



Australian and New Zealand FORENSIC SCIENCE SOCIETY



July 2004
Issue 4

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Please do not forget to return the completed survey form so that we can make the society better for you!

NSW Branch Newsletter

NSW Branch ANZFSS Inc ABN 33-502-753-392

From the Editor

Last month we had the pleasure of a feature article on document examination from Paul Westwood. Hopefully this will allow us to search for, preserve, and exploit types of evidence that perhaps had not been brought to our attention before. Thank you Paul for that.

This month we have a survey about what types of talks and social events you would like, and where you would like us to hold them. Please take the time to fill this out and return it to us **before 1st August** so that we can tailor our society to what you want!

Don't miss our Inside the Forensic World meeting. There are still places available, but please hurry as they are filling up fast!

And finally, just a reminder that **our contact details are available on the last page of every newsletter**. All individuals on the committee can also be reached at the NSW Branch address:

NSW Branch ANZFSS
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Lidcombe, NSW 1825

- Ed

BREAKING NEWS - IT'S A



Congratulations to Donnah Day who has just given birth to a bouncing baby boy.

Donnah was admitted to hospital on Thursday 24-06-04, with a few minor complications. They induced labour and at 11:25pm on 24-06-04, along came Duncan John SKINNER. Little Duncan weighed in at 2.63kg and was 48cm long.

Everyone is reported to be doing just fine (thankyou Sean for the announcement). We wish Donnah and her family all the best.



Message from the President

Dear ANZFSS Members,

After significant development during the past two decades, forensic science continues to expand and diversify. Analytical sciences and modern technology are almost unrecognisable by comparison to the original methods. New forensic specialties continually appear in response to the increased sophistication of our society, and of criminals and criminal behaviour.

In addition, law enforcement agencies are now more than ever looking to experts in scientific and technical domains to assist them in the process of localisation and apprehension of criminal offenders and terrorists. The impact of this expansion is significant. Forensic science now holds a position of considerable status and relevance in the criminal justice system and has emerged as an academic discipline in its own right. As such there is exciting opportunity and reward for those associated with the field as practitioners, teachers and educators, researchers or students.

However, there is also additional responsibility for the forensic community to ensure that educational and technological development remains relevant. In this context, our Society has been successful in establishing what has become a traditional and sought after event: Inside the Forensic World.

The 2004 edition will be held on 17 July at the University of Technology, Sydney. I take this opportunity to thank our speakers, chair persons and the audience who give away their Saturday on this occasion. Unfortunately, I will be overseas and will miss this edition. But I am sure the program set up by Allan Hodda will be a success. Have a great IFW and see you soon.

Claude Roux
President
June 24th, 2004



Welcome to New Society Members

The NSW Branch extends a warm welcome to our newly ratified members:

Reza ALAEDDINI
Taegan CODDINGTON
Esther MITCHELSON
Katherine RYDER
Maria SILVA

My apologies to Kirstin VANZWAN whose name we got terribly wrong in the last edition - welcome to the society!

Farewell to Anna

She's leaving us! ☹



Anna Borowitzka has been a valuable member of our committee for the past 2 years, and she leaves us to join the ranks of the Western Australia ANZFSS Branch.

Anna has been offered a job in the Forensic Biology laboratory in Perth, and will be leaving Sydney on the 1st of July.

Our loss will certainly be WA's gain. We send Anna our best wishes, and we hope to catch up with her again during the 2006 ANZFSS Symposium. We'll miss you Anna!!



REVIEW: Aspects of SE Asian Crime Investigation in Sydney (May Meeting) Detective Inspector Murray Chapman

On 27th May, we were pleased to have Detective Inspector Murray Chapman talk to us about his involvement in South East Asian Crime Investigation in Sydney.

Detective Inspector Chapman boasts an impressive résumé, including nearly 20 years with the NSW Police, spending 6 years of this working as a Detective. He has been involved in the NSW Crime Commission's investigation into major drug offences, plus the investigation of armed robbery, breaking offences, murder, extortion, fraud and motor vehicle re-birthing with the Major Crime Squad North Region. He has worked with the Crime Agencies Drug and Organised Crime Program, and the National Crime Authority Sydney office. Detective Inspector Chapman is currently coordinating investigations at the South East Asian Crime Squad of the State Crime Command, having already commanded and managed over 30 Strike Forces, ranging from drug and firearm supply to gang related murders.

Detective Inspector Chapman spoke to us about his involvement in Strike Force Willowvale, detailing the types of resources available to such investigations.

He presented a case study relating to this operation in which an attempted murder of a gang member during a brawl took place at Market City, Haymarket, in June of 2002. Playing the CCT footage to us, he led a group discussion into the types of potential evidence that could be examined from this incident. And I have to say that he appeared to be very impressed with our observational skills!

Detective Inspector Chapman then went through those types of evidence indicated by the audience, informing us that although eye-witness testimony produced a suspect, fingerprints, the weapon, DNA evidence, bloodied clothes, trace evidence, hair and fibre evidence, etc. were not able to be exploited in this case to forensically



Detective Inspector Murray Chapman
with Dr Meiya Sutisno

link the suspect to the crime scene. What *was* useful was the fact that during the footage, the suspect was seen receiving a call on his mobile. A raid of his home produced over 200 SIM cards whose records were sifted through painstakingly to find one with a signal tracked to a phone tower close to Haymarket for the exact time and duration shown in the CCT footage. This placed the suspect in the location at the correct time.

As an adjunct to the eyewitness testimony, Detective Inspector Chapman enlisted the services of Dr Meiya Sutisno, a forensic anatomist (and an excellent member of our committee!), who prepared charts of images from the CCT footage and photographs requested from the police of the suspect in the same stances. She was able to show that the features of the suspect's face corresponded to the perpetrator on the CCT footage. We were pleased to be shown those charts during the talk.

This was a very interesting case that showed how complex forensic science, when presented in a simple and visual way for the court, can be of great assistance in a case.

Detective Inspector Chapman finished by discussing with the audience other methods of simplifying scientific findings for presentation in court.

We thank Detective Inspector Chapman for giving us his perspectives of SE Asian Crime Investigation.



REVIEW: The Chamberlain Inquiry (June Meeting)

Dr Tony Raymond

NIFS Presentations from Dr Tony Raymond

The night began with some presentations from Dr Tony Raymond on behalf of the National Institute of Forensic Science (NIFS).

Prof Claude Roux was presented with a certificate for his co-authorship of an article that won the 2003 NIFS Award for Best Technical Article:

N. Jones, M Stoilovic and C. Lennard, Australian Federal Police and C. Roux, University of Technology, Sydney for their paper 'Vacuum metal deposition: developing latent fingerprints on polyethylene substrates after the deposition of excess gold'.

Allan Hodda was then presented with a certificate in recognition of his services to the Australian Forensic Science Community through the NIFS Panel of Advisors. It is wonderful for Allan to be acknowledged thus by NIFS, it is well-deserved appreciation of a quiet achiever.

Congratulations to both Claude and Allan for their achievements.



Prof. Claude Roux receiving a certificate from Dr. Tony Raymond



Allan Hodda receiving a certificate from Dr. Tony Raymond

The Chamberlain Inquiry

Dr Tony Raymond was the chief scientist for the Royal Commission of Inquiry into the Chamberlain Convictions. He began with a timeline of events that took place from when 9½ week old Azaria went missing, through to the Royal Commission, to give an overview of the case.

A look at the initial stages of the case revealed issues with the crime scene, the investigation, legal and court processes, media impact, public perception, and personality issues.

When Dr Raymond was assigned as the chief scientist in the Royal Commission, he was informed that a Royal Commission was different from an ordinary investigation as “what we were after here was the truth” - interesting!

Dr Raymond went through the prosecution case, looked at their evidence, and re-tested it. What he found was major problems with standard practises at the time that led to discrepancies in identification.

He recounted the difficulties he had during testing, with both defence and prosecution scientists literally looking over his shoulder the whole time. An apt illustration of that was a photograph he showed us of himself looking through a microscope that had many additional attachments so that 5 or 6 other scientists could view exactly what he was seeing at the same time. It is hard to imagine these troubles.

Continued overleaf



REVIEW: The Chamberlain Inquiry, Continued...



Dr Raymond also told of the toll the investigation had on his young family, with his 4-year-old daughter being so caught up in the case as well, she believed her father's real name was Michael Chamberlain. It is fortunate that Dr Raymond can

see the humour in that now, because it is evident that the investigation was a difficult time for everybody involved.

The Royal Commission resulted in SOPs and crime management modules being developed,

with the assistance of SMANZFL, NIFS, SAGs, ISO Standards, NATA accreditation, and changes to the law that were also instituted.

Dr Raymond believes there is still a long way to go to improve forensic science, and he suggests that the development of a NSW State Institute of Forensic Science, increased police commitment, increased public understanding, and government commitment of further funding would be the next step.

We are grateful to Dr Tony Raymond for finding time in his busy schedule to give us insight into the Chamberlain Inquiry.

Reminder: NSW ASSOCIATION OF FIRE INVESTIGATORS MEETING Fatal Fire Investigation, From Fire Scene to Post Mortem

DATE: Thursday 1st July, 2004

TIME: 6:30pm for refreshments

VENUE: Ryde Eastwood Leagues Club, Ryedale Road, West Ryde

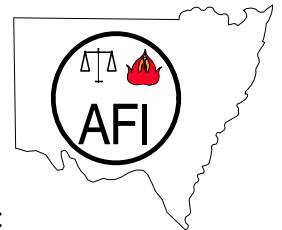
COST: Free for ANZFSS Members

BOOKING: Essential to ensure a place: contact Secretary Norm Hewins by email: firefly_511@bigpond.com or by telephone: 0418-654-584

SPEAKERS:

Dr Peter Ellis - Director of the Department of Forensic Medicine, ICPMR, Westmead

Inspector Ross Brogan - NSW Fire Brigades



The speakers will involve you in fatal fire investigations, showing the methodologies used at the fire scene investigation through the eyes of the practitioners, and lead you into the world of the Pathologist at the Post Mortem



Reminder: ANZFSS JULY MEETING Inside the Forensic World - Public Seminar

DATE: Saturday 17th July, 2004

TIME: 9:00am - 4:00pm

VENUE: University of Technology, Sydney

COST: \$30 per person

An itinerary will be mailed to registrants shortly



New Committee Member Profile: Samantha Furlong - Forensic Biologist

In November of 2000 Samantha left Melbourne and headed up to Sydney to start a new and exciting career as a Forensic Biologist at the Division of Analytical Laboratories. During the past three and a half years Samantha has worked in several areas of the laboratory, including DNA, Trace Recovery and most recently in the Serious Crime Section, where she deals with murders, malicious woundings and aggravated assaults on a day-to-day basis.

In addition to moving states, in November of 2000, Samantha also graduated from La Trobe University with a Bachelor of Science (Biological Sciences) with Honours, where she majored in Genetics and Microbiology. Through her Honours project - 'The Transfer of DNA from Touched Objects' - Samantha developed many of the skills required to be a Forensic Biologist but more importantly swore she would never cut up a

piece of sticky tape and stick the pieces into a little tube for the rest of her life. Unfortunately for Samantha a large proportion of her time as a Forensic Biologist involves doing just that!

In her spare time, Samantha also loves spending time with family and friends, seeing the latest release at the cinema, trying out exotic new taste sensations, or going on picnics. She especially loves going home to Melbourne and playing around with her three dogs.

Samantha has been a member of the NSW branch of the ANZFSS since 2001, and wanting to take a more active approach to the society, became a committee member at the last AGM - yay!!



New Committee Member Profile: Eric Murray - Nurse Unit Manager

Eric is a semi-retired NUM at the Forensic Unit Corrections Health. His career in nursing commenced in 1956 and has covered all aspects / positions including Director of Nursing of some large areas.

One of Eric's major roles, besides supervision of the usual general / mental health status of people, is to train and assist nurses to prepare documentation and to give evidence to tribunals and the courts. Of course supervision of nurses working in this specific environment is challenging within itself.

Eric studied chemistry and science whilst doing Occupational Health and Industrial Safety at a large chemical plant. He has been involved in the rescue phases of disasters such as the Granville rail disaster, Newcastle earthquake, and cyclonic disturbances, and has met several infamous people. These experiences led Eric to look more closely at what is happening to people and property, leading to his work on people profiling and incident reconstruction.

Interesting projects in his career include participating in setting up the first Area Health Service (NSW) and for its subsequent accreditation. Another was an 18 month study into the Forensic Medical / Nursing services provided by the Department Health to the NSW Corrective Service. He is pleased to report that many recommendations are now in practice.

Eric has been recognised by the Local Government for his Voluntary Community work in the City of Gosford. He has also been recognised by the State Government for services to the NSW Ambulance and State Emergency Services. He holds awards from Her Majesty for contribution to Scouting and St Johns Ambulance. Added to this he has been a long time Fellow of the College of Nursing, for a continual (40+) years of "hands on" and nurse education. Eric is best known in many circles for his Medivac role as a "spotter" from helicopters in search and rescue functions.

Eric became a member of the society in the early 1990s and has seen a continual growth in education and professionalism eagerly fostered by Henry Delaforce, Allan Hodda and their committees. Eric has also offered a UTS scholarship in Forensic Science for those who may be "battlers" and would otherwise not have the opportunity to study.

Eric is certainly a character whose contribution to our field has been impressive.

We look forward to contributions from both Samantha and Eric.





MultiPROBE II Forensic Workstation

Automated Solutions for Crime Labs

from DNA Isolation to Analysis

A powerful new MultiPROBE II Forensic workstation is available from PerkinElmer to process DNA samples for STR typing analysis. Designed specifically for the forensic community to overcome the problem of multiple manual extraction and isolation protocols, the MultiPROBE II Forensic workstation uses a single protocol to extract DNA from various sources. Not only can the system isolate DNA from various sample types in the same plate but it also carries out other automated processes. These include DNA quantitation, normalization and PCR setup using short tandem repeat (STR) DNA typing analysis.

The following walk-away automated protocols are available:

1. DNA Isolation with Promega DNA IQ® System
2. DNA Quantification
3. DNA Normalization and Dilution
4. Forensic Typing PCR Setup

Forensic DNA Isolation

The workstation is capable of extracting DNA from virtually any type of casework or database forensic sample (swabs, fabric, whole blood and blood stains, gum) and has been validated using a modified Promega DNA IQ® System protocol. The MultiPROBE II PLUS system automates the pipetting, magnetic separation, heating, and shaking/mixing steps of the DNA IQ protocol, improving performance and increasing productivity. The amount of time saved using

this automated DNA IQ protocol is substantial – an increase in throughput of at least 10 fold compared to manual processing. DNA is extracted from 96 casework samples in about 2 hours, with no hands-on time by the forensic examiner.

Quantitative QPCR Setup

This application prepares samples for quantitation using methods such as quantitative real-time PCR (QPCR) analysis. Using the CFS QPCR procedure (Centre of Forensic Sciences, Toronto, ON) for validation, automated QPCR processing time is ~30 min for 80 samples plus 16 standards - with 5 uL of DNA solution amplified in a 20 uL volume. The QPCR DNA concentration Excel data sheet is used as an input file for the DNA Normalization protocol.

DNA Normalization & Typing PCR Setup

This automated protocol carries out all steps for forensic DNA normalization (40-367,000 pg/uL range) and PCR Setup to ensure successful downstream DNA typing. The workstation cleverly normalizes widely varying concentrations (10,000-fold range) of DNA in a single run, diluting DNA to a fixed concentration (1 ng/6 uL). It then creates the PCR master mix, automatically calculating required volumes and finally assembles 15 uL reactions in a 96 well PCR plate. Processing time is ~30-40 min for 80 samples plus 2 DNA control standards. The ABI AmpFLSTR® Profiler Plus® Amplification Kit was used for validation but is easily amenable to use any commercial forensic STR, Y-STR and mtDNA analysis kit such as Promega PowerPlex®, ABI COfiler®, ReliaGene Y-Plex®, etc.

For more information please contact Tanja Albers on 1800 033 391 or visit www.perkinelmer.com

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Mathematics - The Engineering Way

The following are indicative of the way an Engineer calculates things (thanks to Tamara for providing these funnies):

Ratio of an igloo's diameter to its circumference = Eskimo pi

1000 kg of Chinese soup = won ton

Time between slipping on a peel and hitting the ground = a bananosecond

Weight an evangelist carries with God = a billigram

Time it takes to sail 220 yards at 1 nautical mile per second = knot furlong

365.25 days of being on a low-fat diet = one lite year

half an intestine = one semicolon

1000 aches = one kilohurtz

one unit of laryngitis = 1 hoarsepower

106 microphones = one megaphone

106 bicycles = 2 megacycles

2×10^3 mockingbirds = two kilo mockingbirds

10 cards = one deca cards

10 decilitres wet socks = 1 litre hosen

10^{-6} fish = 1 microfiche

1 trillion pins = 1 terrapin

10 rations = 1 decoration

Shortest distance between two jokes = one straight line

Contact Details

If you have any query, comment or suggestion about this newsletter or any information contained within, please do not hesitate to contact us. *All correspondence regarding general enquiries, membership renewal, payment etc, can be addressed to:*

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Specific recipients (eg. the President, Treasurer, Membership Officer, etc.) can be reached C/o the details above.

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Your Committee:

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	Meiya Sutisno
	Tamara Sztynoda
	Ross Vining
	James Wallman
	Ian White

Final Words:

"The great tragedy of Science - the slaying of a beautiful hypothesis by an ugly fact" - T.H. Huxley (1825-1895)