




# PROGRAM

Program is subject to change. We encourage you to download the Symposium App for updated changes.

## SUNDAY 11 SEPTEMBER

1600 - 1730	<b>Exhibitor move in</b>	
1500 - 1800	<b>Registration opens</b> Location: Level 6, Business Centre	
1500 - 1730	<b>ANZFSS Council Meeting</b> Room: Seidler Boardroom, Business Centre, Hilton Brisbane	
1730 - 1930	<b>WELCOME FUNCTION</b> Location: ANZFSS Exhibition Level 5, Hilton Brisbane	SPONSORED BY 

## MONDAY 12 SEPTEMBER

0730 - 1730	<b>Registration desk opens</b>	
0845 - 1000	<b>OPENING SESSION</b>	
Chair:	Andrew Stanley	
Room:	Grand Ballroom	
0845 - 0850	ANZFSS Welcome <b>James Curran</b> , ANZFSS President	
0850 - 0855	Presenting Partner Welcome <b>Peter Waterman</b> , Thermo Fisher Scientific	
0855 - 0905	ANZFSS 2022 Local Organising Committee Welcome <b>Andrew Stanley</b> , Scientific Chair, ANZFSS 2022	
0905 - 0945	The Difference We Make <b>Denise and Bruce Morcombe</b> , facilitated by <b>Donna MacGregor</b> , Chair ANZFSS 2022	
0945 - 1015	<b>Morning Tea</b> Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer	
1020 - 1200	<b>PLENARY SESSION 1</b>	
Chair:	Donna MacGregor	
Room:	Grand Ballroom	
1020 - 1030	Welcome to Country	
1030 - 1115	Preventing Future Crimes By Looking Backwards - Why Cold Cases Matter? <b>Dr Angela Williamson</b>	
1115 - 1200	Human Decomposition Facilities - Creating Future Possibilities For Forensic Science <b>Prof Shari Forbes</b>	
1200 - 1300	<b>Lunch</b> Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer	

1300 - 1450	<b>CONCURRENT SESSIONS</b>						
	<b>1.1A: Biological criminalistics</b>	<b>1.1B: Science, justice and legal issues</b>	<b>1.1C: Wildlife forensics, environmental crime and forensic taphonomy</b>	<b>1.1D: Fires and explosions</b>	<b>1.1E: Fingerprint examination</b>	<b>1.1F: Management &amp; quality assurance</b>	<b>1.2G: Anthropology, archaeology and odontology</b>
Chair	Kaye Ballantyne	Loene Howes	Matt Krosch	Andy Rowan	Alicia Finigan	Rechelle Cook	Denice Higgins
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria	Room 83	Room 82
1300	<b>KEYNOTE</b> Do we need to read profiles anymore? Combining neural network profile processing and probabilistic genotyping <b>Duncan Taylor</b>	<b>KEYNOTE</b> AI and machine learning for DNA evidence: Addressing the practical legal issues <b>Kerry Andresen &amp; Caitlin Williams</b>	<b>KEYNOTE</b> Surrender your shell: Development of a DNA database to trace the illegal tortoiseshell trade <b>Greta Frankham</b>	<b>KEYNOTE</b> The forensic explosives laboratory: An overview of great britain's forensic explosives investigation capability <b>Matthew Beardah</b>	<b>KEYNOTE</b> The printgym: An evidence-based training tool for accelerating the development of perceptual expertise in fingerprint examination <b>Matthew Thompson</b>	<b>KEYNOTE</b> Forensic management system - development, implementation and adoption of a new case management system within AFP forensics <b>Kylie Jones</b>	<b>KEYNOTE</b> Preparing medical images for machine learning in forensic and virtual anthropology <b>Ling I Martin Lo</b>
1330	<b>SORTR</b> : An automated system for the analysis and processing of reference DNA samples <b>Maria van der Salm</b>	Comparative analysis of Australian legislation regarding forensic DNA use <b>Tersia Oosthuizen</b>	The effect of necrophagous entomofauna on textile damage during the summer in Western Australia <b>Paola Magni</b>	Characterisation and identification of homemade explosives and their precursors <b>Joshua D'uva</b>	The XQ: An evidence-based measure of perceptual expertise in fingerprint examination <b>Rachel A Searston</b>	Forensic mortuary operations and the Covid-19 pandemic in Victoria, Australia <b>Natalie Price</b>	3-Dimensional comparison of twin dentitions for dental identification purposes <b>Harry Perkins</b>

**MONDAY 12 SEPTEMBER [CONTINUED]**

	<b>1.1A: Biological criminalistics</b>	<b>1.1B: Science, justice and legal issues</b>	<b>1.1C: Wildlife forensics, environmental crime and forensic taphonomy</b>	<b>1.1D: Fires and explosions</b>	<b>1.1E: Fingerprint examination</b>	<b>1.1F: Management &amp; quality assurance</b>	<b>1.2G: Anthropology, archaeology and odontology</b>
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria	Room 83	Room 82
1350	A tool for simulating forensic DNA profiles for validation of probabilistic genotyping software <b>Maarten Kruijver</b>	The realities of an adversarial system: Lawyers and DNA evidence in criminal trials <b>Kate Cashman</b>	Ovipositional preferences and competitive effects: Dynamics of the interaction between primary blowflies and chrysomya rufifacies <b>Michelle Harvey</b>	Investigation of caravan explosion Mt Isa <b>Darren Smith</b>	How often do fingerprint experts disagree in routine casework? <b>Michael Whyte</b>	An initial investigation into understanding and mitigating reputational risk in forensics by using an independent risk framework <b>Ian Cowan</b>	Human identification: an investigation of 3D models of paranasal sinuses to establish a biological profile on a modern UK population <b>Madeline Robles</b>
1410	Making complex calculations involving relatives and DNA mixtures easy using the DBLR software <b>Maarten Kruijver</b>	Child soldier or soldier? Estimating age in cases of core international crimes: Challenges and opportunities <b>Moa Lidén</b>	The importance of exposure: What happens when insects can't get in? <b>Natalie Gasz</b>	Rapid on-site analysis of trace inorganic explosive residues using portable capillary electrophoresis <b>Malcolm McCulloch</b>	Fingerprint decision making down under: Accuracy and reliability <b>Michael Whyte</b>	More than words: Toward a common language for quality issues in forensic science <b>Anna Heavey</b>	The application of non-metric sex and ancestry estimation methods to virtual three-dimensional skull models <b>Marion Davidson</b>
1430	The MPP Genotyper: An expert genotyping system for MPS data <b>Paul Roffey</b>	DNA identification of the HMAS Sydney unknown sailor – an 80 year mystery solved <b>Jeremy Austin</b>	Retrospective review of forensic entomology casework in Eastern Australia from the 1990's to the present <b>Matt Krosch</b>		Quantitative evaluation of the growth of fingerprints from juvenile to adult in a forensic setting <b>Belinda Bastide</b>		Sex determination from the lower limb measurements of tibia and foot using 3D volume rendering technique of computed tomography in north-west indian population: A forensic anthropological study <b>Mohinder Sharma</b>

1430 – 1510 **Afternoon Tea**  
Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

**1510 – 1710 CONCURRENT SESSIONS**

	<b>1.2A: Biological criminalistics</b>	<b>1.2B: Science, justice and legal issues</b>	<b>1.2C: Crime scene investigation</b>	<b>1.2D: Anthropology, archaeology and odontology</b>	<b>1.2E: Pathology and clinical medicine</b>	<b>1.2F: Management &amp; quality assurance</b>
Chair	Joannah Lee	Carolyne Bird	Donna MacGregor	Matt Krosch	Cheryl Charwood	Rechelle Cook
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria	Room 83
1530	Forensic DNA phenotyping for when the case has run cold <b>Luke Ryan</b>	Exhibit management and laboratory support across multi-disciplinary forensic units <b>Jasmin Glover</b>	Improved photographic techniques and workflows for supporting the digital recording and analysis of blood spatter <b>Emma Bonaccordo</b>		Bioacoustics and machine learning to monitor succession of necrophagous diptera <b>Elena Gorgeva</b>	Driving transformative change in the fingerprint sciences group <b>Tracie Gould</b>
1550	An innovative MPS workflow for the forensic application of phenotype and biogeographic ancestry prediction <b>Paul Roffey</b>	Transparency in forensic science – an enhanced reporting paradigm for Victoria <b>Kaye Ballantyne</b>	The development of a reliable impact spatter generator for use in bloodstain pattern analysis casework <b>Shawn Harkins</b>	Redefining the biological sex binary when assessing the sex of an individual <b>Kristy Winter</b>	A practical guide to post-mortem selective cervical angiography <b>Katherine Hulme</b>	Harm reduction through drug surveillance: A forensic approach <b>Kelsey Seyfang</b>
1610	The AFP MPS workflow – 17100 hours of work in 14 simple steps <b>Isabelle Avent</b>	The effect of report compliance on evaluations of forensic examiners reports <b>Stephanie Summersby</b>	The influence of textile construction and fibre composition on the shape and distribution of passive and spatter bloodstains <b>Tylar Hoare</b>	Rapid identification: Leaving behind the labour of comprehensive Disaster Victim Identification (DVI) process <b>Lyndall Smythe</b>	The last supper: Minimally invasive CT-assisted technique for post-mortem collection of gastric contents <b>Evan Leckenby</b>	Forensics training: No longer same as it ever was <b>Scott White &amp; Dr Mackenzie de la Hunty</b>
1630	Navigating human eye colour predictions in a policing context <b>Ashlea Kinnane</b>	What do we know about lay comprehension of likelihood ratios? <b>Kristy Martire</b>	ESR's journey to improving the objectivity in bloodstain pattern analysis <b>Rosalyn Rough</b>	Assessment of ancestry in the Australasian region utilising variation in the human postcranial skeleton <b>Callan Birkmann-Little</b>	DNA identification from coronavirus test samples <b>Michael Schwerer</b>	The aftermath of comprehensive analysis of operative casework: Translation into evidence-led decision making <b>Alison Sears</b>
1650	Validation and implementation of a method for the prediction of biogeographical ancestry and externally visible characteristics <b>Felicity Poulsen</b>	What makes an expert persuasive? Examining the effects of expert likeability and evidence quality on jurors' evaluation of expert evidence <b>Mariam Younan</b>	Assessing the directionality characteristics of swipe bloodstains deposited on fabrics <b>Isaac Arthur</b>			

1710 **End of day, evening free**

# TUESDAY 13 SEPTEMBER

0700 – 0800 **BREAKFAST: RollsTechGlobal:**  
Introducing the next generation of forensic solutions

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0800 – 1730 **Registration desk opens**

## 0830 – 1000 **PLENARY SESSION 2**

Chair: Duncan McCarthy

Venue: Grand Ballroom

0830 – 0835 Housekeeping

0835 – 0915 Designing the future of forensics: Métis and forensic intelligence  
**Dr Michael Taylor**

0915 – 1000 Transforming trace evidence into forensic intelligence in real time. The future is now!  
**Troy O'Malley**

1000 – 1030 **Morning Tea**  
Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

## 1030 – 1200 **CONCURRENT SESSIONS**

	<b>2.1A: Biological criminalistics</b>	<b>2.1B: Illicit drugs and clandestine laboratories</b>	<b>2.1C: Crime scene investigation</b>	<b>2.1D: Chemical criminalistics</b>	<b>2.1F: Education and training</b>	<b>2.1E: Fires and explosions</b>	<b>2.1G: Firearms and toolmarks</b>
Chair/s:	Paula Brisotto	Peter Culshaw	James Curran	Joanna Bunford and Tony Peter	Tracie Gould	John Kelleher	Matthew Bolton
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria	Room 83	Room 82
1030	<b>KEYNOTE</b> Utilizing forensic genetic genealogy in an accredited laboratory <b>Rachel Oefelein</b>	<b>KEYNOTE</b> Drugs have DNA <b>Amy Griffin</b>	<b>KEYNOTE</b> A novel and innovative application of deep learning to forensic examinations <b>Melissa Airlie</b>	<b>KEYNOTE</b> Assessing the ground-truth of forensic soil provenancing models: An urban/suburban Australian perspective <b>Michael Aberle</b>	<b>KEYNOTE</b> The invisible safety net – the gradual exposure to deceased persons program <b>Ian Franca</b>	<b>KEYNOTE</b> Ammonium nitrate explosion Angellala Creek, Charleville Queensland Australia <b>Andrew Rowan</b>	<b>KEYNOTE</b> Assessing the interpretation of chemically restored serial numbers <b>Joel Waszczuk</b>
1100	From identity by state (IBS) to identity by descent (IBD): The evolution of forensic genetic genealogy <b>Dennis McNevin</b>	LSD or ALD-52 found in stamps – is it really what you see? <b>Angeline Tang</b>	Cold case sexual assault investigations: Case management strategy <b>Renee Jelly</b>	Dig it: The dynamics of soil chemistry and its related microbiome <b>Jessica Hay</b>	Home made explosives crime scene course <b>Andrew Rowan</b>	Fire scene reconstruction testing and its use in expert opinion statements: Evidentiary requirements and case studies <b>Rylee Lam</b>	Forensic ballistics validity analysis: A review of unpublished literature <b>Katherine Hogg</b>
1120	Forensic genetic genealogy: The new frontier in DNA investigative capabilities <b>Runa Daniel</b>	Sampling large drug seizures: Efficiency without compromise <b>Simone Burge</b>	Future forensics: The rise of consultancy and the fall of service-driven models <b>Annie Lam</b>	The persistence of source characteristics under power-law controlled transfer of soil particles on shoe soles <b>Jurian Hoogewerff</b>	Designing online and face-to-face training for the New Zealand police scene of crime officer <b>Rachel Nickerson</b>	Woman on fire – testing the hypotheses <b>Michael Forbes</b>	The effect of different ratios of metal-organic frameworks incorporated into ammunition <b>Analisa Chiaraville</b>
1140	It's all relative: A multi-generational family study using Forenseq Kintelligence (Verogen) <b>Runa Daniel</b>	A newly encountered illicit drug pre-cursor in NSW <b>Daniel Coghlan</b>	Geographic profiling for the prioritisation of forensic intelligence suspect pools <b>Adam Marsden</b>	Multimodal spectroscopic analysis of Western Australian sandy soils for forensic purposes <b>Talia Newland</b>	Redesigning the future of forensic training in the Australian Federal Police <b>Jane Russell</b>	The European network of forensic science institutes expert working group on explosives <b>Matthew Beardah</b>	An unlikely police firearm training incident <b>Gerard Dutton</b>
1200			The Australian Federal Police's approach to forensic exploitation in high risk environments <b>Nicole Banicevic, Alex Middlemiss &amp; Aaron Cox</b>	Forensic science helps protect cultural heritage <b>Ivana Turková</b>	Development of an ongoing competency and retraining framework for forensic biology/DNA at the forensic & analytical science service <b>Gavin Henderson</b>		

1200 – 1300 **Lunch**  
Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

1200 – 1300 **Lunch and Learn Session: Empowering Efficiencies (invite only)**



1300 - 1450 CONCURRENT SESSIONS					
	2.2A: Biological criminalistics	2.2B: Illicit drugs and clandestine laboratories	2.2C: Crime scene investigation	2.2D: Education and training	2.2E: Anthropology, archaeology and odontology
Chair	Kylie Rika	Sarah Atkinson	Jodie Ward	Sarah Cresswell	Denice Higgins
Room:	Ballroom A	Ballroom B	Ballroom C	Victoria	Room 83
1300	Validation of the Verogen ForenSeq™ Kintelligence Kit for the identification of human remains <b>Jessica Watson</b>	Australian native psychedelics: Wattle we think of Nex <b>Xavier Conlan</b>	An investigation into the use of entomology, taphonomy and algal succession for PMI estimations in aquatic environments <b>Sarah Bray</b>	Helping students to discover the allure of forensic science research <b>Scott Chadwick</b>	The development of a multi-disciplinary, minimally invasive approach for the forensic examination of skulls <b>Ayusha Dahal</b>
1320	Y-STR database searching: A valuable tool <b>Sienna Collins</b>	A systematic study of the presence of dimethyltryptamine and related psychoactive substances in Western Australian Acacia <b>Richard Donovan</b>	The forensics behind a femme fatale homicide <b>Peter Cox</b>	Have adjustments in response to COVID-19 restrictions improved forensic science education delivery? <b>Stewart Walker</b>	Validation of the manchester method for craniofacial reconstruction within an Australian context <b>Desiree Davis</b>
1340	Design and development of single multiplex system incorporating 26 rapidly mutating Y-STRs (RM-Yplex II) <b>Abdulla Albastaki</b>	Magic mushrooms in Western Australia: A look into psilocin trends and detections over a ten-year period <b>Bethany Morey</b>	A hidden identity behind the seamstress and his tangled web <b>Tracy Starr</b>	Influences on student interest in undergraduate forensic science courses: The impact of true crime <b>Caroline O'Driscoll</b>	Anthropological inputs of face analytics, facial tissue depths, and cephalometrics in forensic facial reconstructions: A systematic review and meta-analysis <b>Sushil Kumar</b>
1400		Dope ropes: Exploration of analysis techniques for cannabinoids found in edibles <b>Emily Bottero &amp; Alma Connelly</b>	The exploitation of large-scale areas for human remains: Lessons learnt from a Queensland perspective <b>Donna MacGregor</b>	Authentic training for employment-ready graduates in a dynamic university environment <b>Xavier Conlon</b>	

1420 - 1500 **Afternoon Tea**  
Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

1500 - 1700 CONCURRENT SESSIONS						
	2.3A: Biological criminalistics	2.3B: Chemical criminalistics	2.3C: Crime scene investigation	2.3D: Fingerprint examination	2.3E: Science, justice and legal issues	2.3F: Anthropology, archaeology and odontology
Chair/s:	Duncan Taylor	Joann Bunford & Tony Peter	Beliinda Bastide	Alicia Finigan	Kristy Martire	Alex Forrest AO
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria	Room 83
1500	Building a database for evaluative reporting in casework <b>Rachel Oefelein</b>	Isotope ratio mass spectrometry analysis of soft polymer material <b>Joe Meikle</b>	Exhibit packaging and the preservation of latent fingerprints: An evidence-informed approach <b>Georgina Meakin</b>	The road to implementation: Empirical validation of the enhanced detection and visualization of fingerprints on bank notes by near-infrared powders <b>Annemarie Nadort</b>	A multifaceted, multiagency and multidisciplinary approach to investigating unidentified and missing persons cases in Australia <b>Jodie Ward</b>	Local re-use of World War II remains in East Sepik, Papua New Guinea <b>Alexander Christensen</b>
1520	An investigation into the substrate variables impacting DNA transfer, persistence, and recovery in forensic casework <b>Deborah Hughes</b>	Once upon a twine – the Donna Steele murder investigation <b>Tony Peter</b>	The viability of DNA and fingerprints post application of 3D scanning sprays <b>Emma Hill</b>	Verification of select infrared (IR) fingerprint techniques on Australian polymer banknotes <b>Stephanie Oliver</b>	Cold case murders: Improving policing family liaison strategy <b>Xanthe Mallett</b>	
1540	Improved DNA recovery from firearm components <b>Todd Kaesler</b>	Condom evidence trends in Western Australia <b>Melissa Davies</b>	Development and optimisation of a portable episodic coaxial illumination device for in-field fingerprint enhancement <b>Zachary Williams</b>	Training to search for features can improve fingerprint matching ability <b>Sam Robson</b>	Covert sampling, familial searching and extradition. Solving the murder of Suzanne Poll <b>Anthony van der Stelt &amp; Duncan Taylor</b>	
1600	Evaluation of DNA recovery methods and effects of gun lubricants and cleaners on DNA extraction efficiency from fired cartridge cases <b>Colby Hymus</b>	The critical importance of forensic determination or verification of provenance information in supply chains <b>Cameron Scadding</b>	Determination of shoemark examiner error rate following the verification process <b>Rebecca Barrett</b>	How to efficiently process large and complex fingerprint cases to generate timely results using Forensic Comparison Software (FCS) <b>Michael Whyte</b>	Re-orientating the application of forensic science within law enforcement, intelligence and counterterrorism <b>Scott McLaren</b>	
1620	Predicting probative levels of touch DNA on tapelifts using Diamond™ dye <b>Isla Madden</b>	Use of electronic nose technology to locate missing persons and monitor the rate of decomposition over time <b>Maiken Ueland</b>	Developing fingerprints on vinyl wrapped surfaces <b>Lauren Atwood</b>	Collective intelligence in fingerprint analysis <b>Jason Tangen</b>	Forensic science leading the fight against illicit pharmaceuticals <b>Geoffrey Albert-Bolinski</b>	
1640	Investigation of casework go! For improved DNA recovery from touch DNA exhibits <b>Dan Bonsu</b>	Discrimination of automotive window tints using infrared spectroscopy and chemometrics <b>Georgina Sauzier</b>				

**TUESDAY 13 SEPTEMBER [CONTINUED]**

1700 **End of day**

1900 – 2300

**SOCIAL NIGHT**

The Symposium theme *Forensics: Designing the Future* has provided us with the inspiration to transform us back to 1985 for a Back to the Future evening. Look back to 1985 (when the movie came out) - what you wore (either at work or social) back then or for those that were not born, the options are endless!  
Venue: Queensland Museum, Corner of Grey and Melbourne St, Southbank

**WEDNESDAY 14 SEPTEMBER**

0800 – 1730 **Registration desk opens**

0830 – 1000

**PLENARY SESSION 3**

Chair: Andy Rowan

Room: Grand Ballroom

0830 – 0835 Housekeeping

0835 – 0920 Emerging threats, emerging solutions  
**Dr Christina Baxter**

0920 – 1005 Keeping up with terrorist tactics (Virtual)  
**Al Grimmer**

1005 – 1030

**Morning Tea**

Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

1030 – 1200

**CONCURRENT SESSIONS**

	<b>3.1A: Biological criminalistics</b>	<b>3.1B: Illicit drugs and clandestine laboratories</b>	<b>3.1C: Crime scene investigation</b>	<b>3.1D: Document examination</b>	<b>3.1E: Management &amp; quality Assurance</b>	<b>3.1F: Firearms and toolmarks</b>
Chair:	Robert Morgan	Christopher Verdon	Hadyn Green	Bianca McKechnie	Kirsty Pusey	Daniel Paine
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria	Room 83
1030	Evaluation of the RapidHIT™ ID System in the analysis of in-field crime scene samples <b>Ellie Wilson</b>	Pool chemistry: Exploring the current and potential use of TCCA in clandestine laboratories <b>Clark Nash</b>	A multidisciplinary approach to locating covert burials: Combining geographic profiling, lidar, and near surface geophysics <b>Victoria Berezowski</b>	<b>KEYNOTE</b> Validation of forensic document examiners' skill, Part 1: Background and alteration examinations <b>Carolyne Bird</b>	Quality control monitoring in a forensic biology laboratory: A success story <b>Felicia Gong</b>	The billiard ball effect: Lead vs steel <b>Neda Luketic</b>
1050	Comparison of RapidHIT™ ID, direct PCR and standard DNA profiling for use in DVI scenarios <b>Zoe Bowman</b>	3,4-Dimethyl-5-phenyl-2-oxazolidinone: Artefact or intermediate? <b>Brendan Miller</b>	Targeted crime scene investigations of hydroponic cannabis grow houses using crime script analysis <b>Carol Mayne</b>	<b>KEYNOTE</b> Validation of FDE skill, Part 2: Writing ink and stamp impression examinations <b>Diane King &amp; Ben Kriss</b>	Reconsidering the forensic in forensic genetic genealogy <b>Nathan Scudder</b>	2020 Allan Hodda Memorial Award: Mass shooting incidents <b>Matthew Bolton</b>
1110	Analysis of mixed DNA profiles from the RapidHIT™ ID using STRmix™ <b>Julianne Henry</b>	An improved analytical interpretation of the nagai and related reactions <b>Clark Nash</b>	Evaluation of crime scene scanning and mapping tools <b>Eden Whittaker</b>		A quality improvement tool to monitor saik collection - 'designed for the future' <b>Michele Franco</b>	Development of luminescent metal-organic frameworks for in-field detection of gunshot residue <b>Analisa Chiaravalle</b>
1130	Illuminating the mechanism: A novel approach to detecting cross-contamination on automated platforms <b>Catherine Hitchcock</b>	Stable isotope profiling of 3,4-methylenedioxyamphetamine (MDA) and 3,4-methylenedioxy-methylamphetamine (MDMA) prepared from helional <b>Justin Cormick</b>	Assessment of sketching applications and digital devices for digital crime scene documentation workflow <b>Jennifer Raymond</b>	2018 Allan Hodda memorial award: Forensic document examination: Contemporary issues, challenges and capabilities <b>Linda Jones</b>	Environmental DNA monitoring: A NSW perspective <b>Lauren Atwood</b>	Blind proficiency testing in forensic ballistics examination - an Australian trial <b>Edward Schey</b>
1150			Application of the Faro Focus S150 and Faro Zone 3D for bullet trajectory reconstruction <b>Grant Raven</b>			

1150 – 1300

**Lunch**

Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

1300 – 1450 CONCURRENT SESSIONS						
	3.2A: Biological criminalistics	3.2B: Illicit drugs and clandestine laboratories	3.2C: Science, justice and legal issues	3.2D: Wildlife forensics, environmental crime and forensic taphonomy	3.2E: Electronic and digital evidence	3.2F: Fingerprint examinations
Chair/s:	April Stock	Richard Donovan	Loene Howes	Matt Krosch	Laura Stroebel & Selena Huf	Sarah Cresswell
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria	Room 82
1300	A whole genome mitochondrial database for the New Zealand population <b>Bethany Forsythe</b>	Forensic drug intelligence: Australia's drugs – crossing borders at home and abroad <b>Karly Redwood</b>	The Sydney declaration: Revisiting the essence of forensic science – an Australian perspective <b>Claude Roux</b>	Profiling the volatilome of human skeletal remains for compounds recognisable by cadaver detection dogs <b>Sandali Alahakone</b>	<b>KEYNOTE</b> Battle of the face experts: Facial examiners vs. Super-recognisers vs. Algorithms <b>Alice Towler</b>	1,2-Indanedione reagent: Investigation into operational use in a small, remote, jurisdiction <b>Justin Bouzin</b>
1320	Evaluating the suitability of current mitochondrial DNA interpretation guidelines for multigenerational whole mitochondrial genome comparisons <b>Jasmine Connell</b>	Illicit drugs hide and seek: The analysis of concealed drugs <b>Kelsey Seyfang</b>	Forensic fundamentals <b>Hannah Jarman</b>	Profiling the volatile organic compounds released from human remains covered with lime <b>Bridget Thurn</b>		Determination of vehicle speed utilizing reverse projection photogrammetry <b>Walter Bruehs</b>
1340	Validation of the Precision ID™ mtDNA whole genome panel and the Ion GeneStudio™ S5 Plus Sequencer for mitochondrial DNA casework <b>Catherine Hitchcock</b>	Drug checking in Aotearoa New Zealand: The past, present and future <b>Olivia Johnson</b>	Forensic science – from organisation to a discipline <b>Claude Roux</b>	Examining the effect of clothing on the decomposition of remains and algal succession, for estimating a post-mortem submersion interval <b>Madison Bone</b>	Determination of vehicle speed from video recordings with variable frame rates <b>Walter Bruehs</b>	Comparison of carbon and iron oxide-based powder suspension formulations <b>Lumikki Clover Ree</b>
1400	Optimisation of a mitochondrial DNA whole genome sequencing workflow for missing persons casework <b>Kelly Grisedale</b>	New psychoactive substances: A Singapore perspective <b>Mei Ching Ong</b>	Forensic science integrity in Africa <b>Antonel Olckers</b>	Adaptation of the citrate method to an Australian temperate environment <b>Zaccariah Knobel</b>	Vehicle system forensics <b>Ben Lemere</b>	Assessing HFE-7100 blends of all-in-one iodine naphthoflavone fingerprint developers <b>William Gee</b>
1420			The invisible forensic scientist: How forensic scientists are written out of media narratives about crime solving <b>Liz Porter</b>			Efficiency of ray dye stain to enhance latent fingerprints on surfaces commonly found in improvised explosive devices <b>Brooke Wright &amp; Matthew Cawte</b>

1440 – 1510 **Afternoon Tea**  
Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

1510 – 1610 CONCURRENT SESSIONS					
	3.3A: Biological criminalistics	3.3C: Wildlife forensics, environmental crime and forensic taphonomy	3.3D: Anthropology, archaeology and odontology	3.3E: Toxicology and pharmacology	3.3F: Crash investigation
Chair	Dennis McNevin	Greta Frankham	Denice Higgins	Carney Matheson	Alex Forrest AO
Room:	Ballroom A	Ballroom C	Samford	Victoria	Room 82
1510	An evaluation of the use of nanopore sequencing technology for whole genome mitochondrial analysis for forensics <b>Bethany Forsythe</b>	The development of in-field organic and inorganic screening methods for intelligence gathering at pollution incidents <b>Denise Duff</b>	Cognitive and forensic confirmation bias: A global survey of forensic anthropologists <b>Kiu Nga Leung</b>	Confirmatory analysis of snake venoms utilising HR-LCMS through bottom-up proteomics – application to coronial toxicology <b>Sarah McCabe</b>	When data sees everything – a case study <b>Jenelle Hardiman</b>
1530	Preliminary investigation into recovery and profiling of DNA from drug residues <b>Alexandria Bertram</b>	Highly adaptable, generic in-field analysis framework for use at pollution incidents <b>Val Spikmans</b>	Analysis of the post-mortem imaging of the dentition and upper airways of nursing home residents died from choking <b>Lyndall Smythe</b>	A retrospective analysis of pharmaceutical substance-related coronial deaths in South Australia over 20 years <b>Lilli Stephenson</b>	When two worlds collide – a case study <b>Michael Hardiman</b>
1550	Developing a method for the detection, sampling and human DNA profiling of blood-stained soil <b>Georgia Teese</b>	Environmental forensics: Using advanced analytical methods to solve environmental crimes <b>Anil Gautam</b>	Head and neck fractures resulting from fatal one-punch assaults: A pilot study <b>Samantha Rowbotham</b>		

1630 **ANZFSS Annual General Meeting**  
Room: Grand Ballroom

1730 **End of day, evening free**

1800 – 1930 **PUBLIC PRESENTATION:**  
**The Power of Investigative Genetic Genealogy to Solve Violent Crime**  
Anne Marie Schubert  
Room: Grand Ballroom

# THURSDAY 15 SEPTEMBER

0700 – 0800 **BREAKFAST:**  
Designing the future together!

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0800 – 1730 **Registration desk opens**

## 0830 – 1000 **PLENARY SESSION 4**

Chair: Carney Matheson

Venue: Grand Ballroom

0830 – 0835 Housekeeping

0835 – 0915 Designing R & D to support forensic science of the future  
**Dion Sheppard**

0915 – 1000 How the Coroners Courts work and the importance of forensic science to that work  
**Coroner Don MacKenzie**

1000 – 1030 **Morning Tea**  
Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

## 1030 – 1150 **CONCURRENT SESSIONS**

	<b>4.1A: Biological criminalistics</b>	<b>4.1B: Document examination</b>	<b>4.1C: Crime scene investigation</b>	<b>4.1D: Education and training</b>	<b>4.1E: Fingerprint examination</b>
Chair	Justin Howes	Carolyne Bird	Andrew Stanley	Sarah Cresswell	Alicia Finigan
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria
1030	Modern family: Familial DNA, NSW Police and major crime investigations <b>Joshua Smith</b>	The potential of using the profiles of fraudulent Australian identity documents to assist in intelligence-led policing <b>Ciara Devlin</b>	Contemporary issues in forensic science – worldwide survey results <b>Melissa Airlie</b>	Overt development of critical thinking skills in forensic students to enhance employability <b>Michelle Harvey</b>	The impact of fingerprint development techniques on DNA evidence recovery <b>Breannan Taylor</b>
1050	Familial searching: A valuable tool <b>Alice Cochrane</b>	Understanding the Australian fraudulent document market on an anonymous online darkweb marketplace <b>Ciara Devlin</b>	Familial DNA in criminal investigations: Case management strategy <b>Renee Jelly</b>	Critical forensic studies: Generating critical thinking about forensic science among current and future criminal justice practitioners <b>Loene Howes</b>	Case study: How a mummified dismembered finger was reunited with its owner: A mikrosil story <b>Michael Whyte</b>
1110	The missing piece of the missing persons puzzle – familial searching <b>Carole Field</b>	Who was Amadeo Wolfgang Mozart? <b>Martin Jarvis</b>	The effect of direct application of acid phosphatase reagent on DNA analysis of semen stains <b>Richard Patterson</b>	Scaffolding for impact: Active learning, attitudes and achievement in forensic education <b>Georgina Sauzier</b>	The impact of biodegradable plastics on fingerprint development <b>Harrison Woodward</b>
1130	A case for identification – a collaborative, multidisciplinary, cross jurisdictional approach <b>Natasha Mitchell</b>	Why the thematic catalogue is not written by W A Mozart <b>Martin Jarvis</b>	Trace-ing success of DNA recovery rates over time. A comprehensive analysis of operative casework trace DNA data <b>Lauren Atwood</b>	Reflection on industry partnerships with education developing forensic responses – Graduate Certificate in Forensic Fingerprint Investigation (POL84215) <b>Russell Stuart</b>	
1150	Examples of new investigative leads generated from large-scale, inter-case crime scene profile comparisons <b>Duncan Taylor</b>				

1150 – 1300 **Lunch**  
Rooms: Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

## 1300 – 1440 **CONCURRENT SESSIONS**

	<b>4.2A: Biological criminalistics</b>	<b>4.2B: Chemical criminalistics</b>	<b>4.2C: Crime scene Investigation</b>	<b>4.2D: CBRN and counter-terrorism</b>	<b>4.2E: Illicit drugs and clandestine laboratories</b>
Chair/s:	Hannah Jarman	Joanna Bunford and Tony Peter	William Gee	Michael Logan	Sarah Cresswell
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria
1300	Improvements to RNA-based body fluid identification <b>Courtney Lynch</b>	Five years since pcast: The value of materials science and tribology as foundational science for transfer and persistence <b>Michael Aberle</b>	A quantitative analysis of the applied force used in blunt force impacts involving bloodstain deposition <b>Gabrielle Ziersch</b>	New detection technologies for CBRN incidents and forensics <b>Christina Baxter</b>	Evaluation of portable GC-MS for the in-field identification of samples at clandestine laboratories <b>Paige Walker</b>
1320	A comprehensive study into the false positive rates for 'other biological' samples using common presumptive testing methods <b>Stephanie Opperman (Virtual)</b>	The effect of recipient surface characteristics on the transfer and persistence of glass fragments <b>Anjali Gupta</b>	Sodium percarbonate as an alternative thermally stable oxidiser for luminol <b>Nicholas Harvey-Walker</b>	Tatp standoff detection pre and post blast <b>Andrew Rowan</b>	
1340	Hunting for sperm using deep learning <b>Amelia Gamblin</b>	A multivariate method for comparison of forensic glass evidence <b>Oliver Lountain</b>	Improving the selectivity of blood presumptive tests using ethylenediaminetetraacetic acid (EDTA) <b>Carney Matheson</b>	Forensic examinations inside the hot zone. The Queensland experience <b>Andrew Rowan</b>	A semi-quantitative method for detecting selected fentanyl, using surface-enhanced raman scattering (SERS) with a hand-held instrument <b>Matthew Smith</b>

**THURSDAY 15 SEPTEMBER [CONTINUED]**

	<b>4.2A: Biological criminalistics</b>	<b>4.2B: Chemical criminalistics</b>	<b>4.2C: Crime scene investigation</b>	<b>4.2D: CBRN and counter-terrorism</b>	<b>4.2E: Illicit drugs and clandestine laboratories</b>
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria
1400	A new Artificial Intelligence (AI) brain for an old automated spermatozoa scanning microscope <b>Hiu Tan Lau</b>	Improving the interpretation of the evidential value of vehicle and architectural paint <b>Fiona Jackson</b>	Source level attribution: DNA profiling from the Abacard® Hematrace® kit <b>Louise Wallis</b>	From Marie Curie to Cosmic Curie: When nuclear science meets operational forensics <b>Melanie Fraser</b>	Developing a data-driven drug classification model using NIR spectroscopy <b>Deepak Karunakaran</b>
1420	Identifying unique microbial signatures pre- and post-coitus by massively parallel sequencing and its potential to detect sexual contact <b>Ruby Dixon</b>	The (martial) art of evaluating fibre evidence <b>Victoria Lau</b>	Determining the effects of targeted training on BPA classification error rates <b>Tanya Lang</b>	Nuclear security science in Australia: What, why and how? <b>Kaitlyn Toole</b>	

1440 – 1510  
Rooms: **Afternoon Tea**  
Queens Ballroom, Redlands, Moreton, Lockyer & Foyer

**1510 – 1700 CONCURRENT SESSIONS**

	<b>4.3A: Biological criminalistics</b>	<b>4.3B: Biological criminalistics</b>	<b>4.3C: Electronic and digital evidence</b>	<b>4.3D: Management &amp; quality assurance</b>	<b>4.3E: Education and training</b>
Chair/s:	Paul Roffey	Julianne Henry	Selena Huf	Carney Matheson	Rechelle Cook
Room:	Ballroom A	Ballroom B	Ballroom C	Samford	Victoria
1500	Developing an efficient DNA profiling protocol for degraded human remains and disaster victim identification <b>Jeremy Watherston</b>	Optimising direct amplification of reference samples collected on FTA® classic treated paper using the Verifiler™ Plus PCR amplification kit <b>Luke Ryan</b>	Understanding quality loss when transcoding video <b>Dorothy Stout</b>	Operationalising forensic research: The NSWPF Science & Research Unit <b>Jen Raymond</b>	Utilising virtual reality to enhance skill development in the forensic sciences <b>Jemma Berry</b>
1520	An effective DNA protocol for the genetic identification of human remains <b>Laura Nutton</b>	Maximising trace DNA recovery in I-SEP® differential separated sexual assault samples <b>Tammara White</b>	Creating and qualifying open-source programs to automate the processing for significant quantities of digital video <b>Joel Grima</b>	AFP forensics specialist cohort model <b>Cherrone Ellis</b>	The application of microsoft hololens for crime scene investigation training and proficiency testing <b>Brendan Riley</b>
1540	Evaluation of Powerplex® 21 and Verifiler™ Plus in the analysis of DNA from buried and incinerated human bones <b>Jasmin Zoranjic</b>	Optimisation of nanopore sequencing for forensic STR analysis <b>Olivia Stroeven</b>	Can 3D printing further a police investigation and help solve crime? <b>Selena Huf</b>	Proficiency testing. Is the tail wagging the dog??? <b>Anna Davey</b>	
1600	The detection and recovery of foreign biological fluids from the clothing of deceased individuals post decomposition <b>David Bruce</b>	Targeted nanopore sequencing for SNP genotyping and CPG methylation profiling for real-time in-field forensic DNA analysis <b>Wing Sze Yuen</b>	Shoeprint image retrieval by using convolutional neural network and normalized cross correlation <b>Zhijian Wen (Virtual)</b>	Lumi drug scan: Shining a light on drug detection. A review of the NZ Police - ESR field pilot <b>Dion Sheppard</b>	

1620 **Concurrent sessions conclude**  
Delegates make way to Ballroom A & B for prize announcements

**1630 CLOSING SESSION AND AWARD PRESENTATIONS**

Chairs: Alex Forrest AO, Donna MacGregor, Andrew Stanley  
Room: Grand Ballroom

1900 – Late **SYMPOSIUM GALA DINNER**  
Venue: Brisbane City Hall, 64 Adelaide St Brisbane