



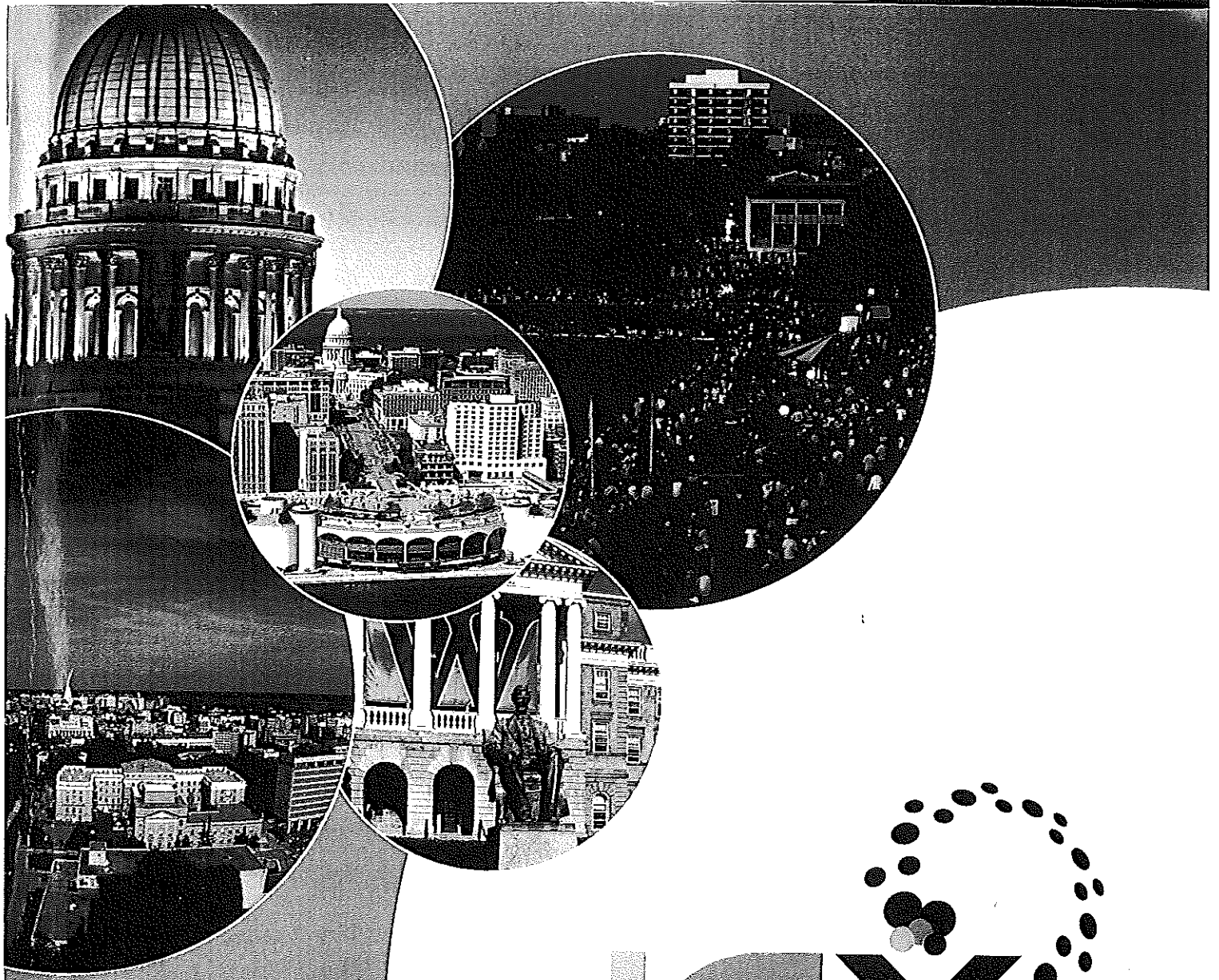
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## Potential probiotic *fura* yeasts interactions with Caco-2 and IPEC-J2 cell lines

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*Fura* is a fermented pearl millet product consumed in West Africa. The yeast species involved in the fermentation are *Candida krusei*, *Kluyveromyces marxianus*, *Candida tropicalis*, *Candida rugosa*, *Candida fabianii*, *Candida norvegensis* and *Trichosporon asahii*. Human (Caco-2) and porcine (IPEC-J2) cell lines were used to assess the probiotic potential of selected isolates. The effect of the isolates on the transepithelial electrical resistance (TEER) across polarized monolayers of Caco-2 cells and IPEC-J2 cells were determined. The Caco-2 cells and IPEC-J2 cells displayed clearly different relative TEER results. The strains of *C. krusei*, *K. marxianus*, *C. rugosa* and *T. asahii* were able to increase the relative TEER of Caco-2 monolayers after 48 h. In comparison, the relative TEER of IPEC-J2 monolayers decreased when exposed to the same yeasts, even though *T. asahii* did not differ significantly from the *Saccharomyces cerevisiae* var. *boulardii* which is used as a human probiotic. *C. tropicalis* resulted in the largest relative TEER decrease for both the human and the porcine cell line. Hyphal growth was observed for *C. albicans* and *C. tropicalis* after 48 h of incubation with polarized Caco-2 monolayers whereas this was not the case for the remaining yeast species. In the present study future candidates to be used as starter cultures with potential probiotic properties were proposed.