





# OUR STRATEGIC INTENT

Promote and Facilitate Excellence in Forensic Science

The National Institute of Forensic Science is a directorate within the Australia New Zealand Policing Advisory Agency (ANZPAA)

> On behalf of the Australia New Zealand Policing Advisory Agency National Institute of Forensic Science (ANZPAA NIFS) and the Australia New Zealand Forensic Executive Committee (ANZFEC), we are proud to release the ANZPAA NIFS Annual Report 2017-2018.

> This Annual Report is the second report stemming from the new strategic direction, detailed in the ANZPAA NIFS Strategic Plan 2016-2019. This Annual Report highlights our achievements against measurable indicators, in key priority areas, identified in the ANZPAA NIFS Business Plan 2017-2018.

> The past year has concentrated on business improvement, promoting excellence and capability development strategies. Business improvement activities have focused on various ANZPAA NIFS work program processes including the production of the After the Fact proficiency test, the Australasian Forensic Field Sciences Accreditation Board and the ANZPAA NIFS Groups. Illustrating our strong stakeholder support, many of the recommendations from the reviews have already been implemented. This year we also launched new communication tools such as a Twitter account (@nifs\_anz) and a newsletter The Forensic Exhibit.

We have worked with our partner agencies to deliver products to promote excellence and innovation in forensic science including an empirical study guide, advice for evaluative reporting and assessments of DNA advancements. Through strong engagement and cooperation, we have assisted in developing capabilities in the jurisdictions by delivering, along with recognised experts in the field, a number of successful and informative workshops and also worked to strengthen facial identification methods.

Katherine Van Gurp Chief Executive Officer, ANZPAA

Dr Linzi Wilson-Wilde OAM Director, NIFS

### **ANZPAA VISION**

Driving excellence in Australian and New Zealand Policing

### ANZPAA MISSION

ANZPAA will work in partnership to develop, promote and share strategic policing initiatives that enhance community safety in Australia and New Zealand

# QUALITY

Conducting quality assurance programs, developing standards and managing the practitioner certification program

# Australasian Forensic Field Sciences Accreditation Board (AFFSAB) Review Implementation Project

Initiated the implementation of the approved recommendations from the AFFSAB Future Directions Review Report and released an interim policy and processes document for use by the forensic science community.

#### AFFSAB recertifications processed

238

87

26

Fingerprints

Crime Scene

Firearms

### **Proficiency Tests**

\$70k+

in savings to forensic agencies through the co-ordinated purchasing of proficiency tests.

### **Proficiency Tests**

438

number of proficiency test purchased on behalf of forensic agencies.

## After the Fact Crime Scene

332

number of proficiency tests facilitated.

# **CO-ORDINATION**

Building jurisdictional and cross-jurisdictional capability through protocols, products and enhanced implementation support

#### Forensic Fundamentals Phase 2

Produced a guidance document to assist practitioners in assessing or designing empirical studies that are used to demonstrate the validity of the scientific method or opinion.

#### **Evaluative Reporting**

Collaborated with guest presenters to design and deliver a cross-discipline workshop aimed at providing forensic practitioners, managers and trainers with an introduction to evaluative reporting in forensic science – Melbourne, June 2018.

### ANZPAA NIFS Groups Review

Initiated a review of the ANZPAA NIFS groups and defined new agreed purpose and roles, to inform the future structure and operating model.

# Rapid DNA Workflow Assessment

Submitted a manuscript outlining the results of the Assessment of the Investigative Potential of Rapid DNA Instruments for publication.

# Familial DNA Searching Policy Implementation

Developed a fact sheet as a resource for police investigators, to assist in understanding the results obtained and implications arising from Cross-Jurisdictional Familial DNA Searching for the Investigation of Crime in Australia.



Workshopping casework propositions at the Introduction to Evaluative Reporting in Forensic Science workshop

# INNOVATION

Contributing to a creative and innovative forensic science body of knowledge

#### Facial Identification

Defined facial identification terms and documented considerations for the development of facial identification to promote interoperability in Australia and New Zealand.

#### Parabon® Snapshot™

Assessed the Parabon® Snapshot™ predictive DNA test and investigated the potential applications, benefits and limitations for law enforcement in Australia and New Zealand.

### 2017 Best Paper Award Winners



#### Best Paper in a Refereed Journal

Teaching artificial intelligence to read electropherograms Duncan Taylor & David Powers



#### **Best Technical Article or Note**

Observations of DNA transfer within an operational Forensic Biology Laboratory Duncan Taylor, Damien Abarno, Emily Rowe & Lauren Rask-Nielsen



#### Best Chapter in a Book

Microbial impacts in postmortem toxicology

Jared Castle, Danielle Butzbach, Stewart Walker, Claire Lenehan, Frank Reith & Paul Kirkbride



#### **Best Literature Review**

What risks do herbal products pose to the Australian community? Roger Byard, Ian Musgrave, Garth Maker & Michael Bunce



#### **Best Case Study**

Adverse health effects associated with living in a former methamphetamine drug laboratory - Victoria, Australia 2015

Jackie Wright, Michaela Kenneally, John Edwards & Stewart Walker



#### The Henry Delaforce Award

A homemade firearm and unconventional ammunition used in a suicide Sgt Gerard Dutton

# INFORMATION MANAGEMENT

Facilitating information-sharing and cross-jurisdictional dialogue and events

### **ANZPAA NIFS Website**

(www.anzpaa.org.au/nifs)

1,710

average monthly website visits.

visitors from over 60+ countries per month.

### **ANZPAA NIFS Secure Server**

**74**%

increase in number of forensic science user accounts.

16%

increase in number of forensic science documents.

### **NIFS Twitter Account**

(@nifs\_anz)

142

number of followers and growing monthly.

45k+

views of NIFS Tweets made during attendance at IFSA/ IAFS meeting in August 2017.



# **EDUCATION AND TRAINING**

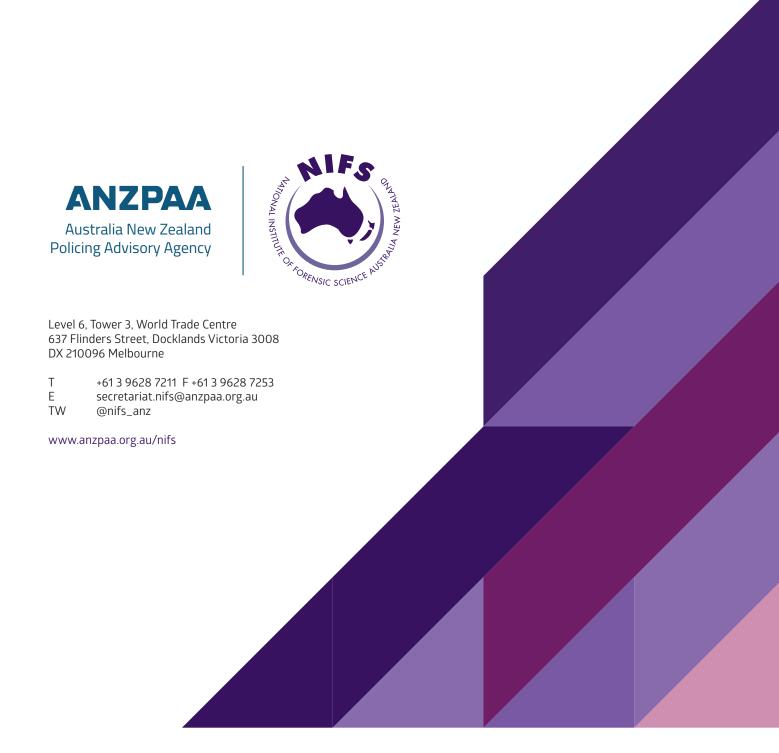
Facilitating training programs in forensic science skills and knowledge development

10 Workshops facilitated to increase training opportunities for forensic science practitioners:

- Moruary Managers Meeting - Brisbane, July 2017.
- Level 3 Blood Pattern Analysis (BPA) Course -Sydney, September 2017.
- Evaluative Reporting for Forensic Handwriting and Signature Examinations -Melbourne, April 2018.
- Training Methodology for Forensic

- 3D Aerial Mapping and Terrestrial 3D Laser Scanning Workshop -Melbourne, August 2017.
- Interpretation of trace evidence using Bayesian Framework - Melbourne, November 2017.
- SMANZFL Developing Future Forensic Leaders Workshop -Melbourne, May 2018.
- Defining Toxicology Training Program Requirements -Melbourne, August 2017.
- Clandestine Drug Laboratory Advanced Practitioners Workshop - Brisbane, March 2018.
- Forensic Biology Intelligence -Canberra, May 2018.





#### Acknowledgements

ANZPAA acknowledges Aboriginal and Torres Strait Islanders are Australia's first peoples and the traditional owners and custodians of the land on which we work. ANZPAA is committed to fulfilling the principles of New Zealand's founding document The Treaty of Waitangi (Tiriti o Waitangi). Central to the principles is a common understanding that all parties will relate and participate with each other in good faith with mutual respect, co-operation and trust.

This Annual Report is the direct result of the hard work and collaboration of the ANZPAA NIFS and ANZPAA teams and the generous forensic stakeholders who provided important input and feedback.

- Australian Federal Police (AFP)
- Chem Centre
- New South Wales Police Force