

Food Microbiology Special Interest Group (SIG)

The ASM Food Microbiology Special Interest Group (SIG) had a busy 2016 with a number of events covering a range of food microbiology-related topics. Together with the Victorian Branch, we enjoyed three events over the course of the year and discussed everything from the microbiology of Australian fermented foods, food spoilage and safety, public health epidemiology of foodborne infections and outbreaks, to food policy and legislation.

The first event, 'Food contamination, outbreaks and impacts to industry' discussed some of the high-profile foodborne disease outbreaks and contaminations that made headlines in Australia. Dr Narelle Fegan, a Team Leader in CSIRO's Food Safety and Stability Group, provided an in-depth analysis of an infamous *E. coli* outbreak linked to fermented meats, which was instrumental in impacting food manufacture best practise and as Narelle pointed out the repercussions of which were still being dealt with some 20 years after the outbreak. Dr Heather Haines then presented a review of a Hepatitis A outbreak linked to sun-dried tomatoes. This was particularly interesting as this was a highly unusual food-pathogen combination, and highlights the complexity of identifying and responding to unusual foodborne outbreaks. Dr Anne Astin led the audience through the complex series of events that unfolded during the WPC 80 *Clostridium* contamination incident that occurred in 2013 and showed how when such events happen to large businesses this can even have a knock-on effect to a country's economy. Finally Nectaria Tzimourtas, a Senior Public Health Officer within the Communicable Disease Prevention and Control Unit at the Department of Health and Human Services, reported on a recent emotive outbreak linked to the consumption of unpasteurised bath milk. The wealth of experience in the room also led to an engaging panel session after the talks which discussed the complexities of food production and how a concerted effort by a number of key stakeholders is necessary to help ensure the safest food supply for consumers.

The SIG then worked with the 2016 Bi-State Conference Organising Committee to include a number of excellent food

micro presentations to the program. The use of advanced technologies to food microbiology-related areas was a feature of many of the presentations, with Dr Scott Chandry of the CSIRO and Professor John Bowman of The University of Tasmania showing how metagenomics has revolutionised understanding and controlling food spoilage in production chains. Dr Deborah Williamson of the Microbiological Diagnostic Unit again demonstrated how Next Generation Sequencing has advanced microbiology and epidemiology, allowing real-time surveillance of foodborne outbreaks and enabling rapid responses with improved public health outcomes. Dr Williamson also demonstrated how these new approaches are allowing unparalleled capacity to detect outbreaks at a national level. Recent outbreaks of *Listeria monocytogenes* and Shiga toxigenic *Escherichia coli* were discussed by Dairy Food Safety Victoria's Chief Scientist, Deon Mahoney. The conference also included a fascinating overview of a viral outbreak of disease in Pacific Oysters by Dr Kevin Ellard. The complexities of food policy and legislation were also discussed by Dr Heather Haines, with insights into the underlying processes that feed into this important area.

The year was rounded out for the SIG with an evening celebrating Australian winemaking and the microbiology which underlies its production. Dr Kate Howell of The University of Melbourne introduced us to terroir and how the combination of environmental conditions and the choice of yeast can impart the characteristics of a wine. Matt Aulich of Blood Moon Wines then gave us a fascinating insight into winemaking using wild yeast varieties, and how these new artisanal varieties are growing in popularity.

The SIG is looking forward to more exciting events in 2017, and with the introduction of webinar streaming we will be able to widen the audience of events to all members. ASM members who would like to join the Food Microbiology SIG can do so by emailing Edward.Fox@csiro.au to keep up to date on events and receive the SIG newsletters.

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