Speakers In Order Of Appearance

Mike Gradwell

The Morecambe Bay Tragedy

Friday 14:30 – 16:50

Det Supt Mick Gradwell has completed 28 years service, 22 years of which has been performed in detective roles. He has mainly worked in divisional CID roles but has worked on specialist departments such as Special Branch, Intelligence and Professional Standards. He worked on his first murder enquiry in 1984 and has been a Senior Investigating Officer since 2000. In recent years he has worked on several high profile enquiries & these include the Morecambe Bay Tragedy Feb 2004 (23 victims), The Tremellen St fire Accrington Nov 2006 (Mohammed Riaz murdered his wife and 4 daughters), Helicopter Crash Irish Sea Dec 2006 (7 victims) and two BNP activisits from East Lancashire for possessing 'Explosive' substances in 2007.

He won the Justice Shield 2006 (Highest National Criminal Justice Award) and the APSS Equipment and Technology Innovation Award 2007. He is also a Council of Europe Expert and has lectured on Articles 3 & 5 Human Rights Act in Tbilisi, Georgia.

His presentation - The Morecambe Bay Tragedy, is an overview of the successful investigation into the deaths of 23 Chinese people. Highlighting cultural and language issues and the development of a unique computerised evidence presentation system which managed vast amounts of evidence, including significant fingerprint evidence through the criminal justice process.

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Stuart Kirby - Offender Profiling

Saturday 09:00 - 09:45

Stuart Kirby has a B.Sc. and Ph.D. in Psychology, and is a Chartered Psychologist. He started as a lecturer in Criminology at Lancaster University during September this year. Prior to that he was with the Lancashire Constabulary having worked in a number of diverse operational and organisational roles, notably: Head of Intelligence, Head of Professional Training, Head of Corporate Development and Head of the Organisational Change Unit. More recent posts included Divisional Commander at Northern Division (Lancaster & Wyre areas), as well as Divisional Commander Specialist Crime and Operations (G Division).

He has been awarded two national awards in respect of Community Problem Solving (Home Office Tilley Awards) and has lectured on this subject extensively to international and national audiences, as well as being published in Home Office, academic and US journals.

He became an ACPO accredited Behavioural Investigative Advisor (formerly known as an ‘offender profiler’), shortly after finishing his Ph.D. on child sex offenders in 1993. Since that time he has advised nationally on the threat and characteristics of child sex offenders.

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Mike Broadhurst – Opthalmic Optics

Saturday 09:45 – 10:30

Over the last 35 years many advances have been made in optometry, including laser surgery, cataract and implant surgery, and now digital imaging both for the back of the eye and exterior front surface. These cameras allow us to record any unusual areas of the eye for monitoring and future assessment. When Mike is not in practice, he enjoys Ashtanga yoga, cycling, fell walking, and plays an active role in the development of optical services throughout the whole of Lancashire in his role as Optometric Advisor.

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Saturday 11:00 11:30

Stephen Bleay – HOSDB - Footwear Mark Recovery Project

Steve Bleay obtained a BSc in Materials Science from the University of Bath in 1988 and remained at the University of Bath carrying out postgraduate and postdoctoral research in electron microscopy of composite materials until 1993. He was awarded a PhD in 1991. He joined the Defence Research Agency (later QinetiQ) in 1993 and spent 10 years developing stealth materials and carrying out research into the production of novel fibre systems. He joined the Fingerprint Development and Imaging Group at HOSDB in May 2003 and has been working on a range of projects including novel vacuum deposition techniques, recovery of fingerprints from arson scenes, development and production of the Integrated Rapid Imaging System (IRIS) for rapid digital capture of developed fingerprints and digital imaging of fingerprints and footwear marks. He is a Professional Member of IOM3 and a Chartered Engineer.

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Steve Rawlings – Lantern – Mobile ID

Saturday 11:30 – 12:15

The Lantern Project is an award-winning project, which is delivering a live ID capability to officers in the street, using fingerprints. An ongoing pilot involving 10 forces, which includes Lancashire, is leading the way to a national capability in the next 12 months. This presentation will look at how the pilot was developed, the technical issues it had to overcome, what benefits it is delivering to the police service and what the future holds, especially with convergence to mobile data/information systems.

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Martin Fishwick - Health and Safety

Saturday 13:15 – 14:00

Born and raised on the Fylde coast, Martin started working in safety soon after leaving school. He became a trainer in emergency Specialist Equipment before moving into Health and Safety. He is now the Health and Safety Officer for Lancashire Constabulary – HQ Operations, as well as running his own consultancy in disability and construction.

Martin is now the chair of South Cumbria IOSH Branch and works on many National Health and Safety Projects.

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John Seviour

Saturday 14:00 – 14:30

Simultaneous Multi-Analyte detection of Contact residues and Metabolites in Latent fingerprints using MALDI-TOF-MS-MS

John will present a new method that enables comprehensive details of a lifted fingerprint to be directly obtained. The method utilises the capacity of a new formulation of silica nanoparticle dusting agents to act as a means of obtaining prints of superior definition and as an ionising/desorption agent for use in laser desorption/ionisation-time of flight-mass spectrometry. This approach can be used to identify contact drug residues and drug metabolites on fingerprints.

Latent fingerprints were dusted with a powder consisting of aggregated silica nanoparticles with embedded carbon black. The prints were lifted using tape and attached to a metal target plate print side up. This was then analysed and the TOF-MS spectrum obtained. Subsequent collision induced dissociation (CID) was performed and the resulting fragmentation compared with that of standards of the suspect drug. In some cases, the MS data was analysed to produce an image of the distribution of a contact residue over the surface of the print.

The method is rapid and compatible with current procedures for print location and lifting, and can be used to provide unambiguous evidence of identity for a wide range of analytes of forensic interest.

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Martin Andrew - Elsie Broadbent Murder

Saturday 14:30 – 15:15

Martin has 25 years of service and is currently a DCI in Knowsley and the SIO for Category B and C murders within the BCU.

During his years of service he has also spent time within the Intelligence and Security Bureau managing covert applications and working alongside the Security Service. In 2003/4 Martin was seconded to Bosnia and Herzegovina as part of the European Policing Mission. He advised on Major and Organised Crime as well as becoming heavily involved in investigations into trafficking of human beings and prostitution. The implementation of the Crimestoppers system throughout the country was also one of his accomplishments whilst abroad.

Martin has not presented this particular murder previously but hopes that the audience will find it as interesting as he did when investigating it.

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John Smith - Strengthening Fingerprint Evidence

Saturday 15:45 – 16:15

BSc Photographic & Electronic Imaging Science (1994). MSc Digital & Photographic Imaging (2002). Foundation Fingerprint course, CENTREX, 2005. Member of the Royal Photographic Society's (RPS) Imaging Science Group, the Fingerprint Society and the IAI. Forensic Scientist (Imaging Specialist), FSS London lab 1997 - 2001, specialising in fingermark recovery.Technical Specialist (Imaging), Forensic Alliance Ltd (now part of LGC Forensics), Culham lab, 2002 - 2007. Senior Lecturer, Imaging Science, University of Westminster, 2007 - ... which includes some collaborative work with HOSDB. Consultant Forensic Imaging Specialist, 2007 - which has included training, casework and equipment specification.

He has attended a few of the Fingerprint Society's conferences, a few of the RPS, and the last International Fingerprint Research Group meeting in Canberra. He has followed the current debates regarding fingerprints with interest, as a scientist, forensic practitioner, photographer, as someone with an interest in visual psychology, image processing, the history and future of photography and forensic science. He shall present something which he'd like to think of as a positive addition to the current debates: He suggests that current research should be seen as a benefit to the fingerprint community, that the more we learn about visual psychology (and emotional psychology), human- and machine-vision image processes, statistical analyses of fingerprint patterns, etc., the better and stronger fingerprint evidence will be. Essentially, he agrees with the suggestion that fingerprint evidence is the strongest of all evidence and, when carried out correctly, is virtually infallible. He is surprised at the defensive reaction of some within the community to suggestions that fingerprint evidence may not always be so: reported mis-matches, the McKie debate (with some experts resolutely, categorically, claiming marks matched and others holding the totally opposite side), the Brandon Mayfield case, all suggest otherwise. Statistical reporting is the norm for all other forensic science disciplines and its use in fingerprint evidence is currently being researched by several institutions. This is a good thing and should be welcomed. Linked to this subject, he believes that we are not making the best use of what we find at crime scenes due (at least) to two major reasons: that of arbitrary or personal limitations on the level of detail & minutiae required and the operational gap that exists between fingerprint departments and forensic science providers: too many times, when involved in the examination of items, he has seen the 'DNA or fingerprints?' question lead to more of a compromise than is necessary. He will also argue that much more may be made of partial marks than is currently the case.

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Chris Morgan

Saturday 16:15 – 16:45

Time-Resolved Luminescence Imaging for Detection of Long-lifetime Labels:- A potentially useful technology for fingerprint detection on 'difficult' samples?

Abstract

Recent advances in LED technology and in charge-coupled image sensors have combined to allow highy sensitive time-resolved detection of fluorescent and phosphorescent samples. The necessary technology is compact, robust and all solid-state and is easy to use. One of the many applications of the new technology is selective detection of

luminescent labels with a relatively long decay time against a background that is very strongly fluorescent, which would normally swamp the weak signal from the label. Time-gated imaging also allows efficient rejection of ambient light while still allowing the desired signal to be detected. One class of long-lived labels is based on complexes of europium and terbium which typically have decay times of the order of a millisecond. These complexes have bright spectrally-narrow emission which facilitates conventional detection, and europium complexes are already in use as fingerprint powders. Ruthenium complexes are also potentially valuable and are readily detected in time-resolved mode. The talk will discuss the new technology with examples of the time-resolution and background rejection that can be achieved routinely, and will suggest that forensic applications may be possible.

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John Dixon - Fingerprinting Cadavers

Sunday 09:00 – 10:00

John Dixon has been a Fingerprint Officer for West Yorkshire Police for 18 years with 15 years experience in body print recovery. He has worked in the Major Crime Team for 11 years and joined the National D.V.I. (Disaster Victim Identification) Team.

Like many other Officers John was privileged to be selected to work for the D.V.I. in Thailand after the 2004 Boxing Day tsunami.

The presentation will cover elements of the disaster, what was set up and done in its wake to identify the victims and how the tips that the team gained on technique were added to the existing repertoire of recovery methods with examples.

In John's own words "It is not meant to be a definitive talk and I have no intention to teach anyone's granny to suck eggs but I will be more than happy to expand the subject with consultation after the conference"

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Thomas Wilkins - The Megan Kanka Homicide Review & Megan's Law

Sunday 10:00 – 11:45

Thomas Wilkins has been a Fellow of the Society since 2004 and was a police officer for 31 years with the Hamilton Township Police in New Jersey, retired at the rank of Captain. He has been doing field crime scene investigations since 1978, has qualified in court as a fingerprint expert and testified on many of the different aspects of crime scene investigation

He has been teaching a basic evidence collection course for new officers since 1990. Currently he is employed by the Mercer County Prosecutors Office as the Chief Identification Officer. The subject is the Murder Rape of Megan Kanka. This crime is what spurred "Megan's Law" in the US.

Our "Sarah's Law" is similar. It requires registration of all sex offenders and public notification of the most serious ones living in your neighbourhood. He was the forensic supervisor on this case, the lead evidence officer.