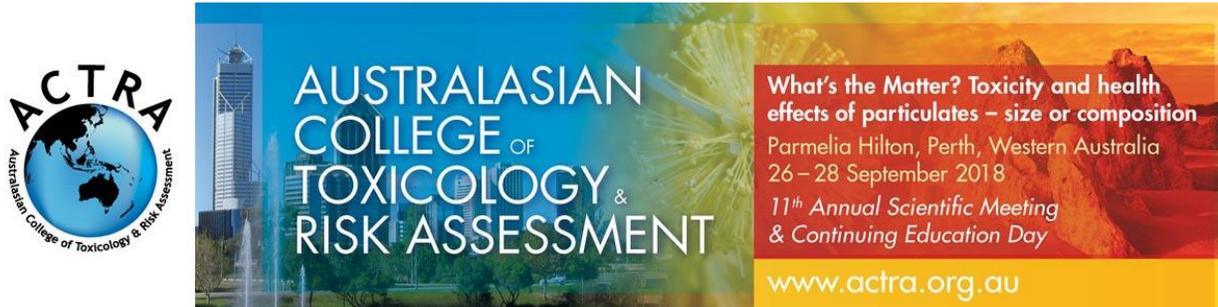


Australasian College of Toxicology & Risk Assessment (ACTRA)



Brief Account of the ACTRA Annual Scientific Meeting & Continuing Education Day

2018 Annual Scientific Meeting Focus:

What's the Matter? Toxicity and health effects of particulates – size or composition

This year the ASM theme was “What's the Matter? Toxicity and health effects of particulates – size or composition” – held in the well-appointed conference facilities of the Parmelia Hilton, Perth on 26-28 September, 2018. Activities started on Wednesday 26th, with 60 delegates participating in a Continuing Education (CE) Day on “Particulate Matter: Assessing the Health Impacts”. This included presentations by two excellent international speakers whose research is well known and highly regarded in the field: Dr. Jürgen Pauluhn (Bayer Healthcare (Retired) Germany) and Dr. David Warheit (Chemours Company, USA). They were accompanied by excellent Australian speakers Dr. Andrea Hinwood, Jennifer Martin, and Victor Kabay (all Victoria EPA), Victoria Lazenby (Arcadis Australia Pacific), and Antti Mikkonen (CDM Smith). These presenters addressed important aspects of mechanistic inhalational toxicity testing of particulates, and the associated risk assessment and communication, with Victoria Lazenby also using the case study example of Morwell township exposed to smoke from the 2014 Hazelwood mine fire in Gippsland. The CE sessions provided a strong practical grounding and were repeatedly referenced during the ASM.

On Thursday 27th, the ASM was opened by Dr. Peter Di Marco as the ACTRA President (and next President of IUTOX) and Jim Dodd (Director of Environmental Health WA). The 72 delegates were then quickly immersed in 2 full days of in-depth scientific matters, which included nine excellent keynote presentations, several shorter platform sessions, and five poster presentations on PFAS toxicokinetic studies in cattle from ToxConsult and colleagues. David Warheit clearly outlined the intricacies of performing appropriate inhalational toxicity studies and particle characterisations, using examples of testing TiO₂ particulates. Jürgen Pauluhn provided detailed explanations of the pitfalls and misinterpretations that can occur while testing poorly soluble low toxicity (PSLT) particulates, requiring an understanding of microkinetics in pulmonary tissue. Also, Prof. Graeme Zosky (UTAS) explained why asthmatics and healthy individuals have differential changes in inflammation and lung function following acute exposure to diesel exhaust particulates, as well as differences in immune responses between humans and animal models.

Friday 28th also had several excellent presentations, including particulate air monitoring from our CASANZ colleagues Jason Choi (EPA Vic), Fabienne Reisen (CSIRO) and Arthur Grieco (WA), as well as from the Student Travel Grant winner, Madeleine Thomas (Monash U), who raised important human behavioural issues (including loss aversion, sunk cost bias and the intention-action gap) for designing

effective risk communication to reduce pollutant exposures. There was also extensive vigorous discussion following both the presentation by John Frangos (CDM Smith) about the problems of providing health-based guidelines for particulates over short time periods, and an equally controversial presentation about the need for balanced risk communication in nanotoxicology research proposals and publications.

The ACTRA AGM was held with the usual efficiency (and rapidity) during Thursday lunch, while the very enjoyable ASM dinner that evening at Isle of Voyages was only a short pleasant walk along the scenic Esplanade (made very memorable by the company at my table!). This ASM was another resounding success, both scientifically and socially – Perth is an ideal location with its beautiful weather, the great venue and food, which was enjoyed by all participants during the lunch and tea breaks. Well done WA!

The success of the 2018 ACTRA ASM and CE Day would not have been possible were it not for the generous sponsorship provided by the Government of Western Australia Department of Health Public and Aboriginal Health Division (Platinum sponsor), Sumitomo Chemical Australia Pty Ltd (Gold sponsor); ToxConsult Pty Ltd, Government of Western Australia Department of Water and Environmental Regulation, Society of Toxicology (Bronze sponsors), Benchmark Toxicology Services (Student travel grant sponsor), and Thomson Environmental Systems (Supporting sponsor). The local organising committee, headed by Mirella Goetzmann, should also be commended for their fantastic efforts.

We look forward to welcoming everyone at ACTRA's other upcoming events next year. These include:
April 2019: ACTRA Workshop on Pesticide Toxicology (location TBC).

28-30 August 2019: ACTRA 12th Annual Scientific Meeting & Continuing Education Course, Melbourne, Australia (tentative theme: Advances in Reproductive and Developmental Toxicology).

