



Message from Claude Roux – President

Dear ANZFSS Member,
You recently received a message inviting you to provide feedback on the “Discussion Paper on the Professionalization of the Australian and New Zealand Forensic Science Society (ANZFSS)” (<http://anzfss.org/professionalization-of-the-anzfss/>). We strongly value members’ feedback on this proposal and remind you to provide your feedback through <https://www.surveymonkey.com/r/TSKZSKQ> before Thursday, 31st March 2016. Depending on the members’ responses, further refinements to the proposed model will be made and a final document, with associated revised Rules of Association, will be proposed to the ANZFSS membership at the Auckland AGM in 2016.

The “professionalization of the ANZFSS” is a multifaceted topic that has been debated for many years now and this paper took some time in the making. It is therefore impossible to go over this again here without sounding like a broken record. Suffice to say that the ANZFSS Executive and Council believe the proposed directions provide the capacity to drive the Society into the future, enhancing the professional identity of the Society as a whole.

Without pre-empting the outcome of this broad consultation, a preliminary sense-check shows that the membership seems in broad agreement with the proposed directions and the Society may be ripe for this change. On that note, although some interpret the proposal as calling for a revolution, in reality it is a logical and sensible evolution. The ‘new’

ANZFSS will recognise (1) those members who can qualify as “professional” (i.e. someone who derives their income from their expertise or specific talents, as opposed to a hobbyist or amateur), and (2) “professionalism” (i.e. the personally held beliefs about one’s own conduct as a professional), whilst allowing general interest and student members to remain active members of the Society. And of course, Life Membership will continue to represent the highest honour of the Society. Furthermore, from an international perspective, accepting such changes will only put us on a par with our sister societies in the UK and USA!

The organisation of the ANZFSS Symposium is ramping up and I thank Sarah Scott, Matt Gittos, Jo Bright and the Auckland 2016 Organising Committee for their enthusiastic and dedicated work. Everything is shaping well from the plenary program to the exhibition through to the workshop and social program. There will be a record number of travel scholarships offered this year and the assessment sub-committee is currently busy ranking the applications. Branches will offer further opportunities for travel scholarships and I urge you to stay in contact with your branch for more information. In any case, please visit <http://www.anzfss2016.org/> to stay in touch with the latest news from Auckland.

It leaves me now to wish to all a very Happy Easter and a safe long weekend.

Yours Forensically,
Prof. Claude Roux
ANZFSS President

Congratulations to:

Allan Hodda Award Winner



We are pleased to announce that the winner of the 2015 Allan Hodda Memorial Award is **Natasha Mitchell** from South Australia (Forensic Science SA). Natasha will travel to the USA this year to visit a number of laboratories and research institutions and to attend the International Symposium of Human Identification in Minneapolis. We warmly congratulate Natasha on a truly outstanding application. Natasha is pictured here with Adrian Linacre, SA Branch President.

The high level of interest this year generated a very competitive field and, as a result, many other excellent applicants missed out. We thank the unsuccessful applicants for their interest in the Award and for the time they invested in their applications. Information on the Allan Hodda Memorial Award can be found at: <http://anzfss.org/the-allan-hodda-memorial-award/>.

Australia Day Honours:



Paul Pigou (SA Branch) was awarded the Public Service Medal in the Australia Day honours. Paul works on a number of drug chemistry related projects at Forensic Science SA and has an adjunct Associate Professor position at Flinders University.



Senior Sergeant **Kerrie Whitwam** (Tasmania Branch) was recognised in this year's Australia Day Honours for outstanding service to policing.

AAFS Emerging Forensic Scientist Award

Mithun Rajshekar (PhD candidate) was awarded the Henry C. Lee Scholarship for 2015 by the American Academy of Forensic Science (AAFS). This Forensic Sciences Foundation (FSF) Emerging Forensic Scientist Award was for the Abstract he submitted on 'Assessing the Reliability of Measurements of Human Dental Casts Using an Intraoral 3D Scanner', for an oral presentation at the *American Academy of Forensic Sciences (AAFS) 68th Annual Scientific Meeting 'Transformation: Embracing Change'*, held in Las Vegas, 22- 27 February 2016. Mithun is a PhD student in the Tasmanian Institute of Law Enforcement Studies (TILES) and the Menzies Research Institute at the University of Tasmania.

ANZFSS Symposium Updates



With only six months to go until the start of the ANZFSS 23rd International Symposium in Auckland, New Zealand, it is time for those of you outside the host city to be planning your travel. Air NZ and the Star Alliance network have a special available for conference delegates. Please see our website or contact us for further information.

We received a fantastic number of abstract submissions which are currently being assessed by our team of discipline chairs. We are working to accommodate as many oral presentations into the program as possible to allow the maximum amount of the fantastic science we all do to be shared with delegates. Presenters will be advised from the end of March.

Registration is due to go live any day now. We have managed to keep registration fees as low as possible whilst still guaranteeing a **world class** Symposium with all of the inclusions as per previous years. Workshops have been finalised and will be available via the registration process.

Details of networking functions are due to be released shortly so stay tuned for these.

Interest in the trade exhibition is booming with spaces selling out rapidly. If your company wishes to exhibit, please get in contact with us immediately to avoid disappointment.

New Zealand President and ANZFSS Vice-President (NZ), Matthew Gittos, has just returned from a highly successful trip to the American Academy of Forensic Sciences (AAFS) conference in Las Vegas. NZ are hosting a strong contingent of AAFS members and their 2016 President, John Gerns, as part of their International Education Outreach Program, associated with the Auckland Symposium. We are looking forward to hosting our American delegates and fostering closer relations between the two societies. Our sincerest thanks to Tourism NZ for funding Matthew's trip.



Very end of the Plenary Session, AAFS 2016



Ronda Horstman- CryoLife Technologies, Matt Gittos - ANZFSS/NZP and Allison Rickman- CryoLife Technologies - 'Delegates Networking Vegas Style'

The 2016 Symposium is shaping up to be another world leading forensic science event. Don't miss out –book your seat for Auckland today.

ANZFSS 2018 Conference Update

As the Auckland 2016 conference rapidly approaches, preparations are underway in Perth for the 2018 conference. As most of you would be aware, Hadyn R Green APM has been elected as Chair of the Organising Committee for the 24th International Symposium on the Forensic Sciences. The remainder of the Organising Committee has recently been finalised, with the various positions filled as follows:

- Professor Simon Lewis (Curtin University) – Deputy Chair of the Organising Committee
- Dr Gavin Turbett (PathWest) – Chair of the Scientific Subcommittee
- Dr Kari Pitts (ChemCentre) – Treasurer and Exhibitions & Sponsorship Coordinator
- Ms Linda Sengsourinho (Department of Health / crimeScene WA) – Merchandise Coordinator
- Dr Chris May (TSW Analytical) – Chair of the Social Subcommittee

The Organising Committee held its first meeting at the beginning of March with Ms Renee Bennett from EECW, our Professional Conference Organiser. The venue (Perth Convention & Exhibition Centre) and date (9-13 September 2018) for the conference are now locked in. Additionally, a theme has been selected and will be revealed, along with a website following the 2016 Conference Dinner in Auckland. Over the next few months we will continue to prepare for the launch and look forward to presenting the results to you in September. Please make sure you drop by our booth in Auckland and say hello!

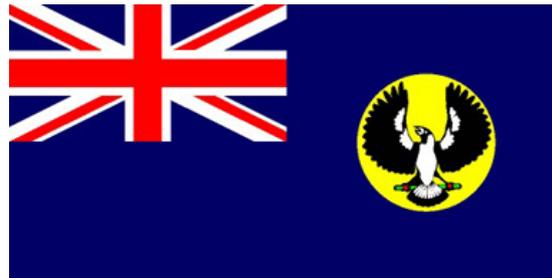


A view of the Strip at night from the 51st floor Voodoo Nightclub lounge.



Branch Reports

Calling: South Australia



The success and celebration that flows from the ANZFSS symposium held in Adelaide in 2014 still resonates with the South Australian Branch. We have a membership of nearly 200 with very well attended presentations. Despite the attractions of the Adelaide Fringe and Clipsal car race, we had over 80 attend our first meeting of the year to hear Michaela Kinneally and Silvana Tridico present a double act of aspects of hairs.

Typically, we organise six meetings per year and, being aware that our members come from a broad spectrum of interest in forensic science, these presentations normally include a science-focussed meeting, a case study, something related to the legal aspects of forensic science and a presentation that fits with Science Week in August. 2015 was no exception, with talks on: timber tracking - talking about how DNA can be used to link illegally logged timber; staged homicides - with thought provoking commentary relating to recent cases; forensic podiatry – discussing the science, real applications and limitations of analysing gait and posture; miscarriages of justice and the role of the expert witness from two eminent visiting barristers; and a talk on vision, light and colour by the renowned astronomer and photographer, David Malin, during Science Week. Wide-ranging and eclectic while still with a strong forensic focus.

Last year, each talk was recorded by a branch member (thanks Stan Jezioranski!) who produces a very polished video recording so that members of the branch that cannot attend the meeting may view remotely. We are fortunate that the venue for our talks is Flinders in the City, allowing a good quality audio visual facility in a comfortable city centre venue. Catering in the form of nibbles and drinks are provided at the start of the meetings with excellent brownies (thanks Kate and the team!); a fair added inducement to come along.

The SA Branch has an award for exceptional service and is reserved for members of our branch that have made an outstanding contribution. This year the committee agreed to award this to the five members of the Adelaide Symposium organising committee so very many congratulations to David Eitzen, Carolyne Bird, Nat Mitchell, Darren (aka Stix) Bails and Ted Sileniaks. Awards were presented at our dinner in November.



Carolyne Bird and Nat Mitchell receiving their SA Branch Award



David Eitzen in a happy mood after receiving his SA Branch Award from the branch President

It was noted that we had not had a branch dinner for many years. Hence a well-attended dinner took place with an excellent talk from Rebecca Heyer on biometrics, in between the main course and dessert.

I am delighted that our active committee member, Nat Mitchell, was the successful recipient of the Allan Hodda Award. Nat will be able to travel to key meetings and workshops in the USA this September, as well as work and learn from experts in mass parallel DNA sequencing. We look forward to hearing from Nat on her return. Well done Nat!

On the theme of branch successes, Paul Pigou was awarded the Public Service Medal in the Australia Day honours. Paul (see photo) works on a number of drug chemistry related projects at Forensic Science SA and has an adjunct Associate Professor position at Flinders University.

My time as President has been made very easy by an excellent committee (both current and recent past) who come up regularly with ideas for speakers and activities. We already have lined up an excellent and varied number of titles for member meetings. A branch newsletter is produced regularly (thanks to Dan Butzbach), a Facebook page maintained (<https://www.facebook.com/search/top?q=anzfss%20sa>), merchandise promoted (thanks Luke Volgin) and our branch activities could not function so successfully without the help of all other committee members not already mentioned (currently Kerryn Mason, Steve Kinsman, Andrew 'Spud' Murphy, Julianne Henry, Lenara Scandrett, Karen Thai and Stewart Walker).
Prof Adrian Linacre, SA Branch President

Calling: **Western Australia**

2016 has started off strongly for the ANZFSS WA Branch. Following last year's AGM, we made only minor changes to our committee and I'm sure I speak for everyone on the committee when I say that we look forward to representing the WA forensic science community for at least another 12 months.



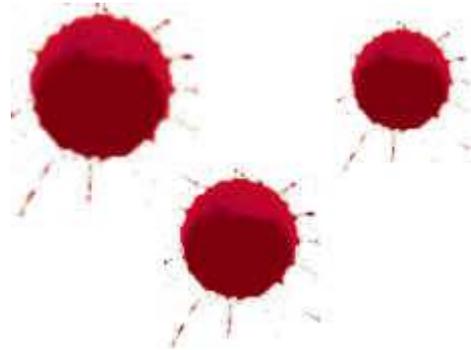
Our first branch meeting of the year was held in mid February where we welcomed a presentation from Dr Rachel Popelka-Filcoff of Flinders University, who visited WA briefly while co-supervising a student with Professor Simon Lewis from Curtin University. We hope to follow up this presentation with another presentation for our members in April and continue at this bimonthly pace for the rest of the year.

Given it has been over 18 months since our last appearance in the ANZFSS Newsletter Branch Spotlight, we thought we'd do something a little different for the rest of this update. Rather than fill you in on the events of 2014 & 2015, we've decided to turn our focus to some of the fantastic research in forensic science being undertaken at tertiary education institutions in WA. Members of each institution were approached and have provided their own summaries of their current research. So with that, I'll hand over to the various representatives of the research groups. I look forward to seeing the WA members at our next meeting, and I hope to catch up with the rest of you in Auckland in September.
Dr Chris May, WA Branch President

Murdoch University – Kirstie Caren, Associate Professors James Speers & Bob Mead

Associate Professor James Speers from Murdoch University, in conjunction with the Chemistry Department Queen's University Belfast and the Forensic Science Laboratory Northern Ireland, have undertaken a large scale study to test the potential of attenuated total reflectance infrared absorption (ATR-IR) and Raman spectroscopy as a rapid, non-destructive and inexpensive means of identification of new psychoactive substances (NPS) at street level. Using a set of 221 unsorted seized samples (uncompleted postal deliveries) suspected of containing NPS, both methods provided data unique to each compound and were able to distinguish not only differences between the sub-classifications of seized NPS (cathinones, amphetamines, synthetic cannabinoids and tryptamines) but closely related compounds within each category. The initial screening of the seized samples using vibrational spectroscopy enabled only 41% of the samples to be fully identified when searched against the reference libraries. The limiting factor in the identification of the active compounds was the lack of reference library data rather than poor spectral quality. When 33 of these unknown compounds were characterised by NMR and high resolution mass spectrometry and their vibrational spectra used to extend the libraries, the percentage of samples identified by ATR-IR and Raman screening increased to 76% with only 7% having no identifiable constituents. This large scaled study demonstrates that this approach of a feedback cycle of detecting non-matching NPS samples using portable ATR-IR and Raman instrument screening and then identifying them using standard analytical methods has the potential to allow the rapid identification of the constituents of the majority of street quality NPS samples.

Recent post-graduate research in Forensics at Murdoch has primarily been in the area of blood pattern analysis. Honours student Sarah Evans investigated if differences in haematocrit values would affect the scientific reliability of calculating the area of origin (AOO) during crime scene reconstruction. Her research concluded that variations in blood haematocrit values have no influence on the ability to determine the AOO of a blood source responsible for generating a bloodstain impact pattern. Another student, Kirstie Caren, has been developing a technique to determine the deposition time of bloodstains. Using reflectance spectroscopy and internationally recognised chromaticity values, her method aimed to numerically define the changes that were occurring to bloodstain colour as a function of time. Her data enabled her to develop a predictive model that can differentiate between recent and historic bloodstains and also determine the order of deposition.



With an exciting new academic year about to commence, we have an additional two honours students undertaking BPA research. Nichola Cunningham is looking to build upon our previous work and will be investigating environmental factors and the extent at which they influence bloodstain drying and subsequent age determination. While Geraldine Tan is aiming to use hyperspectral imaging to investigate the spectral properties of aging blood and assess the viability of hyperspectral imaging for determining bloodstain deposition times.



Sarah Evans explaining the region of origin calculation to Associate Professor Bob Mead.



Kirstie Caren setting up human bloodstains for a blood pattern aging experiment.

University of Western Australia – Professor Daniel Franklin

Daniel Franklin and Ambika Flavel are continuing research in the disciplines of forensic anthropology and archaeology; their ongoing programme involves the development of population specific data to facilitate the rapid and accurate identification of skeletal remains. The latter pair also recently returned from Cambodia having been contracted to assist in the training of national scientists involved in the analysis of human remains from the Killing Fields in Phnom Penh; an American Academy of Forensic Science Humanitarian Grant funded the two-week trip. In 2016 nine new students commenced research projects within the specialised master of forensic anthropology (by research thesis) at UWA; new offerings for 2017 will include a forensic anthropology graduate certificate, graduate diploma and coursework master degree. Expressions of interest are currently being solicited for the 2016 Venice Forensic Field School – last year 14 students participated in the archaeological excavation and anthropological analysis of human skeletal remains from a 16-17th century plague burial on the Venetian Island Lazaretto Nuovo.



Sasha Voss continues to represent forensic entomology at UWA with her research focus on within species variation in blowfly behaviour and development. Her work aims to quantify biogeographical variation between populations across Australia's latitudinal range and provide improved models for the estimation of time since death using insect evidence. The molecular biology component of the study currently forms part of a Master's project being undertaken at UWA.

Additionally, two new student research projects commenced in 2016. One investigates the influence of paracetamol on blowfly development and the other aims to assess current blowfly rearing methods for development of best practice standards in data generation used in determination minimum PMI.

Curtin University – Professors Mike Bunce & Simon Lewis

The Trace and Environmental DNA (TrEnD) laboratory based at Curtin University has an active research program in forensic genetics (next generation DNA sequencing) led by Prof Mike Bunce. In the TrEnD laboratory, Dr Nicole White has been involved in casework involving cockatoo and snake poaching as well as illegal fishing. Likewise, Dr Megan Coghlan's research involves profiling the DNA in herbal products like traditional Chinese medicine (TCM) to determine the ingredients - this work recently received wide recognition in the media (<http://www.abc.net.au/news/2015-12-10/traditional-chinese-medicines-dangerous-chemical-contaminants/7015534>) and seeks to use new approaches to forensically examine herbal medicine.

Prof Simon Lewis leads the Forensic and Analytical Chemistry Group within the Nanochemistry Research Institute at Curtin University. The main research foci of the group are latent fingerprint chemistry, including the detection of latent fingerprints and the characterisation of latent fingerprint residue, and the application of spectroscopy in conjunction with chemometrics to the characterization and classification of physical exchange evidence. This work is carried out with a variety of collaborators including ChemCentre and the WA Police. Recent published examples of work from the group can be found as open access articles in Analytical Methods: Ultraviolet-visible spectroscopic characterisation of automotive window tints for forensic purposes (<http://pubs.rsc.org/en/content/articlelanding/2015/ay/c5ay01381j#!divAbstract>) and In situ studies into the characterisation and degradation of blue ballpoint inks by diffuse reflectance visible spectroscopy (<http://pubs.rsc.org/en/content/articlelanding/2015/ay/c5ay00761e#!divAbstract>).

Calling: Tasmania

ANZFSS member awarded Australia Day Honour

ANZFSS member, Senior Sergeant Kerrie Whitwam (Tasmania Police Forensic Services) was recognised in this year's Australia Day Honours, together with Commander Brett Smith, for their outstanding service to policing.

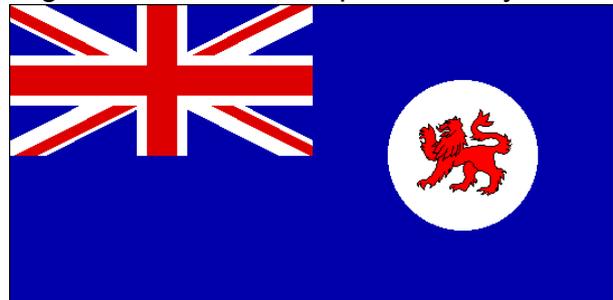
In offering congratulations to both officers Police Commissioner Darren Hine said: "Both officers have excelled in service and dedicated time outside of their duties to commit to their professional development."

"The award of the Australian Police medal is given careful consideration and the exemplary conduct of Commander Brett Smith and Senior Sergeant Kerrie Whitwam make them very worthy recipients."

Senior Sergeant Kerrie Whitwam was appointed as a Police Constable in 1981. In her career spanning 35 years, Sergeant Whitwam has served Tasmania Police with outstanding enthusiasm and dedication to her position.

Keen to expand on her professional development Senior Sergeant Whitwam served secondments with the Australian Bureau of Criminal Intelligence in Canberra and also at the National Academy, FBI at Quantico, Virginia, USA. She has also served internationally on deployment with AFP to Solomon Islands.

Kerrie worked in Forensic Services in Burnie from 1989-1991, then returned to Hobart in 2008 and joined ANZFSS. Since then she has completed the Advanced Diploma in Public Safety (Forensic Investigation) through CIT, been the Electronic



Evidence jurisdictional rep ANZPAA-NIFS from 2008-2014, DNA UAG Tasmania Police rep since 2014, and is currently responsible for the Fingerprint Section. Displaying notable diligence to duty and integrity throughout her duties, Senior Sergeant Whitwam has previously been awarded the Tasmania Police Commissioner's Medal, the National Medal, the National Police Service Medal and an AFP medal and certificate for her service to the Honiara Riots on the Solomon Islands.

Senior Sergeant Whitwam has worked in various areas of Tasmania Police including uniform work, Drug investigation, Criminal Investigation and currently is the Sergeant in charge of Forensic Services.



Presentation on forensic toxicology by Miriam Connor (FSST)

The ANZFSS Tasmanian Branch held a meeting on Thursday 25th February. Miriam Connor (toxicology manager at FFST) gave a presentation to a small but interested audience on 'Forensic Toxicology - Another Piece in the Pathologist's Puzzle'. Miriam is the toxicology manager at

Forensic Science Service Tasmania (FSST) and has been working on forensic toxicology for the past seven years. Miriam is involved with the toxicological analysis (alcohol, drugs/poisons) of biological samples taken for Police for Road Safety (traffic) purposes; or by forensic pathologists at autopsy; or for Criminal cases (e.g. drug trafficking, sexual assaults or other criminal matters).

Prof Roberta Julian, Tas Branch President

In the next edition:

