Differences in in vitro sensitivity and accumulation of anthelmintics in Trichuris suis and Oesophagostomum dentatum

Hansen, Tina Vicky Alstrup; Nejsum, Peter; Friis, Christian; Olsen, Annette; Thamsborg, Stig Milan

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### MONDAY 26 AUGUST

#### OPENING SESSION
- Official Welcome to Country
- Premier’s Address and other VIPs
  - Chair: Andrew Thompson
  - WAAP: The 50th anniversary in 2013 – history, achievements and future perspectives
    - Johannes Eckert
    - University of Zurich
  - Veterinary parasitology in Australia – a short history
    - Brown Besier
    - Department of Agriculture and Food Western Australia
  - Veterinary parasitology in Australia – a short history
    - Ian Beveridge
    - University of Melbourne

<table>
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<tr>
<th>Time</th>
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<tr>
<td>8.15-10.00</td>
<td>Morning tea</td>
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<tr>
<td>10.00-10.30</td>
<td>Morning tea</td>
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</table>
| 10.30-11.45| PLENARY SESSION: ONE HEALTH
  - Chair: Alan Lymbery
  - One world health: socioeconomic burden and parasitic disease control priorities
    - Paul Torgerson
    - University of Zurich
  - One world health: whose world, whose health?
    - Yosowalak Sukithana
    - Mahidol University

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24th International Conference of the World Association for the Advancement of Veterinary Parasitology
Hosted by the Australian Society for Parasitology Inc.
CONFERENCE PROGRAMME
11.45-13.00

**COMMERCIAL LIVESTOCK - GENERAL**
Room: Roseisle Theatre
Chair: Peter Rolf

- Achieving veterinary guided parasite control for sustainable veterinary practice
  Rob Churchill
  Crossfell Veterinary Hospital

- Echinococcus spp. in northern North America
  Emily Jenkins
  University of Saskatchewan

- Age-related patterns of infection for an invasive fly in free-ranging wapiti
  Melissa Beck
  University of Lethbridge

- The Angiostromyia vector: trascriptome provides deep insights into the parasite's biology and immunobiology, and prospects for new interventions
  Brendan Amell
  Murdoch University

- Prevalent gastrointestinal parasites and achieving veterinary guided parasite control
  Friederike Birkle
  Murdoch University

- Behaviour, genetics and blood-sucking: social network models to understand parasite transmission in wildlife populations
  Stephanie Godfrey
  University of Cambridge

- Helminth neurobiology: Identifying the moving target of cholinergic antihelmintics
  Inger Hamness
  University of Stavanger

- Using lentivirus-delivered microRNAs to promote stimulation of a host protective immunity against Toxoplasma gondii in mice
  Aalok Kadian
  Imperial College London

- Successful transmission of gastrointestinal nematode resistance in ruminants
  Sarah Preston
  Murdoch University

- Gastrointestinal nematode resistance in sheep: does galacto-1,3-mannotol interfere with gastrointestinal nematode resistance in sheep?
  Sarah Preston
  Murdoch University

- Can we measure infection intensity and production responses to anthelmintic treatment in dairy cattle?
  Joanne Charlier
  Ghent University

- "I give thanks to the Lord for all his benefits"
  Inger Hamness
  University of Stavanger

- The role of parasites in food production responses to an altered diet
  Iain Carstairs
  University of Liverpool

- Echinococcus control requires dog deworming, optimized anthelmintic treatment and targeted selective treatment
  Michael Smout
  The University of Queensland

- The prevalence of FEC of horses and the implications for targeted selective treatment
  Miriam Schwitzer
  Ludwig-Maximilians-Universität

- Preventing gastrointestinal parasites and most efficient deworming protocols in horses under hot dry climates
  Shahan Al-Ghamdi
  Al-Baha University

- Investigating the suitability of dogs and pigs as animal models of visceral leishmaniasis
  Weng Wang
  The University of Queensland

- Investigating the suitability of dogs and pigs as animal models of visceral leishmaniasis
  Weng Wang
  The University of Queensland

11.45-13.00

**IWAAP5 - FIFTH INTERNATIONAL WORKSHOP ON ARCTIC AND ANTARCTIC PARASITES**
Room: Meeting Room 3
Chair: Michael Smout

- Some helminths happened here: Apparent previous establishment of Dendrocoelum lacteum in their ant intermediate host
  Doug Colwell
  Agriculture and Agri-Food Canada

- Potential threat of Toxoplasma gondii in Scandinavian horses
  Janne Tell
  University of Helsinki

- Lungworms in muskoxen in Norway - a potential threat with warmer climate?
  Inger Hamness
  Norwegian Veterinary Institute

- Different exposure indicators to pasture-borne nematodes as tools for selective anthelmintic treatment in adult dairy cattle
  Nadine Ranieri
  IDELE, French Livestock Institute

- The draft Trichurus suis genome
  Aaron Jex
  The University of Melbourne

- Genetic evaluation of lambs subjected to a targeted selective treatment anthelmintic regime
  Lincoln University

- Treatment of equine gastric haemorrhagic episodes with moxidectin
  Rolf K. Schuster
  Central Veterinary Research Laboratory

- Efficacy of ivermectin, pyrantel and fenbendazole treatments against Parascaris equorum infection in foals in southern Australia
  Megan Heaton
  Central Veterinary Research Laboratory

- Zoonotic Enterocytozoon in Thailand: surveillance in humans, domestic animals and wildlife
  Huw Sleightholme
  Bristol University

- Barrier effects of blood-sucking: using social network models to understand parasite transmission in wildlife populations
  Stephanie Godfrey
  Murdoch University

- Helminth neurobiology: Identifying the moving target of cholinergic antihelmintics
  Inger Hamness
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  Weng Wang
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1300-1315

**ONE HEALTH 1**
Room: Meeting Room 7
Chair: Calum MacPherson

- Functional characterisation of Ser. mansoni egg-accreted protein, using surface-displayed microRNAs
  Bernd Kalina
  The University of Melbourne

- Use of a persistent anthelmintic injection to promote elimination of a host response to intestinal nematodes in calves
  Peter Patford
  VetBio New Zealand Ltd

- Equine parasites commonly antihelmintic resistant in Finland
  Antti Oksanen
  Finnish Food Safety Authority Evora

- Differences in vitro sensitivity and accumulation of anthelmintics in Trichuris suis and Oesophagostomum dentatum
  A/Prof Peter Nejsum
  University of Copenhagen
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<tr>
<th>Time</th>
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<th>Room</th>
<th>Speaker(s)</th>
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<td>14.00-15.15</td>
<td>Epidemiology, impact and benefits of control, and vectors of surra affecting cattle in Mindanao, Philippines</td>
<td>Tommy Leung</td>
<td>Meeting Room 1</td>
<td>Alan Dargantes</td>
<td>Central Mindanao University</td>
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<td>More rapid and severe disease outbreaks for aquaculture at the tropics: implications for food security</td>
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<td>kidney disease parasites</td>
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<td>Exploring the outcome of human glandular parasites</td>
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<td>Dai Nguyen</td>
<td>The University of New England</td>
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<td></td>
<td>Application of a Geographical Information System to assess the spatial distribution of Fasciola Hepatica infection in dairy cattle herds in Ireland</td>
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<td>Niall O'Brien</td>
<td>University College Dublin</td>
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<td></td>
<td>Crypto Sporidium and Giardia</td>
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<td>Tomislav Macejko</td>
<td>University of New England</td>
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<td>14.15-14.30</td>
<td>Helminth control in Malaysia: Dealing with anthelmintic resistance</td>
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<td>Meeting Room 2</td>
<td>Chandra Ram Reddy</td>
<td>Free University of Berlin</td>
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<td>Effects of climate change regarding survival and selection pressure of cattlescarabs on pasture</td>
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<td>Assessing calves as carriers of Cryptosporidium and Giardia with zoonotic potential on dairy and beef farms within a water catchment area by molecular screening</td>
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<td></td>
<td>Assessing risk: Spatial trends and environmental risk factors for an emerging risk of symptomatic host species in Alberta, Canada</td>
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<td>Melissa Beck</td>
<td>University of Lethbridge</td>
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<td></td>
<td>Climate and Global Change Impacts on Vector Borne Zoonoses in Europe</td>
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<td>Meeting Room 3</td>
<td>Elvis V. L. Tumova</td>
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<td>In vitro effects of novel sulfonamides complexes in Neascusariaimera and Toxoplasma gondii in calves</td>
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<td>R. C. Andrew Thompson</td>
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<td></td>
<td>Evaluating the prevalence of an emerging parasite, Toxocara abrin, in bovine in western Canada</td>
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<td>Gillian Fisher</td>
<td>University of Saskatchewan</td>
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<td>Distribution patterns and predilection of Trichinella zimbabwensis in experimentally infected Nile crocodiles</td>
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<td>Samson Mokwute</td>
<td>University of KwaZulu Natal</td>
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<td>14.30-14.45</td>
<td>Epidemiology of strongyle infections in small ruminants in three management systems in Malaysia</td>
<td>Uma Ryan</td>
<td>Meeting Room 5</td>
<td>Rehana Sani</td>
<td>Universitiy of Malaysia</td>
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<td>Reduction in greenhouse gas emissions associated with sustainable worm control in lambs</td>
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<td>Philip Sauze</td>
<td>Murdoch Research Institute</td>
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<td>One Health, wildlife and parasites</td>
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<td>Dr. Una Citro</td>
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<td></td>
<td>Prevalence and transmission of Theileria annulata in dairy cattle in Queensland, Australia</td>
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<td>Elizabeth Read</td>
<td>LaTrobe University</td>
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<td>Polyparasitism - the ecological complexity and impact of mixed infections</td>
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<td>The effect of genetic and phenotypic diversity on the control of T. cruzi infection using drug interventions</td>
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<td>Catherine Perez</td>
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<td>14.45-15.00</td>
<td>Tyzlarinosis in pigs and humans in northern Laos</td>
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<td>Meeting Room 7</td>
<td>James Conway</td>
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<td></td>
<td>Review of geo-spatial sampling methods for parasite ecology and epidemiology studies</td>
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<td>Philip Sauze</td>
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<td>Molecular prevalence of Cryptosporidium infection in Giraffe, Mural and buffalo in adulter Pradesh state, India</td>
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<td>Balram V. Venu</td>
<td>Veterinary University</td>
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<td>The occurrence of unidentified pathogen in cattle in southern Western Australia</td>
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<td>Abdul Jabbar</td>
<td>The University of Melbourne</td>
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<td>Zonotic Primate Malarias in Papua New Guinea: Identifying Host Species</td>
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<td>Reuben Sharma</td>
<td>University of Papua New Guinea</td>
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<td>Innovative solutions for parasiticide drug discovery</td>
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<td>Kerrie Powell</td>
<td>Murdoch University</td>
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<td>15.00-15.15</td>
<td>Zonotic parasitism in wild and domesticated ruminants - implications for control and the one health concept</td>
<td>Amanda Ash</td>
<td>Meeting Room 8</td>
<td>S. V. Veterinary University</td>
<td>Murdoch University</td>
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<td></td>
<td>Integrating host, parasite, climate, and management; global change</td>
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<td>Hannane Rose</td>
<td>University of Brilz</td>
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<td>and gastrointestinal nematodes</td>
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<td>Nikolaos Trakadas</td>
<td>Veterinary Research Institute, Helsinki Agricultural Organization Council</td>
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<td>Presence and molecular characterization of Giardia and Cryptosporidum in sheep, goats and horses in Greece</td>
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<td>Sarah Groot</td>
<td>University of New England</td>
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<td>The importance of Soil as a Reservoir</td>
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<td>Kerrie Powell</td>
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<td>Iron Metabolism in Schistosomes: Insights for novel methods for diagnosis</td>
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<td>Sarah Groot</td>
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<td>The challenge of achieving Toxocara abrin and Fasciola gigantica control</td>
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<td>in tropic smallholder large ruminant farming systems: a case study</td>
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<td>Kerrie Powell</td>
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<td>15.15-15.45</td>
<td>Study on the prevalence of Trichinella mulmulli in an imported horse in Canada during multiresistant testing of meat for export</td>
<td>Reuben Sharma</td>
<td>Riverside Theatre</td>
<td>Alvin Gajadhar</td>
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<td>Canadian Food Inspection Agency</td>
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**13:00-14:00**
Lunch
Sponsored by Bayer Healthcare
| 15:45-17:00 | AQUACULTURE ANIMAL HEALTH - Novartis session |
| Room: Riverside Theatre |
| Chair: Barry Hosking |
| **DIAGNOSTICS - FLUKES** |
| Room: Meeting Room 1 |
| Chair: Terry Spithill |
| Development of recombinant antigen-based serological diagnosis for the detection of Schistosoma japonicum infection in water buffaloes |
| Jose Ma. Angeles |
| Oklahoma University of Agriculture and Technology |
| **DRUGS AND DRUG RESISTANCE - CATTLE** |
| Room: Meeting Room 2 |
| Chair: Jozsef Vercsimazs |
| Considerable heterogeneity of the Ca2+-activated and voltage-gated K+ channel SLO-1 between different clades of nematodes and the potential impact on the direction of SLO-1 and ameloderma Daniel Kuku |
| Free University Berlin |
| **DRUG EFFICACY - GENERAL** |
| Room: Meeting Room 3 |
| Chair: Tom Kennedy |
| Anthelmintic resistance in nematodes of beef cattle - results from a survey of Australian farms |
| Jenny Collar |
| Moredun Research Institute |
| **ONE HEALTH 2** |
| Room: Meeting Room 5 |
| Chair: Wannawat Sukthana |
| Novel and zoonotic Cryptosporidium species/genera identified in fish anadapa Papua New Guinea Melanie Keintzler Murdoch University |
| **VACCINES - GENERAL 1** |
| Room: Meeting Room 6 |
| Chair: Barrie Penzhorn |
| Is antigenicity of bovine lungworm vaccine candidates predictable by in vitro immune cell assays? Deborah Zeekel University of Veterinary Medical Hannover |
| Investigating the possible presence of Theileria parva carrier cattle in Missimans Chiemsee Naturnalschutz Choppa University of Pretoria |
| **VECTOR BORNE DISEASES** |
| Room: Meeting Room 7 |
| Chair: Banie Penzhorn |
| Characterisation of IgE antibody responses to Anoplocephala perfoliata infection in horses. Gerald Coles University of Bristol |
| **APICOMPLEXAN BIOLOGY 1** |
| Room: Meeting Room 8 |
| Chair: Nicholas Smith |
| Considerable heterogeneity of the Ca2+-activated and voltage-gated K+ channel SLO-1 between different clades of nematodes and the potential impact on the direction of SLO-1 and ameloderma Daniel Kuku |
| Free University Berlin |
| **VACCINES - GENERAL 1** |
| Room: Meeting Room 6 |
| Chair: Barrie Penzhorn |

| 15:45-16:00 | Introduction and Overview |
| Ronald Kaminsky Novartis |

| 16.00-16.15 | Parasitic Diseases in South East Asian Aquaculture Suprasun Chimbiri Department of Fisheries |
| Characterisation of IgE antibody responses to Anoplocephala perfoliata infection in horses. Gerald Coles University of Bristol |
| Anthelmintic resistance in nematodes of beef cattle - results from a survey of Australian farms |
| Jenny Collar Moredun Research Institute |

| 16.15-16.30 | The potential impact of alien invasive parasitic diseases on economic important freshwater fish species in the Eastern Cape, South Africa Kyle McHugh Kyle McHugh North West University |
| The identification of the rumen fluke, Culliacephon daubneyi, in beef from the British Isles: implications for epidemiology and diagnosis of liver fluke Philip Siswick Moredun Research Institute |

| 16.30-16.45 | Comparison study of Clinostomum complanatum (Digenes Clinostomidae) in freshwater fish from Asia and Yogakarta, Indonesia Kumasha S. Tada Gadjah Mada University |
| Development of a quantitative DNA diagnostic test for live fluke in sheep Jody McIlvain CSIRO |
| Effects of flukicide Long-acting injection (HOMEDEX SOLID) on HaemoplasmaParasites and Weight Gain in first-year grazing Calves in Bavaria, Germany Steffen Rettenmair Merial GmbH |
| Efficacy of diethylcarbamazine, mebendazole, and pyrabendazole combination spot-on on lungworm Culex pipiens. Michel Franc Ecole Nationale Veterinaire |
| One health in action: parasites of Western Australian farms Jody McIlvain Moredun Research Institute |

| 16.45-17.00 | Recent investigations into the epidemiology of winter mortality disease in Sydney rock oysters (Saccostrea glomerata) Zac Spiers MRE Department of Primary Industries State Veterinary Diagnostic Laboratory |
| Liver fluke: Evaluating cosmopolitan diagnostics in sheep Daniela Gaudion Moredun Research Institute |
| Efficacy of a 10% imidacloprid / 4.5% ivermectin collar for preventing the dissemination of Capillaria fistula by Amblyomma americanum to domestic cats Bob Arthur Bayer HealthCare Animal Health |
| Endoparasites in Eastern European priorities imported to Norway Inger Hammers Norwegian Veterinary Institute |
| Neotrophiexclusionary bugs as innate immune reaction against the emerging complex parasite Babesia beatini Carlos Hermosilla Justus Liebig University Giessen |
| Detection of vector-borne pathogens by molecular methods in ticks and fleas infecting dogs in Albania Cornela Slight LMU Munich |

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**PLATINUM SPONSOR SESSION: BAYER**

Long term efficacy of an imidacloprid 10 % / flumethrin 4.5 % polymer matrix collar (Seresto®, Bayer) in dogs and its potential to prevent canine leishmaniasis in a hyper-endemic area Domenico Orlandi University of Bari

Prevention of tick-borne diseases in dogs using an imidacloprid / flumethrin collar Filipe Dantas Torres Aggeu Magalhães Research Centre (Fiocruz-PE)

**Happy Hour (POSTER VIEWING)**
12.45-13.30
Lunch
Sponsored by Novartis Animal Health

13.30-14.45
DRUG RESISTANCE SMALL - RUMINANTS 1
Room: Riverside Theatre
Chair: Roger Pritchard

Can combination anthelmintics be used once resistance to multiple actives has developed?
Tania Wagorn
AgResearch

Results of a nationwide coccidiosis survey using a simple, one-tube assay for the simultaneous detection and diagnosis of the ten Australian Eimeria species of chicken, Rosanne Godbold
DAFF, QLD Government

Haem uptake in Schistosomes mansoni
Toh Shu Qin
Queensland Institute of Medical Research

The PadSCo (Parasitology Summer Course), an EIVP residential-practical course in the heart of the Mediterranean Sea
Andrew Chryssafidis
University College Dublin

13.30-13.45
DIAGNOSTICS - APICOMPLEXA
Room: Meeting Room 1
Chair: Rebecca Trub

Recent Drimia spp. distribution information in northern Europe
Antti Oksanen
Finnish Food Safety Authority Evia

In vitro and in vivo activities of diocolum, diphenyl-amino-compounds against Ehrlichiozoa: multiloculosa mecistocotes
Andrew Hemphill
University of Bern

Progress in developing a "doornudel" pathogenesis in host David Emery
University of Sydney

Haemorrhages contusia genome and development/therapy
Pasi Korhonen
University of Melbourne

13.45-14.00
DOG AND CAT PARASITES 1
Room: Meeting Room 2
Chair: Anja Joachim

Lack of efficacy of monoparasit against Teladorsagia circumcincta and Trichostrongylus colubriformis
Ian Scott
Massey University

Advanced studies in coccidiosis parasites of cattle
Muhammad A. El-Selly
Kuwait University

The efficiency of a topically applied ivermectin / moxidectin 2.5% formulation (Advocate®, Bayer Animal Health South Africa)
Adolescent Entry-Exit Inspection and Quarantine Bureau

Investigation and validation of a new potential new drug target for parasitic nematodes
Carolyn Burin
Australian national University

99.5%, if the only teaching aid in the budget is an oldish textbook
Dwight Brown
Cornell University

Development of RNA interference in the human hookworm Necator americanus
Annette Dougall
James Cook University

14.00-14.15
FUNCTIONAL GENOMICS 1
Room: Meeting Room 5
Chair: Ryan O’Handley

First evidence for on-farm multi-drug resistance in sheep parasites in Northern Ireland
Stewart Blair
Queens University Belfast

Immuno-PCR for detection of Giardia lamblia cysts in water
Mingan Ding
Standing Entry-Exit Inspection and Quarantine Bureau

Investigation and validation of a new potential new drug target for parasitic nematodes
Carolyn Burin
Australian national University

Sis, if the only teaching aid in the budget is an oldish textbook
Dwight Brown
Cornell University

Development of RNA interference in the human hookworm Necator americanus
Annette Dougall
James Cook University

14.15-14.30
FUNCTIONAL GENOMICS 2
Room: Meeting Room 6
Chair: Aaron Jex

Resistance to monoparasit in two nematode species in goats
David Leaich
AgResearch

A comparison of sequencing technologies for the screening of Cryptosporidium infections in biological samples
Andrea Paparini
Murdoch University

In vitro efficacy of Toltrazuril against Bontaia bernardi infection in Varoantaberta rif released
Bruno Gottstein
University of Fribourg

Core competencies in veterinary parasitology practicals – A LOGical approach
Ryan O’Handley
University of Adelaide

Functional analysis of the bovine immunological response against in allopregnated B and T cell epitopes in Phthaloglobina monophosphate (LRM)
Aline Low-Tchoo
QAFAR

Semi maturation of bovine monocyte-derived dendritic cells after incubation with Echinococcus multiloculosis
Edwin Claerebout
Ghent University

14.30-14.45
IMMUNOLOGY GENERAL
Room: Meeting Room 7
Chair: Edwin Clarebout

Prevalition of new drug target for parasitic nematodes
Anja Joachim
Australian national University

A survey investigating gastro-intestinal nematode egg output of sheep: Mid-gestation treatment with long acting anthelmintics on farms in New Zealand and Australia
Ben Brown
Novartis Animal Health

Phylogenetic analysis of Trichomonas congruent and Trichomonas vivax detected in naturally infected Nigerian cattle breeds
Michael Tacket
Federal University of Agriculture

Metaphylactic toltrazuril treatment of dairy calves at risk of coccidiosis: short and long term effects on weight gain
Hedi Larsen Enemark
Technical University Of Denmark

Functional study of a genetic marker allele associated with resistance tolaricosis in pigs
Per Skallerup
Technical University of Copenhagen

Leishmania australiensis infection in BALB/c nude mice
Calla Santos
The University of Western Australia

14.45-15.15
ONE HEALTH 3
Room: Meeting Room 8
Chair: Susan Katz

Update of current knowledge of toxoplasmosis in Australia
Janns Connan
Food Standards Australia New Zealand

Four cases of fatal toxoplasmosis in three species of endemic New Zealand birds.
Larissa Howe
Massey University

An Atypical Genotype of Toxoplasma gondii as a Cause of Mortality in Hectoriids (Hecticidae)
Larissa Howe
Massey University

Predilection sites of Toxoplasma gondii infection in Belgian Blue cattle
Carlo Battista
Cornel University

Predilection sites of Toxoplasma gondii infection in Belgian Blue cattle
Carlo Battista
Cornel University

Moredun Research Institute
University of Veterinary and Pharmaceutical Sciences

Evidence of the three main clonal Toxoplasma-gondii genotypes in British wild carnivores
Anish Burrell
Moredun Research Institute
15.15-16.30
The Spinosyns: Discovery and Development of a Novel Pesticide
Daniel Snyder
Elanco Animal Health

15.15-15.30
Barbervax’, a potential commercial vaccine for Haemonchus contortus: background, mechanism of action and efficacy studies with housed lambs
Julie Fitzpatrick
Moredun Research Institute

15.30-15.45
Molecular characterization and PCR detection of Gurltia paralysans.
Mark Fox
Royal Veterinary College

15.45-16.00
Survey of Aelurostrongylus in cats in the UK in comparison with Angiostrongylus in dogs
Shokoofeh Shamsi
University of Otago

16.00-16.15
3D printing and Additive Manufacturing for Production of Medical Devices
Richard J. Farnham
University of California, San Francisco

16.15-16.30
Why history matters? A tale of lampryems and their hosts
Guilherme Vercosa
University of Calgary

16.30-17.30
Cestode zoonoses: a one health perspective
Susan Litsa
Oklahoma State University

17.30 - 18.30
Happy Hour (POSTER VIEWING)
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
<th>Institution/Company</th>
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<tbody>
<tr>
<td>8.30-9.45</td>
<td>PLENARY SESSION: PROPHYLACTICS AND THERAPEUTICS - NEW APPROACHES</td>
<td>John Dalton</td>
<td>McGill University</td>
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<td>Ronald Kaminsky</td>
<td>Novartis - Switzerland</td>
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<td>9.45-10.15</td>
<td>Morning tea</td>
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<td>10.15-11.15</td>
<td>WAAVP PRIZES SESSION</td>
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<td>11.15-13.15</td>
<td>ASP/ELSEVIER SESSION</td>
<td>Adrian Hehl</td>
<td>University of Zurich</td>
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<td>Georg von Samson-Himmelstjerna</td>
<td>Free University of Berlin</td>
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<td>Susan Kutz</td>
<td>University of Calgary</td>
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<td>Denise Doolan</td>
<td>President of the ASP</td>
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<tr>
<td>13.15-14.15</td>
<td>Lunch</td>
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<tr>
<td>14.15 - 16.30</td>
<td>ASP AGM</td>
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<td>Venue: Perth Zoo</td>
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THURSDAY 29 AUGUST

8:30-10:00
PLENARY SESSION: ANIMAL PRODUCTION AND FOOD SECURITY
Chair: Brown Besier
- Parasitology for the hungrier, warmer, riskier world
  - Doug Gray
  - Giulia Fitzpatrick
  - Lord Trees

- Global food security – the impact of veterinary parasites and parasitologists
  - Doug Gray
  - Julie Fitzpatrick
  - Lord Trees

- WAAVP 2015

10:00-11:00
CMIWORM – Impact of global change on nematode helminths
Chair: Brown Besier
- Innovative and sustainable strategies to mitigate the impact of global change on helminth infections in ruminants
  - Lord Trees
- Chair: Brown Besier

10:15-11:30
Ruminants Protocol Room: Meeting Room 1
- Chair: Ryan O’Handley
- Room: Meeting Room 2
- Chair: Mark Sandeman

- Room: Meeting Room 3
- Chair: Johannes Eckert

- Room: Meeting Room 4
- Chair: David Heath

- Room: Meeting Room 5
- Chair: David Heath

- Room: Meeting Room 6
- Chair: Roger Pritchard

- Room: Riverside Theatre
- Chair: Arvid Daugschies

- Room: Meeting Room 2
- Chair: Mark Sandeman

10:45-11:10
GLOWORM: Novel approaches to improve diagnosis of helminth infection and detection of arthritic resistance
Chair: Freeline Berlin
- The prevalence and productivity consequences of Cryptosporidium in sheep
  - Josep Vences Casanovas
- University of Guelph

- The effects of the antibiotic paralytic Nematocidae on sheep
  - Patrick Craig
  - University of Liverpool

- Echinococcus multilocularis in dogs in Canada
  - Andrew Greer
  - Lincoln University

- Echinococcosis in Thelidic paws in infected cattle and African buffalo
  - Jonathan David Jowett
  - University of Edinburgh

- Efficiency of monovalent against multi-resistant gastric-intestinal nematodes
  - Justin Bailey
  - Novartis Animal Health

- Molecular detection of tick-borne pathogens in ticks infecting dogs in south-western Romania
  - Miriam Scheuerle
  - University of Leipzig

11:00-11:45
GLOWORM: Predicting and combating future helminth infections and tick-borne diseases in livestock
Chair: Una Ryan
- Spatio-temporal modeling of helminth infections in livestock in Europe
  - Guy Hendricks	
  - University of Edinburgh

- Environmental monitoring and detection of helminth infections in sheep
  - Patrick Craig
  - University of Liverpool

- Development of an in vitro feeding model for cattle ticks
  - Babi Bagchi
  - University of Liverpool

- Genetic susceptibility and resistance to gastrointestinal nematodes in 3 continental sheep breeds
  - Barry Hosking
  - University of Edinburgh

- Combination antihelminthic are not magic bullets - they require knowledge and wise use
  - Barry Hosking
  - Novartis Animal Health

- Insight into success of tick control and prevalence of transmitted pathogens in India
  - Jan Slapeta
  - Charles University in Prague

- Trypanosomes vs. Tick-borne Diseases: Production comorbidities in traditionally managed Fulani White Cattle in Nigeria
  - Ayo Ololade
  - University of Edinburgh

- All about Flukes
  - Santiago Mas-Coma
  - Chair: Santiago Mas-Coma

11:45-12:30
ORAL POSTER SESSION
- All about Cryptos.
  - Chair: Una Ryan

- All about helminths
  - Chair: Santiago Mas-Coma

- Drugs – do they REALLY work?
  - Chair: David Smith

- Parasites in my blood!
  - Chair: Paul Truscott

- Parasites – not all bad
  - Chair: John Sietera
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<th>Time</th>
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<tr>
<td>12.45-13.30</td>
<td>Lunch (WARF AGR)</td>
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<td>13.30-14.45</td>
<td>MSD (GOLD SPONSOR)</td>
<td>Room: Riverside Theatre</td>
<td>Chair: Griff Dalgleish</td>
<td>Biochemical characterisation of serine protease inhibitors from Schistosoma japonicum, Addeyto Molehin, Queensland Institute of Medical Research</td>
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<td>Room: Meeting Room 1</td>
<td>Chair: David Piedrafita</td>
<td>A high throughput diagnostic platform for gastrointestinal nematode infections in small ruminants, Florian Roobor, AusDiagnosics Pty Ltd</td>
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<td>Room: Meeting Room 2</td>
<td>Chair: Ian Beveridge</td>
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<td>Room: Meeting Room 3</td>
<td>Chair: Mark Poz</td>
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<td>Chair: Bill Jones</td>
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<td>Room: Meeting Room 6</td>
<td>Chair: Jen Rothwell</td>
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<td>Room: Meeting Room 7</td>
<td>Chair: George von Samson-Himmelstjerna</td>
<td>Production response in ewes treated pre-lambing with controlled real-world samples containing both anthelmintic and minerals, Chris Miller</td>
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<td>Room: Meeting Room 8</td>
<td>Chair: Matthew Playford</td>
<td>The microbiome of scabies mite infected skin, Katja Fischer, Queensland Institute of Medical Research</td>
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<td>13.30-14.45</td>
<td>VACCINES - FLUKES</td>
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<td>13.45-14.00</td>
<td>RNA/Based Screening for Vaccine Targets</td>
<td>Room: Riverside Theatre</td>
<td>Chair: Griff Dalgleish</td>
<td>Novel pan-schistosome endosymbiotic in native African mammalian tsetse, Abdoulaye Cisse, University of Morumbi, Angola</td>
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<td>14.00-14.15</td>
<td>Research experience on the practical approach to parasite control in livestock in parts of Southern Africa: a changing scenario</td>
<td>Room: Riverside Theatre</td>
<td>Chair: Griff Dalgleish</td>
<td>The immunomorphological specializations of the shedding issue Longipila. Jeckes, Edward Green, University of Pretoria, South Africa</td>
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<td>14.15-14.30</td>
<td>Molecular Characterisation of Worms in Veterinary Medicine</td>
<td>Room: Riverside Theatre</td>
<td>Chair: Griff Dalgleish</td>
<td>A novel Babesia spp. associated with morbidity and mortality in eastern grey kangaroos, Christopher Peacock, University of Western Australia</td>
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<td>14.30-14.45</td>
<td>Field Trial in Commercial Irish Farms with Experimental Vaccine</td>
<td>Room: Riverside Theatre</td>
<td>Chair: Griff Dalgleish</td>
<td>Presence of cryptic species within the nematode genus Oeschnia Mary Shuttleworth, The University of Melbourne</td>
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<td>Chair: Griff Dalgleish</td>
<td>Enzymes in vitro modulate antioxidants: host cell factor in meloidogyne, Jan slagota, University of Sydney</td>
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Total tract digestibility is reduced in anemic parasitized ewes
Jos Houdijk 
SULC
15.15-16.30

Toxic worm egg counts associated with higher wean body condition score
Luisa Kahl
University of New England
15.30-15.45

PLATINUM SPONSOR SESSION: ZOETIS
Chair: Patrick Meeus Zoetis
16.30-17.30

Lessons from agriculture on adaptive resistance management
Jeff Scott
Cornell University, Ithaca, NY USA
Lessons from agriculture on adaptive resistance management
Tom Walcutt
CSIRO
16.30-17.30

CONFERENCE DINNER
Sponsored by Merial
19.00 - 23.30

*Please note the program is a draft and subject to change without notice