels and activity increase in plasma, peritoneal space, and vital organs during hemorrhagic shock. A.E. Altshuler, A.H. Penn, J. Yang, G.-R. Kim and G.W. Schmid-Schönbein. UCSD.


1133. EXTRACELLULAR MATRIX AND CARDIAC REMODELING
Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S219 I 1133.5 The role of inflammation and adaptive immunity in aortic stiffening. J. Wu, S. Thabet, W. Chen, A.E. Goldstein, M. Madhur, B. Hudson and D.G. Harrison. Vanderbilt Univ. and Emory Univ.

1134. GENETIC MODELS OF CARDIOVASCULAR FUNCTION

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1135. GENETIC MODELS OF CARDIOVASCULAR FUNCTION

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S245 II 1135.4 Abnormal heart rate control in SCN5A-[Delta]KPQ mice. M.A. Wu, V. Bari, L. Calvillo, L. Crotti, P.J. Schwartz, A. Porta and N. Montano. Univ. of Milan and Univ. of Pavia.


### 1136. MYOCARDIAL ISCHEMIA/MYOCARDIAL METABOLISM

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S248 I 1136.1 Thyroid hormone preserves myocytes in the border zone of myocardial infarction. Y. Chen, S. Youmans, N.Y. Weltman, X. Li, D. Crause and A.M. Gerdes. New York Inst. of Technol., Univ. of South Dakota and Johns Hopkins Univ.

S249 II 1136.2 Anti-arrhythmic effect of remote ischemic preconditioning is accompanied by changes in the salvage kinases in the rat heart non-ischemic area. B.Z. Simkhovich, J. Dow and R.A. Klener. Good Samaritan Hosp., Los Angeles and Univ. of Southern California Keck Sch. of Med.


S252 I 1136.5 Novel rapid-multiple-short-cycle preconditioning stimuli induces robust cardioprotective signaling mechanisms and protects the heart against in vivo ischemia reperfusion injury: an effective approach with clinical justification. J.L. Zweier, F. Yang, Y. Nishijima, C-A. Chen, C. Yang, S. Varadhaj and M.A.H. Talukder. Davis Heart and Lung Inst., Columbus, OH.


S254 I 1136.7 In cardiomyocytes LPS-induced activation of IkBα and COX-2 expression are mediated in part by the hexosamine biosynthesis pathway. X.T. Lu, L. Zou and J.C. Chatham. Univ. of Alabama at Birmingham.

S255 II 1136.8 Detrimental effects of antitroviral treatment on contractile function of the rat heart. K.M.S.E. Reyskens and M.F. Essop. Stellenbosch Univ., South Africa.


S257 II 1136.10 Stepwise ischemic preconditioning mitigates prolonged ischemia/reperfusion injury. K. Yamakawa, W. Zhou and A. Mahajan. UCLA.


S262 II 1136.15 Fibroblast growth factor 8 inhibits apoptosis mediated by PTEN and Akt pathway in the infarcted myocardium. D. Singla and L. Abdelli. Univ. of Central Florida.


S264 I 1136.17 Estrus cycle phase does not influence myocardial infarction but may alter arrhythmogenicity in isolated rat hearts. C.R. Frazier, M.D. Rosenbaum, R.C. Sloan, B. Hayes and D.A. Brown. East Carolina Univ.


S267 I 1136.20 Late preconditioning induced by transgenic cardiac overexpression of α1A adrenergic receptors in rats. X. Zhao, J. Park, D. Ho, S. Gao, L. Yan, H. Ge, S. Ismaa, L. Lin, B. Tian, D.E. Vatner, R. Graham and S.F. Vatner. UMDNJ, Newark and Victor Change Cardiac Res. Inst., Darlinghurst, Australia.

WEDNESDAY

1137. FREE RADICAL SIGNALING, OXIDANT STRESS, AND INJURY

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S269 I 1137.1 Vitamin E attenuates *P. aeruginosa*-mediated injury in pulmonary endothelial cells. N. Anjum, K.E. Iles, M.G. Traber, J. Creighton, S. Matalon and J-F. Pittet. Univ. of Alabama at Birmingham and Oregon State Univ.


S273 I 1137.5 Tetrahydrobiopterin attenuates extracorporeal shock wave lithotripsy-induced blood nitric oxide level reduction in the renal vein. B.L. Deiling, E. Iames, S.H. Deo, M.C. Zimmerman and P.J. Fadel. Univ. of Missouri-Columbia, and Univ. of Nebraska Med. Ctr.

S274 II 1137.6 Elevated reactive oxygen species and increased mononuclear NADPH oxidase expression in type 2 diabetes patients. S.H. Deo, M.C. Zimmerman and P.J. Fadel. Univ. of Missouri-Columbia, and Univ. of Nebraska Med. Ctr.


S277 II 1137.9 Opening of mitochondrial BK(Ca) channels at reoxygenation protects ventricular myocytes against injury via redox signaling. F. Kolar and G.H. Borchert. Inst. of Physiol., Acad of Sci., of Czech Republic, Prague.


1138. CARDIOVASCULAR RESPONSES TO EXERCISE

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S287 I 1138.1 Voluntary physical activity modulates hypoxia response of sickle cell disease SAD mice. C. Martin, E. Aufradet and V. Pialoux. Univ. of Lyon.

S288 II 1138.2 Physical activity blunts oxidative stress response to exercise in sickle cell trait carriers. V. Pialoux, E.N. Chirico, C. Faes, E. Aufradet, L. Féasson, L. Messonnier and C. Martin. Univ. Lyon 1, Univ. of Saint-Etienne and Univ. of Savoie, France.

S289 I 1138.3 Racial difference in central stiffness and arterial structure following aerobic exercise training. S. Ranadive, H. Yan, A.D. Lane, P. Sun, R. Kappus, M.D. Cook and B. Fernhall. Univ. of Illinois at Urbana-Champaign.


S296  II  1138.10  Reduced large elastic artery stiffness in older exercising adults is associated with suppressed nuclear factor kappa B signaling.  K.L. Jablonski, A.J. Donato, B.S. Fleenor, M.J. Russell, A.E. Walker and D.R. Seals.  Univ. of Colorado Boulder.
S298  II  1138.12  Physical training promotes different cardiac autonomic adaptations after premature and physiological ovarian failure in aged rats.  G.C.S.V. Tezini, D.P.M. Dias and H.C.D. Souza.  Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.
S303  I  1138.17  Low-intensity interval exercise training normalizes coronary blood flow-O2 demand coupling and improves cardiac efficiency in miniature swine with LV hypertrophy.  C.A. Emter.  Univ. of Missouri-Columbia.
S305  I  1138.19  Reductions in nitric oxide production within the nucleus tractus solitarius contributes to exercise pressor reflex overactivity in hypertension.  M.N. Murphy, M. Mizuno, R. Downey and S.A. Smith.  Univ. of Texas Southwestern Med. Ctr.
S317  I  1138.31  Effects of prior endurance exercise on postprandial lipemia-induced changes in circulating angiogenic cytokines in young men.  R.Q. Landers-Ramos, N.T. Jenkins, E.E. Spangenberg, J.M. Hagberg and S.J. Prior.  Univ. of Maryland College Park, Univ. of Maryland Sch. of Med. and Baltimore VA GRECC.


S324 II 1138.38 Effect of a cold pressor test on the cardiovascular responses to static handgrip exercise and peak force production. D. Kimmerly and R. Chisholm-Drance. Sch. of Hlth. and Human Performance, Dalhousie Univ., Canada.

S325 I 1138.39 Impact of cholinergically-mediated vasodilation on blood pressure at the onset of exercise in humans. L.C. Vianna, P.J. Fadel, N.H. Secher and J.P. Fisher. Univ. of Missouri-Columbia, Univ. of Copenhagen and Univ. of Birmingham Sch. of Sport & Exer. Sci.


S330 II 1138.44 Role of $\beta_k$ in endothelium-dependent dilation of soleus feed arteries. N.L. Rawicki, E.J. Gray, M.R. Carter and J.L. Jasperse. Pepperdine Univ.


S332 II 1138.46 Nifedipine does not open intrapulmonary arteriovenous anastomoses in healthy human subjects during exercise breathing 100% $O_2$. J. Elliott, S. Laurie and A. Lovering. Univ. of Oregon.


S334 II 1138.48 Middle cerebral artery blood velocity during running: interactions of heart and stride impact rates. E. Wasson, C. Harper, A. Subudhi, S. Schneider, N. Maestas, D. Gutiérrez, R. Roach and E. Greene. Univ. of New Mexico, Univ. of Colorado Denver, Aurora and New Mexico Highlands Univ.


S336 II 1138.50 Effect of a simulated functional magnetic resonance imaging scanner on resting and exercise-induced changes in cardiovascular function. A. Kates, H. Van Gestel and D. Kimmerly. Sch. of Hlth. and Human Performance, Dalhousie Univ., Canada.


1139. CARDIAC MUSCLE PHYSIOLOGY

Poster

Wed, 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S339 II 1139.2 Juncophilin 2 is reduced in the border zone 3 hours after a myocardial infarction in sheep heart. C. Ingalls, C. Baumann, N. Gahlot, W. Santamore, J.H. Gorman and R.C. Gorman. Georgia State Univ., Temple Univ. and Univ. of Pennsylvania.


S341 II 1139.4 Ghrelin ameliorates doxorubicin-induced cardiomyopathy and cardiac fibrosis. P.M. Siu, X.M. Pei, I.F. Benzie and M. Ying. Hong Kong Polytech Univ.

S342 I 1139.5 NOS1-dependent S-nitrosylation of cardiac calcium-handling proteins (RyR2, SERCA, and L-type Ca$^{2+}$ channel) modulates basal contractility and adrenergic inotropicism. A.Z. Vielma, G. Eller, D.R. González and M.P. Boric. Pontifical Catholic Univ. of Chile and Univ. of Talca, Chile.

S343 II 1139.6 Modulation of the ubiquitin proteasome system in thyroid hormone-induced cardiac hypertrophy. C.A. Lino and M.L.M. Barreto-Chaves. Univ. of São Paulo.

S344 II 1139.7 α-Dystrobrevin functions to reinforce the interaction between dystrophin and the membrane, loss of α-dystrobrevin results in significant loss of cardiac reserve. D. Townsend, J. Dean and K. Sharpe. Univ. of Minnesota, Minneapolis.
S345 II 1139.8 Role of AT2 receptor in the cardioprotective response induced by thyroid hormone. M.L.M. Barreto-Chaves, D.A. Gomes and F.M. Tavares. Univ. of São Paulo.

S346 I 1139.9 Role of AMPK in the cardiomyocyte hypertrophy induced by thyroid hormone. A.P.C. Takano, G.P. Diniz and M.L.M. Barreto-Chaves. Univ. of São Paulo.

S347 II 1139.10 Pregnancy induces cardiac hypertrophy with hypercontractile ventricular myocytes. K. Kennard, L. Foster-Bey, D. Yanessa and B.A. Bailey. Ursinus Col., PA.


1140. SMOOTH MUSCLE PHYSIOLOGY AND PHARMACOLOGY

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S350 I 1140.1 Conditional inactivation of the splicing regulator Tra2β shifts myosin phosphate isoforms and enhances smooth muscle sensitivity to cGMP-mediated relaxation. B. Bhetwal, K. Fu, Y. Mende, B. Perrino, B. Wirth and S. Fisher. Univ. of Nevada Reno, Case Western Reserve Univ., Univ. of Cologne and Univ. of Maryland Baltimore.

S351 II 1140.2 Bisphenol A decreases BK channel expression in rat aorta via genomic mechanisms. S. Asano, I.S. Fancher and G.M. Dick. West Virginia Univ.


S355 II 1140.6 Substance P-induced increase in brain-derived neurotrophic factor expression and secretion by intestinal smooth muscle is mediated by a rise in intracellular Ca2+. M.A. Alqudah, S. Mahavadi, K. Srinivasa and J.R. Grider. Virginia Commonwealth Univ. and JUST, Jordan.


S359 II 1140.10 Inhibition of phosphodiesterases relaxes urinary bladder smooth muscle via activation of the large conductance voltage- and Ca2+-activated K+ channels. W. Xin, Q. Cheng, R.P. Soder and G.V. Petkov. Univ. of South Carolina.


1141. MECHANICAL MUSCLE DAMAGE (POSTERS)

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S361 I 1141.1 Titin is not the weak link in the Z-disk streaming induced by plyometric exercise. F. Macaluso, A.W. Isaacs and K.H. Myburgh. Stellenbosch Univ., South Africa.


S363 I 1141.3 Dysferlin maintains the integrity of transverse tubules and the junctional sarcoplasmic reticulum following contraction-induced injury. J.A. Roche, W.G. Resneck, A.L. Mueller and R.J. Bloch. Univ. of Maryland Sch. of Med.

S364 IV 1141.4 In vivo studies of motor nerve regeneration following skeletal muscle damage by lengthening contractions. A. Vasilaki, A. Kayani, T. Pearson, A. McArdle and M. Jackson. Univ. of Liverpool.

S365 I 1141.5 Differences in alcohol versus aqueous extracts of North American ginseng in protecting against eccentric exercise-induced muscle damage in rats. M. Estaki and E.G. Noble. Univ. of Western Ontario Sch. of Kinesiol.

S366 II 1141.6 Rate of force recovery immediately following lengthening contractions for various mouse models of muscular dystrophy. E.P. Rader, R. Han, J.R. Levy, D. Bansal and K.P. Campbell. Univ. of Iowa and Loyola Univ. Med. Ctr.

S367 I 1141.7 Contractile properties of mice deficient in dystrophin and the NADPH subunit p47phox. J.A. Engle, E.P. Rader and K.P. Campbell. Univ. of Iowa.

1142. EXERCISE RESPONSES AND TRAINING

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S384 II 1142.17 Heterogeneity in total body fat changes after aerobic exercise training is similar in women with lower and higher amounts of body fat. B. Sawyer, D. Bhammar, S. Angadi, D. Ryan, J. Ryder and G. Gaesser. Arizona State Univ.


S96 I 1142.29 The effects of play-based physical activity on metabolic signatures in adolescents. M.E. Gulas and S. Collier. Appalachian State Univ.

S97 II 1142.30 Mild exercise elicits de novo synthesis of hippocampal dihydrotestosterone and enhanced neurogenesis in adult male rats. M. Okamoto, Y. Hojo, K. Inoue, T. Matsu, M.C. Lee, S. Kawato and H. Soya. Univ. of Tsukuba, Japan Soc. for Promotion of Sci., Chiyoda-ku and Univ. of Tokyo.


S99 II 1142.32 Central NO-signaling is important to PVN activation, improving heat dissipation and exercise performance. P.M. Lima, H.P. Santiago and C.C. Coimbra. Fed. Univ. of Minas Gerais, Brazil.

S400 I 1142.33 Involuntary exercise is a better stimulus than voluntary exercise to increase GDNF protein content in adult rat spinal cord. M.J. McCullough, A.M. Gyorros and J.M. Spitsbergen. Western Michigan Univ.

S401 II 1142.34 Exercise-induced cardioprotection is dependent on enhanced glutathione reductase activity. C.R. Frasier, R.C. Sloan, B. Hayes and D.A. Brown. East Carolina Univ.

S402 I 1142.35 Exercise blood pressures are lower after aquatic compared to land treadmill training. S.F. Crouse, B.S. Lambert, N.P. Greene, T.W. Constanzo and S.E. Martin. Texas A&M Univ. and Univ. of Virginia.

S403 I 1142.36 Racial differences in blood pressure after exercise in young individuals. H. Yan, S.M. Ranadive, P. Sun, A.D. Lane, R.M. Kappus, C.A. Fahs, L. Rossow and B. Fernhall. Univ. of Illinois at Urbana-Champaign, East China Normal Univ. and Univ. of Oklahoma.


S407 I 1142.40 Exercise-induced angiogenesis, fiber size and muscle mass are reduced in skeletal myofiber-specific VEGF gene-deleted mice. H. Delavar, K. Tang, P.D. Wagner and E.C. Breen. UCSD.

S408 I 1142.41 Effects of physical exercise and tauine supplementation on cardio-metabolic risk factors in high caloric-fed rats. C. de Moraes, T.C. Rosini and E.C. de Freitas. Sch. of Phys. Educ. and Sport, Univ. of São Paulo.


S410 I 1142.43 Growth hormone response to the strenuous training in professional skiers has longer recovery time than expected. S. Koks, E. Unt, V. Tillmann, K. Fischer, M. Alaver, T. Kiudma and A. Terasmaa. Univ. of Tartu, Estonia and Estonian Ski Assn., Tallinn.

S411 II 1142.44 The repeated-bout effect is compromised in the tibialis anterior muscles of mdx mice. T.A. McBride and R. Reynolds. California State Univ., Bakersfield.

S412 I 1142.45 Previous day’s exercise does not affect indicators of physiological stress measured during practice in male collegiate soccer players. V.M. Dautermann and K.M.S. Johnson. Beloit Col., WI.


S418 I 1142.51 MCP-1-/- mice show blunted inflammatory cytokine response and improved recovery following exercise-induced muscle damage. B.T. Gordon, J. McClellan, E.A. Murphy, M.D. Carmichael and J.M. Davis. Univ. of South Carolina.


1143. BONE-MUSCLE CROSSTALK (POSTERS)

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S429 II 1143.2 Wnt3a as a potent modulator of myogenic differentiation and muscle cell function. S. Romero-Suarez and M. Brotto. Sch. of Nursing, Univ. of Missouri-Kansas City.

S430 I 1143.3 Cellular mechanisms of tendinomuscle crosstalk. E. Abreu, S. Romero-Suarez, L. Broto, C. Mo and M. Brotto. Univ. of Missouri Kansas City Schs. of Nursing, Pharm. and Med.


S432 I 1143.5 Bad to bone: homocysteine. N. Tyagi, N. Narayanan, S. Givviman and S.C. Tyagi. Univ. of Louisville.


S436 I 1143.9 Skeletal muscle OGT and OGA expression: associations with hormone replacement therapy, physical activity and muscle area in postmenopausal women. M.H.M. Toivonen, E. Pöllänen, M. Ahtianen, H. Suominen, D. Taaffe, S. Cheng, T. Takala, U. Kujala, M. Tammi, S. Sipilä and V. Kovanen. Univ. of Jyväskylä, Finland, Univ. of Newcastle, Australia, Univ. of Oulu, Finland and Univ. of Eastern Finland.


1144. METABOLISM IN MUSCLE

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1146. RESPIRATORY RESPONSES TO EXERCISE

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1147. CONTROL OF BREATHING: RESPIRATORY MOTONEURONS AND MUSCLES

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S467 II 1147.4 Incorporation of realistic intracellular calcium dynamics into a hypoglossal motoneuron computational model. K.G. Horn and I.C. Solomon. Stony Brook Univ.


S469 II 1147.6 Nitric oxide activates hypoglossal motoneurons by cGMP-dependent inhibition of task channels and cGMP-independent activation of HCN channels. I.C. Wenker, X. Chen, H. Liu, R. Horner and D.K. Mulkey. Univ. of Connecticut and Univ. of Toronto.

1148. RESPIRATORY PATTERN VARIABILITY: 
INSIGHTS INTO RESPIRATORY CONTROL MECHANISMS IN HEALTH AND DISEASE (POSTERS)

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION
Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S471 II 1147.8 Increased pentobarbital insensitivity in hypoglossal (XII) motoneurons during late pregnancy is consistent with increased epsilonsubunit expression in GABAA receptors. S.M. Turner and S.M. Johnson. Univ. of Wisconsin-Madison.

S472 I 1147.9 State dependent modulation of breathing in rats during urethane anesthesia. S. Pagliardini, J.J. Greer and C.T. Dickson. Univ. of Alberta.


S474 I 1147.11 Effects of spinal cord section on inspiratory pressure generation during high frequency spinal cord stimulation. K.E. Kowalski and A.F. DiMarco. Case Western Reserve Univ. and MetroHlth. Med. Ctr.

S483 I 1148.9 Influence of different classes of anesthetics on burst-to-burst variability of basal phrenic nerve discharge in adult in vivo rat. T. Rahim, A. Kiridly, I.M. Reid and I.C. Solomon. Stony Brook Univ.


S485 I 1148.11 A stochastic and integrative model of breathing with temporal scaling characteristics. B.F. BuSha and S. Frone. The Col. of New Jersey.


1149. ANABOLIC RESISTANCE TO EXERCISE WITH AGING OR DISEASE (POSTERS)

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION
Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1150. ALTITUDE AND HYPOXIA

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION
Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S500 II 1150.10 Genome-wide P-element screen for hypoxia tolerance genes in Drosophila melanogaster. G.G. Haddad and P. Azad. UCSD.

1151. TRANSCRIPTOMES, GENE EXPRESSION, REGULATORY RNA AND PROTEOMICS

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S506 II 1151.6 On the diagnostic ability of microRNA for pancreatic cancer. G.D. Swanson. California State Univ., Chico.


S512 II 1151.12 Differential expression of candidate genes associated with voluntary physical activity levels in inbred mice. M. Dawes, D.P. Ferguson and T. Lightfoot. Texas A&M Univ.

S513 I 1151.13 Receptors for advanced glycation end-products are transcriptionally inhibited by FoxA2 in diverse pulmonary cell types. A.W. Farmer and P.R. Reynolds. Brigham Young Univ.


S515 I 1151.15 Controlling proteome degradation in Daphnia pulex. C.J. Kemp and D. Kültz. Univ. of California, Davis.


1152. REGULATION OF EPITHELIAL TRANSPORT PROTEINS, ION AND WATER CHANNELS, AND MODULATORY FACTORS III

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S518 II 1152.1 Acute angiotensin II effects on NCC are dependent on WNK4. B. Ko, L. Hansen, A. Mistry, R. Mallick and R. Hoover. Univ. of Chicago, Emory Univ. and Atlanta VA Hosp., Decatur.


SS25 II 1152.8 Sexual dimorphism and estrogen regulation of KCN3 modulates the functional properties of KCNQ1 K+ channels. B.J. Harvey, R. Alazamora, F. O'Mahony, V. Bustos, R. Rapetti-Mauss, V. Urbach, P. Cid and F. Sepúlveda. Royal Col. of Surgeons in Ireland and Ctr. for Sci. Studies, Valdivia, Chile.

SS26 I 1152.9 Zn2+ has biphasic effects on KCNQ1/KCN3 K+ channels. M.E. Duffey, K. Mongiardo, J. Hallman and J.K. Crane. Univ. at Buffalo SUNY.

SS27 II 1152.10 Membrane trafficking produces distinct beta-adrenergic signaling for Cl secretion and K secretion in guinea pig distal colonic mucosa. S. Halm, J. Zhang and D. Halm. Wright State Univ.


SS34 I 1152.17 Anion transporter links to urolithiasis and hepatotoxicity. D. Markovich, S. McLeay and S. Lee. Univ. of Queensland, Australia.


SS38 I 1152.21 Insulin activates intestinal NHE3 via IRBIT. P. He, M. Yanda, M. Anitha, S. Srinivasan and C. Yun. Emory Univ.


1153. NUCLEAR RECEPTORS IN THE LIVER AND GI TRACT

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

SS43 I 1153.1 E2F1 is a potential novel regulator of liver fibrosis by targeting Egr-1 through nuclear receptor SHP. Y. Zhang and L. Wang. Univ. of Utah.

SS44 II 1153.2 Role of pregnane X receptor in diet-induced obesity. M.A. Gyamfi, D. Jones and E.M. Awumey. North Carolina Central Univ.
1154. GASTROINTESTINAL NUTRIENT SENSORS

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1155. GASTROINTESTINAL PHYSIOLOGY AND THE MICROBIOME (POSTERS)

Poster

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S547  I  **1155.1**  Characterization of bile acid homeostasis in germ-free mice. F. Selwyn and C.D. Klaassen. Univ. of Kansas Med. Ctr.

S548  II  **1155.2**  Dietary fat-induced taurocholic acid production promotes pathobiont and colitis in IL-10 $^{-/-}$ mice. S. Devkota, Y. Wang, V.A. Leone, M. Musch, A. Nadimpalli, D. Antonopoulos, Y. Wang, V.A. Leone, M. Musch, A. Nadimpalli, D. Antonopoulos, B. Jabri and E. Chang. Univ. of Chicago and Argonne Natl. Lab.

S549  I  **1155.3**  Intestinal epithelial barrier dysfunction induces IL-17 production by $γδ$ intraepithelial lymphocytes: a novel mechanism of mucosal tolerance. K.L. Edelblum and J.R. Turner. Univ. of Chicago.

S550  II  **1155.4**  Feeding of probiotic formulation protects from obesity and diabetes. H. Yadav and S.G. Rane. NIDDK/NIH.


S552  II  **1155.6**  Hibernation alters the gut microbial community in ground squirrels. H.V. Carey, W.A. Walters and R. Knight. Univ. of Wisconsin-Madison, Univ. of Colorado Boulder and HHMI.

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S554  II  **1155.8**  Diverse gut microbes facilitate ingestion of dietary toxins in herbivores. M.D. Dearing, K. Kohl, C. Dale and R. Weiss. Univ. of Utah.

1156. HOST RESPONSES TO GASTROINTESTINAL INFECTIONS (POSTERS)

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S556  II  **1156.2**  Changes in innate immune pathway and proteins of Caenorhabditis elegans during Cronobacter sakazakii infection. K. Balamurugan and B.S. Sivamaruthi. Alagappa Univ., India.

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S566 II 1158.2 Multiple players vying for one target: regulation of differential signaling fate of corticotropin-releasing factor receptor 1. S. Mahajan, B. Hasdemir, M. Liao and A. Bhargava. UCSF.


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S575 I 1161.3 CCN1 induces death of esophageal adenocarcinoma: trick or TRAIL? J. Chai, M. Norng, J. Pham, S-Y. Wu and M.M. Jamal. VA Long Beach Healthcare Syst. and Univ. of California Irvine Healthcare.


1162. GASTROINTESTINAL DEVELOPMENT

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S578 I 1163.1 17β-Estradiol relaxes cholecystokinin and KCl-induced tension in female guinea pig gallbladder strips by inhibiting extracellular Ca^{2+} entry. L. Kline and E. Karpinski. Univ. of Alberta.

S579 II 1163.2 Although at rest, the rat esophagus is tensed anisotropically in situ. M. Lorber. Georgetown Univ.

S580 I 1163.3 Decreased expression and phosphorylation of ROK1, ROK2, MLCPs19, MYPT1pT696/ pT853, and CPI-17pT38 in gastric antrum smooth muscles of Lep ob/ob mice. B.A. Perrino, B.P. Bhetwal and C. An. Univ. of Nebraska Sch. of Med., Reno.


Hyperhomocysteinemia decreases intestinal motility leading to constipation. **S. Givvimani, C. Munjal, N. Narayanan, G. Tyagi, N. Metreveli and S.C. Tyagi.** Univ. of Louisville.


**Late-Breaking Poster Sessions are scheduled Wednesday, April 25, 2012 in the San Diego Convention Center, Sails Pavilion.**

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Oxford, MA 01606
Phone: 508-459-7544
Fax: 508-459-7548
Email: cfox@biomere.com
Web: www.biomere.com/
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1047 Serpentine Lane #200
Pleasanton, CA 94566
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Fax: 925-931-0300
Email: info@biomertech.com
Web: www.biomertech.com

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Peptide Synthesis Custom Service
Phospho-specific Antibodies

BIOMETROLOGY / NANOANALYTICS .......................... 324
1448 East 52nd Street, Suite 372
Chicago, IL 60615
Phone: 773-941-0113
Email: cellscope@biometry.com
Web: www.biometry.com

Analytical Services or Test Systems
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Electrodes
Electrophysiological Instruments
Laboratory Apparatus, miscellaneous
Pharmaceutical Development Equipment
Physiological Recorders

BIONTEX ................................................................. 1219
6201 Progressive Avenue 200
San Diego, CA 92154
Phone: 619-690-7333
Fax: 619-690-7334
Email: fb@biontex-usa.com
Web: www.biontex-usa.com

Agarose
Biochemical Reagents
Transcription Reagents

BIOPAC SYSTEMS, INC. ........................................... 336
42 Aero Camino
Goleta, CA 93117
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Fax: 805-685-0067
Email: info@biopac.com
Web: www.biopac.com

Amplifiers
Analog-to-Digital Converters
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Evoked Potential Systems
Physiological Recorders
Respiratory Gas Analyzers
Software

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Transducers

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Hercules, CA 94547
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One 8th Street, Suite 1
Frenchtown, NJ 08825
Phone: 570-730-6055
Fax: 908-996-4123
Email: kthek@bio-serv.com
Web: www.bio-serv.com

Animal Diets

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612 E. Main Street
Lewisville, TX 75057
Phone: 972-420-8505
Fax: 972-420-0442
Email: biosyn@biosyn.com
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Probes
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Canoga Park, CA 91304
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Fax: 818-709-7993
Email: info@boneclones.com
Web: www.boneclones.com

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155 South Milpitas Road
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Phone: 408-493-1800
Fax: 408-493-1801
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Web: www.biovision.com

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Fax: 860-767-2563
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16 Angel Gate, 326 City Road
London EC1V 2PT
United Kingdom
Phone: 44 (0) 20 7239 0184
Email: jb@bps.ac.uk
Web: www.bps.ac.uk

BRUKER CORPORATION.......................... 346
112 Robin Hill Road
Santa Barbara, CA 93117
Phone: 805-967-1400
Fax: 805-967-7717
Email: productinfo@brucker-nano.com
Web: www.bruker-axs.com

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155 South Milpitas Road
Milpitas, CA 95035
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Enzyme Reagents
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Email: info@boneclones.com
Web: www.boneclones.com

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Phone: 44 (0) 20 7239 0184
Email: jb@bps.ac.uk
Web: www.bps.ac.uk

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United Kingdom
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Fax: 44 1223 420488
Email: info@ced.co.uk
Web: www.ced.co.uk

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Data Acquisition Equipment
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Electroencephalographs
Electromyographs
Electrophysiological Instruments
Evoked Potential Systems
Motor Activity Recorders
Physiological Recorders
Pulse Generators
Recorders

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PO Box 8148
Loughborough, Leics
United Kingdom
Phone: 44-1509-814790
Email: uksales@campdeninstruments.com
Web: www.campdeninstruments.com

Activity Monitoring
Animal Behavior Research Equipment and Systems
Behavioral Research Equipment
Microtomes
Tissue Culture Apparatus

CARESTREAM MOLECULAR IMAGING............ 316
4 Research Drive
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Phone: 203-786-5600
Fax: 203-786-5630
Email: molecular-info@carestreamhealth.com
Web: www.mi.carestreamhealth.com

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Ultraviolet Analyzers
Western Blotting Equipment

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One Zeiss Drive
Thornwood, NY 10594
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Fax: 914-681-7379
Email: micro@zeiss.com
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Web: www.caymanchem.com

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Signal Transduction Reagents

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Del Mar, CA 92014
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Fax: 858-755-0733
Email: carter@cbssci.com
Web: www.cbsscientific.com

DNA Sequencers
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Electrophoresis Equipment
Electrophoresis Gels Pre-cast
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Gradient Makers
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PCR Products (Polymerase Chain Reaction)
Power Supplies
Safety Shields
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Web: www.cedarlanelabs.com

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Fax: 858-453-2862
Email: m.vengrow@cellapplications.com
Web: www.cellapplications.com

Antibodies
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Cell Culture Media
Cell Cultures
Culture Media

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Fax: 978-867-2400
Email: info@cellsignal.com
Web: www.cellsignal.com

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Fax: 203-822-9820
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Web: www.centerchem.com

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Reagents

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Web: www.cglifesciences.com

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Web: www.cleversysinc.com

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Behavioral Research Equipment
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Image Analyzer
Laboratory Workstation, automated
Light Sources
Software
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Web: www.morganclaypool.com/page/lifesci

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COLUMBUS INSTRUMENTS INTERNATIONAL CORPORATION ................................. 1137
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Columbus, OH 43204
Phone: 614-276-0861
Fax: 614-279-9607
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Activity Monitoring
Animal Behavior Research Equipment and Systems
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Chromatographs, Liquid
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Washington, DC 20006
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Web: www.cornsugar.com

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Lectins
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Reagents
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Web: www.coulbourn.com

Activity Monitoring
Amplifiers
Animal Behavior Research Equipment and Systems
Animal Feeding Monitors
Calorimeters
Pumps
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Video Systems Measuring
COY LABORATORY PRODUCTS .............................. 222
14500 Coy Drive
Grass Lake, MI 49240
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Fax: 734-475-1846
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Web: www.coylab.com

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Tissue Culture Chambers

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Fax: 651-481-7417
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Web: www.datasci.com

Activity Monitoring
Amplifiers
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Biosensors
Blood Pressure Monitors
Data Acquisition Equipment
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Electroencephalographs
Electromyographs
Infusion Products
Physiological Transducers
Pulmonary Function Equipment
Software
Telemetering Systems

DICON/SCOPELED .................................................... 340
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Organ Baths
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Cell Biology Products
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Laboratory Apparatus, miscellaneous
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Micromanipulators
Pipettes
Tissue Culture Apparatus Labware

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Schlieren
Switzerland
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Fax: 41 44 738-50 05
Email: auerbach@dualsystems.com
Web: www.dualsystems.com

Antibodies
Custom Synthesis
Protein Binding Studies
Protein Purification System
Receptor/Ligand Interaction
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2508 Easton Avenue
Bethlehem, PA 18017
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Email: sales@dyets.com
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10255 Science Center Drive
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Email: contact@ebioscience.com
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Fluorescein Reagents
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Fluorescence Reagents
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Growth Factors
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Filters
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Membrane Filters
PCR Products (Polymerase Chain Reaction)

* Indicates advertiser in this program. See Index of Advertisers on page 405.
Phospho-specific Antibodies
Protein Purification System
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Web: www.emkatech.com

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Electroencephalographs
Electrophysiologiclal Instruments
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Tissue Organ Baths, Constant Temperature

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Web: www.endo-society.org

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Fax: 650-583-6680
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Web: www.epitomics.com

Antibodies
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Peptide Synthesis Custom Service
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Email: sales@eylabs.com
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Middlesex House, 34-42 Cleveland Street
London W1T 4LB
United Kingdom
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Email: Eva.Fong@f1000.com
Web: www.f1000.com

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 Bethesda, MD 20814
Phone: 301-634-7213
Email: sbradham@faseb.org
Web: www.faseb.org

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Email: info@finescience.com
Web: www.finescience.com

FLEXCELL INTERNATIONAL CORP............................................. 704
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Hillsborough, NC 27278
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Fax: 919-732-5196
Email: info@flexcellint.com
Web: www.flexcellint.com

Cell Biology Products
Cell Culture Chambers
Culture Apparatus

• Indicates advertiser in this program. See Index of Advertisers on page 405.
Image Analysis Software
Incubators
Infusion Products
Laminar Flow Equipment
Microscope Slides
Pumps
Tissue Culture Apparatus
Tissue Culture Apparatus Labware

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Fax: 650-873-3665
Email: info@fluxionbio.com
Web: www.fluxionbio.com

Cell Biology Products

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Menlo Park, CA 94025
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Email: gmlan@fortebio.com
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Protein Binding Studies
Protein Purification System
Proteins/Protein Array

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Email: info@fullmoonbiosystems.com
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Microscopes
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Western Blotting Equipment

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Biochemical Reagents
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Oligonucleotides
Reagents

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Expression Clones
miRNA Products
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Purified Proteins
Reagents

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RNA Isolation Kits

• Indicates advertiser in this program. See Index of Advertisers on page 405.
Shakers
Western Blotting Equipment

GILSON, INC. .............................................................. 630
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Middleton, WI 53562
Phone: 800-445-7661
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Email: sales@gilson.com
Web: www.gilson.com

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Laboratory Animals
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Web: www.harlan.com

Animal Diets
Animal Surgical Instruments
Antibodies
Catheters
Laboratory Animals

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Animal Respirators
Animal Surgery Tables
Animal Surgical Instruments
Blood Pressure Monitors
Brain Probes
Microdialysis Equipment and Supplies
Pumps
Stereotoxic Instruments

HATTERAS INSTRUMENTS, INC. ....................... 247
105 Southbank Drive
Cary, NC  27518
Phone: 919-816-9905
Email: jg@hatterasinstruments.com
Web: www.hatterasinstruments.com

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Cage Racks
Cortical Impactor
Data Acquisition Equipment
Metabolic Cages
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Animals
Biologicals
Contract Research and Development

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Seattle, WA  98145-1630
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Web: www.histochemicalsociety.org

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Germany
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Tissue Organ Baths, Constant Temperature

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Laboratory Animals
PCR Products (Polymerase Chain Reaction)
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Web: www.iitcinc.com

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Fax: 818-449-0416
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Web: www.implen.com

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Animals
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Catheters
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Physiological Transducers
Pressure Transducers, Implantable
Telemetering Systems
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Web: www.norgenbiotek.com
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miRNA Products
Molecular Weight Standards
PCR Products (Polymerase Chain Reaction)
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Reagents
RNA Isolation Kits

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Fax: 888-204-7770
Email: event@notocord.com
Web: www.notocord.com

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Isolators
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PCR Products (Polymerase Chain Reaction)
Tissue Cultures

O

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Sweden
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Fax: 706-353-1972
Email: sales@olisweb.com
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Fax: 484-896-7131
Email: microscopy@olympus.com
Web: www.olympusamerica.com

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Marseille, Cedex 9 13288
France
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Fax: 33 486 948 515
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Enzyme Immunoassay Kits
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Lentiviral Clone Products
Magnetic Beads
miRNA Products
Proteins/Protein Array
Reagents
RNAi Screening
Transducers

P

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Fax: 508-429-5732
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Web: www.panlab.com

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Amplifiers
Animal Behavior Research Equipment and Systems
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Respiratory Gas Analyzers
Treadmills
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Fax: 201-236-5888
Web: www.pearsonhighered.com

Books, Journals, Publications

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Email: marketing@PeproTech.com
Web: www.peprotech.com

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Cell Culture Media
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Monoclonal Antibodies
Proteins/Protein Array
Reagents

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ELISPOT Reagents
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Fluorescence Immunoassay System
Fluorescent Antibody
Immunoassay Services
Magnetic Beads
Monoclonal Antibodies

PHYSIOLOGICAL SOCIETY, THE ...................... 216
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London WC1X 8LZ
United Kingdom
Phone: 44 207 269 5712
Fax: 44 207 269 5720
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Web: www.physoc.org

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Email: britta.krause@promocell.com
Web: www.promocell.com

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Cell Attachment Factors
Cell Biology Products
Cell Culture Media
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Cytokines
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Web: www.labdiet.com

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Web: www.dfg.de

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United Kingdom
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Tissue Culture Apparatus
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Tissue Culture Chambers

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• TSE SYSTEMS, INC. ........................................ 730
17826 Edison Avenue
Chesterfield, MO 63005
Phone: 866-466-8873
Fax: 866-467-8873
Email: info@TSE-Systems.com
Web: www.tse-systems.com
Activity Monitoring
Animal Behavior Research Equipment and Systems
Animal Feeding Monitors
Animal Surgery Tables
Behavioral Research Equipment
Data Acquisition Equipment
Data Loggers
Metabolic Cages
Organ Baths
Stereotaxic Instruments
Syringes
Tissue Organ Baths, Constant Temperature
Treadmills
Video Systems Measuring

UGO BASILE NORTH AMERICA, INC. ............ 1102
414 West Main Street
Collegeville, PA 19426
Phone: 484-973-6581
Fax: 484-973-6582
Email: info@ugobasileUSA.com
Web: www.ugobasileusa.com
Activity Monitoring
Animal Anesthesia Equipment
Animal Behavior Research Equipment and Systems
Pharmaceutical Development Equipment

USB PRODUCTS FROM AFFYMETRIX, INC. .......... 1702
26111 Miles Road
Cleveland, OH 44128
Phone: 800-321-9322
Fax: 216-464-5075
Email: usbcustomerservice@affymetrix.com
Web: www.usb.affymetrix.com
Agarose
Biochemicals
DNA Purification Kits
Enzymes
PCR Products (Polymerase Chain Reaction)
Reagents
Site-Directed Mutagenesis

UVP, LLC ........................................................... 1506
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Upland, CA 91786
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Email: info@uvp.com
Web: www.uvp.com
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Cameras
Colony Counters
Densitometers, Gel Electrophoresis
Fluorescence Image Analysis Equipment
Gel Electrophoresis Equipment
Image Analysis Software
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Incubators
Light Boxes
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Ultraviolet Analyzers

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VACUMED, INC............................................................... 650
4538 Westinghouse Street
Ventura, CA 93003
Phone: 805-644-7461
Fax: 805-654-8759
Email: susan@vacumed.com
Web: www.vacumed.com

Activity Monitoring
Filters
Respiratory setups
Spirometers
Treadmills
Valves

VERSA LABORATORIES .............................................. 1221
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San Diego, CA 92154
Phone: 619-518-2828
Email: fb@versalaboratories.com
Web: www.versalaboratories.com

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Analytical Services or Test Systems
Analytical Test Systems
Chromatography Systems
DNA Sequencers
Electrochemical Instrumentation
HPLC Systems
Laboratory Apparatus, miscellaneous
Mass Spectrometers
Microplate Readers
Microplate Spectrophotometer
PCR Products (Polymerase Chain Reaction)
Spectrometers
Water Purification Equipment

VISUALSONICS....................................................... 824
3080 Yonge Street, Suite 6100
Toronto, ON M4N 3N1
Canada
Phone: 416-484-5000
Fax: 416-484-5001
Email: info@visualsonics.com
Web: www.visualsonics.com

Animal Anesthesia Equipment
Image Analysis Software
Image Analyzer

W.H. FREEMAN & COMPANY......................................... 405
41 Madison Avenue
New York, NY 10010
Phone: 212-576-9400
Fax: 212-689-2383
Email: jseltzer@bfwpub.com
Web: www.whfreeman.com

Books, Journals, Publications

WAKO LABORATORY CHEMICALS ..................... 1730
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Richmond, VA 23237
Phone: 877-714-1920
Fax: 804-271-7791
Email: labchem@wakousa.com
Web: www.e-reagent.com

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Biochemical Reagents
Biochemicals
Biologicals
Cell Biology Products
Chemicals
Column Packing
DNA Purification Kits
Dyes and Labeling Reagents
Enzymes
Fluorescence Reagents
HPLC Columns
Organic Laboratory Chemicals
Signal Transduction Reagents

WARNER INSTRUMENTS ......................................... 305
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Hamden, CT 06514
Phone: 203-776-0664
Fax: 203-776-1278
Email: sales@warneronline.com
Web: www.warneronline.com

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Electrometers
Fiber Optic Illumination Products
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Isolators
Light Sources
Micromanipulators
Microscope, Cover Glasses
Petri Dishes
Pipette Holders, standard and recording
Temperature Controllers
Tissue Organ Baths, Constant Temperature

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350 Main Street
Malden, MA 02148
Phone: 781-388-8200
Fax: 781-338-812
Email: twalsh@wiley.com
Web: www.wiley.com

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WORLD PRECISION INSTRUMENTS ................................330
175 Sarasota Center Boulevard
Sarasota, FL 34240
Phone: 941-371-1003
Fax: 866-230-0162
Email: sales@wpinc.com
Web: www.wpinc.com

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Biosensors
Electrophysiological Instruments
Injectors
Isolators
Microdissecting Instruments
Micromanipulators
Nitric Oxide Meters and Sensors
Pulse Generators
Pumps
Surgical Instruments
Tissue Organ Baths, Constant Temperature
Transducers
Ussing Chambers

• WORTHINGTON BIOCHEMICAL CORPORATION ...................... 901
730 Vassar Avenue
Lakewood, NJ 08701
Phone: 732-942-1660
Fax: 732-942-9270
Email: jzacka@worthington-biochem.com
Web: www.worthington-biochem.com

Biochemical Reagents
Biochemicals
Biologicals
Bioprocess Development
Enzyme Substrates and Inhibitors
Enzymes
Purified Proteins

Z

ZYMO RESEARCH CORP .............................................. 731
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Irvine, CA 92614
Phone: 949-679-1190
Fax: 949-266-9452
Email: info@zymoresearch.com
Web: www.zymoresearch.com

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Cell Biology Products
Chemicals
Culture Media
DNA Purification Kits
Enzymes
Microbiological Products
Molecular Weight Standards
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Munoz Building 206, 9th Calvary Regiment Road
Fort Knox, KY 40121
Phone: 502-626-1981
Fax: 502-626-0854
Email: shawn.davis@usaac.army.mil
Web: www.healthcare.goarmy.com

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CHTN ................................................................. 435
6130 Executive Boulevard
Rockville, MD 20892
Phone: 866-462-2486
Fax: 888-820-6852
Email: chtn@chtnc.org
Web: www.chtn.nci.nih.gov

The CHTN is an NCI supported prospective biospecimen resource that provides human biospecimens to researchers. Malignant, benign, diseased and normal samples are provided fresh, frozen, and/or fixed, according to individual researchers’ protocols.

NIH BRIDGS AND TRND ............................................. 436
9800 Medical Center Drive
Rockville, MD 20850
Phone: 301-827-2533
Email: bridgs@mail.nih.gov
Web: www.nihroadmap.nih.gov/raid/

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NIH OFFICE OF DIETARY SUPPLEMENTS .............1118
6100 Executive Boulevard Room 3B01
Bethesda MD 20892
Phone: 301-315-2851
Email: ods@nih.gov
Web: www.ods.od.nih.gov

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NATIONAL RESEARCH COUNCIL OF THE
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500 Fifth Street NW, Keck 568
Washington, DC 20001
Phone: 202-334-2760
Fax: 202-334-2759
Email: jdellamo@nas.edu
Web: www.national-academies.org/rap

National Research Council of the National Academies offers awards to graduate, postdoctoral and senior researchers for independent research to be conducted in residence at participating U.S. federal laboratories and affiliated institutions. Additional information can be found online at www.nationalacademies.org/rap or at the National Research Council exhibit booth #602.
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Visit the Exhibits
Sunday – Tuesday, 9:00 AM – 4:00 PM

Take advantage of this unique opportunity to view the best products and services available. There are more than 400 companies offering you a chance to discuss your specific needs.

Visit Exhibitor Product Workshops
Sunday – Tuesday, 8:00 AM – 5:00 PM
Hall A – Show Floor
EXHIBITOR PRODUCT WORKSHOPS
EB 2012
San Diego Convention Center
San Diego, CA

Sunday, April 22

Full Implantable Transit Time Blood Flow

Konigsberg Instruments
2000 East Foothill Boulevard
Pasadena, CA 91107
Phone: 626-585-4032
Fax: 626-585-4068
Email: w.j.mills@konigsberginc.com
Web: www.itstelemetry.com

10:00 AM – 11:00 AM – Room A (Hall A) – Show Floor

Presenter: Steve Pettinger

A discussion of the research applications and surgical techniques developed for the use of a revolutionary new fully implantable telemetry system that will measure Cardiac Output and Peripheral Blood Flow using Transit Time technology. The new T27 series encoder coupled with the TU7 implantable flow-meter permits full cardiac analysis in non-human primates, canines and swine. The battery life exceeds one year of continuous operation.

A New Generation of Bruker AFMs for Biophysicists

Bruker Corporation
112 Robin Hill Road
Santa Barbara, CA 93117
Phone: 805-967-1400
Fax: 805-967-7717
Email: productinfo@bruker-nano.com
Web: www.bruker-axs.com

11:00 AM – 12:00 PM – Room B (Hall A) – Show floor

Presenter: James E. Shaw, PhD

In this tutorial Bruker will present the latest advances in their full-line of atomic force microscopes (AFM) that continue to put their AFM systems at the forefront of biophysical research. Data will be presented from various application areas demonstrating the use of the self-optimizing ScanAsyst® Mode for ultra-low force high-resolution imaging of soft biological samples and PeakForce QNM® for correlative spatial mapping of sample nano-mechanical properties. We will present the latest in functionally integrated AFM and optical microscopy for live cell studies. We will also discuss how Bruker’s advances in high-speed AFM imaging are improving research productivity and providing biophysicists with unprecedented opportunities to directly observe the dynamics of biologically-related processes.

EndoGear: A Fully Implantable Biotelemetry System to Measure Flow Velocity, Pressure and ECG in Cardiovascular Research Models

Transonic Systems
34 Dutch Mill Road
Ithaca, NY 14850
Phone: 607-257-5300
Fax: 607-257-7256
Email: support@transonic.com
Web: www.transonic.com

1:00 PM – 2:00 PM – Room B (Hall A) – Show Floor

Presenters: Koullis Pitsillides and Ghassan Kassab

Telemetry is an established technique for obtaining valuable data from unrestrained animals both in the laboratory and the field. Telemetry systems that can measure simple data including ECG and blood pressure using fluid-filled catheters have previously been available, but telemetry systems that can provide measurements of both blood pressure and blood flow dynamics have only recently been introduced. Such implantable telemetry systems can provide a more complete picture of the physiological status of the animal model under investigation.

EndoGear is a new, fully implantable biotelemetry system that measures the critical parameters for a complete hemodynamic study profile: blood flow velocity using Doppler ultrasound technology, arterial and ventricular pressure using miniature solid-state pressure catheters, ECG and temperature.

This workshop will introduce the unique capabilities of these implants, discuss details of the sensors used, identify and describe animal model applications where combined blood flow velocity and blood pressure measurements are key considerations and examine some of the data obtained using the EndoGear system.
**Monday, April 23**

**Genetically Modified Cell Lines to Drive Your Research: Targeted Genome Editing with ZFNs to Create Powerful New Cellular Models**

*Sigma Life Science*
3050 Spruce Street
St. Louis, MO 63103
Phone: 314-771-5765
Email: brad.keller@sial.cm

12:00 PM – 1:00 PM – Room B (Hall A) – Show Floor

*Presenter: Bradley T. Keller, PhD*

Zinc finger nucleases allow rapid and permanent modification of gene loci to construct gene knockouts, targeted knock-ins or reporter-tagged cell lines. Using ZFN technology, we are creating in vitro models with human cancer cells that have specific mutations for colon, lung and breast cancers. These cells contain patient-relevant mutations of disease-specific genes providing ideal models to study an individual’s drug sensitivity and resistance, e.g., personalized medicine. ZFNs are also used to modify cellular genes with fluorescent reporters, thus facilitating live-cell imaging of tagged proteins at endogenous expression levels. This allows evaluation of complex protein dynamics in processes such as receptor-mediated endocytosis. In addition to off-the-shelf cell lines, Sigma’s Cell Design Studio uses ZFN technology to create custom genome modifications in mammalian cell lines tailored to highly specific research needs. Thus, our exciting cell line portfolio offers customers the perfect tools for their particular research applications.

**Utilizing Pressure-Volume Loops and Coronary Blood Flow to Assess Cardiac Efficiency in Miniature Swine with Compensated Heart Failure Following Low-Intensity Interval Exercise**

*Scisense Systems Inc.*
3397 White Oak Road, Unit 3
London, ON N6E 3A1
Canada
Phone: 519-680-7677
Email: news@scisense.com
Web: www.scisense.com

1:00 PM – 2:00 PM – Room A (Hall A) – Show Floor

*Presenter: Craig A. Emter, PhD*
University of Missouri - Columbia

Despite decades of research, the exact mechanisms underlying changes in coronary vascular function during the development of heart failure and its subsequent impact on metabolic and LV function have yet to be clearly determined. In this workshop, Dr. Craig Emter will explain how he uses PV loop and flow measurements in a complimentary manner in his own lab to better understand cardiac physiology in vivo.
Ensuring Accuracy in Multiplex Immunoassay Results

**R&D Systems, Inc.**
614 McKinley Place NE
Minneapolis, MN 55413
Phone: 612-379-2956
Fax: 612-379-6580
Email: Info@RnDSystems.com
Web: www.RnDSystems.com

2:00 PM – 3:00 PM – Room B (Hall A) – Show Floor

*Presenter:* Jane Schmidt

Multiplex immunoassays are an efficient tool for evaluating multiple biomarkers simultaneously. With multiplex technology, a single assay using less than 100 µL of sample can generate results that, with a traditional ELISA, would require several mL of sample and weeks of experimentation. However, one must keep in mind that the potential for cross-reactivity or interference in these assays also multiplies with the complexity of the panel. Multiplex assays must be fully validated to ensure accurate, precise, and reproducible results for the user.

R&D Systems has decades of experience developing immunoassays that are recognized as the best available. In this workshop we will discuss some of the factors that can negatively impact the performance of an immunoassay and how these can be magnified in a multiplex experiment. We will discuss practical ways to evaluate the performance of a multiplex immunoassay, including calibration, spike recovery, dilution linearity, sensitivity, precision and specificity, and how to evaluate product literature. We will also discuss how to assess your results against the current knowledge of the biomarker itself.

The Digital Journey: A Microscope to Publication Image Primer

**The Histochemical Society**
PO Box 85630
Seattle, WA 98145-1630
Phone: 206-832-9853
Fax: 426-483-1058
Email: mmcgough@histachemicalsociety.org
Web: www.histachemicalsociety.org

4:00 PM – 5:00 PM – Room B (Hall A) – Show Floor

*Presenter:* Jerry Sedgevick

Moving from mounted labeled specimens on a microscope slide to publication quality images requires skills in three areas: Microscopy, Digital Photography and Post-Processing. These skills are usually taught independent of each other but this tutorial will follow the entire workflow from a fluorescently labeled microscope slide to a publication quality image. We include learning about the components of a microscope and how to take advantage of microscope features; which settings in camera software are most important; and the post-processing steps done in Photoshop© or in similar programs. This course is taught by a microscopist, who authored two books on scientific imaging and who directed a core light microscopy facility at the University of Minnesota for 15 years.
Tuesday, April 24

Electric Cell-Substrate Impedance Sensing: A Label-Free, Non-Invasive Method of Cell Measurement

Applied Biophysics
185 Jordon Road
Troy, NY 12180
Phone: 518-880-6860
Email: info@biophysics.com
Web: www.biophysics.com

10:00 AM – 11:00 AM – Room A (Hall A) – Show Floor

Presenter: Christian Renken

This workshop will provide an overview of the use of impedance to detect cell morphological changes. Emphasis will be placed on the use of different AC frequencies to distinguish cell parameters. Applications include barrier function, permeability, invasion/extravasation, signal transduction, and proliferation.

Knockout Rat Models from SAGE Labs to Drive Research of Cholesterol Disequilibria

Sigma Life Science/SAGE Labs
3050 Spruce Street
St. Louis, MO 63103
Phone: 314-771-5765
Email: jeff.xue@sial.com
Web: www.sageresearchmodels.com

12:00 PM – 1:00 PM – Room A (Hall A) – Show Floor

Presenter: Jeff S. Xue, PhD

Cholesterol homeostasis has been correlated to several human disease pathologies including obesity, diabetes, atherosclerosis, Alzheimer’s disease and Huntington’s disease. To develop a better understanding of the mechanisms of cholesterol regulation we have created rats with manipulations in the genes Apoe, Ldlr and Lep. These mutants were created by injection of zinc finger nucleases (ZFN) into one-cell Sprague-Dawley rat embryos. Dimerization of ZFN pairs about their target DNA locus allows for FOKI nuclease activity, creating a double stranded break (DSB). DSBs are most commonly repaired by a mechanism called non-homologous end joining (NHEJ), which functions at varying fidelity. This introduces frameshift mutations and leads to a lack of functional protein. Phenotypic characterization of homozygous null animals demonstrated high serum cholesterol level and insulin resistance at early age. The three knockout rat models developed at SAGE Labs will be helpful in the study of the etiology of several human pathologies related to cholesterol homeostasis.
**Society Special Functions**

**Daily Listing**

**Thursday, April 19, 2012**

*ASBMB Finance Committee Meeting—8:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Leucadia)*

*ASBMB Council Executive Committee Meeting—5:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Leucadia)*

*ASBMB Council Reception and Working Dinner—5:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)*

*ASIP Council Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASPET Finance Committee Meeting—5:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)*

**Friday, April 20, 2012**

*AAA Board Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Presidio)*

*APS Extracellular Nucleotides and Nucleosides in the Regulation of Kidney Function—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Solana)*

APS Section Advisory Committee Meeting—3:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Malibu)*

*ASBMB Council Meeting—9:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)*

*ASBMB Graduate/Postdoctoral Travel Award Keynote Lecture—5:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)*

*ASBMB JBC AE’s Reception and Working Dinner—5:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)*

*ASBMB Graduate/Postdoctoral Travel Award Poster Session and Reception—6:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)*

*ASIP Meetings & Courses Task Force Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Program Committee Meeting—9:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Publications Committee Meeting—10:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Public Affairs Working Group—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Membership Committee Meeting—1:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Education Committee Meeting—3:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Committee for Career Development, Women & Minorities Meeting—4:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

ASN Satellite Symposium: The Global Nutrition Transition: The Role of Lipid Supplementation—8:30 AM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom D)*

ASN CARIG RIS Annual Symposium—1:00 PM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom C)*

ASN Satellite Symposium - What Do We Really Know About Whole Foods Digestibility and Energy Values?—1:00 PM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom G/H)*

ASN Industry Forum—5:30 PM  
(San Diego Hilton Bayfront Hotel, Room 310)*

ASN CARIG VARIG Social and Poster Competition—6:30 PM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom B)*

*ASN Reception for Partners and Leaders—7:00 PM  
(San Diego Wine & Culinary Event Center, 200 Harbor Drive, Suite 120)*

*ASPET Council Meeting—8:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)*

*ASPET Council of Division Chairs Meeting—1:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 1)*

ASPET Behavioral Pharmacology Society Meeting—6:00 PM  
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)*

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*By invitation only. For up-to-date information, please visit www.experimentalbiology.org*
Saturday, April 21, 2012

AAA Career Networking Break—10:00 AM
(San Diego Convention Center, Room 7A)

*AAA Fellows Circle Meeting—12:45 PM
(San Diego Convention Center, Room 12)

*AAA Publications Committee Meeting—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Wiley Reception—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Coranado and Coronado Terrace)

*AACBNC Reception—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Animal Care and Experimentation Committee—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Epithelial Transport Group Young Investigator Symposium—8:00 AM
(San Diego Convention Center, Room 28A)

APS Refresher Course on Endocrinology—8:00 AM
(San Diego Convention Center, Room 24)

*APS Central Nervous System Section Steering Committee Meeting—11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

APS Cardiovascular Section Program Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Renal Section Steering Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Miramar)

APS Teaching Section Steering Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Porter Physiology Development Committee Meeting—1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Frontiers in Physiology Research Teacher Orientation—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*APS Neural Control and Autonomic Regulation Section Steering Committee Meeting—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

*APS/NIDDK Minority Travel Fellow Orientation and Porter Reception—3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

APS WEH Section Trainee Award Finalists Session and Data Diuresis—3:15 PM
(San Diego Convention Center, Room 25A)

APS Undergraduate Orientation Session—3:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS 125th Anniversary Beach Party—7:00 PM
(North Embarcadero) *Ticket required.*

*ASBMB Journal of Biological Chemistry Editorial Board Orientation—8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE)

ASBMB Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop—9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Professional Development Program for Graduate Students and Postdoctoral Trainees—9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)

ASBMB, Powering Up!—11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Chicago / Atlanta)

*ASBMB Journal of Biological Chemistry Editorial Board Luncheon—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

ASBMB 16th Annual Undergraduate Student Research Poster Competition—1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB Journal of Biological Chemistry Editorial Board Meeting—1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—SATURDAY

ASBMB Speed Dating, Finding Your Perfect Career “Match” (A Workshop for Undergraduates)—4:45 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

ASBMB Opening Lecture: Herbert Tabor/Journal of Biological Chemistry Lectureship—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 4-6)

ASBMB Opening Reception, immediately following Herbert Tabor/JBC Lectureship
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

ASIP Pathobiology for Basic Scientists: Cell Injury and Inflammation: New Riffs on a Classical Score—8:30 AM
(San Diego Convention Center, Room 16A)

ASIP Graduate Education in Pathology Workshop—11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

ASIP Breast Cancer Scientific Interest Group Networking Session—11:45 AM
(San Diego Convention Center, Room 1B)

ASIP Highlights: Graduate Student Research in Pathology—1:30 PM
(San Diego Convention Center, Room 15B)

ASIP Excellence in Science Award Lecture: Mechanisms of TDP-43 Mediated Neurodegeneration in ALS and FTLD—3:30 PM
(San Diego Convention Center, Room 15B)

ASIP Trainee Welcome Reception—4:00 PM
(San Diego Convention Center, Room 15A)

ASIP Outstanding Investigator Award Lecture: Lost in Ubiquitination, Found by Mass Spectrometry: Identification of E3 Ligase Substrates Controlling Critical Cellular Events and Cancer—5:00 PM
(San Diego Convention Center, Room 16A)

*ASIP American Journal of Pathology Editorial Board Dinner—6:15 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASN Satellite Session: Proteins as Beneficial Ingredients in Fortified Blended Foods. What Food Aid Studies are Needed?—6:30 AM
(San Diego Convention Center, Room 30A/B)

ASN Nutritional Sciences Council Business Meeting and Breakfast—7:00 AM
(San Diego Hilton Bayfront Hotel, Room 310)

*ASN RIS Chairs Luncheon—12:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN PhenHRIG 2012: The Human Microbiome and Bioactive Flavonoid—1:00 PM
(San Diego Convention Center, Room 30A/B)

ASN Medical Nutrition Council Business Meeting—1:30 PM
(San Diego Hilton Bayfront Hotel, Room 313)

ASN First-Time Attendee and New Member Orientation Organized by the Membership Committee—2:00 PM
(San Diego Convention Center, Room 33C)

*ASN Publications Operations Committee Meeting—2:00 PM
(San Diego Hilton Bayfront Hotel, Room 312)

*ASN Membership Committee Meeting—3:00 PM
(San Diego Convention Center, Room 33B)

ASN Nutrition Immunology RIS Business Meeting—4:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Seminar and Business Meeting—5:00 PM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN History of Nutrition Committee Meeting—5:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

ASN Joint Reception and Poster Competition: Dietary Bioactive Components, Nutrient-Gene Interactions, and Vitamins & Minerals RIS—5:00 PM
(San Diego Convention Center, Room 20B/C)

ASN Community and Public Health Nutrition RIS Business Meeting—5:30 PM
(San Diego Convention Center, Room 33C)

ASN Experimental Animal Nutrition RIS Poster Competition & Business Meeting—6:00 PM
(San Diego Convention Center, Room 24)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Reception—6:30 PM
(San Diego Hilton Bayfront Hotel, Room 306B)

ASN Dietary Bioactive Components RIS Business Meeting—7:00 PM
(San Diego Convention Center, Room 25A)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
ASN Nutrient-Gene Interactions RIS Business Meeting—7:00 PM  
(San Diego Convention Center, Room 22)

ASN Vitamins & Minerals RIS Business Meeting—7:00 PM  
(San Diego Convention Center, Room 25B)

ASN Reception for Membership and University Mixer—8:00 PM  
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom DHLP)

ASPET Behavioral Pharmacology Society Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*ASPET Program Committee Meeting—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Business Meeting—6:00 PM  
(San Diego Convention Center, Room 20D)

ASPET Opening Reception—7:30 PM  
(San Diego Convention Center, Center Terrace)

EB Exhibit Hall Lounges—8:00 AM  
(San Diego Convention Center, Halls A-D)

*Expert Working Group on Metabolomics in Epi studies to investigate Cancer Risk—11:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

Cornell/Penn State Nutrition Mixer—5:00 PM  
(San Diego Hilton Bayfront Hotel, Room 500)

The Microcirculatory Society Awards Banquet—12:00 PM  
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom D/H)

*National SMART Team Reception—7:30 PM  
(San Diego Convention Center, Room 6B)

*SEBM Council / Members’ Business Meeting—12:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

University of Michigan Department of Pharmacology Social Hour—9:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Laguna)

**Sunday, April 22, 2012**

*AAA New Member Welcome Breakfast—7:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Past President’s Luncheon—12:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

AAA Undergraduate Poster Session—3:30 PM  
(San Diego Convention Center, Sails Pavilion)

AAA Young Investigator Symposium—5:00 PM  
(San Diego Convention Center, Room 9)

AAA Socializer—7:00 PM  
(San Diego Convention Center, West Terrace/West Lobby)

APS Environmental & Exercise Physiology Section Steering Committee Meeting—6:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Physiology Understanding Week Poster Session—7:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Respiration Section Trainee Highlights Breakfast—7:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*APS Bruce Award Poster Judging—8:00 AM  
(San Diego Convention Center, Sails Pavilion)

APS Comparative and Evolutionary Physiology Section Steering Committee—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

APS Red Blood Cell Mechanisms of Tissue Blood Flow Control Coffee Break—8:00 AM  
(San Diego Convention Center, Room 26)

APS Senior Physiologists Lounge—9:00 AM  
(San Diego Convention Center, Room 28C)

APS Teaching of Physiology Section Roundtable Box Luncheon—11:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*APS Cardiovascular Section Steering Committee—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Career Opportunities in Physiology Committee Meeting—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
**Special Functions—SUNDAY**

*APS Endocrinology and Metabolism Steering Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)*

APS International Physiology Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

APS Science Policy Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Medical Physiology Course Directors Meeting—2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Respiration Section Steering Committee Meeting—2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Physiologists in Industry Committee Meeting—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)*

APS Undergraduate Poster Session and David Bruce Awards Reception—3:30 PM
(San Diego Convention Center, Sails Pavilion)

*APS Renal Section Posters and Professors—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)*

APS Physiologists in Industry Mixer—6:45 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*ASBMB Breakfast with Award Scientists—7:00 AM
(San Diego Convention Center, Room 11A)*

*ASBMB Publications Committee Meeting—9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)*

*ASBMB Lipid Research Division Steering and Advocacy Committee Meeting—12:30 PM
(San Diego Convention Center, Room 13)*

ASBMB Workshop on LIPID MAPS Lipidomics Tools—12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Teaching Session with Stuart Kornfeld—1:30 PM
(San Diego Convention Center, Room 6B)

*ASBMB Undergraduate Affiliate Network Committee Meeting—1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)*

ASBMB Business Meeting—6:15 PM
(San Diego Convention Center, Room 11A)

*ASBMB Welcome Reception, hosted by the Minority Affairs Committee—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)*

ASIP Career Development Workshop and Breakfast: Getting Your Dream Job: Preparing Your CV and Managing Your Interview—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Associate Editors Meeting—8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)*

ASIP 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grants—11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

ASIP Rous Whipple Award Lecture: The Many Roles of VEGF in the Adult—5:00 PM
(San Diego Convention Center, Room 16B)

ASIP Club Hepatomania—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

ASIP Der Schadenklub - Cell Injury Scientific Interest Group Networking Reception—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

ASN Graduate Student Breakfast Supported by National Dairy Council—6:45 AM
(San Diego Hilton Bayfront Hotel, Room 304)

*ASN Advances in Nutrition Editors’ Meeting—8:00 AM
(San Diego Hilton Bayfront Hotel, Room 312)*

ASN Diet and Cancer RIS Business Meeting, Poster Competition, and Reception—12:00 PM
(San Diego Convention Center, Room 33A)

ASN Obesity RIS Business Meeting & Student Research Poster Competition—12:00 PM
(San Diego Convention Center, Room 33B)

*ASN Nutrition Education RIS Professional Development and Mentorship Luncheon—12:30 PM
(San Diego Convention Center, Room 14A)*

*ASN Meet the Editors—12:45 PM
(San Diego Convention Center, Room 32B)*

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org*
*ASN Publications Management Committee Meeting—
2:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)
ASN Sponsors and Awardees Meet and Greet—5:00 PM
(San Diego Hilton Bayfront Hotel, Room 206)
ASN Aging and Chronic Disease RIS Business Meeting—
5:30 PM
(San Diego Convention Center, Room 33A)
ASN Awards Ceremony—6:00 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom A/E)
ASN Event for Young Professionals and Postdocs—7:30 PM
(San Diego Hilton Bayfront Hotel, Room 311)
*ASN Supporting Members and Donors Reception—
7:30 PM
(San Diego Hilton Bayfront Hotel, Elevation Room)
*ASPET All-Divisions Executive Officers’ Meeting—
7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)
ASPET Diversity Committee Mentoring Breakfast—
7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Anaheim)
ASPET WiP into Shape Networking Walk—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Concierge Desk)
ASPET JPET Associate Editors Breakfast Meeting—
7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)
*ASPET Neuropharmacology Division Executive Committee Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)
ASPET Building a Pharmacology Course from Scratch: Benefits & Pitfalls of a Cut and Paste Pharmacology Course—9:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)
*ASPET Cardiovascular Pharmacology Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)
*ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)
*ASPET Drug Metabolism Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)
*ASPET Integrative Systems, Translational and Clinical Pharmacology Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)
ASPET Adapting TBL Techniques to Teach Pharmacology to Graduate, Professional & Medical Students (Kumar)—3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)
ASPET Cardiovascular Pharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 5B)
ASPET Association of Medical Schools Pharmacology Chairs Reception—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, New York)
ASPET Best Abstract Competition—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 3-4)
*ASPET Board of Publications Trustees Joint Editorial Boards Dinner—7:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon C)
Christian Fellowship Meeting—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 501)
The Microcirculatory Society Business Meeting—4:45 PM
(San Diego Convention Center, Room 23)
The Microcirculatory Society International Liaison Committee for Microcirculation Meeting—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)
*SEBM Editorial Board Meeting—11:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)
*SEBM Socializer and Awards Presentation—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Monday, April 23, 2012

AAA Education Roundtables—8:00 AM
(San Diego Convention Center, Room 11A)

*AAA Public Affairs Committee—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Scientific Affairs Committee—10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA 125th Anniversary Task Force Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

AAA Keynote and Business Meeting—5:00 PM
(San Diego Convention Center, Room 8)

AAA Student Posters & Reception—7:00 PM
(San Diego Convention Center, West Terrace/West Lobby)

Annual Business Meeting of Association of Scientists of Indian Origin in America (ASIOA)—4:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

*APS Awards Committee Meeting—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS/NIDDK Minority Travel Fellow Networking Breakfast—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

APS Membership Committee Meeting—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Physiology for Life Science Teachers & Students—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

APS Senior Physiologists’ Lounge—9:00 AM
(San Diego Convention Center, Room 28C)

APS Careers Symposium: Do I Need Another Degree?—10:30 AM
(San Diego Convention Center, Room 28A)

APS Senior Physiologists Committee Meeting—11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

*APS Bodil Schmidt-Nielsen Distinguished Mentor and Scientist Award Reception—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 2)

*APS Chapter Advisory Committee (CAC) Business Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS History Group Business Meeting and Presentation—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Physiology for Life Science Student Workshop—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*APS Perkins Memorial Award Committee—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

*APS Physiology for Life Science Teachers Workshop—1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

APS Gastrointestinal & Liver Section Trainee Symposium—3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Association of Chairs of Departments of Physiology (ACDP) Meeting—4:30 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Central Nervous System Section Reception and Awards—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Teaching of Physiology Section Business Meeting—5:45 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Comparative and Evolutionary Physiology Section Business & Dinner Meeting—6:00 PM
(The Horton Grand Hotel, 311 Island Avenue, San Diego, CA 92101)

APS NCAR Reception/Awards Presentations—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

APS Cell and Molecular Physiology Section Banquet—6:30 PM
(The Fleetwood, 639 J Street, San Diego, CA 92101)

APS Respiration Section Awards Presentation and Banquet—6:30 PM
(Holiday Inn on the Bay, 1355 N. Harbor Drive, San Diego, CA 92101)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
APS Cardiovascular Section Reception and Dinner—7:00 PM
(California Spirit, Fifth Avenue Landing)

APS EEP Section Business Meeting—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

APS Endocrinology and Metabolism Section Awards Reception and Business Meeting—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

APS Renal Section Banquet and Business Meeting—7:00 PM
(Hotel Solamar, Solstice Ballroom, 435 6th Avenue at J Street, San Diego, CA 92101)

APS Teaching of Physiology Section Dinner—7:00 PM
(La Fiesta Mexican Cuisine & Lounge, 628 5th Avenue, San Diego, CA 92101)

APS Environmental & Exercise Physiology Section Social—8:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Breakfast with Award Scientists—7:00 AM
(San Diego Convention Center, Room 11A)

*ASBMB AMGDB Chairs Meeting—12:30 PM
(San Diego Convention Center, Room 13)

ASBMB Effectively Communicating Your Science, Public Policy Session—12:30 PM
(San Diego Convention Center, Room 6B)

ASBMB Lipid Droplets: Basic Working Principles Workshop—12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Thematic Fermentation Hour—6:00 PM
(San Diego Convention Center, West Mezzanine Terrace)

ASBMB 1st Annual Poetry Contest Reading—7:00 PM
(San Diego Convention Center, Ballroom 6 Lobby)

ASIP Cotran Early Career Investigator Award Lecture: Molecular Engines that Build and Break Epithelial Barriers—8:30 AM
(San Diego Convention Center, Room 16A)

*ASIP APC at ASIP—12:45 PM
(San Diego Convention Center, Room 33B)

ASIP Lunch & Learn: Best Practices of Biobanking and Specimen Collection—12:45 PM
(San Diego Convention Center, Room 14A)

ASIP Veterinary Pathway Scientific Interest Group/Networking Event—12:45 PM
(San Diego Convention Center, Sails Pavilion)

ASIP Awards Presentation & Business Meeting—5:00 PM
(San Diego Convention Center, Room 16A)

ASIP Awards Reception—6:00 PM
(San Diego Convention Center, Mezzanine Foyer)

*ASN Advances in Nutrition Editorial Board Meeting—7:00 AM
(San Diego Hilton Bayfront Hotel, Room 500)

*ASN The American Journal of Clinical Nutrition Editorial Board Meeting—7:00 AM
(San Diego Hilton Bayfront Hotel, Room 313)

ASN Department Heads Breakfast supported by Kellogg—7:00 AM
San Diego Hilton Bayfront Hotel, Room 310

ASN Journal of Nutrition Editorial Board Meeting—7:00 AM
San Diego Hilton Bayfront Hotel, Room 311

ASN Nutritional Epidemiology RIS Business Meeting—8:30 AM
(San Diego Convention Center, Room 33A)

*ASN Public Information Committee Meeting—10:00 AM
(San Diego Hilton Bayfront Hotel, Room 312)

ASN Students Meet the Fellows—10:30 AM
San Diego Hilton Bayfront Hotel, Room 310

ASN Fellows, 50-Year Members, and Past Presidents Luncheon—11:30 AM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN Nutrition Translation RIS Business Meeting and Networking Mixer—12:30 PM
(San Diego Convention Center, Room 33A)

*ASN Graduate and Professional Education Committee with Sub-Committees Business Meeting—1:45 PM
(San Diego Convention Center, Room 33C)

ASN Nutrition Education RIS Business Meeting—5:00 PM
(San Diego Convention Center, Room 33C)

ASN Annual Business Meeting—5:30 PM
(San Diego Convention Center, Room 31)

ASN KNS Global Synergies for Food and Health: KNS and Foodopolis (Korean National Food Cluster)—6:00 PM
(San Diego Hilton Bayfront Hotel, Room 520)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—MONDAY

ASN International Nutrition Council Business Meeting and Kellogg Prize in International Nutrition Research Lecture—6:00 PM
(San Diego Hilton Bayfront Hotel, Room 306)

ASN KNS Korean Scientists Night Reception supported by FOODOPOLIS—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 500)

*ASN Journal Reception—7:30 PM
(Roy’s Hawaiian Fusion, 333 West Harbor Drive)

ASN Speed Mentoring for Students (SIG/YPIG)—7:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 1)

ASN International Nutrition Council Reception—8:00 PM
(San Diego Hilton Bayfront Hotel, Room 308)

*ASPET Behavioral Pharmacology Executive Business Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*ASPET Molecular Pharmacology Editorial Board Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

*ASPET Pharmacology Education Division Executive Committee Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Business Meeting—12:15 PM
(San Diego Convention Center, Room 5B)

ASPET Diversity Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*ASPET Molecular Pharmacology Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

*ASPET Pharmacological Reviews Editorial Board Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Behavioral Pharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 2)

ASPET Drug Metabolism Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 3)

ASPET Integrative Systems, Translational and Clinical Pharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 5A)

ASPET Pharmacology Education Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 5B)

ASPET Molecular Pharmacology Division Business Meeting and Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

ASPET Pharmacology Education Division, Drug Discovery, Drug Development and Regulatory Affairs Division, and Integrative Systems, Translational, and Clinical Pharmacology Division Joint Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*ASPET Mentoring: A Formula for Success—8:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

Association of African Biomedical Scientists (AABS) Inc. Annual General and Scientific Meeting—4:00 PM
(San Diego Convention Center, Room 15B)

*The Friedman School and Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University Alumni and Friends Cocktail Reception—6:00 PM
(San Diego Hilton Bayfront Hotel, Elevation Room)

German Science Breakfast—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

Iowa State University Reception—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

The University of Arizona Dept of Chemistry & Biochemistry Reception for Alumni & Friends—5:00 PM
(San Diego Convention Center, Room 12)

University of Illinois Nutrition Mixer—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 503)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Tuesday, April 24, 2012

*AAA-ASE Editorial Board Meeting—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Membership Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA Educational Affairs Committee—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Professional Development Committee—10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA - AR Editorial Board Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Terminology Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

AAA Awards Reception—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE Foyer)

AAA Awards Banquet—7:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE)

*APS Gastrointestinal & Liver Section Steering Committee—6:30 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Education Committee Meeting—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Senior Physiologists’ Lounge—9:00 AM
(San Diego Convention Center, Room 28C)

*APS Respiration Section Program Committee Meeting—11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Women in Physiology Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Frontiers in Physiology Research Teacher Fellowship Awards Luncheon—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS Business Meeting—6:00 PM
(San Diego Convention Center, Room 20A)

APS Gastrointestinal and Liver Section Banquet, Business Meeting and Awards—7:00 PM
(Roma Thai Restaurant, 327 Fourth Avenue)

*ASBMB Work-Life Balance and Time Management: A Professional Development Workshop for Students, Postdocs and Junior Faculty—12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Women Scientists’ Panel and Networking Reception—6:00 PM
(San Diego Convention Center, Room 11A)

ASIP Scientific Sleuthing of Human Disease for High School Teachers—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Solana)

ASIP Neuropathology Scientifics Interest Group Lunch/Networking Session—11:45 AM
(San Diego Convention Center, Room 33A)

ASIP Endothelial and Epithelial Contributions to Homeostasis and the Inflammatory Response Special Interest Group Reception—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASN Minority Affairs Committee MARC Travel Awardees Poster Session and Networking Breakfast—7:00 AM
(San Diego Convention Center, Room 33A)

ASN Lactation RIS/ISRHMIL Business Meeting & Luncheon—12:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN ARS W.O. Atwater Memorial Lecture Reception—1:45 PM
(San Diego Convention Center, Room 20B/C)

ASN Student Career Discussion—5:30 PM
(San Diego Hilton Bayfront Hotel, Room 310)

*ASPET Drug Metabolism and Disposition Editorial Board Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

*ASPET Nominating Committee Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

*ASPET Board of Publications Trustees Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Graduate Recruitment & Education Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—TUESDAY/WEDNESDAY

**Wednesday, April 25, 2012**

*AAA Program Committee Meeting—10:00 AM
(San Diego Convention Center, Room 13)*

APS Mentoring Symposium: Conflict Resolution: How to Keep Everyone Happy!—8:00 AM
(San Diego Convention Center, Room 25C)

APS Trainee Symposium: E-Media Tools for the Professional Scientist—10:30 AM
(San Diego Convention Center, Room 25C)

*APS/NIDDK Minority Travel Fellow Luncheon—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)*

APS Noble Prize in Physiology of Medicine Lecture—4:30 PM
(San Diego Convention Center, Ballroom 20A)

APS Closing Dinner—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E/F) **Ticket required.**

ASPET Closing Reception—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Poolside Terrace)

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ASPET WiP Career Roundtable—1:00 PM
(San Diego Convention Center, Room 12)

ASPET Neuropharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 3)

ASPET Toxicology Division Executive Committee and Business Meeting—5:45 PM
(San Diego Convention Center, Room 5A)

ASPET Cardiovascular Pharmacology Division Mixer—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

ASPET Drug Metabolism Division & Toxicology Division Joint Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

ASPET Neuropharmacology Division Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

ASPET Student/Postdoc Mixer—9:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 2)

Calcutta University Alumni Dinner Meeting—6:30 PM
(Royal India, 329 Market Street, 619-269-9999)
Contact: Dipak K. Banerjee, 787-758-2552, Ext. 1624

WVU-HSC Alumni Mixer for Biomedical Sciences—5:30 PM
(San Diego Convention Center, Room 12)

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*By invitation only. For up-to-date information, please visit www.experimentalbiology.org*
Society Special Functions
Alphabetical Listing

*AAA 125th Anniversary Task Force Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA - AR Editorial Board Meeting—Tuesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

AAA Awards Reception and Banquet—Tuesday, 7:00PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE and Foyer)

*AAA Board Meeting—Friday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

AAA Career Networking Break—Saturday, 10:00 AM
(San Diego Convention Center, Room 7A)

AAA Education Roundtables—Monday, 8:00 AM
(San Diego Convention Center, Room 11A)

*AAA Educational Affairs Committee—Tuesday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Fellows Circle Meeting—Saturday, 12:45 PM
(San Diego Convention Center, Room 12)

AAA Keynote and Business Meeting—Monday, 5:00 PM
(San Diego Convention Center, Room 8)

*AAA Membership Meeting—Tuesday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA New Member Welcome Breakfast—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Past President’s Luncheon—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Professional Development Committee—Tuesday, 10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA Program Committee Meeting—Wednesday, 10:00 AM
(San Diego Convention Center, 13)

*AAA Public Affairs Committee—Monday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Publications Committee Meeting—Saturday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Scientific Affairs Committee—Monday, 10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

AAA Socializer—Sunday, 7:00 PM
(San Diego Convention Center, West Terrace/West Lobby)

AAA Student Posters & Reception—Monday, 7:00 PM
(San Diego Convention Center, West Terrace/West Lobby)

*AAA Terminology Committee—Tuesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Wiley Reception—Saturday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado and Coronado Terrace)

AAA Young Investigator Symposium—Sunday, 5:00 PM
(San Diego Convention Center, Room 9)

*AACBNC Reception—Saturday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

Annual Business Meeting of Association of Scientists of Indian Origin, in America (ASIOA)—Monday, 4:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

APS 125th Anniversary Beach Party—Saturday, 7:00 PM
(North Embarcadero) Ticket required.

APS 125 Years of Physiology Timeline—Saturday-Wednesday, 7:30 AM
(San Diego Convention Center, Sails Pavilion)

APS Animal Care and Experimentation Committee—Saturday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Association of Chairs of Departments of Physiology (ACDP) Meeting—Monday, 4:30 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Awards Committee Meeting—Monday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Bodil Schmidt-Nielsen Distinguished Mentor and Scientist Award Reception—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 2)

*APS Bruce Award Poster Judging—Sunday, 8:00 AM
(San Diego Convention Center, Sails Pavilion)

APS Business Meeting—Tuesday, 6:00 PM
(San Diego Convention Center, Room 20A)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
APS Cardiovascular Section Program Committee—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Cardiovascular Section Reception and Dinner—Monday, 7:00 PM
(Calendar Spirit, Fifth Avenue Landing)

*APS Cardiovascular Section Steering Committee—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Career Opportunities in Physiology Committee Meeting—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Careers Symposium: Do I Need Another Degree?—Monday, 10:30 AM
(San Diego Convention Center, Room 28A)

APS Cell and Molecular Physiology Section Banquet—Monday, 6:30 PM
(The Fleetwood, 639 J Street, San Diego, CA 92101)

APS Central Nervous System Section Reception and Awards—Monday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Central Nervous System Section Steering Committee Meeting—Saturday, 11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

*APS Chapter Advisory Committee (CAC) Business Meeting—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Closing Dinner—Wednesday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E/F) Ticket required.

APS Comparative and Evolutionary Physiology Section Business & Dinner Meeting—Monday, 6:00 PM
(The Horton Grand Hotel, 311 Island Avenue, San Diego, CA 92101 619-544-1886)

APS Comparative and Evolutionary Physiology Section Steering Committee—Sunday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

*APS Education Committee Meeting—Tuesday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS EEP Section Business Meeting—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

APS Endocrinology and Metabolism Section Awards Reception and Business Meeting—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

*APS Endocrinology and Metabolism Steering Committee Meeting—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Environmental & Exercise Physiology Section Social—Monday, 8:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS Environmental & Exercise Physiology Section Steering Committee Meeting—Sunday, 6:30 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Epithelial Transport Group Young Investigator Symposium—Saturday, 8:00 AM
(San Diego Convention Center, Room 28A)

*APS Extracellular Nucleotides and Nucleosides in the Regulation of Kidney Function—Friday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*APS Frontiers in Physiology Research Teacher Fellowship Awards Luncheon—Tuesday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*APS Frontiers in Physiology Research Teacher Orientation—Saturday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*APS Gastrointestinal & Liver Section Steering Committee Meeting—Tuesday, 6:30 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Gastrointestinal & Liver Section Trainee Symposium—Monday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Gastrointestinal and Liver Section Banquet, Business Meeting and Awards—Tuesday, 7:00 PM
(Rama Thai Restaurant, 327 Fourth Avenue, San Diego, CA 92101)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
APS History Group Business Meeting and Presentation—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS International Physiology Committee—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

APS Medical Physiology Course Directors Meeting—Sunday, 2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Membership Committee Meeting—Monday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Mentoring Symposium: Conflict Resolution: How to Keep Everyone Happy!—Wednesday, 8:00 AM
(San Diego Convention Center, Room 25C)

APS NCAR Reception/Awards Presentations—Monday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

*APS Neural Control and Autonomic Regulation Section Steering Committee Meeting—Saturday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

*APS/NIDDK Minority Travel Fellow Luncheon—Wednesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

*APS/NIDDK Minority Travel Fellow Networking Breakfast—Monday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*APS/NIDDK Minority Travel Fellow Orientation and Porter Reception—Saturday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

APS Noble Prize in Physiology of Medicine Lecture—Wednesday, 4:30 PM
(San Diego Convention Center, Ballroom 20A)

*APS Perkins Memorial Award Committee—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

*APS Physiologists in Industry Committee Meeting—Sunday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Physiologists in Industry Mixer—Sunday, 6:45 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Physiology for Life Science Student Workshop—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*APS Physiology for Life Science Teachers & Students—Monday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

*APS Physiology for Life Science Teachers Workshop—Monday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

APS Physiology Understanding Week Poster Session—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Porter Physiology Development Committee Meeting—Saturday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Publications Committee Banquet—Sunday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A/B)

APS- Red Blood Cell Mechanisms of Tissue Blood Flow Control—Coffee Break—Sunday, 8:00 AM
(San Diego Convention Center, Room 26)

APS Refresher Course on Endocrinology—Saturday, 8:00 AM
(San Diego Convention Center, Room 24)

APS Renal Section Banquet and Business Meeting—Monday, 7:00 PM
(Hotel Solamar, Solstice Ballroom 435 6th Avenue at J Street, San Diego, CA 92101)

*APS Renal Section Posters and Professors—Sunday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Renal Section Steering Committee Meeting—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Miramar)

APS Respiration Section Awards Presentation and Banquet—Monday, 6:30 PM
(Holiday Inn on the Bay, 1355 N. Harbor Drive, San Diego, CA 92101)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—ALPHABETICAL

*APS Respiration Section Program Committee Meeting—Tuesday, 11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Respiration Section Steering Committee Meeting—Sunday, 2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Respiration Section Trainee Highlights Breakfast—Sunday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

APS Science Policy Committee—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Section Advisory Committee Meeting—Friday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Senior Physiologists Committee Meeting—Monday, 11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

APS Senior Physiologists Lounge—Sunday—Tuesday, 9:00 AM
(San Diego Convention Center, Room 28C)

APS Teaching of Physiology Section Business Meeting—Monday, 5:45 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Teaching of Physiology Section Dinner—Monday, 7:00 PM
(La Fiesta Mexican Cuisine & Lounge, 628 5th Avenue, San Diego, CA 92101)

APS Teaching of Physiology Section Roundtable Box Luncheon—Sunday, 11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

APS Teaching Section Steering Committee Meeting—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Trainee Symposium: E-Media Tools for the Professional Scientist—Wednesday, 10:30 AM
(San Diego Convention Center, Room 25C)

APS Undergraduate Orientation Session—Saturday, 3:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS Undergraduate Poster Session and David Bruce Awards Reception—Sunday, 3:30 PM
(San Diego Convention Center, Sails Pavilion)

APS WEH Section Trainee Award Finalists Session and Data Diuresis—Saturday, 3:15 PM
(San Diego Convention Center, Room 25A)

*APS Women in Physiology Committee Meeting—Tuesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

ASBMB 1st Annual Poetry Contest Reading—Monday, 7:00 PM
(San Diego Convention Center, Ballroom 6 Lobby)

ASBMB 16th Annual Undergraduate Student Research Poster Competition—Saturday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB AMGDB Chairs Meeting—Monday, 12:30 PM
(San Diego Convention Center, Room 11A)

*ASBMB Breakfast with Award Scientists—Monday, 7:00 AM
(San Diego Convention Center, Room 13)

*ASBMB Breakfast with Award Scientists—Sunday, 7:00 AM
(San Diego Convention Center, Room 11A)

ASBMB Business Meeting—Sunday, 6:15 PM
(San Diego Convention Center, Room 11A)

*ASBMB Council Executive Committee Meeting—Thursday, 5:00 PM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

*ASBMB Council Meeting—Friday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Council Reception and Working Dinner—Thursday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

ASBMB Effectively Communicating Your Science, Public Policy Session—Monday, 12:30 PM
(San Diego Convention Center, Room 6B)

*ASBMB Finance Committee Meeting—Thursday, 8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

ASBMB Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop—Saturday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASBMB Graduate/Postdoctoral Travel Award Keynote Lecture—Friday, 5:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)

*ASBMB Graduate/Postdoctoral Travel Award Poster Session and Reception—Friday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB JBC AE’s Reception and Working Dinner—Friday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Journal of Biological Chemistry Editorial Board Luncheon—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

*ASBMB Journal of Biological Chemistry Editorial Board Meeting—Saturday, 1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D/E)

*ASBMB Journal of Biological Chemistry Editorial Board Orientation—Saturday, 8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D/E)

ASBMB Lipid Droplets: Basic Working Principles Workshop—Monday, 12:30 PM
(San Diego Convention Center, Room 11A)

*ASBMB Lipid Research Division Steering and Advocacy Committee Meeting—Sunday, 12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Opening Lecture: Herbert Tabor/Journal of Biological Chemistry Lectureship—Saturday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 4-6)

ASBMB Opening Reception, immediately following Herbert Tabor/JBC Lectureship
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB Professional Development Program for Graduate Students and Postdoctoral Trainees—Saturday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)

*ASBMB Publications Committee Meeting—Sunday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

ASBMB Speed Dating, Finding Your Perfect Career “Match” (A Workshop for Undergraduates)—Saturday, 4:45 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

ASBMB Teaching Session with Stuart Kornfeld—Sunday, 1:30 PM
(San Diego Convention Center, Room 6B)

ASBMB Thematic Fermentation Hour—Monday, 6:00 PM
(San Diego Convention Center, West Mezzanine Terrace)

*ASBMB Undergraduate Affiliate Network Committee Meeting—Sunday, 1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

*ASBMB Welcome Reception, hosted by the Minority Affairs Committee—Sunday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

ASBMB Women Scientists’ Panel and Networking Reception—Tuesday, 6:00 PM
(San Diego Convention Center, Room 11A)

*ASBMB Work-Life Balance and Time Management: A Professional Development Workshop for Students, Postdocs and Junior Faculty—Tuesday, 12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Workshop on LIPID MAPS Lipidomics Tools—Sunday, 12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB, Powering Up!—Saturday, 11:30 AM
(San Diego Marriott Marquis & Marina Hotel - Chicago/Atlanta)

ASIP 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grants—Sunday, 11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*ASIP American Journal of Pathology Editorial Board Dinner—Saturday, 6:15 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

*ASIP APC at ASIP—Monday, 12:45 PM
(San Diego Convention Center, Room 33B)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASIP Associate Editors Meeting—Sunday, 8:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Balboa)

ASIP Awards Presentation & Business Meeting—Monday, 5:00 PM  
(San Diego Convention Center, Room 16A)

ASIP Awards Reception—Monday, 6:00 PM  
(San Diego Convention Center, Mezzanine Foyer)

ASIP Breast Cancer Scientific Interest Group Networking Session—Saturday, 11:45 AM  
(San Diego Convention Center, Room 1B)

ASIP Career Development Workshop and Breakfast: Getting Your Dream Job: Preparing Your CV and Managing Your Interview—Sunday, 7:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Club Hepatomania—Sunday, 6:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

*ASIP Committee for Career Development, Women & Minorities Meeting—Friday, 4:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Cotran Early Career Investigator Award Lecture: Molecular Engines that Build and Break Epithelial Barriers—Monday, 8:30 AM  
(San Diego Convention Center, Room 16A)

*ASIP Council Meeting—Thursday, 8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Der Schadenklub - Cell Injury Scientific Interest Group Networking Reception—Sunday, 6:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

*ASIP Education Committee Meeting—Friday, 3:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Endothelial and Epithelial Contributions to Homeostasis and the Inflammatory Response Special Interest Group Reception—Tuesday, 5:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Excellence in Science Award Lecture: Mechanisms of TDP-43 Mediated Neurodegeneration in ALS and FTLD—Saturday, 3:30 PM  
(San Diego Convention Center, Room 15B)

ASIP Graduate Education in Pathology Workshop—Saturday, 11:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*ASIP Highlights: Graduate Student Research in Pathology—Saturday, 1:30 PM  
(San Diego Convention Center, Room 15B)

ASIP Lunch & Learn: Best Practices of Biobanking and Specimen Collection—Monday, 12:45 PM  
(San Diego Convention Center, Room 14A)

*ASIP Meetings & Courses Task Force Meeting—Friday, 8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Membership Committee Meeting—Friday, 1:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Neuropathology Scientifics Interest Group Lunch/Networking Session—Tuesday, 11:45 AM  
(San Diego Convention Center, Room 33A)

ASIP Outstanding Investigator Award Lecture: Lost in Ubiquitination, Found by Mass Spectrometry: Identification of E3 Ligase Substrates Controlling Critical Cellular Events and Cancer—Saturday, 5:00 PM  
(San Diego Convention Center, Room 16A)

ASIP Pathobiology for Basic Scientists: Cell Injury and Inflammation: New Riffs on a Classical Score—Saturday, 8:30 AM  
(San Diego Convention Center, Room 16A)

*ASIP Program Committee Meeting—Friday, 9:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Public Affairs Working Group—Friday, 12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Publications Committee Meeting—Friday, 10:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Rous Whipple Award Lecture: The Many Roles of VEGF in the Adult—Sunday, 5:00 PM  
(San Diego Convention Center, Room 16B)

ASIP Scientific Sleuthing of Human Disease for High School Teachers—Tuesday, 8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Solana)

ASIP Trainee Welcome Reception—Saturday, 4:00 PM  
(San Diego Convention Center, Room 15A)

ASIP Veterinary Pathology Scientific Interest Group/Networking Event—Monday, 12:45 PM  
(San Diego Convention Center, Sails Pavilion)

*ASN Advances in Nutrition Editorial Board Meeting—Monday, 7:00 AM  
(San Diego Hilton Bayfront Hotel, Room 500)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASN Advances in Nutrition Editors’ Meeting—Sunday, 8:00 AM
(San Diego Hilton Bayfront Hotel, Room 312)

ASN Aging and Chronic Disease RIS Business Meeting—Sunday, 5:30 PM
(San Diego Convention Center, Room 33A)

ASN Annual Business Meeting—Monday, 5:30 PM
(San Diego Convention Center, Room 31)

ASN ARS W.O. Atwater Memorial Lecture Reception—Tuesday, 1:45 PM
(San Diego Convention Center, Ballroom 20B/C)

ASN Awards Ceremony—Sunday, 6:00 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom A/E)

ASN CARIG RIS Annual Symposium—Friday, 1:00 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom C)

ASN CARIG V ARIG Social and Poster Competition—Friday, 6:30 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom B)

ASN Community and Public Health Nutrition RIS Business Meeting—Saturday, 5:30 PM
(San Diego Convention Center, Room 33C)

ASN Department Heads Breakfast supported by Kellogg—Monday, 7:00 AM
San Diego Hilton Bayfront Hotel, Room 310)

ASN Diet and Cancer RIS Business Meeting, Poster Competition, and Reception—Sunday, 12:00 PM
(San Diego Convention Center, Room 33A)

ASN Dietary Bioactive Components RIS Business Meeting—Saturday, 7:00 PM
(San Diego Convention Center, Room 25A)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Reception—Saturday, 6:30 PM
(San Diego Hilton Bayfront Hotel, Room 306B)

ASN Event for Young Professionals and Postdocs—Sunday, 7:30 PM
(San Diego Hilton Bayfront Hotel, Room 311)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Seminar and Business Meeting—Saturday, 5:00 PM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN Experimental Animal Nutrition RIS Poster Competition & Business Meeting—Saturday, 6:00 PM
(San Diego Convention Center, Room 24)

ASN Fellows, 50-Year Members, and Past Presidents Luncheon—Monday, 11:30 AM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN First-Time Attendee and New Member Orientation Organized by the Membership Committee—Saturday, 2:00 PM
(San Diego Convention Center, Room 33C)

*ASN Graduate and Professional Education Committee with Sub-Committees Business Meeting—Monday, 1:45 PM
(San Diego Convention Center, Room 33C)

ASN Graduate Student Breakfast Supported by National Dairy Council—Saturday, 6:45 AM
(San Diego Convention Center, Room 33C)

ASN History of Nutrition Committee Meeting—Saturday, 5:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

ASN Industry Forum—Friday, 5:30 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN International Nutrition Council Business Meeting and Kellogg Prize in International Nutrition Research Lecture—Monday, 6:00 PM
(San Diego Hilton Bayfront Hotel, Room 306)

ASN International Nutrition Council Reception—Monday, 8:00 PM
(San Diego Hilton Bayfront Hotel, Room 308)

ASN Joint Reception and Poster Competition: Dietary Bioactive Components, Nutrient-Gene Interactions, and Vitamins & Minerals RIS—Saturday, 5:00 PM
(San Diego Convention Center, Ballroom 20B/C)

*ASN Journal Reception—Monday, 7:30 PM
(Roy's Hawaiian Fusion, 333 West Harbor Drive)

ASN KNS Global Synergies for Food and Health: KNS and Foodopolis (Korean National Food Cluster)—Monday, 6:00 PM
(San Diego Hilton Bayfront Hotel, Room 520)

ASN KNS Korean Scientists Night Reception supported by FOODOPOLIS—Monday, 7:00 PM
(San Diego Hilton Bayfront Hotel, Room 500)

ASN KNS Korean Nutrition Scientists Meeting and Reception—Monday, 7:00 PM
(San Diego Hilton Bayfront Hotel, Room 500)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—ALPHABETICAL

ASN Lactation RIS/ISR/HML Business Meeting & Luncheon—Tuesday, 12:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Medical Nutrition Council Business Meeting—Saturday, 1:30 PM
(San Diego Hilton Bayfront Hotel, Room 313)

*ASN Meet the Editors—Sunday, 12:45 PM
(San Diego Convention Center, Room 16B)

ASN Member and Attendee Lounge supported by Kraft Foods—Saturday—Tuesday, 7:30 AM
(San Diego Convention Center, Room 30E)

ASN Membership Committee Meeting—Saturday, 3:00 PM
(San Diego Convention Center, Room 33B)

ASN Minority Affairs Committee MARC Travel Awardees Poster Session and Networking Breakfast—Tuesday, 7:00 AM
(San Diego Convention Center, Room 33A)

ASN Nutrition Education RIS Business Meeting—Monday, 5:00 PM
(San Diego Convention Center, Room 33C)

*ASN Nutrition Education RIS Professional Development and Mentorship Luncheon—Sunday, 12:30 PM
(San Diego Convention Center, Room 14A)

ASN Nutrient-Gene Interactions RIS Business Meeting—Saturday, 7:00 PM
(San Diego Convention Center, Room 22)

ASN Nutrition Translation RIS Business Meeting and Networking Mixer- Monday, 12:30 PM
(San Diego Convention Center, Room 33A)

ASN Nutritional Epidemiology RIS Business Meeting—Monday, 8:30 AM
(San Diego Convention Center, Room 33A)

ASN Nutritional Immunology RIS Business Meeting—Saturday, 4:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Nutritional Sciences Council Business Meeting and Breakfast—Saturday, 7:00 AM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Obesity RIS Business Meeting & Student Research Poster Competition—Sunday, 12:00 PM
(San Diego Convention Center, Room 33B)

ASN PhenHRIG 2012: The Human Microbiome and Bioactive Flavonoid—Saturday, 1:00 PM
(San Diego Convention Center, Room 30A/B)

*ASN Public Information Committee Meeting—Monday, 10:00 AM
(San Diego Hilton Bayfront Hotel, Room 312)

*ASN Publications Management Committee Meeting—Sunday, 2:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

*ASN Publications Operations Committee Meeting—Saturday, 2:00 PM
(San Diego Hilton Bayfront Hotel, Room 312)

ASN Reception for Membership and University Mixer—Saturday, 8:00 PM
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom DHLP)

*ASN Reception for Partners and Leaders—Friday, 7:00 PM
(San Diego Wine & Culinary Event Center, address?)

*ASN RIS Chairs Luncheon—Saturday, 12:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Satellite Symposium - What Do We Really Know About Whole Foods Digestibility and Energy Values?—Friday, 1:00 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom G/H)

ASN Satellite Symposium: The Global Nutrition Transition: The Role of Lipid Supplementation—Friday, 8:30 AM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom D)

ASN Satellite Session: Proteins as Beneficial Ingredients in Fortified Blended Foods. What Food Aid Studies are Needed?—6:30 AM
(San Diego Convention Center, Room 30A/B)

ASN Speed Mentoring for Students (SIG/YPIG)—Monday, 7:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 1)

*ASN Sponsors and Awardees Meet and Greet—Sunday, 5:00 PM
(San Diego Hilton Bayfront Hotel, Room 206)

ASN Student Career Discussion—Tuesday, 5:30 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Students Meet the Fellows—Monday, 10:30 AM
(San Diego Hilton Bayfront Hotel, Room 310)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASN The American Journal of Clinical Nutrition Editorial Board Meeting—Monday, 7:00 AM
(San Diego Hilton Bayfront Hotel, Room 313)

ASN Vitamins & Minerals RIS Business Meeting—Saturday, 7:00 PM
(San Diego Convention Center, Room 25B)

ASPET Adapting TBL Techniques to Teach Pharmacology to Graduate, Professional & Medical Students—Sunday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

*ASPET All-Divisions Executive Officers’ Meeting—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)

ASPET- Association of Medical Schools Pharmacology Chairs Reception—Sunday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, New York)

ASPET Behavioral Pharmacology Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 2)

*ASPET Behavioral Pharmacology Executive Business Meeting—Monday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

ASPET Behavioral Pharmacology Society Meeting—Friday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

ASPET Behavioral Pharmacology Society Meeting—Saturday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

ASPET Best Abstract Competition—Sunday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 3-4)

*ASPET Board of Publications Trustees Joint Editorial Boards Dinner—Sunday, 7:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon C)

*ASPET Board of Publications Trustees Meeting—Tuesday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Building a Pharmacology Course from Scratch: Benefits & Pitfalls of a Cut and Paste Pharmacology Course—Sunday, 9:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

ASPET Business Meeting—Saturday, 6:00 PM
(San Diego Convention Center, Ballroom 20D)

ASPET Cardiovascular Pharmacology Division Business Meeting—Sunday, 5:45 PM
(San Diego Convention Center, Room 5B)

*ASPET Cardiovascular Pharmacology Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

ASPET Cardiovascular Pharmacology Division Mixer—Tuesday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

ASPET Closing Reception—Wednesday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Poolside Terrace)

*ASPET Council Meeting—Friday, 8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

*ASPET Council of Division Chairs Meeting—Friday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 1)

ASPET Diversity Committee Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

ASPET Diversity Committee Mentoring Breakfast—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Anaheim)

ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Business Meeting—Monday, 12:15 PM
(San Diego Convention Center, Room 5B)

*ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—ALPHABETICAL

*ASPET Drug Metabolism and Disposition Editorial Board Meeting—Tuesday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Drug Metabolism Division & Toxicology Division Joint Mixer—Tuesday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

ASPET Drug Metabolism Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 3)

*ASPET Drug Metabolism Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)

*ASPET Finance Committee Meeting—Thursday, 5:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Graduate Recruitment & Education Committee Meeting—Tuesday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Integrative Systems, Translational and Clinical Pharmacology Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 5A)

*ASPET Integrative Systems, Translational and Clinical Pharmacology Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)

ASPET JPET Associate Editors Breakfast Meeting—Sunday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)

*ASPET Mentoring: A Formula for Success—Monday, 8:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Molecular Pharmacology Division Business Meeting and Mixer—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*ASPET Molecular Pharmacology Division Executive Committee Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

*ASPET Molecular Pharmacology Editorial Board Meeting—Monday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Neuropharmacology Division Business Meeting—Tuesday, 5:45 PM
(San Diego Convention Center, Room 3)

ASPET Neuropharmacology Division Mixer—Tuesday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*ASPET Neuropharmacology Division Executive Committee Meeting—Sunday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

*ASPET Nominating Committee Meeting—Tuesday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

ASPET Opening Reception—Saturday, 7:30 PM
(San Diego Convention Center, Center Terrace)

*ASPET Pharmacological Reviews Editorial Board Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Pharmacology Education Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 5B)

*ASPET Pharmacology Education Division Executive Committee Meeting—Monday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

ASPET Pharmacology Education Division, Drug Discovery, Drug Development and Regulatory Affairs Division, and Integrative Systems, Translational, and Clinical Pharmacology Division Joint Mixer—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*ASPET Program Committee Meeting—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
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<td>Tuesday, 9:00 PM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Marriott Hall - Salon 2)</td>
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<tr>
<td>ASPET Toxicology Division Executive Committee and Business Meeting</td>
<td>Tuesday, 5:45 PM</td>
<td>(San Diego Convention Center, Room 5A)</td>
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<td>ASPET WiP Career Roundtable</td>
<td>Tuesday, 1:00 PM</td>
<td>(San Diego Convention Center, Room 12)</td>
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<td>ASPET WiP into Shape Networking Walk</td>
<td>Sunday, 7:00 AM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Concierge Desk)</td>
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<tr>
<td>Association of African Biomedical Scientists (AABS) Inc. Annual</td>
<td>Monday, 4:00 PM</td>
<td>(San Diego Convention Center, Room 15B)</td>
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<td>General and Scientific Meeting</td>
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<tr>
<td>Calcutta University Alumni Dinner Meeting</td>
<td>Tuesday, 6:30 PM</td>
<td>(Royal India, 329 Market Street, 619-269-9999)</td>
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<td>Contact: Dipak K. Banerjee, 787-758-2552, Ext. 1624</td>
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<tr>
<td>Christian Fellowship Meeting</td>
<td>Sunday, 7:00 PM</td>
<td>(San Diego Hilton Bayfront Hotel, Room 501)</td>
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<tr>
<td>Cornell/Penn State Nutrition Mixer</td>
<td>Saturday, 5:00 PM</td>
<td>(San Diego Hilton Bayfront Hotel, Room 500)</td>
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<tr>
<td>*Expert Working Group on Metabolomics in Epi studies to investigate</td>
<td>Saturday, 11:00 AM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Point Loma)</td>
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<tr>
<td>Cancer Risk</td>
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<td>*The Friedman School and Jean Mayer USDA Human Nutrition Research</td>
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<td>Center on Aging at Tufts University Alumni and Friends Cocktail</td>
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<tr>
<td>Reception</td>
<td>Monday, 6:00 PM</td>
<td>(San Diego Hilton Bayfront Hotel, Elevation Room)</td>
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<tr>
<td>German Science Breakfast</td>
<td>Monday, 8:00 AM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Del Mar)</td>
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<td>Iowa State University Reception</td>
<td>Monday, 7:00 PM</td>
<td>(San Diego Hilton Bayfront Hotel, Room 504)</td>
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<td>The Microcirculatory Society International Liaison Committee for</td>
<td>Sunday, 8:00 AM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Coronado)</td>
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<tr>
<td>Microcirculation</td>
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<tr>
<td>The Microcirculatory Society Awards Banquet</td>
<td>Saturday, 12:00 PM</td>
<td>(San Diego Hilton Bayfront Hotel, Sapphire Ballroom D/H)</td>
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<tr>
<td>The Microcirculatory Society Business Meeting</td>
<td>Sunday, 4:45 PM</td>
<td>(San Diego Convention Center, Room 23)</td>
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<tr>
<td>The Microcirculatory Society Executive Council Meeting</td>
<td>Friday, 6:00 PM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, La Costa)</td>
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<tr>
<td>*National SMART Team Reception</td>
<td>Saturday, 7:30 PM</td>
<td>(San Diego Convention Center, Room 6B)</td>
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<tr>
<td>*SEBM Council / Members’ Business Meeting</td>
<td>Saturday, 12:30 PM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Del Mar)</td>
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<td>*SEBM Editorial Board Meeting</td>
<td>Sunday, 11:00 AM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Santa Rosa)</td>
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<tr>
<td>*SEBM Socializer and Awards Presentation</td>
<td>Sunday, 5:30 PM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Presidio)</td>
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<tr>
<td>The University of Arizona Dept of Chemistry &amp; Biochemistry</td>
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<tr>
<td>Reception for Alumni &amp; Friends</td>
<td>Monday, 5:00 PM</td>
<td>(San Diego Convention Center, Room 12)</td>
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<td>University of Illinois Nutrition Mixer</td>
<td>Monday, 7:00 PM</td>
<td>(San Diego Hilton Bayfront Hotel, Room 503)</td>
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<td>University of Michigan Department of Pharmacology Social Hour</td>
<td>Saturday, 9:00 PM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Laguna)</td>
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<td>WVU-HSC Alumni Mixer for Biomedical Sciences</td>
<td>Tuesday, 5:30 PM</td>
<td>(San Diego Convention Center, Room 12)</td>
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<tr>
<td>Young Experimental Scientists (Y.E.S.) Mixer</td>
<td>Monday, 9:00PM</td>
<td>(San Diego Marriott Marquis &amp; Marina Hotel, Marriott Hall 3)</td>
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Ancillary Functions

Association of African Biomedical Scientist (AABS) Inc. Annual General and Scientific Meeting—Monday, 4:00 PM (San Diego Convention Center, Room 15B)

Calcutta University Alumni Dinner Meeting—Tuesday, 6:30 PM (Royal India, 329 Market Street, 619-269-999)
Contact: Dipak K. Banerjee, 787-758-2552, Ext. 1624

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*Expert Working Group on Metabolomics in Epi studies to investigate Cancer Risk—Saturday, 11:00 AM (San Diego Marriott Marquis & Marina Hotel, Point Loma)

*The Friedman School and Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University Alumni and Friends Cocktail Reception—Monday, 6:00 PM (San Diego Hilton Bayfront Hotel, Elevation Room)

German Science Breakfast—Monday, 8:00 AM (San Diego Marriott Marquis & Marina Hotel, Del Mar)

Iowa State University Reception—Monday, 7:00 PM (San Diego Hilton Bayfront Hotel, Room 504)

The Microcirculatory Society International Liaison Committee for Microcirculation Meeting—Sunday, 8:00 AM (San Diego Marriott Marquis & Marina Hotel, Coronado)

The Microcirculatory Society Awards Banquet—Saturday, 12:00 PM (San Diego Hilton Bayfront Hotel, Sapphire Ballroom D/H)

The Microcirculatory Society Business Meeting—Sunday, 4:45 PM (San Diego Convention Center, Room 23)

The Microcirculatory Society Executive Council Meeting—Friday, 6:00 PM (San Diego Marriott Marquis & Marina Hotel, La Costa)

*National SMART Team Reception—Saturday, 7:30 PM (San Diego Convention Center, Room 6B)

PhenHRIG 2012: The Human Microbiome and Bioactive Flavonoid—Saturday, 1:00 PM (San Diego Convention Center, Room 30A/B)

*Satellite Session: Proteins as Beneficial Ingredients in Fortified Blended Foods. What Food Aid Studies are Needed?—Saturday, 6:30 AM (San Diego Convention Center, Room 30A/B)

*SEBM Council / Members’ Business Meeting—Saturday, 12:30 PM (San Diego Marriott Marquis & Marina Hotel, Del Mar)

*SEBM Editorial Board Meeting—Sunday, 11:00 AM (San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*SEBM Socializer and Awards Presentation—Sunday, 5:30 PM (San Diego Marriott Marquis & Marina Hotel, Presidio)

The University of Arizona Dept of Chemistry & Biochemistry Reception for Alumni & Friends—Monday, 5:00 PM (San Diego Convention Center, Room 12)

University of Illinois Nutrition Mixer—Monday, 7:00 PM (San Diego Hilton Bayfront Hotel, Room 503)

University of Michigan Department of Pharmacology Social Hour—Saturday, 9:00 PM (San Diego Marriott Marquis & Marina Hotel, Laguna)

WEH Section Trainee Award Finalists Session and Data Diuresis—Saturday, 3:15 PM (San Diego Convention Center, Room 25A)

WVU-HSC Alumni Mixer for Biomedical Sciences—Tuesday, 5:30 PM (San Diego Convention Center, Room 12)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
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