NSW Branch Newsletter

February 2019

Join us for our first event of the year…..

Social Meet & Greet
ANZFSS NSW Branch Committee

WHERE: The Forresters  
336 Riley St, Surry Hills

WHEN: 20th February, from 6pm  
Bar tab & nibbles provided

COST: Free for Members  
$20 Non-members

RSVP at https://members.anzfss.org/booking.php?id=101
The ANZFSS 24th International Symposium themed ‘Forensic Science Without Borders’ was held on the 9th-13th of September 2018. Among the 800 delegates from around Australia and the world were a large number of NSW branch members representing a wide range of forensic disciplines. The Perth branch should be congratulated on an exceptional conference filled with great science and a fun social program. Across the four days of presentations, delegates heard from a variety of plenary presenters on topics including Humanitarian Forensics, DNA, Toxicology, Military Forensics, CBRN, Fingerprints, Digital Forensics, and Forensic Science from the perspective of the victims of crime. Over 320 oral presentations and 215 poster presentations were delivered across 17 forensic science streams throughout the four days of the conference. Eighteen workshops were also held, with a range of topics including DNA, pathology and palynology. Delegates were treated to a packed scientific programme that also included a Wednesday evening public lecture delivered by Dr Max M Houck and a panel discussion on DNA intelligence, the latter of which was organised by former NSW President, Ali Sears, and featured our current NSW branch Vice President, Dr Jen Raymond.
A number of NSW branch members were awarded prizes at the Symposium, and we would like to give our congratulations to:

**James Wallman** - Best oral presentation in Wildlife and Forensic Taphonomy titled “Context effects in forensic entomology and use of sequential unmasking in casework”

**Dominic Raneri** - Best oral presentation in Electronic and Digital Evidence titled “Reconstructing the Lindt Cafe Siege”

**Vitor Taranto** - Best poster in Fire and Explosions “The Analysis of Organic Explosives in Vapour Samples Using a Lab-on-a-chip Instrument”

**Natasha Benson** - Best oral presentation in Fire and Explosions titled “Validation of a novel detector for microfluidic paper-based analytical devices with Nitro-Aromatic explosives using fluorescent quenching”

**Nicole Cattarosi** - Best poster in Illicit Drugs and Clandestine Laboratories titled “Comparison of authentic and synthetic training aids for drug-detection dogs - Cocaine, Heroin and Marijuana”

**Maiken Ueland** - Best poster in Wildlife and Forensic Taphonomy titled “The use of human lipid biomarkers for postmortem interval estimation”
Search and Recovery of Human Remains and Associated Evidence in a Mass Disaster Scenario

Maiken Ueland, UTS & AFTER - Michael Dawson Award

Maiken kicked off the night with an engaging talk on her work at the Australian Facility for Taphonomic Experimental Research (AFTER). The talk focussed on the outcomes and lessons learned from her most recent project studying search and recovery efforts in mass disaster scenarios, such as a building collapse. A key finding of the project to date has been the differential decomposition observed between bodies in isolation compared to those co-located in a disaster scene.

Estimating Post-mortem Interval of Soft Tissue in a Temperate Australian Environment

Zachariah Knobel, UTS & AFTER – Eric Murray Award

Following on from Maiken was Zachariah speaking about another study at AFTER conducted as part of his PhD. Zach’s project aims to develop a robust visual scoring method to assess the progress of soft tissue decomposition. In his talk, Zach described how the method being developed differed from currently used methods by dividing up the parts of bodies into regions that could be scored separately. This new method seems promising as a way of providing more accurate estimates of post-mortem interval (PMI) for remains located in temperate Australian environments.
Taking the 'Secret' out of Secretions: Evaluation of the Early Access ParaDNA Body Fluid ID System

Felicity Poulsen, NSWHP FASS – Rebecca Kendrew Award

Felicity’s talk presented the results of an evaluation of the ParaDNA Body Fluid ID System that was completed at the NSW Health Pathology, Forensic & Analytical Science Service (NSWHP FASS). The evaluation assessed the system’s useability and applicability for forensic body fluid identification in the casework workflow. The technology, utilising rapid messenger RNA (mRNA) analysis, was found to be viable for the detection of neat fluids. However, it was concluded that the system was currently not robust enough for implementation into casework.

Next-generation Latent Fingermark Detection using Functionalised Silicon Oxide Nanoparticles

Timothy Lee, WSU – NSW Branch Award

Changing pace from the Biology-focused talks, Timothy presented the results of his study looking into the use of functionalised silicon oxide nanoparticles for the development of latent fingermarks. The potential use of these nanoparticles had been flagged in earlier publications, prompting further investigation. Timothy’s study compared the nanoparticles to traditional techniques for latent fingermark detection. The silicon oxide nanoparticles were shown to enhance the resolution of fingermarks under a range of conditions, an improvement on traditional methods.

Evaluating Early Evidence Kits in Sexual Assault Investigations

Rebecca Douglas, NSWHP FASS – NSW Branch Award

Rebecca’s presentation focussed on the results of an evaluation into Early Evidence Kits (EEKs) and their utility in sexual assault investigations. Rebecca presented statistics on the number of cases where EEKs were received in addition to a Sexual Assault Investigation Kit (SAIK). In many cases, the EEK provided information not provided by the SAIK, which could be useful to assist investigations. The results demonstrate the importance of collecting EEKs as well as SAIKs. Currently only 5 Local Health Districts (LHDs) in NSW routinely collect EEKs. There is a vision to implement EEKs more widely in NSW LHDs following the results of this evaluation.
Attendees of the end of year dinner were privileged to have Professor Ian Freckelton QC as their speaker for the evening.

Ian has an impressive list of achievements: he is a Queen’s Counsel barrister who has practiced throughout Australia; a judge of the Supreme Court in Nauru; a tribunal member; an investigator of allegations of misconduct; a member of various boards and committees; a professor of law, psychiatry and forensic medicine; a fellow of academies; a journal editor; a speaker at international gatherings; as well as an editor and author. He has been a Commissioner at the Victorian Law Reform Commission, a President of the Australian and New Zealand Association of Psychiatry, Psychology and Law, and held a variety of international positions. Wow!

Ian captivated the audience with a fascinating insight into narcissistic personality disorder (NPD) and its relevance to the commission of violent crimes. Ian started by providing an understanding of personality disorders and listed the features of an individual with NPD, which include: having ideas and feelings of grandiosity, an exaggeration of talents, issues with self-esteem, trouble controlling behaviour and blatant self-promotion. Does that sound like anyone you know?, he asked!

Ian believes that personality disorders are at the heart of most crimes and that there is a correlation between NPD and violence. Ian showcased a number of examples of individuals with NPD associated with high profile crimes. Jean Claude Romand constructed an entirely fictitious life which included pretending to be a doctor. When Jean Claude felt threatened that all his lies would unravel he killed his wife, children and parents, almost killed his mistress and then staged his own suicide. Ian then spoke of Anders Breivik who bombed a building killing 8 and then went on to kill 69 people at a youth summer camp. He was diagnosed with NPD and was described as living in a delusional universe. Man Monis, who as we well know was responsible for the Lindt Café siege, was described by Coroner Michael Barnes as narcissistic, antisocial, deluded and lacking empathy. Ian concluded by speaking about Gerard Bayden Clay who he considers a classic example of someone with NPD. Bayden Clay had high end narcissism or malignant narcissism combined with antisocial elements. He infamously killed his wife in a narcissistic rage when he felt his reputation and integrity were being threatened.

The ANZFSS NSW Branch committee would like to thank Ian for delivering such a fascinating presentation.