# Independent Forensic Practitioners Institute
# Annual Seminar Day
# 16 September 2023

Old Government House Auckland University

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| 11.00 – 11.45 | **Derek Firth**<br>**Expert evidence:**<br>**<u>Observations from a life in law by a distinguished senior barrister</u>**<br><br>Derek will provide advice for experts and lawyers from a range of expert experiences:<br>1. An analysis of the use of UK and NZ experts in exposing a fraudulent document use.<br>2. Anecdotes illustrating obtaining the best value from the right experts.<br>3. Tips for experts from a legal perspective. |
| 11.45 – 12.30 | **Clare Healy ONZM**<br>**<u>Working as a forensic physician in New Zealand.</u>**<br><br>Clare will talk about becoming a leading expert in clinical forensic medicine, and some of her experiences including the challenges and rewarding aspects of the work. |
| 12.30 - 1.30 | Lunch |
| 1.30 – 2.15 | **Chris Gallavin**<br><br>**<u>A fascinating look into a world involving everyone with a cell phone!</u>**<br><br>Chris will talk about his recent work examining whether Big Tech should be compelled to allow law enforcement behind their encryption technology, what would be the implications of that, whether meta data is sufficient to assist law enforcement and is evidence based on meta data admissible in court? |

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| 2.15 – 2.40 | **Grant Moore, Toxicologist**<br><br>**<u>What does a Toxicology laboratory offer?</u>**<br><br>The Toxicology service has a variety of detection system's available to aid the analyst in detection and quantitative analysis of various drug and drug metabolites. We will explore the options available and also the history of how we came to be where we are with cases along the way. |
| 2 - 40 – 3.00 | Tea break |
| 3.00 - 3.30 | **Juan Schutte PhD**<br><br>**<u>Opportunities and forensic application for industrial 3D Printing</u>**<br><br>Juan made headlines in 2023 for 3D printing a human head so accurately that it could be used to unlock a cell phone.<br><br>3D printing has revolutionised manufacturing opportunities but the technology can provide much more than seen today. This session will discuss the current industry growth and the uses of the technology, debunking some of the myths and marketing mistakes while highlighting some of the awesome opportunities recent advances in nTopology software offer such as production of orthopaedic implants. |
| 3.30 – 4.00 | **Leo Schep, Toxicologist**<br><br>**<u>When pharmaceuticals go badly wrong</u>**<br><br>Over the latter months of 2022 there have been numerous reports of children dying from unexplained acute kidney injury (AKI), in countries including Uzbekistan, Indonesia and Gambia. They had been given cough medication, contaminated with the industrial solvent diethylene glycol (DEG), sourced from a pharmaceutical manufacturer in India. This chemical, a component of products including brake fluid and wallpaper stripper, was replacing glycerine in these formulations. Such incidents of contaminated medicines and associated mass killings span back to 1937 where a sulphonamide antibiotic was formulated with DEG resulting in 105 deaths in the US. Despite numerous cases of deaths since 1937, some manufacturers have still continued the practice of replacing glycerine with DEG. |
| 4.00 – 5.00 | **<u>University of Auckland Faculty of Forensic Science</u>**<br><br>Dr SallyAnn Harbison will give a presentation on the Forensic Science Programme at Auckland University and introduce 4 students who will give a summary of their masters thesis. |
| 5.00 | Drinks at the bar. |

**Dinner will follow at the Pullman hotel for those able to attend.**

**Bookings are now open:**

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| Members | Members fees are a part of the annual membership subscription. |
| Non members | $95 |

The venue is University of Auckland Old Government House
Registration includes lunch, tea and coffee and all speakers.

Please register your interest by **18 AUGUST** by emailing secretary Leo Schep leo.schep@toxinform.com. Please make payments direct to:

INDEPENDENT FORENSIC PRACTITIONERS INSTITUTE INCORPORATED

Account number: 38 9005 0055036 00

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| IFPI | Seminar day | Your surname |

**Please book early to allow catering numbers to be confirmed.**

**Speaker Biographies:**

**Derek Firth**

Derek is a distinguished senior barrister with extensive credentials in litigation and arbitration. Derek's career began as a barrister and solicitor in 1965 progressing to be a partner of the firm now known as Simpson Grierson from 1967 to 1994. Since 1995 he has practiced as a commercial barrister.

He is currently -

- Fellow, The Chartered Institute of Arbitrators (London)
- Fellow, Arbitrators' and Mediators' Institute of New Zealand
- Chartered Arbitrator (UK)

He was formerly –

- Panel Member, Hong Kong and Singapore International Arbitration Centres
- Member, Institute of Directors in New Zealand
- Chairman of the International Arbitration Committee of the New Zealand National Committee of the ICC International Court of Arbitration (Paris) and a Member of that Court as the New Zealand representative
- Member, Dispute Resolution Board Foundation (Seattle)

In governance Derek has been or remains trustee, director or board member of many private companies or charitable organisations; and is a director of two Australian unlisted public companies.

**Dr Clare Healy ONZM**

Christchurch GP, Clare Healy, has been awarded Distinguished Fellowship of The Royal New Zealand College of General Practitioners for her 30-year career working with patients who have experienced physical or sexual abuse and was made an Officer of the New Zealand Order of Merit (ONZM) in 2022 for her services to medical forensic education.

Clare works with people affected by sexual assault, family violence and strangulation. This includes over 20 years teaching clinicians to assess victims of sexual assault, developing robust and internationally respected training programmes for clinicians and appearing as an expert witness in criminal proceedings. Clare's training has extended across police sexual assault investigators, judges, nurses, social workers, counsellors, teachers and students.

Dr Healy has been a rural and urban general practitioner. She currently works at Cambridge Clinic in Christchurch, which provides services for patients who have, or may have, experienced physical or sexual abuse.

**Dr Chris Gallavin**

Dr Chris Gallavin is currently chief executive of the Sisters' of Compassion Group (SOCG) and formerly Professor of Law and Deputy Pro Vice Chancellor of Massey University. He served before this as Dean of the Faculty of Law at Canterbury University. Dr Gallavin's research interests have included prosecutorial discretion which he studied for his PhD at Hull; and international criminal justice, law of evidence, and public law. He has published extensively in these areas. More recently, Professor Gallavin has been instrumental in setting up the New Zealand Public Interest Panel, which comprises a volunteer panel of forensic and investigative experts. The NZPIP critically reappraises controversial criminal and civil cases. Prof Gallavin is often asked for public comment by national news media on legal matters and is a regular participant in National Radio panel discussions.

**Grant Moore**

Grant has worked in the Toxicology and Workplace drug screening area for almost 40 years starting as a Medical Laboratory Scientist until becoming the Section Head in 1995. In that time we have seen significant advances in technology and detection techniques as well as workload volumes. Grant has previously been the Regional Representative for TIAFT and is currently the Chair of the RCPAQAP Toxicology working party overseeing the Urine and Oral Fluid Drug screen schemes.

Outside of work Grant enjoys spending time with my family and our two golden retriever dogs as well as a bit of photography.

**Dr Leo Schep**

Dr Schep was employed by the University of Otago for 32 years, 19 of which were with the National Poisons Centre. There he provided poison information concerning all aspects of human acute and chronic poisoning, lectured on Forensic Toxicology, and publishing over 50 papers and 6 book chapters. He has also provided advice, and presented seminars, to the New Zealand Police, New Zealand Defence Force, Emergency Departments, and other health care providers. He has also provided teaching seminars throughout the country, to various community organisations, Maraes, and secondary schools. He established his consultancy firm, ToxInform Ltd, in 2008, where he continues to provide expert opinions in various court cases, both in Australia and New Zealand.

**Juan Schutte PhD BE(Hons) Mechatronics**
Formerly
Research and Development Engineer -**Creative Design and Additive Manufacturing Lab**
Research Associate -**Centre for Advanced Materials, Manufacturing and Design**
Research Fellow -**Faculty of Engineering**
Currently Additive Manufacturing Specialist for Fi Additive.

Juan is an Additive Manufacturing Specialist at Fi Additive where he consults with both industry and academia on the opportunities of product development and manufacturing using cutting-edge technology and 3D printing in New Zealand.

He has a background in pushing the boundaries of 3D printing research and completed a PhD that developed a novel form of biomaterial-based additive manufacturing and is passionate about tissue engineering, exoskeleton devices and prosthetics.

Juan is a passionate problem solver driven by engineering projects that allow him to apply his design, mechatronics, and manufacturing expertise to make a difference. Juan made headlines this year by 3D printing a human head that was so accurate that it could be used to unlock a mobile phone.

**Opportunities and forensic application for industrial 3D Printing**
3D printing has undoubtable revolutionised manufacturing opportunities but there is much more that the technology can provide, and if used appropriately, provide significantly more benefits over and above the status quo. This session will discuss the current industry growth and the uses of the technology, debunking some of the myths and marketing mistakes while highlighting some of the awesome opportunities emerging technologies are providing.

Aiding in the appropriate uptake and implementation of 3D printing is the recent advances in emerging software solutions such as nTopology. The potential for re-useable workflows, complex surface texturing and advanced lattices (highly desirable for products such as orthopaedic implants) will be demonstrated.

## Dr SallyAnn Harbison

Dr SallyAnn Harbison MNZM FRSNZ is currently Director of the Forensic Science Programme at Waipapa Taumata Rau and is a Senior Science Leader and the DNA Technical Leader of the Forensic Biology Group of ESR where she has been a forensic scientist since 1988, specializing in body fluid identification and DNA analysis. SallyAnn has had a long career in science education, as an Honorary Lecturer, supervisor and examiner for the Forensic Science course at University of Auckland since 1996. She has supervised many student researchers including 67 MSc students and 10 PhD students mostly from the University of Auckland.

Distinctions/Honours:
2021 Elected as a Fellow to the Academy of the Royal Society Te Apārangi
2020 Member of the New Zealand Order of Merit for services to Forensic Science
2011-2016 Appointed to the Scientific Advisory Board of the European Forensic Genetics Network of Excellence (EuroForGen)
1996 Recipient of a New Zealand Science and Technology Medal for work in the development of DNA analysis for forensic science.

Qualifications:
PhD. 1982-1985 University of Liverpool, Biochemistry Department and the John Innes Research Institute, Norwich, UK.
BSc (Hons) Biochemistry. Class II Division 1, University of Liverpool, UK

Areas of Expertise: Forensic Biology, molecular technology applied to forensic questions Genomic analysis and body fluid identification including DNA sequencing, DNA and RNA profiling of human and non human samples. Forensic evidence interpretation and expert evidence.