

CODE	Title	Abstract	Presenter LN	Presenter FN
ART-144	Forensic Art and Investigations: Putting Together the Pieces	The Presentation will focus on the steps that occur from the time a Composite Drawing request is submitted to the forensic artist, to court testimony and conviction. Many Composite Drawings never go past the police bulletin stages. However those composites that assist in the identification of a suspect require a number of additional investigative steps to prove the guilt of a suspect. The lecture will talk about additional investigation and evidence such as search warrants, photo lineups, live lineups, DNA, fingerprints, video and witness identification. I will also discuss why certain pieces of evidence are stronger than others and why multiple pieces of evidence together make for a stronger court case. This presentation is for the forensic artist who does not have an investigative background and has always wondered what occurs with their composite after it is given to the investigator but is open to all members of the IAI who are curious how composites work with their discipline.	Lynch	Joseph
ART-228	An Impression Left Behind: Artistically Identifying the Victim of a Homicide	This lecture will discuss a forensic facial reconstruction completed by the presenter in 2017. The victim's skull, lodged in cement, was located by a cyclist on the side of a main highway in New York state. When the skull was removed from the cement by the medical examiner, an impression of the victim's face was present. A forensic facial reconstruction was completed from the skull and quickly recognized; an identification was made. This lecture will discuss not only the reconstruction by the Forensic Artist, but also the multi-disciplinary collaboration that took place, and the uniqueness of the cement impression. No recording allowed.	Gruttadaurio	Danielle
ART-258	Computer Generated Modeling for Forensic Art	Technology in communication, visual arts and science have made huge advancements in the last few decades. Is there technology that can be used in any of the Forensic Art genres that: will not limit the forensic artist, will meet the evidentiary standards for court, and most importantly, make a positive difference in investigators' cases? This lecture will cover concerns and explore the benefits and limitations of computer-generated modeling in forensic art. No recording allowed.	Messick	Kirt
ART-271	I Had a Forensic Art Case	This staple of the IAI agenda is a lecture session that allows practicing Forensic Artists to make brief presentations about interesting cases for the purposes of sharing, learning and questioning. A presenter may highlight a "hit," explain a technique, ask for guidance with a challenge, show the variety of work his/her agency offers, etc. An overview of Forensic Art genres will be represented, not solely composite drawings. This forum encourages sharing and asking questions openly. This is a perfect opportunity to hear what others have been working on, share in colleagues' successes, or encourage them through a difficult case scenario. No recording or photos of casework will be allowed.	Birdwell	Suzanne Lowe
ART-507	Forensic Art Services in Germany: How Our Team Works	Forensic Artists throughout the world create composite images in varying manners, each having advantages and disadvantages. But it's possible to combine different methods & media – freehand, digital drawing, 2-D pictures and 3-D models, etc. – to create effective forensic imagery. The goal is to utilize the memory of the eyewitness to create a valid likeness of the person-of-interest. This is a big part of what German Forensic Artists are taught, along with interviewing techniques, principles of proportion & aging, phenotypes, dealing with traumatized witnesses, simulated crimes and more. In order to professionally achieve the best possible results however, continual study and collection of usable information worldwide is essential. As such, Supervisory Captain Wortmann's presentation will share with attendees an overview of his team's forensic artwork niche within the world of forensics. Further, Rainer will be supplementing this lecture with a digital art workshop at this conference.	Wortmann	Rainer
BIS-169	Dispositions: The Missing Piece of the Criminal History Puzzle	Dispositions are an important element in the Criminal History Record (CHR). Users of the CHR need complete information in order to make informed decisions. This presentation will show different methods of providing dispositions to the FBI's CJIS Division.	Tuttle	Susan
BIS-170	Using NGI to Locate the Missing and Unknown Deceased	This presentation will inform the audience of how the FBI can assist with missing and unknown deceased individual investigations by using the Next Generation Identification (NGI) System.	Tuttle	Susan
BIS-175	Understanding the FBI Identity History Summary	Next Generation Identification (NGI), the FBI's computerized record system recently began operation. This new system has resulted in several changes to the Identity History Summary (IdHS) (Rap Sheet). This overview will address those changes.	Knotts-Gladwin	Christina
BIS-214	A new AFIS is going operational – there is much more than only technical changes	The AFIS-operation in Switzerland is not only used as a tool but as the major cornerstone in all our national fingerprint-related processes. Thus, the introducing of a new AFIS in 2016 opened fascinating opportunities like an integrated ACE-V-documentation and flexible workflows but it raised important challenges like an ISO-conform validation and major changes to our process-es. With this lecture, we would like to share our initial ideas, experiences and lessons-learned with the fingerprint community.	Glaeser	Axel
BIS-220	In-person Proofing and Multi-factor Authentication in Support of the Identity Lifecycle	A continuing challenge with identity verification is the over-reliance on knowledge-based authentication and poor initial proofing. Weak passwords and low levels of assurance plague online transactions and create vulnerabilities. In this session, attendees will learn of innovative methods to ensure reliable proofing and discuss a variety of multi-factor means that promote and propagate strong identity verification and authentication, either for online or in-person transactions.	Clancey	Patrick
BIS-229	Tattoo Comparison: Techniques and Advancement in Technology	The process of matching tattoos has long been a photographic comparison performed manually between a specific known subject and surveillance-type image. Now with advances in technology, tattoos can be compared both one-to-one and one-to-many in an automated system. This presentation will depict examples of each method and discuss the implications for the technology.	Deshpande	Kaustubh
BIS-247	Leveraging AFIS to Help Optimize Latent Print Workflow	Among the three latent print casework factors of accuracy, timeliness and thoroughness, accuracy is always paramount. That leaves timeliness and thoroughness to be balanced according to available manpower resources - and thoroughness is what is usually sacrificed. This lecture will present information about leveraging AFIS and AFIS-related tools to help increase meaningful thoroughness (not just more comparisons without identifications) and simultaneously provide valuable quality assurance feedback.	German	Ed
BPA-510	Bloodstain Pattern Analysis Documentation	TBA	Gaziano	Calvin
BPA-511	Written in Blood: Staging of a Homicide Crime Scene	The presentation will examine a homicide crime scene in which the victim wrote a suspect's name on a wall in their own blood. Photographs and documents which assisted in the interpretation of the bloodstain evidence will be presented and discussed.	Wolson	Toby
BPA-512	Stand Your Ground Case Presentations	TBA	Wolson	Toby
BPA-513	Context Bias Case Study	TBA	Graff	Iris
BPA-514	Methodology and Bias in Blood Stain Pattern Analysis	This lecture will address the process that an analyst employs when examining bloodstain patterns and bloodstain pattern analysis scenes. Because a BPA scene is often complex and rich with contextual information, the analyst must take caution to minimize the effect that bias may unknowingly play. This lecture will discuss both context and confirmation bias. Examples of these types of biases and their application to forensics in general and bloodstain pattern analysis will be explored and discussed.	Latham	Holly
BPA-515	Reconstruction of Bloodstain Impact Patterns: Error Rate Research Project	TBA	Gaziano	Calvin
BPA-516	Manner and Cause of Death? Blood Stain Pattern Analysis Case Study	TBA	Gaziano	Calvin
BPA-517	BPA Case Study	TBA	Priest	Jon
BPA-602	OSAC update: Bloodstain Pattern Analysis Subcommittee	The Organization of Scientific Area Committee Subcommittee on Bloodstain Pattern Evidence Update	Wolson	Toby

CSI-059	Crime Scene Response to Major Incidents	This presentation will focus on the response of local law enforcement Crime Scene Unit personnel to major incidents including mass casualties and Officer Involved Shootings. The presentation will include guidelines on proper crime scene management, logistical considerations, and the emotional aftermath specifically involving Crime Scene personnel. Attendees will hear logistical details regarding the Dallas Officer Involved Shooting on July 7, 2016, the Orlando Pulse Nightclub shooting, and various other major crime scene responses throughout the country.	Nolan	Jonesta
CSI-075	The Travis Alexander Homicide Case	Jodi Arias was convicted in 2013 of the first-degree murder of Travis Alexander. In June 2008, Alexander was found deceased in his shower stall. A camera found in the washing machine, a palm print on the bathroom wall, and hair from the bathroom tied Arias to the scene. Arias' account of her actions changed several times, ending in a self-defense claim. Case photographs, interviews of Arias, trial testimony, and media coverage will be reviewed.	Conner	Heather
CSI-105	The Investigation of the Abduction and Homicide of Jessica Ridgeway	On October 5, 2012 ten-year-old Jessica Ridgeway was abducted from the street near her home during her morning walk to school. Two days later her backpack and clothing was found discarded. A portion of her remains were recovered on Oct 10th., abandoned in a roadside ditch. DNA evidence recovered from both sites linked an unidentified male. An extensive DNA manhunt began. Over 1200 houses were searched, over 700 males DNA samples were collected and analyzed. Feeling the unrelenting pressure in his neighborhood and after being interviewed, 17-year-old Austin Sigg confessed to the abduction and murder. The presentation will outline the case, the manhunt operation and the crime scene forensics.	Read	Tim
CSI-136	Crime Scene Management Under the Microscope:Techniques for Handling Mass-Shooting Events	Proposed Title:Crime Scene Management Under the Microscope: Techniques for Handling Mass-Shooting Events and other Publicly Scrutinized Crime Scene Events. Large-scale crime scenes, particularly gruesome ones, heighten public scrutiny regarding management decisions. As such, greater attention is required to process them. Our presentation offers best practices for leadership and techniques for these scenarios, focusing on lessons learned from recent mass shootings. We will discuss errors to avoid in these scenarios, both on-scene and before/during courtroom testimony. We will conclude with potential mental impact(s) on crime scene workers and techniques for emotional support and burnout prevention.	Pettolina	Maria
CSI-146	Drone Mapping of Crime Scenes	This presentation will highlight basic introduction to "Drone" mapping of outdoor scenes. Drone mapping can offer 2D or 3D rendering of your scene. The attendees will be shown how the data could be collected, processed, and viewed for court room presentation.	Allard	Michael
CSI-152	Courtroom Testimony for CSIs	This presentation will present practical instruction regarding courtroom testimony for crime scene investigators. It will draw from the book, "Effective Expert Witnessing" 5th edition by Jack Matson, a text required for IAI Certification as a Senior Crime Scene Analyst. This lecture will focus not only on practical courtroom testimony techniques, but how to develop an effective courtroom testimony training curriculum for crime scene units.	Nolan	Jonesta
CSI-202	Case of Caylee Anthony thru Forensics Investigations	July 16, 2008 was just another day as a Crime Scene Investigator for the Orange County Sheriff's Office in Orlando, Florida. This case was very challenging, because was coverage by the local media, nationwide as well as internationally. The experience of having this case goes from the rescue of a missing child investigation to a forensics investigation.	Bloise	Gerardo
CSI-268	Building the Crime Scene Investigator: Training Methodologies for Real World Success	The crime scene investigator is tasked with the coordination of many procedures and scientific techniques in an uncontrolled environment where every action has consequences. Training to competency in such technical skills should engage the student in practical application in as realistic of an environment as possible in order to "train as you fight". This presentation will examine comprehensive training methodologies that prepare investigators for the actual job tasks they will face inside the perimeter tape.	McDonald	Ted
CSI-269	The Digital Aspect of Your Forensics	Today's crime scene is almost guaranteed to contain digital evidence. How are you (and your department) preparing to handle it? This lecture will discuss traditional digital evidence, today's changes, and how your traditional crime scene activities are also changing. Today, photography, video, and even diagramming are linked to the digital side. This class will discuss how we can help each other without stepping all over each other.	Hoover	Jerry
CSI-273	Are We Contaminating Our Scene of Crime Suits?	Scene of Crime Officer (SOCO) suits are standard protection for major scenes to prevent contamination from both DNA and trace particulates but what if we are contaminating our suits? This presentation will outline a series of studies that have identified that transfer of fibres from SOCO's clothing to the outside of the suits occurs during donning and that these subsequently persist long enough to enter the scene of crime. Suggestions of how to reduce this contamination will be discussed.	Gwinnett	Claire
CSI-280	Let's fingerprint that dead body	Capturing the fingerprint from a recently deceased person is not a big problem. The challenge starts when the process of rigor mortis has begun. It's not too often that forensic examiners have to process severely degraded corpses. Therefore, it is important to exchange information, learn from the experience of other examiners. The presentation covers approaches used to capture fingerprints from a corpses at different stages of decomposition (in Switzerland), along with examples of real cases.	Aebersold	Kurt
CSI-606	OSAC Update: Crime Scene Subcommittee	The Organization of Scientific Area Committee Subcommittee on Crime Scenes update	Miller	Marylin
DIG-088	The Digital Automotive Image System	This presentation is designed to provide an overview and demonstration of the FBI's current Digital Automotive Image System (DAIS). The commission of crimes and terrorist acts frequently involve the use of some kind of motor vehicle. Having quick access to images of known vehicles through a searchable database can improve the chances of eye witness and investigator's identification of the make and model of the suspect's vehicle. The DAIS software is an investigative tool supported and provided by the FBI's Forensic Audio, Video and Image Analysis Unit. This software is distributed at no cost to Federal, State and Local Law Enforcement Agencies in North America.	Iber	Christopher
DIG-116	Update from OSAC Subcommittee on Video Imaging Technology and Analysis (VITAL)	This presentation will provide an overview of recent activities of the Office of Scientific Area Committees (OSAC) Subcommittee on Video Imaging Technology and Analysis (VITAL). It will focus on changes that occurred since the 2009 NAS Report, the role of the SWGs, events around SWGIT's cease of operations, SWGDE, and how OSAC and VITAL came into being. Current work of VITAL on Digital Video Recorders, Video Analysis, and Latent Print Photography.	Kriigel	Carl
DIG-248	OSAC Digital/Multimedia Scientific Area Committee Update	The Organization of Scientific Area Committees (OSAC) for Forensic Science is part of an initiative by NIST and the Department of Justice to strengthen forensic science in the United States. The organization is a collaborative body of more than 500 forensic science practitioners and other experts who represent local, state, and federal agencies, academia, and industry. OSAC supports the development and promulgation of forensic science consensus documentary standards and guidelines, and to ensure that a sufficient scientific basis exists for each discipline. This presentation will bring IAI Conference Attendees an update on the latest progress of the Digital/Multimedia SAC, which includes Digital Evidence, Facial Identification, Video/Imaging Technology and Analysis and Speaker Recognition.	Vorder Bruegge	Richard
DIG-257	Information Session: The Forensic Video Certification Exam	An information session for anyone interested in completing the IAI's Forensic Video Examination Certification. Topics covered will include changes to the test within the last year, updates to reference material, and tips for preparation.	Meline	Kimberly
DIG-603	OSAC update: Digital Evidence Subcommittee	The Organization of Scientific Area Committee Subcommittee on Digital Evidence Update	Watson	Steve
FAC-122	FISWG/OSAC Systems Group Update	Over the last year FISWG and the OSAC Facial Identification Subcommittee have started to publish key documentation for facial examination usage through the ASTM (www.astm.org) process. In addition to these documents, FISWG and OSAC are continuing to work on other key areas of interest brought to the forefront thought these two key groups: ACE-V frameworks, Image analysis in support of ACE-V, Image processing for searching, and 3D pose correction. This presentation will give a summary of this work and will gather IAI based community comments on where other focus areas can be investigated.	Gieselman	Neal

FAC-128	OSAC Facial Identification Subcommittee Update 2017	This presentation will provide an overview of recent activities of the Office of Scientific Area Committees (OSAC) Subcommittee on Facial Identification (FI). It will focus on changes that occurred since the 2009 NAS Report, the role of the Facial Identification Scientific Working Group (FISWG) in relation to OSAC FI, and the current work of OSAC FI Subcommittee.	Sims	Lora
FAC-171	Introduction to the FBI's Face Comparison and Identification Training	Face comparisons are becoming more widespread and training is needed. The FBI CJIS Division offers a training class to help prepare the examiner. This lecture will introduce the training course and give the future student a look into what is covered.	Pastorial	Rachel
FAC-230	Fusion of Facial Recognition and Video Analytics	Video Analysis technology has been constantly improving from the days of film and VHS to today's digital recordings. Features such as frame averaging and image stabilization have become common. Likewise, Facial Recognition (FR) technology has improved over time from its beginnings of one-to-one verification of standardized photos to one-to-many matching with uncontrolled, surveillance style imagery. Features such as face matching are now being joined by body, clothing and object matching as well. By fusing Video Analytics with Facial Recognition, we now have the technology select all faces from a video, previously a time-consuming manual process. Isolating bodies and clothing allows for additional recognition capabilities, necessary when the individual may be wearing a mask or their face is turned out of view. Individuals can be matched, tagged with an identity, and track throughout multi-camera installations. This presentation will discuss a case example utilizing such technology and discuss the implications for future video and FR joint analyses.	Spaun	Nicole
FAC-245	Facial Recognition/Facial Identification Certification Plans	This lecture will present some of the early steps being taken toward establishment of Facial Recognition (FR) and Facial Identification (FI) certification. FR and FI examinations have been a reality in government agencies for many years. Just as has occurred with other forensic specialties, there is a need for a certification program to help ensure professional competency in accordance with OSAC, FISWG and other standards and guidelines.	German	Ed
FAC-246	Facial Recognition/Facial Identification Sourcebook	This lecture will present details about work being done between the IAI, OSAC and FISWG to create a Face Sourcebook. As with similar Sourcebooks, planned chapters include History (including face, ear, and eye manual classification systems), Anatomy of Adult Facial Skin and Eyes (including scientific bases for individuality), Image Capture of Faces and Eyes, Automated FR, Automated multi-modal systems (including iris and fingerprint), FR Screening and Examination Methodologies, FI Examination Methodologies, and more.	German	Ed
FAC-254	Integrating the FISWG/OSAC Morphological Feature List into Facial Image Comparisons	In 2013, FISWG approved the Facial Image Comparison Feature List for Morphological Analysis detailing the features in the face that must be compared when visible in the images when conducting a comparison. This lecture will work through the Morphological Feature List and provide insight on how to integrate it into a facial image comparison using a checklist of the features. This checklist can aid an examiner during the analysis and comparison phase, providing a reliable guiding framework when conducting difficult comparisons.	Sims	Lora
FAC-256	Application of Face Analysis Through Big Cloud Database and Artificial Intelligence	The face as one of the means for human bio-metric identification has been studied by several scholars in the past. In addition to being used in human identification, the face can also be applied to aid in the interview and investigation process. By integrating various publicly and semi-publicly available data sources, the authors here explore the application of face analysis through big cloud database and artificial intelligence to criminal investigation and counter-terrorism.	Yu	Tianyin
FAC-272	Changing the Perception of Facial Recognition Technology in Law Enforcement	In this presentation, 3M/Gemalto will discuss the evolution and accuracy improvements that facial recognition technology as a whole has achieved in the last 5+ years leveraging NIST evaluation results from the past and present. 3M/Gemalto will also utilize multiple facial recognition use cases within Law Enforcement and other industries to display the wide range of applications that separate this unique technology from other biometric modalities in use today.	Daniel	Asraf
FAC-501	Using Smart Phones and Other Mobile Devices for Automated Facial Recognition	Today's smart phones and tablets are powerful platforms for computing, sensing, and communicating. Everyone has one, we carry them with us everywhere we go, and every year, they get more powerful. They have excellent, high-resolution cameras for recording video or capturing still images. It is only natural that we want to use smart phones and tablets for facial recognition. This is no problem, and is, in fact, the new standard for law enforcement, security, and access control. This talk will describe a few example apps for mobile devices that implement facial recognition. We'll explore the algorithm, device, and infrastructure requirements for making these apps work well in your environment. And we'll talk about simple ideas for specific problems like matching faces at a distance with a mobile device.	Dyer	Doug
FWT-106	An Evaluation and Comparison of Everspry Outsole Scanner® and Magnetic Powder Method	A comparison between two methods for making footwear test impressions is presented: the relatively new Everspry Outsole Scanner® and the magnetic powder method. For the magnetic powder method, the amount of grease and powder applied are difficult to control in order to make an optimum test impression. Using this digital outsole scanner can help circumvent this problem. There are certain advantages and disadvantages of each method will be presented.	Au	Wai Sze
FWT-132	Unblended Fillers in Footwear Manufacturing Create Accidental Characteristics	In footwear manufacturing, scrap rubber is ground and used as filler in pre-vulcanized elastomer. These particles of ground rubber go through a second vulcanization process in the making of an outsole, and become harder than the surrounding rubber matrix, which has only been vulcanized once. As the rubber outsole erodes, the harder particles of rubber appear as raised shapes, and should be considered accidental characteristics, which assist the examiner in forming the opinion of identification. This presentation includes an explanation and illustrations of the mixing process, examples of ground scrap rubber used as filler and a shoe outsole with these characteristics.	LeMay	Jan
FWT-134	Using the Adidas Boost® Midsole Material in Footwear Comparisons	This lecture will discuss the Adidas Boost® material and the significance of footwear impressions that contain this material. The Boost® material is new to the footwear industry and is composed of Thermoplastic Polyurethane (TPU) as opposed to the traditional Ethyl-Vinyl Acetate (EVA). The manufacturing process is different and as a result the appearance is different. EVA typically has a uniform smooth appearance. In contrast, TPU used in the Adidas Boost® material is comprised of hundreds of individual pea sized TPU capsules that are placed into a mold and heat steamed. The result is an outsole made up of individual TPU units fused together. The TPU units appear to be comprised of different shapes and configurations that are variable between outsoles despite being placed in the same mold. Although this is a midsole material, much of it is exposed and visible when looking at the bottom of the shoe. Portions of the TPU midsole could potentially be present in latent footwear impressions. Are these TPU components variable enough to be used as a Randomly Acquired Characteristic imparted during the manufacturing process? This lecture will discuss the impact and weight that could be applied to footwear impression comparisons with this material based on research conducted with shoes containing the Boost® midsole. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	John	Jeremy

FWT-135	How Discriminating are Class Characteristics in Calendered Outsoles Comprised of Rubber and Textile?	How Discriminating are Class Characteristics Associated with Calendered Outsoles Comprised of Rubber Outsole and Textile Overlays? Footwear manufacturers such as TOMS® and Sanuk® use a manufacturing technique which employs die cut outsoles with an overlayment of textile material. Both the die cut and textile overlay manufacturing techniques have degrees of randomization. In the die cut process the outsole is cut with a metal die from a large sheet of pre-molded outsole material. The specific areas of the outsole pattern are random depending where the cut is made and therefore the elements observed in outsole design will vary to some degree from one to another. The TOMS® and Sanuk® models explored in this presentation have textiles overlaid and stretched over the outsole material to cover it. Each element of one calendered material will appear different in the resulting impression because of the application of the textile design. For example, the Sanuk® has a calendered rubber design which includes repetitive shapes. A textile which contains a repetitive pattern of holes is applied over the rubber. Given these two factors in combination, the relative position of the holes in the textile material and the position of the design from the die cut portion provide an amount of variability from shoe to shoe. How random are these configurations and how can that be applied in footwear comparisons? While it is stronger evidence than just design and size is it strong enough to support an association as with Randomly Acquired Characteristics (RACS)? This lecture will discuss the research that was conducted to attempt to answer these questions for potential application in conducting footwear comparisons when footwear impressions of this nature are encountered. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	John	Jeremy
FWT-156	Part 2: Size variations associated with the different methods of recording outsole impressions	Part 2: Size variations associated with the different methods of recording outsole impressions of reference footwear for comparisons. This lecture is the follow-up and conclusion to the presentation performed at the 2016 IAI Educational Conference bearing the same title. Size determinations of footwear impressions are an important aspect of the general footwear examination scheme as significant differences in size can instantly exclude the shoe as having been the donor of a particular impression. There are several common methods/procedures for recording test impressions to permit a thorough comparison of the questioned impression with a known shoe. Test impressions are generally created on various types of surfaces with some degree of force applied to ensure a thorough recording of the outsole characteristics. Variables such as substrate composition, method of generating the test impression (e.g. walking, etc.), weight of individual, size of foot in relation to the shoe, etc. may cause variations in the overall appearance and perceived size of the impression. Although such variations are understood by the practitioner community, significant effort has not yet been directed towards quantifying the extent by which footwear impressions may vary. Over the past year further data was collected which will expand upon the preliminary exploration of which factors may cause the most variation as well as the extent of such variations. Footwear Examiners may use this insight to consider how much tolerance to allot when performing size determinations between questioned and known footwear impressions. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	Koertner	Anthony
FWT-189	A Panel Discussion of the Application of ACE-V and Other Comparison Methods in Footwear Examinations	The use of the ACE-V methodology is applied almost universally by Latent Print Examiners throughout the world when conducting latent print examinations. However, in footwear examinations there is no prescribed universal method of conducting footwear examinations for the community. This panel comprised of Footwear Examiners with various forensic backgrounds (i.e., Latent Print, Trace Evidence, and Instructors) will openly answer the questions which were formulated prior to the conference as well as discuss follow up questions from the audience. Topics will include documentation of the analysis of latent footwear impressions, comparison methods and documentation, articulation of conclusions reached during examinations, and verification of footwear examinations. The goal is for the footwear community to be exposed to similarities and differences in the examination process amongst Footwear Examiners to identify gaps in the process and encourage improvement to the overall process.	Homer	Cindy
FWT-195	Location, Recovery, and Metamorphosis of Snow Impressions Hidden Beneath Subsequent Snowfall	A series of tests were conducted to determine if impressions in snow could be recovered from beneath subsequent snowfall. Various techniques were evaluated to determine which were most successful in preserving the detail of the original impression. It was found that a significant level of detail could be recovered. The various techniques that were tested are discussed and the authors provide recommendations on techniques they found to be most successful, which involved the use of compressed air. The effect of snow metamorphosis on the stability of snow impressions is discussed.	DeFrance	Charles S.
FWT-206	An Intelligence Approach to using Footwear Impression Evidence	This panel will examine how footwear impression evidence can be used to provide actionable intelligence in the investigative stage of a case. Topics to be presented include: 1. An introduction to the FBI national footwear database feasibility study. 2. Vendor demonstrations of currently available databases for determining the make/model of an item of footwear that could have left a scene impression as well as scene linking. 3. Presentations on footwear intelligence programs used in Europe.	Gorn	Michael
FWT-207	Case Studies in Footwear, Tire and Barefoot Evidence	This session will include a variety of case studies on footwear, tire and barefoot evidence. Presentations will be conducted by practitioners and demonstrate how these evidence types were collected and utilized from the crime scene to the courtroom.	Gorn	Michael
FWT-208	Adolf Schallamach- The man, his science and where the rubber meets the road	Schallamach patterns are formed through friction during the sliding of rubber on smooth surfaces. This detail is commonly described as looking similar to fingerprint ridges and can be used to identify that a particular shoe was the source of a crime scene impression. This lecture will take a historical look at the life of Adolf Schallamach from his early years through to his pioneering research and how it applies to forensic footwear evidence.	Gorn	Michael
FWT-215	Expert opinion evidence based on new CSI scanning technology – legal duties and quality requirements	An overview is provided of expert witness legal duties and Criminal Justice System (CJS) quality requirements in England (U.K.) when providing expert opinion evidence based on a new CSI scanning technology. It is geared towards impression examiners, crime scene investigators and their managers. The analysis is contributing into the development of the 3D-Forensics system – a mobile high-resolution 3D scanning system for the recovery and analysis of footwear and tire track impression evidence.	Crabbe	Stephen
FWT-255	Developing and Utilizing a Local Footwear Reference Collection	Using a local footwear reference collection is an integral part of a footwear comparison in the UK but not widely used in the US. This lecture discusses some of the reasons for this, looks at some low cost strategies for developing one at your agency and explores the numerous benefits of utilizing them to allow for more accurate comparisons.	Kanaris	David
FWT-264	Tire Mold Manufacturing Techniques	Tire molds are manufactured using various techniques that may assist the crime scene investigator with identification of the tire's brand and mold type. Tread patterns may be vented with micro vents or use vent less technology. Tread patterns can be molded in two piece molds or segmented molds. Mold pitches range from one to four in most consumer tires. Pitches may be arrayed radially or follow the tread pattern features. This presentation will explore tire mold manufacturing and assist Crime Scene Invest	Dancy	Joseph
FWT-292	Quantitative Measures for Footwear Impression Comparisons	We discuss algorithmic approaches for identifying features present in questioned and known footwear impressions and for summarizing findings of comparisons as 'comparison metrics.' We present experimental results using a dataset of ground-truth-known mated and non-mated footwear impressions. The approach will improve repeatability, reproducibility, and accuracy for impression comparisons. The methods can aid footwear examiners provide more scientifically valid information for court cases, as well as improve intelligence gathering involving database searches.	Herman	Martin

FWT-530	Nike Counterfeit Footwear	This lecture is still pending an official abstract, but will discuss the topic of counterfeits footwear from the perspective of a major company attempting to combat unauthorized production of their designs.	Boyer	Marie-Ange
FWT-604	OSAC update: Footwear and Tire Subcommittee	The Organization of Scientific Area Committee Subcommittee on Footwear and Tire Track Evidence update	Johnson	Matt
GEN-027	Applications of DNA Phenotyping to Criminal Investigations	DNA Phenotyping is a revolutionary new forensics capability that accurately predicts ancestry and physical appearance from DNA evidence. Until now, DNA without a match has been worthless to an investigation. Capabilities of the Snapshot DNA Phenotyping technology will be discussed and examples from a blind evaluation study funded in part by the National Geographic Society will be shown.	Armentrout	Stephen
GEN-047	The Importance of Validation in Forensic Laboratories	To explain what method validation is, why it is important to have method validation in every forensic laboratory even if publication references are the requirement and not more, and how to set up a method validation to properly document findings for inspections and audit.	O'Neill	Danielle
GEN-057	Degradation of mRNA in tooth pulp during storage at room temperature.	Degradation of mRNA in tooth pulp during storage at room temperature. By Tierney Mullaney, Kyla Jorgenson, and Robert W. Allen School of Forensic Sciences, Oklahoma State University. Teeth have been used for years as a means of identification, both using X-ray comparisons as well as using teeth as a source of DNA for analysis. In this study, healthy molars and pre-molar teeth were obtained from patients undergoing extraction for orthodontic purposes and the tooth pulp was used as a source of mRNA representing genes expressed in teeth. We have been studying the degradation of mRNA in different biological materials in hopes of using transcript degradation as a means of estimating how old an evidentiary sample is. In studies on blood, semen, and saliva stains, we have identified classes of transcripts that exhibit differing rates of decomposition that may be useful to estimate sample age. Inasmuch as the question of age also applies to skeletal remains, we performed an initial analysis of the transcriptome produced from teeth subjected to aging in the laboratory for 42 or 90 days of storage. RNA sequencing (RNA-seq) on an Ion Torrent PGM next generation sequencing platform was performed using mRNA extracted from tooth pulp from healthy teeth donated for the study by adult donors. cDNA was reverse transcribed from mRNA from the pulp. 15,289 gene transcripts were sequenced from the tooth pulp. The tooth transcriptome was analyzed at time zero (T0) and at 42 and 90 days of storage in the dark at room temperature. Results showed that the number of transcripts does decrease with storage time and there is a correlation with the T0 abundance of a particular species and how long it is detectable during storage. However, other factors appear to affect transcript disappearance inasmuch as some mRNAs disappear quickly (within 42 days) even though their abundance is high. Data mining on the thousands of sequences produced from tooth pulp is underway with the goal of better understanding mRNA degradation in teeth in a way that will allow for the estimation of sample age in skeletal remains recovered from a clandestine grave.	Mullaney	Tierney
GEN-076	My Experiences as a TV Forensic Consultant for TV Crime Dramas	For the past 17 years, I have served as forensic science consultant to such television shows as CSI: Miami, Bones, Rizzoli and Isles, Law and Order, Rosewood, and the Blacklist. Through the use of personal stories and video clips from some of these shows, this presentation will show both the real and farcical aspects television crime dramas.	Laskowski	Gregory
GEN-102	American Academy of Forensic Sciences Standards Board (ASB) Firearms and Toolmarks Consensus Body	The American Academy of Forensic Sciences created the Standards Board(ASB)as a response to the need for standardization from the forensic community. This was in line with recommendations in the 2009 NAS report. It is now working in cooperation with the Forensic Science Board of the Organization of Scientific Areas (OSACS). This presentation will discuss the inception of the ASB, its legal status as an entity, its membership, its mission, a discussion on its consensus bodies with particular emphasis on the discipline of firearms and toolmarks.	Laskowski	Gregory
GEN-133	Why Can't You Provide Numbers Like DNA?	As forensic examiners, it is not our job to assign guilt or innocence, but to provide scientifically accurate information to assist the trier-of-fact in their determination. Many critics of our science claim results stated in "absolutes" lack this scientific accuracy. There has been an increasing push for examiners to change verbiage from using definitive words like "individualization", "matches", and "to the exclusion of all others", and instead provide weight to our results in the form of a statistic. The Latent Print community has discussed the use of numbers for many years, but until recently, no US laboratory had implemented a statistical model to provide weighted information to the courts. A commonly encountered judicial question is "DNA analysis provides likelihood ratios and match probabilities. Why can't you?" There will be a natural tendency for jurors to incorrectly parallel the statistics used in DNA analysis to those in pattern comparisons. If and when latent print examiners begin to testify in a probabilistic or statistical framework, it will be the examiners' responsibility to explain the different methods used in formulating these statistics. The purpose of this presentation is to provide an understanding of the differences between the statistics used in forensic biology and the probabilities you might find in latent print examination.	Hall	Molly
GEN-148	Making a more visual identification report	This presentation will highlight using WORD & EXCEL to create a more detailed and fluid report for court.	Allard	Michael
GEN-190	The impact of DNA Wet Swabbing Collection Methods on Latent Print Evidence	This presentation will discuss research performed to explore (1) the impact of DNA collection methods (wet swabbing) on subsequent latent print processing of paper items as well as (2) the impact of porous latent print processing on subsequent DNA analysis. Currently, unless a fold or some type for created area exists on a paper items where targeted DNA swabbing can be performed, investigators are encouraged opt for either latent print testing or DNA testing rather than both. This presentation will dispel myths surrounding this issue and provide recommendations for laboratory policy. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	Kupsco	Monica
GEN-201	Clandestine 3-D printed firearms as evidence	The Colorado Bureau of Investigation and Applied Research Associates partnered to research the very real threat of clandestinely manufactured firearms being used in the commission of crimes. This presentation will demonstrate the manufacture, firing and evidence processing of five 3-D printed firearms. It is not a matter of if you will begin to see these weapons in your laboratory, it is when. Get ahead of the curb and find out what advantages and hurdles this new type of evidence has in store for all laboratory disciplines.	Brezen	Shanley
GEN-209	Implementation and Early Success of Presumptive DNA Screening	The ability to utilize DNA in a manner relevant to the investigative timeline has been hindered by long processing times and high costs. The Kauai Police Department has implemented the use of the ParaDNA screening system to resolve and connect cases, obtain warrants, and triage further analysis. The system allows for the triage of samples and the acquisition of actionable intelligence in approximately 75min and at a fraction of the cost of full STR analysis.	Regan	Stephanie
GEN-221	Emerging Methods for Improved Body Fluid Identification	While DNA technologies have advanced substantially over the past several decades, methods used to determine the presence of a particular body fluid have remained stagnant. Outdated techniques limit testing to three fluids while known false positives and subjective interpretation hinder conclusions and testimony. This presentation will describe several emerging methods for body fluid identification being explored at the Defense Forensic Science Center that could complement or replace these traditional techniques, and highlight operational considerations for their implementation. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	Diegoli	Toni

GEN-222	Testing of Accelerated Nuclear DNA Equipment	The Accelerated Nuclear DNA Equipment (ANDE™) was designed to automatically process reference buccal swabs, enabling non-technical users to obtain DNA profiles rapidly and without laboratory equipment. The original ANDE™ BioChipSet™ (BCS) with PowerPlex® 16 chemistry was National DNA Index System (NDIS) approved in 2016. Further developments to the system have allowed an expansion of the number of loci, a reduction of the quantity of DNA required to obtain a profile using a Low DNA Content BCS, and an expansion of the sample types that can be successfully processed. The Defense Forensic Science Center has performed testing on these expanded capabilities and will present the results. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	Olson	Karen
GEN-225	Evaluation of an Enhanced Serology Screening Tool	DNA examiners at DFSC receive various types of biological evidence, sometimes in very large quantities. This requires the use of screening methods to test for the presence of biological fluids and allows the examiner to make efficient decisions regarding what evidence should move forward for DNA testing. The current screening methods for semen and saliva utilized by DFSC are semi-quantitative, introducing potential false positives and not allowing for a correlation between body fluid presence and the ability to obtain a DNA profile. In an attempt to reduce false positives and to determine this correlation, a quantitative method for screening both semen and saliva was evaluated. The serology instrument is an enhanced screening tool that provides quantitative values for both PSA (semen) and amylase (saliva). It was evaluated in four phases: testing its sensitivity, specificity, assessing its ability to handle mixed samples, and determining the correlation between the quant value of the instrument and the ability to obtain a DNA profile. <u>The results of this study will be discussed in detail during this presentation.</u>	Meyer	Thomas
GEN-237	Case Considerations from a Defense Perspective	The majority of my courtroom appearances throughout my career have been for the prosecution. However, much of my private casework today is at the request of the defense. In this presentation I'll be sharing both good and bad aspects of some defense cases I've worked over the last three years. Most of the issues involve documentation - or the lack thereof - and will offer some guidance to ensure your casework will withstand scrutiny over time.	Black	John
GEN-242	Individualization of pubic hair bacterial communities and the effects of storage time and temperature	A potential application of microbial genetics in forensic science is detection of transfer of the pubic hair microbiome between individuals during sexual intercourse using high-throughput sequencing. In addition to the primary need to show whether the pubic hair microbiome is individualizing, one aspect that must be addressed before using the microbiome in criminal casework involves the impact of storage on the microbiome of samples recovered for forensic testing. To test the effects of short-term storage, pubic hair samples were collected from volunteers and stored at room temperature (~20 oC), refrigerated (4 oC), and frozen (-20 oC) for 1 week, 2 weeks, 4 weeks, and 6 weeks along with a baseline sample followed by amplification and sequencing of the V3/V4 region of the 16S rRNA gene. Individual microbial profiles (R2 = 0.69) and gender (R2 = 0.17) were the greatest sources of variation between samples. Because of this variation, individual and gender could be predicted using Random Forests supervised classification in this sample set with an overall error rate of 2.7% + 5.8% and 1.7% + 5.2%, respectively. There was no statistically significant difference attributable to time of sampling or temperature of storage within individuals. Further work on larger sample sets will quantify the temporal consistency of individual profiles and define whether transfer between sexual partners can be detected. For short-term storage (< 6 weeks), the microbiome recovered was not significantly affected by the storage time or temperature, suggesting that investigators and crime laboratories can use existing evidence storage methods. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	Williams	Diana
GEN-244	Sufficiency and Ranges of Conclusions	The threshold for sufficiency in forensic comparative science examinations is difficult to define. The examination process, unique and repeatable features in sources, levels of details within imperfect images of those features, measurement uncertainties, predictions, judgment making, the SWGFAST Sufficiency Graph and the Quality Quantity Curve, and where the potential use of expanding ranges of conclusions might take us will be discussed by the presenter.	Vanderkolk	John
GEN-249	Collaborating Across Borders: Creating an International Forensic Education Network	The need for international collaboration in forensic casework to share best practice is well recognized. In forensic education, this collaboration is still in its infancy. This presentation will outline a large EU funded project which is developing a forensic education network across multiple countries to facilitate collaborative research and provide international programmes to create effective transnational investigators. This will also include the next phase of this project which aims to include the USA.	Gwinnett	Claire
GEN-250	An Examiner Survey into the Use of Microscopic Hair Evidence in Casework	Due to inadequacies in historical hair examinations, the use of microscopic hair evidence has reduced severely. This means that important questions such as 'what', 'where', 'when' and 'how' are overlooked. This presentation will discuss the findings of a survey completed by hair examiners/researchers. Within this survey, participants are asked about the evidential use, analytical and interpretation methods of microscopic hair evidence. The findings of this survey will then be used to inform new methods.	Wilkinson	Laura
GEN-277	The Distribution Regularity of Ink Droplets In Continuous Inkjet Printing Documents	Forgery as a common type of questioned document can be made by a variety of methods. This research studies the distribution regularity of the ink droplets from continuous inkjet printed document printed by common brand inkjet printers to determine whether an amount of inkjet printed pages were printed during the same period and printer. Although there are many factors influence the result, this research demonstrated that most samples could be identified properly.	Huang	Juanjuan
GEN-283	Wet-Vacuum Forensic DNA Sampling Dramatically Increases Capabilities To Collect Essential DNA Material And Solve More Crime	When investigators are processing a scene or items in the lab for biological evidence, choosing the most effective and appropriate collection method is essential. The importance of DNA evidence in solving both active and cold cases is continually increasing, and much of society expects physical evidence such as DNA profiles to support any prosecution. Wet-vacuum forensic DNA collection is becoming the method to turn to when traditional methods fail. This new method enables investigators to better collect DNA material, especially off of rough and/or porous surfaces, and often leads to stronger DNA profiles and more cases being solved.	Bradley	Jared
GEN-289	Getting the Most from NIBIN in Solving Crimes of Gun Violence	The ATF National Integrated Ballistic Information Network (NIBIN) is a powerful lead generating and investigative tool for the crime laboratory and law enforcement agencies. However, often times the database is not utilized to its fullest potential. Since receiving its first NIBIN system two years ago, the presenter's department as developed a teamwork approach that has been successful in solving gun violence crimes. Examples and suggestions for effective use of the NIBIN system will be presented.	Graham	Grant
GEN-291	Forensic Application of Next-Generation Sequencing (NGS)	Initial studies have found that NGS has the potential to replace current methods in human identification and project that these NGS techniques will be applied in forensic laboratories in the near future. The Office of the Chief Scientist (OCS) within the Defense Forensic Science Center is leading the effort to be one of the first labs in the nation to apply this state-of-the-art technology in DNA analysis to Forensics. To advance the application of NGS in DNA casework, OCS has partnered with leaders in industry, joined a small group of early adopters, and has established a NGS specific laboratory housing four different NGS platforms for accelerating testing, research and the transition to operations. This presentation will highlight some of our current NGS evaluation efforts.	Okamoto	Kazu

GEN-503	Twice Bitten: Finding a path forward in the wake of the PCAST report	The recent PCAST report reflected somewhat harshly on many forensic disciplines, but were their arguments entirely without merit? In this panel, latent print, footwear, and legal perspectives on the report will be presented followed by an interactive discussion between the panel members and the audience. Bring us your questions, concerns, perspectives, and collaborative spirit and let's forge a path forward together.	Eldridge	Heidi
GEN-506	Black Box and White Box Forensic Examiner Evaluations - Understanding the Details	<p>There has been a great deal of recent interest in using "black box and "white box" techniques to evaluate decisions made in a variety of forensic disciplines. This talk will help dissect the details of conducting such evaluations, which are not as deceptively simple as they seem.</p> <p>Black box evaluations are conducted by assessing the examiner's decision without regard to how those decisions are made. Black box evaluations can provide a useful overall understanding of the accuracy, reproducibility, and repeatability of the decisions made in response to a given task. Such evaluations do not attempt to assess how a specific examiner performs on specific data – but black box evaluations are a necessary first step towards such detailed tests. Black box evaluations provide a means of quantifying forensic examinations for which quantitative models do not (yet) exist and, therefore, provide both an interim solution while such models are under development, as well as a means of validating such models.</p> <p>Conversely, white box evaluations are conducted to gain an understanding of how and why examiners make decisions. White box evaluations are detailed assessments of the bases of examiners' decisions, focused not just on the end decisions but the features and attributes used by the examiners in rendering conclusions. While analyses of black box results deal with the inter-examiner variability of decisions, white box analyses also deal with inter-examiner variability of the detection of features and other attributes.</p> <p>This presentation will discuss topics that should be considered in the design of black and white box evaluations, including:</p> <ul style="list-style-type: none"> - representativeness of data (dealing with heteroscedastic data, avoiding biased data selection); - assessing accuracy vs. reproducibility and repeatability (methods of measurement, data selection implications); - test size (precision of measurement, measuring rare events); - the Hawthorne effect (dealing with the differences between behavior in tests vs. operations, minimizing differences between test and operational procedures); - measuring rates of errors and nonconsensus decisions; - dimensions of examiner skill (accuracy and effectiveness). 	Hicklin	Austin
GEN-605	OSAC Update: Firearms and Toolmarks	The Organization of Scientific Area Committee Subcommittee on Firearms and Toolmarks update	Smith	Andy
GEN-700	Wednesday Breakfast and Keynote: Forensic Analysis and Authentication of the Missing 9/11 Flag from Ground Zero, New York City, 2001.	<i>Raising the Flag at Ground Zero</i> , is an iconic photograph taken by Thomas E. Franklin of the Record (Bergen County, NJ), on September 11, 2001. The picture shows three New York City firefighters raising the American flag at Ground Zero of the World Trade Center, following the September 11 attacks. The flag came from the yacht Star of America, owned by Shirley Dreifus, which was docked at the yacht basin on the Hudson River at the World Financial Center. Firefighters cut the yardarm off the yacht with a K-saw and then took the flag from the yacht to an evacuation area on the northwest side of the site. They found a pole about 20 feet off the ground where it was proudly displayed. The city of New York thought it had possession of the flag after the attack, Major Rudolph Giuliani and Governor George Pataki signed it, and it flew at the New York City Hall, Yankee Stadium and on the USS Theodore Roosevelt (CVN-71) during its service in the Middle East. Even a US postage stamp was printed honoring the flag. However, when the flag owner prepared to formally donate the flag, it was discovered that the original 3 x 5 foot flag was replaced by a larger flag hours after it was raised and photographed. TV shows such as Lost History have documented the missing flag. In 2015 an individual briefly entered a fire station in Washington State, dropping off what he said was the 9/11 flag from New York City. This presentation will discuss the forensic analysis conducted by the author in the authentication of an American icon which is now on display at the <u>National September 11 Memorial Museum in New York City</u> .	Schneck	William
IAI-251	National Institute of Justice (NIJ) Updates on Forensic Science Initiatives and Funding Opportunities	The National Institute of Justice is the research, development, and evaluation agency of the U.S. Department of Justice and the lead federal agency for forensic science research and development. NIJ also administers programs to improve laboratory efficiency, reduce backlogs, and provide technical assistance to forensic laboratories. This presentation will discuss NIJ program goals, updates, and funding opportunities as well as NIJ activities to address recent NCFs and PCAST recommendations. NIJ Homepage: http://www.nij.gov/Pages/welcome.aspx	McGrath	Jonathan
IAI-252	DOJ/NIST National Commission on Forensic Science (NCFs) Updates	The National Commission on Forensic Science was established in 2013 by DOJ in partnership NIST to enhance the practice and improve the reliability of forensic science. As a Federal Advisory Committee, NCFs makes recommendations to the Attorney General. This presentation will provide updates on NCFs activities and recommendations.	McGrath	Jonathan
IAI-600	OSAC update: FSSB Overview, Physics and Pattern SAC update	The Organization of Scientific Area Committee update of activities related to the Forensic Science Standards Board and the Physics and Pattern Scientific Area Committee.	Hicklin	Austin
IAI-650	CFSO Update	The Consortium of Forensic Science Organizations IAI Representative will provide an update	Martin	Ken
LLS-111	Bridging Forensic Science and Management: the FOREnsic Assessment of Technology Effectiveness index	This presentation is about the development of a decision support index for forensic identification managers that takes into account various key factors. The ultimate goal is to obtain an index linking forensic science and management. Particular attention will be paid to the allocation of values to the various information enabling managers to make an informed decision. Author also seek the help of participants in order to assess the key factors values via an online Survey.	Beaudoin	Alexandre
LLS-159	Tips for Reducing or Eliminating Backlogs – A Proven Path	Backlogs in many forensic laboratories are a major challenge. Sometimes, the challenge may seem insurmountable. Growing backlogs may hinder investigations, enable perpetrators to go unapprehended, and to some extent, lower morale. Based on experience, various suggestions for overcoming backlogs will be presented. Although every lab and jurisdiction has different realities which dictate varied approaches, many of the presented methods may easily be adapted to each environment. Participants will be encouraged to add ideas from their own experience.	Springer	Eliot
LLS-174	CLEAR! Whump! AGAIN! Whump! Reviving the Heart of a Manager	I get it. You work for the government. You operate under the constraints of Human Resources' guidelines, and sometimes you feel like ISO corrective actions are coming from every direction. I know well the pressure of working within an accredited laboratory. I am distinctly aware of how it feels to operate under the supervision of a non-technical administrative supervisor (sworn and civilian). Unfortunately, I also know how easy it is to dole out the blame for all of your unit's problems. Well frankly, it's decision time. You can either wallow in your own pity, or you can quit complaining and get busy! If you are serious about maximizing your potential as a supervisor, if you are serious about advancing your unit instead of maintaining the status quo, if you just want to feel the zeal and excitement of making a difference again, then join me for a fast paced, interactive, highly contagious lecture and learn how to take charge of your situation. Nothing is off limits, and there is no need to bring your own tomatoes. They will be provided at the door!	Smith	Ron

LLS-239	Overcoming Your Fear of Public Speaking	According to many studies, the fear of public speaking is greater than the fear of death. These results may seem surprising, but let's face it - even the mere thought of speaking in front of a group can be terrifying. This short presentation will offer some advice to give you the confidence you need to both address and overcome your fear.	Black	John
LLS-259	When Examiners Become Supervisors – The Trials and Tribulations of Young Leaders: A Panel Discussion	The leap from bench examiner to supervisor may feel overwhelming, especially the first couple of years. All the grand plans in your head prove to be more difficult to implement. The change from peer to manager appears convoluted. Most of all, juggling personnel quirks, backlogs, accreditation requirements, training, and budgets becomes a circus act you're not sure you signed up for. The panelists will share their own experiences as they transitioned from examiner to a leadership role within their respective agencies. Hopefully after the open and honest discussion, others contemplating and/or taking the first steps in leadership will understand they aren't alone in this difficult path and can take heart that leadership can be a trying yet rewarding experience as you guide a forensic unit in a positive and fresh direction.	Wortman	Thomas
LLS-282	Velvet Covered Brick	People often debate the effectiveness of different leadership styles, particularly contrasting the "tough" (brick) versus the "tender" (velvet) leader. This presentation will discuss why you shouldn't be all velvet or all brick, but learn to combine both. We will explore how gender stereotypes and emotional intelligence effect our ability to find the right balance between tough and tender as well as discuss practical ways to apply these concepts to improve how we lead.	Reed	Lauren
LLS-285	What have they got that I ain't got? Courage!	The word courage often conjures up images of heroic acts or famous icons in history. We think of courage as a personality trait – you are either born with it or you're not. This presentation will give a different perspective on courage. We will look at courage as a skill that can and must be practiced and developed. We will discuss its importance and how you can apply it in everyday leadership.	Reed	Lauren
LLS-300	Mentoring vs. Coaching in Developing Forensic Professionals	Developing the individual and transforming the individual, does the same tool work for both? What is the difference between mentoring and coaching and how can you successfully utilize one or both tools either as a mentor or mentee to grow personally and professionally? These are questions that will be addressed in this lecture. This lecture will also explore the new social networking opportunities, and how to utilize the "new world" in advancing these experiences.	O'Dell	Steven
LPD-086	Processing with Indanedione: A Practical Guide	Processing with Indanedione: A Practical Guide: This presentation will cover the porous latent print processing technique indanedione. During the course of this presentation we will discuss what indanedione is, how it is used, and the advantages of introducing this chemical into your work place and your processing routine. Note: this presentation is geared towards individuals unfamiliar with the use of Indanedione as a processing technique.	Armstrong	Erin
LPD-109	A Comparison of Image Quality Using Black versus White Fingerprint Powder on Non-Porous Substrates	This study assessed the image quality of processed fingerprints using an industry approved Nikon D80 SLR digital camera, fifteen different non-porous fixed and non-fixed substrates, and two colors of fingerprint powder. Traditionally, black fingerprint powder is the primary choice for crime scene investigators. However, with the advent of increased quality of digital media, the use of white powder was considered. During the course of the research, it was discovered that the use of the black fingerprint powder for substrates associated with fingerprint processing, did not produce the highest quality image for photography. Instead, the lesser-used white fingerprint powder produced a better resolution of image quality based on a multitude of different surfaces. The presentation will address the different surfaces and show images and explain the difference in quality for white vs. black powder when dusting/photographing, dusting/lifting, dusting/lifting/photographing, and dusting/lifting/scanning.	Brown	Elizabeth
LPD-157	Combined Temperature and Humidity Control to Tune Latent Fingermark Development by Superglue Fuming	In this lecture, Mark will discuss experimental work that examines the combined impact of humidity and temperature on the molecular level processes that occur during latent fingerprints fuming, with the goal of creating a protocol that can be used by forensic scientists to readily improve the efficiency and quality of fumed prints. Methods to improve the quality of fumed aged prints that are based on our fundamental understanding will also be presented.	Dadmun	Mark
LPD-164	Advances in Latent Fingermark Visualisation using Infrared Fluorescent Reagents	The development of Infrared (NIR) fluorescent fingerprint powders has shown promise in allowing fingermarks to be easily visualised on notoriously difficult substrate backgrounds (patterned, coloured, fluorescent and reflective). The preparation of NIR fluorescent wet powder suspensions has also been explored and results illustrate its high sensitivity and ability to develop marks where traditional powder suspensions struggle. For the first time, the use of NIR phosphorescence has also been explored using a tailored inorganic ceramic that possesses exceptional optical properties that allow all conceivable background interference to be removed.	King	Roberto
LPD-178	Prints of Darkness: an Illuminating Approach to Revealing Latent Prints in a CBRN Environment	When a chemical, biological, radiological, or nuclear (CBRN) event occurs in which CBRN materials have contaminated items of evidence, traditional forensics, such as latent print examination, still needs to be conducted. In order to perform this task safely, effectively, and efficiently, an appropriate location that meets the demand of the CBRN material must be selected. Both the FBI Hazardous Evidence Analysis Team and Atomic Weapons Establishment in the United Kingdom have programs set in place to perform these traditional forensics on contaminated CBRN material. This presentation will discuss these programs.	Brillhart	Monique
LPD-183	FBI Processing Manual Additions	In the past decade, important chemicals used in processing latent prints have been discontinued. There have also been giant advances in processing techniques throughout the world. Over the past couple of years the FBI has begun to look for and test alternatives, replacements, and tweaks to formulas found in the FBI Processing Manual. This presentation walks through recent internal validations conducted by the FBI and the results.	Tom	Kyle
LPD-184	School of hARDROX 9703: An Alternative to the Defunct Ardrex P-133D	After the manufacturing of Ardrex P-133D was halted, a replacement was needed to replace it in RAM. A validation was conducted on the suitability of Ardrex 9703 as a 1:1 replacement. This presentation looks at the results as well as pros and cons to various experimental designs used throughout the validation.	Tom	Kyle
LPD-193	Validation in ISO 17025 Accredited Laboratories – Policy Guidance and a Recent Example of a Validati	This lecture will cover how to structure validation studies in ISO 17025 accredited laboratories as well as provide an example of a recent study conducted in the author's laboratory. A detailed policy structure will be provided to determine how to conduct validation studies for novel methods as well as for more routine techniques that have already been published and peer reviewed in the literature. Policy topics will include: defining "validation" and why it is needed, creating a validation project plan, determining the scope of a validation study, records management, health and safety reviews, competency/proficiency testing, and determining which personnel should be involved in planning, conducting, and approving the validation study and its results. A detailed review of a recent validation study (involving the substitution of different grades of the chemical silver nitrate in the physical developer working reagent) that was performed in the author's laboratory will be presented as well as what conclusions can be drawn from the results of such investigations. Final recommendations on how and when to conduct such validation studies will be provided.	Ramotowski	Robert
LPD-194	A Review of Recent Published Fingerprint Research Papers (2016-2017)	The purpose of this lecture is to review a number of fingerprint research articles published over the past year in forensic science journals other than the Journal of Forensic Identification (e.g., Science & Justice, Forensic Science International, Journal of Forensic Sciences).	Ramotowski	Robert
LPD-200	Thermal paper, semi-porous processing and other ways Fluorescent Cyanoacrylate will change your world	The next big thing in processing! This lecture will document the application of a newly formulated fluorescent cyanoacrylate to thermal paper and semi-porous substrates. Semi-porous substrates often pose a difficult task when processing, with the technician using 3-4 different processes to maximize latent print recovery. Additionally, thermal paper's aversion to standard porous processing causes us to tread lightly to avoid the dreaded blackening of the paper. What if there was an easier way? This fluorescent cyanoacrylate will bring your sequential process of semi-porous to one single step and change the way you process thermal paper forever. Fluorescent superglue isn't just for non-porous anymore!	Brezen	Shanley

LPD-227	Recovery of Latent Prints from Nonporous Objects Exposed to Snow	This lecture will discuss a study that investigated the effects that weather, particularly snow, could have on the recoverability of latent fingerprints from nonporous items. For all 167 impressions in the study, physical and chemical processing allowed for the development of some amount of ridge detail. These observations suggest that it may indeed be worthwhile for an agency to attempt the recovery of latent prints from evidence that was exposed to snow.	McCook	Sam
LPD-260	Latent Print Processing Sequence for Semi-Porous and Other Irregular Surfaces	The purpose of this research was to evaluate various processing sequences to determine best practices for the development of latent prints on semi-porous items of evidence. Through examining the effectiveness of various processing techniques, appropriate sequences were identified for the processing of substrates with both porous and non-porous qualities. Semi-porous substrates examined included magazine covers, Tyvek envelopes, Styrofoam cups, and a variety of shoe boxes.	Rogowski	Heidi
LPD-266	How Good is Your Reagent? Developing Standards for Evaluating Reagent Stability	In most forensic laboratories there is currently no method to quantifiably and reproducibly validate the efficacy of developing reagents prior to use in casework. This project looks to use piezoelectric drop-on-demand inkjet printing technology to develop "test strips" to evaluate the efficacy of reagents in a quantifiable and reproducible way to ultimately provide examiners with a higher degree of confidence that their reagents are working properly. These test strips provide a range of concentration of a specific reactant to gauge to what level a reaction will occur. Additionally, this project focuses on evaluating the test strips and the reagents stability over time, to determine a more appropriate shelf-life of these materials.	Sisco	Edward
LPD-275	Blood Fingerprints: Techniques for Processing and Analysis	Blood fingerprints always play an important role in crime scene analysis and reconstruction. There are many complications occur during the process, and this research focuses on the solutions to these critical issues: Utilizing the advanced technologies to identify the sequence of fingerprint deposition. Exploring blood fixation by chemical and physical methods to avoid diffusion from blood enhancement reagent. Evaluating the circumstance of applying blood enhancement reagents and its influence to the ridge details.	Lu	Jiaqi
LPI-038	Minutiae in Nature: The Evidence for Identifiable Patterns Throughout Forensic Disciplines	Individualized minutiae characteristics exist throughout nature and are not exclusive to humans or primates. This presentation examines specimens throughout nature which exhibit unique, identifiable fingerprint-type patterns in the fields of forensic botany, entomology, marine biology, geology, ornithology, and wildlife forensics. Additionally, there will be a focus on primate and marsupial print patterns and how they compare to human fingerprint characteristics. This presentation will involve minutiae pattern comparison with several species through hands-on application.	Hall-Rivera	Jennifer
LPI-110	Investigative Lead Reports From AFIS: A New Approach in Managing Latent Print Throughput	"Doing more with less" is fast becoming the mantra for many latent print and AFIS units as budgets shrink but case requests keep going up. This lecture discusses a new approach to AFIS hit reporting by issuing investigative lead reports from on-screen comparisons. Specific language developed for the investigative lead reporting will be discussed along with data showing the percentages of full confirmation requests received compared to the number of investigative lead reports issued.	Schmahl	Tim
LPI-137	Blind Verification of Comparison Conclusions: A Study on Case Impact and Operational Cost (Phase 1)	Blind verifications have been advocated as a solution for what ails latent print examinations. Error rate studies demonstrate how blind verifications may limit examiner error while other stakeholders believe blind verifications would mitigate bias. Yet there has been a surprising lack of research data on dealing with actual casework operations and which situations blind verifications would best impact. For six months, the USACIL Latent Print Branch completed blind verifications on all comparison conclusions in live casework. This presentation will discuss the empirical findings derived during this time period – especially in regards to case impact (i.e. difference in conclusions), operational cost (i.e., time spent on verifications and/or conflict resolution), and ideal situations to apply blind verifications (i.e. does everything need a blind verification?).	Wortman	Thomas
LPI-166	Run it through the system: Validation and utilization of an automated comparison software	With increasing backlogs and reliance on latent print evidence, analysts need to find methods to work smarter and more efficient. As the number of latent prints and individuals to be compared continues to grow, the utilization of automated comparison tools become increasingly advantageous. Not only for efficiency purposes, but also as a means of checking for false exclusions or missed associations. This presentation will discuss the validation of a commercially available automated comparison software for friction skin impressions. Systemic changes and operational implications of an automated workflow will be presented as well.	Gill	Kalisha
LPI-186	One Man's Trash... A white-box study into the factors driving latent print suitability decisions	Variability within and between examiners on value decisions has been well-documented, but what factors most influence decision-making? Some suggest minutiae count is the driving force, but then why will some examiners call a latent with 8 minutiae suitable while others call it no value? And what happens when other aspects of suitability are considered, such as complexity or AFIS value? This lecture presents preliminary results of a white box study on suitability decisions.	Eldridge	Heidi
LPI-187	So We Implemented a Statistical Model... What Happened Next?	After much hype, a statistical model for fingerprint examinations has finally been implemented into casework operations in the USACIL Latent Print Branch. What happened next? This lecture will discuss the procedural changes, operational impact, challenges that arose, solutions implemented, as well as future impact.	Lecroy	Jessica
LPI-191	Navigating a Blind Verification Policy While Minimizing Operational Impact	This presentation will outline the steps the USACIL Latent Print Branch took to adopt a working blind verification procedure. A Working Group was assembled and tasked with proposing a blind verification protocol that would fit the operational constraints of the Branch while providing optimum benefit to the Examiners. This presentation will highlight the challenges faced during the initial formation stages, up to implementation. Disclaimer: The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.	Kupsco	Monica
LPI-219	Uniform Language/Articulation	The pattern evidence disciplines have struggled to articulate conclusions in a manner that is truthful and clear. This presentation will discuss a new technique currently being tested in King County, WA. This new method strengthens conclusions while enabling clearer articulation. The results of an ongoing pilot project have established how often latent comparisons are Basic, Advanced, and Complex which allows QA measures to be implemented based on the complexity instead of equally for all comparisons.	Triplett	Michele
LPI-224	Quantifying the Individuality of Fingerprints	The acceptance of the validity, accuracy, and courtroom admissibility of fingerprint identification depends upon the hypothesis that all fingerprints are unique: the individuality hypothesis. In 2015 and 2016 we discussed efforts at NIST to conduct a thorough, demanding test of that hypothesis, using operational data. We now present the final results, showing the extremely high confidence level in our results. In doing this, we quantify the almost unbelievable amount of information available in visual imagery.	Wood	Stephen
LPI-226	Exhumation of an Erroneous Identification: The Case of Beniah Alton Dandridge	Have you heard of the erroneous identification of Beniah Dandridge? Have you been itchin' to see the prints? Well here it is!! Convicted of the 1994 murder of Riley Manning Sr., Dandridge lost appeal after appeal based on an identification of his bloody fingerprints above the victim. There was one major problem...the identification was incorrect!! How could this happen??? In this lecture, we will explore the process of unearthing the erroneous, and the correct, identification.	Marvin	Matthew
LPI-231	Biometrics Terminology for Fingerprint Examiners	Fingerprint examiners and biometric technologists often speak different languages. Because AFIS technology is evolving to play a greater role in the fingerprint examination process, it is important for stakeholders to have a common language and understanding. This lecture covers key terminology and concepts every fingerprint examiner should understand to collaborate with the biometrics industry and get the most out of their AFIS experience.	French	Michael

LPI-232	Case Specific AFIS: Increasing efficiency while reducing errors	Implementation of ACE-V processes has led to an increased awareness in accredited agencies regarding the workload on the Latent Print Examiners as well as the alarming rate of erroneous exclusions. While increase in the accuracy of Automated Fingerprint Identification Systems has shown promise to provide efficiency in the process a vast majority of the latent prints are identified outside of the traditional AFIS. Working closely with experts in this field, we will present a method to combine the power of an AFIS with the procedures of the ACE-V to increase the efficiency of a Latent Print Examiner while reducing the probability of errors during the life cycle of a latent print – from crime scene to court.	Deshpande	Kaustubh
LPI-233	Resolving Latent Conflict: What Happens When Latent Print Examiners Enter the Cage?	While studies have scrutinized latent fingerprint comparisons, it has not thoroughly examined the verification stage in a casework setting. The authors will present an analysis of approximately 2,500 cases completed by Houston Forensic Science Center latent print examiners. This analysis focuses on overall occurrence of consultation and conflict resolution over a two-year period with an emphasis on rate and trends of occurrence and outcomes in relation to examiner demographics, such as experience level.	Rairden	Alicia
LPI-234	Should Fingerprint Examiners Make More Erroneous Identifications? The Answer May Not Be No...	How do latent print examiners decide when to make an identification? The placement of decision thresholds along some underlying evidence axis could put innocent persons in jail or set criminals free. Do these align with the values of society? We measured the values of examiners and the general public using a visualization based on the Ulery et al (2011) 'Black Box' data. This allows us to compare what examiners say with what they actually do.	Bussey	Thomas
LPI-253	The Persistence of Friction Ridge Skin and Consistency of Friction Ridge Skin and Impressions	Persistence and consistency of friction ridge skin, and consistency of impressions, both collected over a time scale ranging from months to many years, were evaluated by qualified latent print examiners. The LPEs considered photos of the skin and impressions captured by ink and live scan devices. While certain features might have changed, sufficient level 1, 2, and 3 details remained to support identification decisions.	Roberts	Maria
LPI-261	Research... It's not just for testimony anymore	This presentation will highlight two changes implemented by the FBI's Latent Print Unit (LPU): consensus panels for conflict resolution and a revised definition for claiming a print. The FBI LPU is testing a conflict resolution process that allows for differences of opinion to be retained while still producing a technically sound decision. The FBI LPU also changed its claiming definition to account for limitations associated with the process as demonstrated by research.	Gische	Melissa
LPI-270	Bias Effects in Forensic Science -- A Perspective from a Case Working Forensic Scientist Who Uses Sequential Unmasking Techniques	This presentation will give a snapshot of the research conducted in forensic science to identify how bias may affect the results of a forensic technique. I will discuss my views, experiences, and cases concerning bias in forensic science. I will also share how I have used blind testing and sequential unmasking techniques to mitigate bias effects, but implementation of these methods are not without its own set of challenges, costs, and contribution to error in some cases.	Langenburg	Glenn
LPI-288	Trends in Latent Fingerprint Publications: A Bibliometric and Informal Review	There has been considerable progress in latent fingerprint research. The number of latent fingerprint publications nearly doubled from 2005-2009 to 2010-2014. This presentation will demonstrate relevant trends by measuring publications, top funding agencies, and prolific authors in the field. A bibliometric review method versus an informal review method by subject matter experts will be compared and contrasted.	Roberts	Maria Antonia
LPI-504	AFIS scores and examiner reproducibility	This lecture will present results describing how the scores returned from searches of an Automated Fingerprint Identification System (AFIS) are associated with the reproducibility of latent print examiners' individualization determinations. Such a metric may have immediate operational value. When a latent print examiner makes a conclusion in a comparison, it would be very useful to have an objective metric to differentiate conclusions (particularly individualizations) that are highly likely to be reproduced from those that are not. Such a capability may address needs of the prosecution (is this evidence susceptible to challenge?), defense (should a defense expert challenge the conclusion?) and agency (is additional quality assurance review appropriate?).	Ulery	Brad
LPI-505	Characterizing latent print examiner eye behavior during ridge counting, ridge following, and feature search tasks	Fingerprint comparisons may involve a complex mixture of perceptual "subroutines." Relatively little is known about how examiners move their eyes to accomplish these tasks or what information guides the search process. We collected eye gaze information while 121 latent print examiners conducted specific tasks that are putative building blocks of a full comparison task: counting ridges, following ridges, and searching for particular features in a comparison print. We developed a set of spatial and temporal metrics that we used to characterize examiner eye behavior during these tasks. We found notable differences between ridge counting and ridge following. Examiners' search behavior differed notably depending on whether features were shown in the context of the full fingerprint or were cropped to have no context. The results of this research may be useful in future eye-tracking research deconstructing the fingerprint comparison task in order to understand the relations between examiner behavior and conclusions. Implications for complete latent print examination are discussed.	Ulery	Brad
LPI-601	OSAC update: Friction Ridge Subcommittee	The Organization of Scientific Area Committee Subcommittee on Friction Ridge update	Gische	Melissa
PHO-053	Introduction to Surveillance Photography	This introductory presentation is for personnel who may be requested to perform surveillance photography for drug, gang or other investigations. This brief presentation will explain lens selection and camera settings to use for both still scenes and moving vehicles or people to create useful surveillance images. It will also present camera position selection, options on how to hide the camera and photographer, and other tips without needing expensive equipment.	Campbell	Scott
PHO-054	Photography Tips & Tricks I've Learned	This presentation is for personnel both new and experienced who need to improve their photos at crime scenes and of physical evidence. Practical tips will be presented on how to take photos in difficult situations such as through window glass & screens, night scenes with limited light, fingerprint impressions on difficult surfaces, and improvising equipment and items to make your job easier.	Campbell	Scott
PHO-276	Evidence Photography with Reflectance Transformation Imaging Technology	A computational photographic method, Reflectance Transformation Imaging (RTI) Technology, widely used in cultural heritage imaging. This research studied its potential to document forensic evidence based on the powerful capability to reveal the fine structure on the surface of objects. Theoretically, this technology would be appropriate for capturing the minutiae of the physical evidence, and this experiment demonstrated the advantage over traditional photographic methods when documenting handwriting documents, 3D fingerprints and tool marks.	Chen	Chuntao
POD-064	Footprints in Court: Meeting a Daubert Challenge	This is an introduction to the U.S. Supreme Court's standard of admissibility of forensic evidence, known as the Daubert standard, focusing on how this standard applied to a footprint found at the scene of a homicide and was linked to the suspect by a forensic podiatrist. The presenter testified at a pretrial "Daubert hearing" to address the admissibility of this evidence. The judge ruled the evidence admissible and the suspect was found guilty.	Nirenberg	Michael
POD-069	Forensic Gait Analysis - which way now?	A cursory review of the literature using the term 'forensic gait analysis' shows that the approach being taken to this area of practice is far from uniform. This presentation will consider the three major strands of research and practice activity the subjective, objective and biometric identification of features of gait. Consideration will be given to likely outcomes and timescales, and how investment and activity can best be utilized to yield more rapid development of practice.	Birch	Ivan
POD-074	Competency Testing and Forensic Gait Analysis	Forensic gait analysis has come a long way in the last 17 years. An important factor is the early engagement of the discipline with competency testing, helping to establishing the credibility of this relatively new area of forensic practice. This presentation will consider the educational and practice based principles of competency testing, and how the engagement of practitioners with the competency testing process can be supported, to meet the increasing demands of criminal justice systems.	Birch	Ivan

POD-101	Can the use of hand-held devices alter human gait?	Student podiatrists viewed footage of human gait with and without a hand-held device. Observations of gait were collected using a proforma designed for use in forensic gait analysis. A thematic analysis was undertaken of the findings with and without the hand-held device. These were presented as upper and lower body findings. The results from this study will be useful when comparing human gait captured on CCTV at a crime scene and then later in custody.	Curran	Michael
POD-115	The effect of carrying weight on angle and base of gait.	This study investigated what effect carrying weight would have on the angle and base of gait of an individual person. 15 participants carried calibrated weights of 5Kg, 10 kg and 15 kg to their front, side and rear respectively. Box Plots and one way Analysis of Variance were used to analyse the findings. The results from this study may be useful in forensic gait analysis where a suspect has been identified as carrying weight.	Curran	Michael
POD-123	Developing and testing a bare-footprint crême, a novel method for gathering control bare-footprints	Existing methods for recording control bare-footprints are either messy or expensive. This study investigated a method first developed by Bond (2013), a lotion containing 2, 3-butenediol, a reagent to leuco dyes found in thermo-chromic paper. This inexpensive method was reconfigured for sampling control bare-footprints. Both qualitative and quantitative results indicated this novel method could be utilized as an alternative to the existing methods, to gather large data sets for the development of a bare-footprints database.	Jira	Paul
POD-124	The talus and calcaneus in forensic identification: what they may reveal about barefoot morphology	The talus and calcaneus may be preserved in a forensic setting due to protection by sock or shoe. Studies have shown that linear and angular measurements taken from these bones correlate well with their radiographic images. Correlation between barefoot prints and weightbearing radiological measurements has also been demonstrated. This suggests that the talus and calcaneus as individual bones, as well as their radiographic images, may assist in predicting the barefoot morphology of an unknown individual.	Agoada	David
POD-127	Creation of a bare-footprints database and population testing	Creation of a bare-footprints database could potentially link suspect(s) to bare-footprints recovered from crime scenes. Information regarding the commonness of the numerous features or their combinations in distinct ethnic groups is useful for interpreting unknown bare-footprints. Static bare-footprints from three population groups (i) British Caucasian n=25, (ii) Chinese n=25 and (iii) Indian n=25, were captured. Biological, demography, linear measurements and bare-footprint morphological data were merged to create a bare-footprints database.	Jira	Paul
POD-141	A Puzzling Step in the Right Direction	The merging of two medical technologies may augment the investigative process of barefoot impressions by helping to reveal additional specific characteristics of the individual whose impressions are of interest.	Kagan	Bryan
POD-70	How do you Identify Emotions from Gait?	Video footage is played in court for a specific evidential purpose, but recent research has shown that unintended information is also gained by jury members. An example is the identification of emotion from gait. This presentation will report the findings of research investigating how people identify, process and use emotion information gained from gait, to inform decision making. The project seeks to better our understanding of the less obvious impact of playing footage in court.	Birch	Ivan