PRESENTATIONS

Tuesday
May 7

8:30-10:00
Plenary

Empire Ballroom

ASCLD 40th Annual Symposium
The Business Behind the Science
Opening Remarks
ASCLD President Jill Spriggs and ASCLD President-Elect Jay Henry

Leadership In Times Of Chaos

Dr. Paul Voss

Leadership is never easy. Leadership today demands attention to a wide range of issues and concerns--including budgets, protocols, employee engagement, ethics, quality assurance, training, retention, and many other crucial matters. Uncertainty (and even chaos) surrounding many of these issues further challenges notions of leadership. This presentation will outline some of the leadership challenges that prevail today (both in the private and public spheres) and provide a vocabulary for better understanding and enhancing your leadership efforts.

Dr. Paul J. Voss is President of Ethikos (a consultancy specializing in culture, leadership, paradigm shifts, and ethical decision making), the Co-Founder and CEO of Arete Leadership Group (offering Executive Leadership memberships), and an Associate Professor at Georgia State University. A gifted public speaker and award-winning teacher, Dr. Voss offers courses on Shakespeare, Dante, Machiavelli, Business Ethics, Renaissance Literature, and the History of the Book. He publishes on a wide variety of topics (for both academic audiences and for the popular press) and regularly appears on television and radio programs. His is a member of the Downtown Atlanta Rotary Club and serves on the Board of Directors for Primus Builders.
His work on leadership, culture, business ethics, public service, and corporate stewardship builds on 2500 years of intellectual history. His dynamic seminars, coupled with a compelling and thought-provoking curriculum, receive among the highest evaluations in the industry. His clients include the FBI Lab, Cox Communications, General Electric Energy, McKesson, Mizuno USA, Home Depot, PotashCorp, the Federal Railroad Administration, Best Buy, Chubb Insurance, Global Payments, McKenney's and many others. He is currently completing his next book, *Loved or Feared: Paradigm Shifts and the Rejection of Machiavelli.* Professor Voss, his wife Mary, and their five children live in suburban Atlanta.

10:30 – Noon
Plenary

Empire Ballroom

The Business of Forensic Service Provision: A conceptual of operations, a business-analytic approach, and a case study of the UK Forensic Science Service

Dr. Max Houck, Dr. Paul Speaker, and Dr. Chris Maguire

This panel will present a framework for forensic service providers using a business-analytic approach (FORESIGHT) with a case example of the closure of the UK Forensic Science Service (FSS).

Forensic science lacks an overarching, holistic framework for establishing and evaluating forensic service providers as systems. A proven three-part structure is that of:

- a concept of operations (or CONOPS), a narrative that explains how the system operates to achieve the desired goals through stated methodologies,
- an enterprise architecture (fundamental organization of a complex program), and
- a governance structure (management principles and decision making).

Moreover, the forensic service provider is only one system in a system of systems that include law enforcement, the courts, and academic and political entities. Providing a framework for the forensic enterprise will allow lessons learned from benchmarking analytics and case studies to support and refine the effectiveness, efficiency, and value of the system.

Researchers have reviewed various CONOPS and business models around the world, evaluating them using the FORESIGHT project. The key outcome is to recognize that the jump to privatization is not the panacea that conservatives have advocated. Instead, there is a need to understand the efficiency and cost effectiveness aspects of forensic service provision. Without an understanding of the drivers inherent in public and private sector forensic science providers, the schizophrenic environment in which forensic science operates and pressures to perform within limited budgets, the nature of governments and the nature of markets, competition and buyer/supplier interactions, any changes to a service provision operation stands to do more harm than good. The rise and fall of the UK FSS painfully illustrates this and the fragility of an unregulated commercial market. Bureaucratic and political misunderstanding of the "forensic market"--for example, a Junior Security Minister recently compared forensic science to retail shopping--only exacerbates an already precarious environment.

The panel will conclude with recommendations for forensic laboratories on how to have a greater self-knowledge of their processes, efficiencies, and operations to stabilize and improve their organizations.

Dr. Max M. Houck is an internationally-recognized forensic expert with research interests in forensic science, education, and the forensic enterprise and its industries. He has worked in the private sector, the public sector (at a medical examiner's office and for the FBI Laboratory), and in academia. His casework includes the Branch Davidian Investigation, the September 11 attacks on the Pentagon, the D.B. Cooper case, the US Embassy bombings in Africa, and the West Memphis Three case, among hundreds of others. He served for 6 years as the Chair of the Forensic Science Educational Program Accreditation Commission (FEPAC). Dr. Houck is a founding Co-Editor of the journal *Forensic Science Policy and Management* and has also co-authored a major textbook with Dr. Jay Siegel, *Fundamentals of Forensic Science*. Dr. Houck lives and works in Washington, DC as the Director of the DC Department of Forensic Sciences (www.dfs.dc.gov).

Dr. Paul J. Speaker is a faculty member of the West Virginia University Finance Department and the past Director of MBA Programs in the WVU College of Business and Economics. He holds a Ph.D., Economics, Purdue University, a M.S., Economics, Purdue University and a B.A., Economics, LaSalle College. Dr. Speaker also holds the position of Chief Executive Officer of Forensic Science Management Consultants LLC, a firm which specializes in the business of forensics using the forensics of business.

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Dr. Speaker's research activity is concentrated in the business of forensics. His recent work is featured in the official journal of ASCLD, *Forensic Science Policy & Management: An International Journal* as well as *Science & Justice, Australian Journal of Forensic Sciences, Forensic Magazine*, and numerous business outlets.

Dr. Chris Maguire has a thirty-year professional career serving in various positions at the Forensic Sciences Service. He has been the lead scientist on many criminal cases, attended numerous crime scenes to advise the police on forensic strategy, as was one of the first operational scientists in the world to train in DNA profiling in 1987. Dr. Maguire created a team of DNA scientists who initiated casework for submission to the UK National DNA database. Dr. Maguire has specialized in advanced uses of DNA profiling in human identification and has acted as lead scientist on several international mass fatality victim Identification projects, including the Branch Davidian investigation, the SE Asian Tsunami, and the Air France AF447 air crash. Dr. Maguire was invited to serve as a member of the DNA advisory group for identification of victims of Hurricanes Katrina and Rita in Louisiana and Mississippi. From 2010 until April of 2013, Dr. Maguire served as a Reader in Forensic Science at the Centre for Forensic Science at Northumbria University's School of Life Sciences in the UK. His areas of research include alternate forensic service delivery models, concepts of "forensic markets", and the effectiveness and value of forensic science. He currently serves as the Deputy Director for the DC Department Of Forensic Sciences (www.dfs.dc.gov).

12:00-1:30 Poster Session Imperial Convention Center	**Technical Poster Session** (please refer to "Technical Posters" portion of the meeting program)

1:30-3:30
Plenary

Empire Ballroom

ASCLD Technology Session: An Introduction to Efficiency – Boosting Technologies For Crime Laboratories

Moderator: Beth Kroupa

Performance Pathways at RTI International presents a two hour introduction to forensic science technologies titled, "An Introduction to Efficiency-Boosting Technologies for Crime Laboratories". The objectives of this session are to i) introduce lab directors and managers to types of mature and/or emerging technologies that can be adopted to improve the functioning and efficiency of their laboratory operations and , ii) provide insight into what resources are available to labs so they may investigate these technologies. This session will connect the audience with practitioners and vendors that support the adoption of forensic technology to demonstrate how vendor-laboratory relationships can improve forensic science.
Various types of technologies will be briefly explored in 20 to 30 minute PowerPoint presentations, which will explain the science behind the technologies, outline implementation practices, and discuss the benefits of adoption. The session will also emphasize added benefits realized by partnering with vendors whose services and products bring efficiencies to laboratory operations every day. At the conclusion of the session, ASCLD members will be better informed on emerging technologies and what decisions they may need to make before investing in them.

Ms. Beth Kroupa is a Forensic Science Policy and Management Advisor for RTI International. She conducts outreach for RTI's Center for Forensic Sciences and is responsible for advising on research and business opportunities in the area of forensic policy and administration. She specializes in identifying and supporting the adoption of new forensic technologies as well as projects that expand RTI's web-based forensic training tools. Prior to joining RTI, she served the Florida Department of Law Enforcement's crime lab system for two decades and was the Chief of Forensic Services for the Pensacola Regional Crime Laboratory. Ms. Kroupa has played an active role in legislative advocacy and is a tireless advocate for improved practices, including research and development in the forensic sciences. She was the former president of the American Society of Crime Laboratory Directors in 2010, serves as the Director of Public Relations and Policy for Crime Lab Report, and remains active on various forensic science policy and technology committees.

1:45
Plenary

Empire Ballroom

Gaining Speed with "Fast GC"

Dr. Peter Stout

Searching for flexible solutions to reduce run times and costs when managing high volume drug chemistry caseloads? This presentation will provide administrators with the knowledge to determine if the use of hydrogen carrier gas and more efficient, higher speed gas chromatography methods can help you effectively reduce backlogs impacted by the influx of emerging drugs. "Fast GC" refers to the use of combinations of H2 carrier gas, shorter smaller bore columns and faster or low thermal mass ovens to increase chromatographic efficiency while reducing run times. Discussion on the efficiencies that can be realized from the adoption of fast GC technologies will motivate you to develop a plan for implementation today.

The presentation will provide an overview of the growing array of information resources available to the community and efforts that are forthcoming. This includes, libraries and databases, standards manufacturers, commercial sources, government sources. Also included will be discussions about what SWGDRUG and SWGTOX are working at and considering for analyses in this area. The information that is available, and how to effectively use that information is as important as the instrumentation used.

Dr. Peter Stout has more than 15 years of experience in forensic urine drug testing, postmortem toxicology, and human performance testing laboratories. He is a licensed laboratory director for the states of New York and Tennessee. He has served as a Responsible Person of a federally certified urine drug testing laboratory and as Director of a U.S. Navy Drug Screening Laboratory. He is an active member of SOFT, an AAFS Fellow, and a past Toxicology Section Chair for AAFS. He is currently the Treasurer for SOFT and has handled exhibitor relations for the Society for 5 years. He is also a laboratory inspector for the NLCP (DHHS) and for ABFT.
At RTI, Dr. Stout has served as the Project Lead for the Pilot Oral Fluid Performance Testing Program (DHHS) and as key personnel for the National Lab Certification Program. He is currently Principle Investigator (PI) for an NIJ grant examining the application of the AccuTOF-
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DART to a cheminformatic database for forensic chemistry and toxicology. He is the co-PI for our currently funded cooperative agreement with NIJ to develop and deliver Web-based continuing education for forensic sciences (NIJ #2009-SZ-B9-K002, #2009-IJ-CX-K004 and 2009-DN-BX-K115). He also serves as co-PI on several forensic science projects, including Technology Transfer Strategies of Forensic Science R&D to the Practitioner End-User (NIJ). He is widely published on such topics as the mechanisms of drug deposition in hair and analytical methodology in forensic toxicology.

2:15
Plenary

Empire Ballroom

Crime Scene Technologies: Present and Future
Mr. Jeff Gurvis

This presentation will provide attendees with new mobile technologies ideally suited for crime scene processing and response. Major focuses on mobile devices for data management and image capture will highlight the discussion. Future uses of evolving technologies will also be touched upon as teleforensics is getting closer to a reality.

Mr. Jeff Gurvis is a nationally known bloodstain pattern analyst and latent print examiner who had been teaching for the National Forensic Academy at the University of Tennessee for nearly 10 years. He has also taught Bloodstain Pattern Analysis for the FBI, IAI, and several local and state law enforcement agencies. He currently serves on the IAI Bloodstain Pattern Analysis Certification Board and is a founding member of the Scientific Working Group on Bloodstain Pattern Analysis (SWGSTAIN). Mr. Gurvis began his career at the Northern Illinois Police Crime Laboratory where he served as a Latent Print Examiner and Crime Scene Coordinator. He is currently working on CrimePad for Visionations (www.visionations.com) which is a full featured crime scene app for tablets (iPad and Android).

2:45
Plenary

Empire Ballroom

NIJ funded R&D Update: An Empirical Study To Improve The Scientific Foundation of Forensic Firearm and Tool Mark Identification Utilizing Consecutively Manufactured Glock EBIS Barrels With The Same EBIS Pattern
Mr. Gabriel Hernandez

Glock pistols are carried by the officers of many police departments. However, standard Glock barrels rarely mark bullets with identifying tool marks. As a result, police involved shootings where standard Glock barrels are used tend to remain unresolved. Glock developed the Enhanced Bullet Identification System (EBIS) barrel for law enforcement to solve this problem. An empirical study to evaluate the reproducibility and uniqueness of striations imparted to consecutively manufactured Glock EBIS barrels with the same EBIS pattern was conducted by the Forensic Services Bureau of the Miami-Dade Police Department and funded by a grant awarded by the National Institute of Justice. This presentation will describe how this study was conducted as well as provide attendees with the error rate that was calculated.

Mr. Gabriel A. Hernandez currently serves as a Criminalist Supervisor for the Forensic Services Bureau (FSB) of the Miami-Dade Police Department (MDPD). He has been a Firearm and Toolmark Examiner since 2005. The MDPD FSB has received two National Institute of Justice research grants. Mr. Hernandez is an active member of both the Association of Firearm and Tool Mark Examiners and the International Association for Identification. He serves on committees in both professional organizations. Mr. Hernandez is also a certified assessor for ASCLD/LAB and has been a member of three assessment teams.

4:00
Plenary

Empire Ballroom

Update on the Next Generation of DNA Typing Technologies

Dr. Bruce Budowle and Mr. Ken Kroupa

Forensic DNA Typing is an essential component of a forensic laboratory. The current technologies generally allow for reliable analysis of very limited quantity samples with the capability of eliminating in many cases most of the population as a contributor of the evidence. Yet, there are still demands for analyzing even smaller traces of evidence, interpreting mixed profiles more effectively, more efficiently processing evidence, and faster turnaround times. Two technologies are here or on the horizon and can contribute to these demands for improving the overall system. The first technology – Rapid DNA Typing (RDT) – is a macro/microfluidic apparatus that combines all the instruments involved in the DNA typing process into one stand-alone platform. RDT provides the potential for automated DNA typing in less than 90 minutes either within or outside the traditional forensic laboratory setting. Since there are several commercially available instruments, RDT is a near-term consideration for the forensic science and investigative communities. The second technology – Next Generation Sequencing (NGS) – has made great strides in recent years. NGS technology performs DNA sequencing in a highly massive parallel fashion and provides results on a scale not previously considered possible. This technology has the potential to enable: better databasing capabilities; better resolution of mixed samples; better kinship analyses; phenotypic typing of a contributor of a sample; and molecular autopsies to determine cause or manner of death. These increased capabilities also come with the potential for a notable cost reduction in DNA analysis. One might have considered NGS a long term technology; but with the advances already observed it is quite feasible that this technology could be ready for implementation in less than 24 months. Since these two technologies offer the potential for notable leaps in capability, Crime Lab Directors and the forensic community should be informed of their salient features and the considerable investment required for implementation. This presentation will provide the values and limitations of these technologies from a use and implementation strategy so that the community may be better informed in its decision processes for time of implementation and resource commitments of these likely next tools for the forensic DNA toolbox. Portions of the federal government led by the Department of Defense are coordinating activities related to the development of technology, scientific methods, validation protocols, standards and policy related to the use of Next Generation Genomic Analysis to support intelligence, law enforcement, personnel accounting, and personnel recovery mission domains. These collaborators have established a substantial governance structure, strategic goals and priorities to coordinate the necessary work required to enable human identification and characterization capabilities based on genomic analysis technology.

Dr. Bruce Budowle received a Ph.D. in Genetics in 1979 from Virginia Polytechnic Institute and State University. From 1979-1982, Dr. Budowle was a postdoctoral fellow at the University of Alabama at Birmingham. Working under a National Cancer Institute fellowship, he carried out research predominately on genetic risk factors for such diseases as insulin dependent diabetes mellitus, melanoma, and acute lymphocytic leukemia.

In 1983, Dr. Budowle joined the research unit at the FBI Laboratory Division to carry out research, development, and validation of methods for forensic biological analyses. The positions he has held at the FBI include: research chemist, program manager for DNA research, Chief of the Forensic Science Research Unit, and the Senior Scientist for the Laboratory Division of the FBI. Dr. Budowle has contributed to the fundamental sciences as they apply to forensics in analytical development, population genetics, statistical interpretation of evidence, and in quality assurance. Some of his technical efforts have been: 1) development of analytical assays for typing a myriad of protein genetic marker systems, 2) designing electrophoretic instrumentation, 3) developing molecular biology analytical systems to include RFLP typing of VNTR loci and PCR-based SNP assays, VNTR and STR assays, and direct sequencing methods for mitochondrial DNA, and 4) new technologies; and 5) designing image analysis systems. Dr. Budowle has worked on laying some of the foundations for the current statistical analyses in forensic biology and defining the parameters of relevant population groups. He has published approximately 500 articles, made more than 600 presentations (many of which were as an invited speaker at national and international meetings), and testified in well over 250 criminal cases in the areas of molecular biology, population genetics, statistics, quality assurance, and forensic biology. In addition, he has authored or co-authored books on molecular biology techniques, electrophoresis, protein detection, and microbial forensics. Dr. Budowle has been directly involved in developing quality assurance (QA) standards for the forensic DNA field. He has been a chair and member of the Scientific Working Group on DNA Methods, Chair of the DNA Commission of the International Society of Forensic Genetics, and a member of the DNA Advisory Board. He was one of the architects of the CODIS National DNA database, which maintains DNA profiles from convicted felons, from evidence in unsolved cases, and from missing persons.

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Some of Dr. Budowle's efforts over the last decade are in counter terrorism, primarily in identification of victims from mass disasters and in efforts involving microbial forensics and bioterrorism. Dr. Budowle was an advisor to New York State in the effort to identify the victims from the WTC attack. In the area of microbial forensics, Dr. Budowle has been the chair of the Scientific Working Group on Microbial Genetics and Forensics, whose mission was to set QA guidelines, develop criteria for biological and user databases, set criteria for a National Repository, and develop forensic genomic applications. He also has served on the Steering Committee for the Colloquium on Microbial Forensics sponsored by American Society of Microbiology and was the organizer of four Microbial Forensics Meetings held at The Banbury Center in the Cold Spring Harbor Laboratory. He has published more than 20 articles on microbial forensics on topics such as issues on attribution, quality assurance, population genetics, next generation sequencing technology, and sample collection.
In 2009 Dr. Budowle became Executive Director of the Institute of Applied Genetics and Professor in the Department of Forensic and Investigative Genetics at the University of North Texas Health Science Center at Fort Worth, Texas. His current efforts focus on the areas of human forensic identification, microbial forensics, and emerging infectious disease.

Mr. Ken Kroupa serves in the Office of the Secretary of Defense as the Deputy Director, Defense Forensics. He is responsible for strategic planning, management oversight, policy development, technical leadership, and coordination for all forensic activities related to the U.S. Department of Defense. As part of his portfolio he manages defense wide forensic related research and development programs. He led the rapid-DNA development efforts for the Department of Defense and coordinates activities with other federal government partners. Mr. Kroupa serves as the Chair of the Next Generation Genomic Analysis for Human Identification Steering Committee in addition to leading several other interagency committees. He was instrumental in establishing the ASCLD Forensic Research Committee and continues to remain an active member of ASCLD.
Mr. Kroupa holds a Master of Science degree in Counseling from the Long Island University, a Master of Science degree in Military Science from the Command and General Staff College, and a Bachelors degree in Criminal Justice from the University of Nebraska. His military education includes the Military Police Officer Basic and Advanced Courses, Criminal Investigation Course, and the US Army Command and General Staff College. His military service awards include the Defense Meritorious Service Medal, Bronze Star Medal, and several Meritorious Service Medals. In addition, Governor Patton appointed him as a Kentucky Colonel.

Wednesday
May 8

8:30-9:30
Plenary

Empire Ballroom

Maximizing Management (Hint: It's Not About The Money)

Mr. Kevin Lothridge

Objectives:

- Inspire attendees to think about laboratory management in standard business terms
- Provide efficiency strategies for laboratory managers to consider
- Position classic laboratory challenges in standard business terms

Every crime laboratory's goal is to provide timely necessary services to its constituents and every laboratory manager struggles with how to accomplish this goal with fewer and fewer resources. What many of them don't understand is that the challenges they face every day are the same challenges faced by business managers of all kinds: high customer demands, tight budgets and rising costs.

Crime laboratory managers have the opportunity to apply many of the same management techniques used in business to improve their lab's operations. This presentation will include ideas and approaches that managers can use, including:

- Customer service: How can you manage the expectations of your customers to provide a win-win experience?
- Budget management: How can you make an objective case to get more funding? Do you really need more funding?
- Understanding workflow: Are your procedures making the most of your current staffing levels or is 'business as usual' actually costing you time and money?
- Laboratory policies: Are your policies out of date and do your customers understand them?

Don't allow good science to be negated by poor business practices. Operating laboratory as a business allows the manager to objectively assess operations and improve efficiencies to offer the best service possible.

Mr. Kevin Lothridge, Chief Executive Officer – NFSTC's principal investigator, Mr. Lothridge is an accomplished forensic scientist with 17 years of operational experience, having held positions as a forensic chemist, chief forensic chemist, and laboratory director for the Pinellas County Sheriff's Department and the Pinellas County Forensic Laboratory. In 2006-07, he led the development of the Deployable Forensic Laboratory project for the Department of Defense. Because of his expertise, Mr. Lothridge has testified in court more than 50 times as an expert in controlled substances and fire debris analysis. He also speaks at numerous professional conferences, and he co-authored the GC-MS Guide to Ignitable Liquids.
Mr. Lothridge holds a Bachelor of Science degree in Forensic Science from Eastern Kentucky University and a Master of Science degree in Management from National-Louis University. He has served as president of the American Society of Crime Laboratory Directors (ASCLD) and as acting chief of the Investigative and Forensic division of the National Institute of Justice (NIJ). In his role as CEO of NFSTC, he provides leadership, direction and vision for the organization as it offers guidance, consulting and training to the justice community in both the public and military sectors.

9:30-10:00
Plenary

Empire Ballroom

Organizational Culture

Ms. Anja Einseln

We all know it's there. It sits there, quietly, but causing drama and conversation in our labs. This presentation hopes to provide a framework in which a constructive discussion, about how our organizational culture impacts our day to day operations, can take place in our organizations.

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Ms. Anja Einseln has been the Training Manager for the American Society of Crime Laboratory Directors, Laboratory Accreditation Board (ASCLD/LAB) since 2006. Prior to this she worked at the FBI Laboratory in both Quantico, Virginia and Washington DC from 1996 to 2006. Her additional experience in private industry and her background in chemistry, engineering and adult education provide her with a strong background to help others understand quality and how it can help an organization.

10:30-11:30
Plenary

Empire Ballroom

Crime Lab Oversight Boards: Are They Effective?
Moderator: Jody Wolf
Judge Barbara Hervey, Mr. Kent Cattanni and Mr. Dean Gialamas

Are Crime Lab Oversight Boards Effective? This is a question that faces not only crime lab directors but policy makers, criminal justice practitioners, law enforcement, and the public. It is a question that is not easily answered and is being addressed in many different capacities across our nation from legislated oversight boards to volunteer committees. Panel members Judge Barbara Hervey from Texas, Judge Kent Cattani from Arizona, and Director Dean Gialamas from California will be discussing these issues from various stakeholder perspectives, i.e. courts, prosecution, and crime lab directors. They will also be sharing their own personal experiences regarding crime lab oversight and its successes and failures.

Ms. Jody Wolf is the Assistant Crime Lab Administrator for the Phoenix Police Department, Crime Laboratory, an ASCLD/LAB-International / ISO 17025 accredited laboratory that employs over 140 technical and support personnel, which provides forensic services to the sixth largest City in the United States with a population of over 1.5 million residents.
Over her career, she has worked in both public and private laboratories for more than 20 years. Jody has been employed by the Phoenix Police Department Crime Laboratory for the past 12 years and has served as the Assistant Crime Lab Administrator for the past 6 years. Her responsibilities include operational oversight of the Analytical Services Section, which includes the Forensic Biology/DNA, Evidence Processing, and Toxicology Units. She is an active member of several professional organizations and has been actively involved in the criminal justice community. She currently serves as the Chair of the Arizona Forensic Science Academy Board and is a member of the Arizona Forensic Science Advisory Committee, the American Society of Crime Laboratory Directors Education Committee, and the Scottsdale Community College Forensic Science Advisory Board. Jody also serves as an instructor for Rio Salado College and the University of Phoenix where she teaches fundamental science courses, introduction to technology courses, and graduate courses in business management.
Jody received her Bachelors of Science degrees in Biology and Chemistry from Regis University in Denver, Colorado, and her Masters of Science degree in Chemistry from Arizona State University. She also received her Masters in Business Administration degree with an emphasis in Technology Management from the University of Phoenix.

Judge Barbara Parker Hervey was elected to the Texas Court of Criminal Appeals in November 2000. A native of New Jersey, Judge Hervey earned a Bachelor of Arts degree in 1975 from The University of North Carolina at Greensboro, and her J.D. in 1979 from St. Mary's University School of Law, where she is currently an Adjunct Professor and a past recipient of the Distinguished Alumni Award. Prior to becoming a judge, Judge Hervey was in private practice for 5 years with the Law Office of M.M. Pena, Jr. of San Antonio. She was also an Assistant Criminal District Attorney in the appellate section of the Bexar County District Attorney's Office for 16 years. Judge Hervey has been an author and speaker for over 150 lectures and legal seminars, served on the Governor's Ad Hoc Committee to Rewrite the Texas Code of Criminal Procedure, supervised continuing legal education training for attorneys in the D.A.'s Office, served as a Faculty Member of the National College of District Attorneys, and co-authored The Appellate Prosecutor: "Professional Responsibility on Appeal."
Judge Hervey is currently a member of the State Bar of Texas, the Texas Bar Foundation, and the American Law Institute. She is the Chair of the Grants Committee and the Criminal Justice Integrity Unit and is a member of the Rules Committee for the Court of Criminal Appeals. Judge Hervey has served as a member of the Governor's Criminal Justice Advisory Council and the Tim Cole Advisory Panel. She has received the Appellate Advocacy Award from Region VI, Association of Government Attorneys in Capital Litigation. She has also received a Certificate of Appreciation from the San Antonio Police Officers Association in recognition of work on *Johnathan Moore v. State of Texas*, tried for the Capital Murder of S.A.P.D. Officer Fabian Dominguez.
Judge Hervey and her husband Richard Langlois (defense attorney, Bexar County) reside in San Antonio, Texas. They have three children, Edward, Christopher, and Melissa.

Mr. Kent Cattani was appointed to the Arizona Court of Appeals on February 9, 2012. At the time of his appointment, Kent was an Assistant Arizona Attorney General, serving as Solicitor General, overseeing civil appeals, criminal appeals, and capital litigation.
Kent earned his J.D. from the University of California at Berkeley in 1986 and began working at the Attorney General's Office in 1991. During his tenure there, he represented the State of Arizona in state and federal court, arguing more than 95 appellate cases and handling capital post-conviction proceedings in trial courts throughout the State. Kent provided testimony to the United States Senate and House of Representatives Judiciary Committees regarding federal habeas and capital litigation issues, and he helped draft legislation

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and worked with the Arizona legislature in addressing a variety of criminal law issues. He has also lectured extensively both locally and nationally on capital litigation and federal habeas issues.
Kent led the Attorney General's efforts to collaborate with the defense bar in studying lessons learned from DNA exonerations. Additionally, he chaired the Attorney General's DNA Task Force from 2006-2008, and he serves on Arizona's Forensic Science Advisory Committee formed as a result of recommendations by the Task Force. Kent has also served on the Board of Directors of the National Association of Government Attorneys in Capital Litigation, the Attorney General's Opinion Review and Ethics Committees, the Arizona Supreme Court Capital Case Oversight Committee, and the Arizona State Bar Jury Instructions Committee. Among other honors, Kent was twice name the Attorney General's Prosecutor of the Year. In 2010, Kent received the National Association of Government Attorneys in Capital Litigation's Schaefer Award for Excellence in Capital Litigation, and in 2013, he was awarded the Michael C. Cudahy Criminal Justice Career achievement Award by the State Bar of Arizona.

Mr. Dean Gialamas is the Director for the Los Angeles County Sheriff's Department Crime Lab, an ASCLD/LAB-International / ISO 17025 accredited laboratory, employing over 300 personnel, serving a population of six million residents and over 100 local, state and federal agencies operating within LA County.
Over his career, he has worked in both public and private forensic labs and, prior to his current position, he was the director of the Orange County Sheriff's Crime Lab. He is an active member of several professional organizations and has been appointed to several state and federal task forces and workgroups regarding forensic science issues. He has served as a scientific advisor to the Department of Defense, California Supreme Court and to the US and California Attorney Generals. He is currently serving on the White House Subcommittee on Forensic Science Interagency Working Group, serves on the editorial board of the *Forensic Science Policy & Management Journal,* and is a Past-President of the American Society of Crime Laboratory Directors. Dean also served as an instructor for several criminal justice agencies and universities, including UCLA, UC Davis, California State University at Los Angeles, and West Virginia University.
Dean holds dual majors in Chemistry and Biology from UC Irvine and a Master's degree in Criminalistics from Cal State LA. He is professionally certified in forensic science and is a proud graduate of the West Point Leadership & Command Academy.

11:30-12:00
Plenary

Empire Ballroom

The Crime Laboratory's Role In Biological Evidence Preservation: Providing Guidance To Property and Evidence Handlers
Ms. Stephanie Stoiloff

Crime laboratories play a pivotal role in ensuring that biological evidence is being stored in a manner that maintains its integrity for proper analysis and testing. While biological evidence changes hands frequently in some jurisdictions, custodians frequently seek guidance from labs on many aspects of proper preservation methods. Unfortunately, recent headlines have highlighted significant problems with the storage of potentially exculpatory biological evidence in property and evidence storage units across the country. Court orders for the location of evidence have demonstrated inadequacies in the packaging, storage, and tracking process of some evidence. The *Technical Working Group on the Preservation of Biological Evidence* conducted an in depth analysis of the current state of biological evidence preservation in the property and evidence room and existing literature regarding the stability of biological materials in various environmental conditions. After conducting an analysis of the state of biological evidence storage, the group determined that a key barrier to adequate management of biological evidence is the lack of communication and standardized protocols between property and evidence clerks and forensic scientists. Crime labs and property and evidence rooms have different purposes, yet coordination is required among both in order to ensure that evidence is properly collected, analyzed, and preserved. Further, recent DNA stability studies reveal conflicting justifications for biological evidence storage conditions.

After attending this presentation, attendees will learn about the role of crime labs in providing guidance to property and evidence custodians charged with preserving biological evidence. Further, the workshop will provide an overview of the guidance set forth in *The Biological Evidence Preservation Handbook* developed by the *Technical Working Group on the Preservation of Biological Evidence* administered by National Institute of Standards and Technology (NIST) with support from the National Institute of Justice (NIJ). *The Biological Evidence Preservation Handbook* sets forth best practices, based in science, to reduce the premature destruction and degradation of biological evidence. This guidance is intended to be used by crime labs as well as all other potential handlers of biological evidence.
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Ms. Stoiloff is the Commander of the Miami-Dade Police Department Forensic Services Bureau which includes an accredited Crime Laboratory as well as the Fingerprint Identification, Crime Scene Investigations, Forensic Imaging, Digital Forensic and Property and Evidence Sections.

Ms. Stoiloff currently serves as the Co-Chair of the IACP Forensic Committee and is also a member of the Technical Working Group on the Preservation of Biological Evidence. Ms. Stoiloff taught Forensic Biology as an adjunct professor at the International Forensic Research Institute (IFRI) at Florida International University and currently serves on the IFRI External Board of Advisors.

Ms. Stoiloff has provided presentations on DNA analysis at national and international meetings including the Annual Education Program of the Florida Conference of Circuit Judges, the National Governors Association, the National Institute of Justice and the International Association of Chiefs of Police. Ms. Stoiloff has lectured on the application of DNA analysis to criminal investigations as part of various local training courses, including the Miami-Dade County State Attorney's Office and the Miami-Dade County Medical Examiner's Office.

12:00-1:00 Poster Session Imperial Convention Center	**Technical Poster Session** (please refer to "Technical Posters" portion of the meeting program)

1:00-2:00 Plenary Empire Ballroom	**Fee For Service: An Option For Supplementing Government Crime Laboratory Budgets?** Moderator: Mr. Sam Howell Mr. Timothy Fallon, Mr. Vince Figarelli, Ms. Linda Netzel, Ms. Renee Romero and Mr. Mike Trimpe For the past several years, crime laboratory directors and managers who oversee government-funded crime laboratories have continually been challenged to efficiently manage their laboratory budgets under reduced funding levels. The difficult economic environment lab directors and managers are faced with often times require the laboratory to maintain their current level of forensic services while operating under reduced budget levels. One option of supplementing a crime laboratory's budget is to implement a fee-for-service funding model. A laboratory operating on a fee-for-service model often requires agencies requesting forensic testing to pay a set fee (according to an established fee schedule) to the laboratory or funding entity for specific forensic tests. This supplementing funding option is certainly not without controversy. Representatives from various State and local crime laboratories who have had first-hand experience utilizing a fee for service funding model will discuss their perspectives on the pros and cons using this method of funding.

Panel Members:
Mr. Fallon- Earned a Bachelor of Science in Microbiology from Texas A&M University (1979); Continued with graduate studies at University of Dallas; Completing Master of Science in Forensic Science- Administration at Oklahoma State University; Started career as chemist at the Frito-Lay Research Laboratory; Received forensic specialty training from FBI Academy, Bell Helicopter, American Industrial Hygiene Association, McCrone Research Institute and North Carolina State University; Employed for fifteen years as Trace Evidence Analyst with the Southwest Institute of Forensic Sciences in Dallas; Subsequently employed for three years as Chief of Physical Evidence at the Bexar County Criminal Investigation Laboratory in San Antonio; Promoted to Crime Laboratory Director in 1997; Member of Southwestern Association of Forensic Scientists; Present President of the Texas Association of Crime Laboratory Directors.

Mr. Figarelli is the Superintendent the Arizona Department of Public Safety Scientific Analysis Bureau. He began his career as a Criminalist with the Department in 1990 after receiving his Bachelor of Science degree in Chemistry from Carnegie Mellon University in Pittsburgh. Mr. Figarelli was initially assigned to the Toxicology Unit of the DPS Central Regional Crime Laboratory (CRCL) in Phoenix. He subsequently moved on to assignments in the DNA and Trace Analysis Units before becoming a Supervising Criminalist in 1999. Over the next nine years, he supervised the Controlled Substances, Toxicology, DNA, and Firearms/Trace Analysis Units of the CRCL before becoming Assistant Superintendent and Central Regional Crime Laboratory Manager in 2008.
In his current position, Mr. Figarelli manages the four Regional Crime Laboratories of the Arizona State Crime Laboratory System and helps establish forensic policy for the Department and the Arizona Criminal Justice Community.

Mr. Howell is a native of Pontotoc, Mississippi and a graduate of The University of Mississippi Forensic Science program. Mr. Howell has been employed with the Mississippi Crime Laboratory since 1985 and currently serves as the Director for the Laboratory system. Mr. Howell is a board certified forensic toxicologist and is a member of AAFS, SOFT, SAFS, and ASCLD.
Mr. Howell has performed forensic toxicology, forensic drug chemistry and crime scenes during his tenure at the Crime Laboratory.

Ms. Netzel received a B.S. in Chemistry with emphasis in Criminalistics from Metropolitan State College of Denver, in 1991. She has nineteen years of forensic experience and is currently the director of the Kansas City Police Crime Laboratory. Prior to becoming the director she was a criminalist in the DNA and trace evidence sections of the laboratory. Additionally, Netzel has extensive homicide crime scene experience and instructs crime scene investigators on crime scene reconstruction and physical evidence collection and preservation. Netzel is a member of the American Society of Crime Laboratory Directors, the American Academy of Forensic Sciences, the Midwestern Association of Forensic Scientists and she is a diplomate with the American Board of Criminalistics.

Ms. Romero has been with the Washoe County Sheriff's Office Forensic Science Division since 1989. She has a Bachelors Degree in Chemistry with the fulfillment of a Bachelor's Degree in Forensic Science from Michigan State University. She obtained her Master of Science in Cell and Molecular Biology from the University of Nevada, Reno. While she has performed casework in the areas of trace evidence and controlled substances the majority of her casework background has been in DNA. She was a member of the FBI's Scientific Working Group on DNA Analysis Methods for 13 years. During her years with the WCSO FSD she held positions from intern to Director. She has been the Director since January 2008. She has also been involved with American Society of Crime Laboratory Directors, Laboratory Accreditation Board as a PRC chairperson inspector, and board member.

Mr. Trimpe has worked at the Hamilton County Coroner's Laboratory in Cincinnati, Ohio for 33 years as a trace evidence examiner analyzing hairs, fibers, paint, glass, soil, explosives, ignitable liquids, gunshot residue and several other trace disciplines. He is a Past President of the Midwestern Association of Forensic Scientists and received the Distinguished Scientist Award in 2007. He conducted
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the FBI GSR Symposium in 2005. He is the founder and past chairman of the International Scientific Working Group for Gunshot Residue. He is a Fellow member of the American Academy of Forensic Sciences, and received the Mary E Cowan Outstanding Scientist Award in 2011. His other scientific memberships include the European Network of Forensic Scientists, TWGFEX, the International Association of Arson Investigators, and ASCLD. Mr. Trimpe is currently the Laboratory Director.

2:00-2:30
Plenary

Empire Ballroom

CSI – Afghanistan
Dr. Jeff Salyards

The demands on the modern military have grown far beyond the traditional land, sea, and air campaigns of WWII. Soldiers, Sailors, Marines, and Airmen are required to participate in wide range of military operations from disaster relief to helping emerging democracies establish the rule of law. Our military presence in Afghanistan and Iraq have brought about the challenge of dealing with improvised explosive devices, often called IEDs. Protecting our forces and the local citizens involves detecting and defeating these devices. It also involves identifying the network of IED makers. As the nature of this conflict as changed over the years, the identified IED makers that were once the target of a military operation are now the target a criminal prosecution. Forensic science plays a significant role in this process. This presentation will highlight some recent successful prosecutions and with an emphasis on how the material is collected, exploited, and presented in court.

Dr. Salyards is the Executive Director of the Defense Forensic Science Center. He has served in this position since December 2012. From 2009-2012, he served as the Chief Scientist. Before coming to this position, he was a Principal Analyst with Analytic Services and authored a study about the best methods to train military personnel to collect forensic material during the conduct of military operations. He holds a PhD in Chemistry from Montana State University, a Masters of Forensic Sciences from The George Washington University and has completed a Fellowship in Forensic Medicine from the Armed Forces Institute of Pathology. A former Director of the Defense Computer Forensic Laboratory and AFOSI Special Agent, he has 25 years of combined experience in investigations, forensic consulting and teaching. He served as the Deputy for Operations and Assistant Professor at the Air Force Academy Chemistry Department and was honored with the Outstanding Academy Educator Award. Dr. Salyards has served on the Board of Directors for the American Society of Crime Laboratory Directors/Laboratory Accreditation Board, the Department of Justice National Steering Committee for Regional Computer Forensic Laboratories, the Council of Federal Forensic Laboratory Directors, the ASCLD Board of Directors, and as a Commissioner for the Forensic Education Programs Accreditation Commission. He is a Fellow of the American Academy of Forensic Sciences and has an impressive list of publications and presentations. Dr. Salyards is also a retired commissioned officer in the United States Air Force. He has been married for 22 years and has three daughters.

2:30-3:00
Plenary

Empire Ballroom

CFSO, Washington DC Advocacy Update
Mr. Pete Marone and Ms. Beth Lavach

An update will be provided by Mr. Marone and Ms. Lavach regarding the SAFER ACT, and the status of the Justice For All Act and Coverdell funding, as well as information regarding the President's Budget and any new information available on the Leahy Legislation.

Pete Marone Retired from the position of Director of the Virginia Department of Forensic Science on March 1st, 2013. Pete graduated from the University of Pittsburg with a Bachelor of Science in chemistry ('70) and a Masters of Science in chemistry ('71). He began his forensic career at the Allegheny County Crime Laboratory in 1971 and remained in Pittsburgh until 1978 when he accepted a position with the Virginia Bureau of Forensic Science. In 1998 he became the Central Laboratory Director with the Division. On February 1, 2007 he was appointed Director of the Virginia Department of Forensic Science. He is a member of the American Society of Crime Laboratory Directors (ASCLD), American Academy of Forensic Science, Mid-Atlantic Association of Forensic Scientists, Forensic Science Society, and the International Association of Chemical Testing. He has served on the ASCLD DNA Credential Review Committee and as the chair of the undergraduate curriculum committee of the Technical Working Group for Forensic Science Training and Education (TWGED), and is a past chair of ASCLD-LAB (Laboratory Accreditation Board). Hewas a member of the Forensic Education Program Accreditation Commission (FEPAC) for the American Academy of Forensic Sciences, and served on the National Academy of Sciences Committee on Identifying the Needs of the Forensic Science Community. He is currently Chair of the Consortium of Forensic Science Organizations (CFSO) and the North Carolina Forensic Science Advisory Committee.

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Elizabeth Kathryn Lavach is the President and founder of E.L.S. & Associates, a consulting consortium focusing on legislative, regulatory and policy issues related to national defense, homeland security and technology development. The firm identifies business opportunities and provides planning and implementation strategies for a wide spectrum of corporate clients. It also identifies and analyzes relevant federal and state legislative initiatives and actions, political trends, and the implications of government policy on clients' business operations and strategic planning and direction. Ms. Lavach is the former Vice President of Government Operations for Colt's Manufacturing Company developing and overseeing the corporation's interests in government, military and national law enforcement activities. Previous to that, Ms. Lavach was affiliated with the firm of Gadsby and Hannah, representing more than twenty corporate clients on matters of national defense and international policy. Ms. Lavach has served as a senior staff member for several Members of Congress, acting as an advisor on legislative issues related to defense contracts, appropriations, base closures, science and technology, foreign policy, and international trade. Ms. Lavach has served as a member of several industry commissions and study groups and currently is a member of the National Defense Industrial Association Biometric Committee and is Chair of the Forensics Subcommittee. Ms. Lavach is on the Board of the International Executive Service Corps, the National Safe Haven Alliance and the Board of Trustees of The Congressional Schools of Virginia. Elizabeth K. Lavach graduated from Western Connecticut State University with a Bachelor of Arts degree in Political Science and received her M.A. from Claremont Graduate School in International Studies.

3:30-5:00
Meeting

Empire Ballroom

American Society of Crime Laboratory Directors, Laboratory Accreditation Board (ASCLD/LAB)
Delegate Assembly Meeting
ASCLD/LAB Board

Delegate Assembly members are requested to arrive early and check-in at one of the tables located at the back of the ballroom. Ballots for ASCLD/LAB Board position elections will be distributed during the check in process. Proxy attendee information must have been submitted to ASCLD/LAB prior to the Delegate Assembly Meeting. The meeting is open, but only Delegate Assembly members may vote.

Thursday
May 9

8:00-9:00
Plenary

Empire Ballroom

A Clarion Call To Improve The Underlying Science, Laboratory Efficiency and Costs Associated With Testing of Complex DNA Mixture Interpretation

Dr. Robin Cotton, Dr. Michael Coble and Dr. Charlotte Word

For nearly twenty years, forensic DNA testing of STR markers has had a substantial impact on the criminal justice system. For much of the recent history of DNA testing the field enjoyed a "success breeds success" approach where single source stain evidence could be linked to a perpetrator's profile with a high statistical association. The simultaneous establishment and growth of the national CODIS database of offender profiles (now numbering over 10 million) has led to the ability to serially link crime scenes to an unknown perpetrator in the database. Dramatic successes of DNA testing for much of its short history have given the technique recognition as the "gold standard for forensics."

Over the last few years we have witnessed a dramatic change in the types of cases submitted for DNA testing. Case submissions are moving from "simple, straight-forward" single source profiles, which are relatively easy to interpret, to more "touch DNA" samples which often contain low levels of DNA from multiple individuals. The consequence of the shift from uncomplicated to complex sample types is that the time it takes to analyze and interpret these samples increases. This in turn decreases the amount of time the analyst can spend on other cases and adds to overall case backlogs.

Further, the analysis and interpretation of cases which contain complex, low-level cases are not operable with validations performed, protocols written, interpretation guidelines developed and training based on simple, straight-forward samples. What may have been a well-established DNA lab five to ten years ago is now ill-equipped to handle the challenging samples submitted to laboratories today. As a result, these highly complex samples are at high-risk of being misinterpreted. Simply maintaining the status quo is not sufficient and change will be necessary to improve the quality and efficiency of DNA testing if it hopes to remain a "gold standard."

In 2010 the SWGDAM group released revised guidelines for the interpretation of STR data with a focus on the interpretation of two-person mixtures. Over the past three years, we have conducted numerous mixture training workshops for the forensic DNA community. We have used an interactive "clicker" device to ask the audience specific questions about mixture interpretation and presented these results in real time. The workshops were very useful as both a training opportunity and to assess the current state of mixture interpretation in the U.S.

We have concluded that despite the efforts of most crime labs to re-assess their protocols in light of the 2010 SWGDAM guidelines, there remains an enormous level of misunderstanding related to methods which allow for the proper and accurate interpretation of complex DNA mixtures in the U.S. forensic community. This knowledge gap in DNA mixture interpretation threatens the general acceptability of DNA testing for many of the biological samples currently being tested as well as the expected "neutrality" of DNA testing. This can lead to a reduction in the quality and accuracy of the test results, and may in some cases involve an incorrect inclusion of innocent suspects in the evidence mixture profile.

We will present lessons learned from our workshops and recommendations for improving the analysis of DNA mixtures, including the need to devise a case acceptance policy, and to conduct proper validation experiments, training, and interpretation (e.g. improving statistical approaches for mixture interpretation). The expected changes in DNA chemistries, including but not limited to, (a) the CODIS core loci expansion and (b) the planned discontinuation of the 3100 series Genetic Analyzers will introduce new STR kits and CE instruments to the laboratory in the near future. These changes will only exacerbate the present deficiencies in
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interpretation and will necessarily lead to longer review of data. By improving the science and methodology of DNA mixture interpretation, laboratories can utilize this information to realize cost savings, increase efficiency and improve quality for the modern DNA laboratory.

Dr. Robin Cotton received her PhD from the University of California at Irvine and was formerly a Laboratory Director at Cellmark Diagnostics in Germantown, MD and is currently the Director of the Biomedical Forensic Sciences Program at Boston University.

Dr. Michael Coble received his PhD from the George Washington University and was formerly the Chief of Research Section at the Armed Forces DNA Identification Laboratory. He is currently a Forensic Biologist at NIST.

Dr. Charlotte Word received her PhD from the University of Virginia, was formerly a Laboratory Director at Cellmark Diagnostics in Germantown, MD and is currently a private forensic DNA consultant.

9:00-9:30
Plenary

Empire Ballroom

Building A New Crime Lab: Guidance On Planning, Design, and Construction
Mr. Greg Matheson

Today's capital investment decisions are focused on the integration of new technologies, efficiencies, processes, and sustainable design/construction. The current economic climate demands an increased level of review and justification for each significant investment, especially in physical infrastructure and facilities. In addition to the changes in the building industry and the economic environment, the increased demand for forensic science services has grown sharply in recent years. This demand is due in part to the increase in complex criminal activities such as cyber-crimes, terrorist activity, advances in DNA analysis, in addition to the popularity of forensic science resulting from its glorification in television. All of these have driven a substantially higher demand for forensic science services and, therefore, an increase in the need for forensic science laboratory space.

In November 1996, the National Institute of Justice, the National Institute of Standards and Technology's Law Enforcement Standards Office, and ASCLD held a joint workshop to develop guidelines for planning, designing, constructing, and moving into crime laboratories. The workshop's by-product, *Forensic Laboratories: Handbook for Facility Planning, Design, Construction, and Moving*, was published in April 1998 and was still in use up to the publication of this update. In 2012, a new working group was assembled to analyze the 1998 version and make updates based on the dramatic advances in the forensic science arena.

After attending this presentation, attendees will learn about the guidance recommended in the newly updated *Forensic Science Laboratories: Handbook for Facility Planning, Design, Construction, and Relocation.* Discussion topics will include clarifying the laboratory director's role at each phase of the crime lab development project life cycle and recommendations on which questions to ask, whom to ask, and when to ask. The presenter will also discuss ways to maximize organizational efficiency, reduce costs, and ensure a well-designed and secure facility.

Mr. Greg Matheson - After over 33 years with the LAPD Crime Laboratory, Greg Matheson retired as the Director of the Los Angeles Police Department Criminalistics Laboratory. He has been with the laboratory as a criminalist, supervisor or manager. As a criminalist he was court qualified in toxicology, serology, crime scene investigation, and the examination of explosives, flammable liquids and vehicle lamp filaments. His professional involvement has included board of director positions with the California Association of Criminalists, California Association of Crime Laboratory Directors, American Society of Crime Laboratory Directors, and the American Board of Criminalistics, and holds membership in the American Academy of Forensic Sciences.

9:30-10:00
Plenary

Empire Ballroom

Top 10 Non-Conformances (April 2013 Edition)
Dr. Emma Dutton

By popular demand after multiple appearances at AFQAM, ASCLD/LAB will present the top ten non-conformances encountered during assessments in the past 12 months. Many laboratory directors, supervisors and quality managers find this information very helpful when preparing for annual internal audits, management reviews and annual reports. PDF copies of the PowerPoint are available via email after the presentation (please leave a business card with the presenter).

Dr. Emma Dutton joined the American Society of Crime Laboratory Directors, Laboratory Accreditation Board (ASCLD/LAB) February 1, 2013 as an Instructor after having served as the Oregon State Police (OSP), Forensic Services Division's Quality Assurance Manager for 11.5 years. Prior to her tenure as a Quality Assurance Manager, Emma was a Research Scientist for eight years working at Siga Research Laboratories and Hoechst Marion Roussel Pharmaceuticals (Sanofi-Aventis). Emma has also taught at Western Oregon University part time as an adjunct assistant professor. Dr. Dutton earned her Ph.D. in zoology with an emphasis in cell-molecular neurobiology from the University of Maryland, College Park. In addition, Emma completed post-doctorate research fellowships at the Massachusetts Institute of Technology and the National Institutes of Health.

10:30 -12:30
Meeting

Empire Ballroom

American Society of Crime Laboratory Directors (ASCLD)
Business Meeting
ASCLD Board

This meeting is an open meeting.

12:30-2:00 Awards Luncheon Imperial Convention Center	**Awards Luncheon** Imperial Convention Center

2:00-3:00
Plenary

Empire Ballroom

Managing Fatigue And Shiftwork In A Forensic Laboratory

Dr. Scott Shappell *
R. Jordan Hinson, B.S., Ali Rasheed, B.S.

It is important to understand the effects of fatigue and shiftwork on law enforcement personnel because of the sensitive nature of their work. A slipup in the lab or at the crime scene could leave an innocent person behind bars, or allow a guilty perpetrator to go free. It is well known that errors can happen to the best intentioned investigator and that many of the effects of shiftwork and fatigue can exacerbate the likelihood that an error is committed. Due to the nature of Crime Scene Investigation, law enforcement officers may be forced to work late at night during known circadian troughs. When and where crime scenes occur often leaves investigators to collect and process data while suffering from the effects of fatigue.

In the interest of ensuring the accurate collection and processing of forensic data the National Institute of Standards and Technology (NIST) commissioned Clemson University's Department of Industrial Engineering to review scientific literature which can be of practical use for understanding ways to manage fatigue and shiftwork in law enforcement and to make recommendations for rest and duty restrictions.

After attending this workshop, attendees will learn about the effects of fatigue and shiftwork on forensics analysis and hear a discussion on ways to help mitigate the negative effects of fatigue.

*presenter

Dr. Shappell is currently a Professor and Chair of the Department of Human Factors and Systems at Embry-Riddle Aeronautical University. Before joining the faculty at ERAU in the fall of 2012, Dr. Shappell was professor of Industrial Engineering at Clemson University from 2005-2012. Before that, he was the Human Factors Research Branch Manager at the Civil Aerospace Medical Institute. In addition, he has served nearly 20 years (11 years on active duty) in the U.S. Navy as an Aerospace Experimental Psychologist. During his time in the US Navy, Dr. Shappell served as the Human Factors Branch Chief at the U.S. Naval Safety Center and as a human factors accident investigation consultant for the Joint Service Safety Chiefs. He has published/presented well over 200 papers, books, and presentations in the fields of accident investigation, system safety, behavioral stressors, sustained operations and fatigue. While noted for his work in aviation, Dr. Shappell has been involved in a variety of industries including petrochemical industry, forensic science, mining, and medicine.

Dr. Shappell received a B.S. in psychology (1983) from Wright State University graduating Summa Cum Laude with honors in psychology and followed with a Ph.D. in Neuroscience from the University of Texas Medical Branch in 1990. Dr. Shappell is a fellow of the Aerospace Medical Association, fellow and past-president of the Aerospace Human Factors Association; fellow of the American Psychological Association and past-president of Division 21 - Applied Experimental and Engineering Psychology, past-secretary/treasurer of the Human Factors and Ergonomics Society, and member of the Association of Aerospace Psychologists, member of the Institute of Industrial Engineers, and member of the Association of System Safety Engineers.

3:00-3:20
Plenary

Empire Ballroom

A Functioning Paperless Laboratory
Dr. Ashraf Mozayani*
Dr. Warren C. Samms

Objectives: To introduce attendees to the concept of paperless labs, to discuss methods for accomplishing that goal, and to show examples of currently operational paperless labs.

From the earliest days of the computer revolution, the world has been promised a "paperless" society. That goal has been largely achieved in some areas (ATM cards and online banking), and has lagged behind in others. Modern forensic laboratories have the tools available to achieve a truly paperless laboratory. The majority of new analytical instrumentation is computer-based, allowing for the digital storage of analytical data. Digital photography has largely replaced film in areas like firearms analysis and bullet comparison. Personal computers are commonplace, allowing a gateway for digital information in a paperless workflow. Laboratory information management systems (LIMS) are becoming more advanced and capable of accommodating larger file attachments than ever before. These tools have allowed two divisions at the HCIFS (drug identification and gunshot residue) to become totally paperless. A description of the methods currently in place, problems encountered during the conversion process, and compliance issues with accrediting agencies will be presented.
* presenter

Dr. Mozayani received a Doctor of Pharmacy degree from the University of Tehran, Iran and a Doctor of Philosophy degree in Pharmaceutical Sciences/Toxicology from the Faculty of Pharmacy at the University of Alberta in Edmonton, Alberta, Canada. She is also board certified as a Forensic Toxicologist by the American Board of Forensic Toxicology (DABFT). Prior to this position, she was the Chief Toxicologist for the District of Columbia at the Office of the Chief Medical Examiner.

Dr. Mozayani has published over 25 articles in peer-reviewed publications (1987-2011), has been an editor of 4 books, has authored invited chapters in 5 other books, and presented over 80 papers related to crime laboratory management, forensic toxicology (cocaine, marijuana, amphetamines, drug testing in hair, inhalants, and opiates, GHB, alcohol, and several prescription drugs) at meetings of professional societies. She is the first US Editor of the journal of "Forensic Science, Medicine and Pathology".

Dr. Mozayani is the past president of the Southwestern Association of Toxicologists, a previous board member of the American Society of Crime Laboratory Directors and the Society of Forensic Toxicologists. She is an active fellow of the American Academy of Forensic Sciences and a delegate member of the American Society of Crime Laboratory Directors-Laboratory Accreditation Board. She is also a member of the Canadian Society of Forensic Sciences, the International Association of Forensic Toxicologists and the Society of Hair Testing.
She is an Assessor/ Auditor for:

- The American Crime Laboratory Directors/Laboratory Accreditation Program
- Standards Council of Canada
- The National Laboratory Certification Program
- The American Board of Forensic Toxicologists
- The College of American Pathologists, Forensic Urine Drug Testing

Dr. Mozayani also serves as a consultant in other government and private industries. She has been a consultant to the government of Uzbekistan in forensic accreditation and management of crime laboratories for the International Criminal Investigative Training Assistance Program (ICITAP) under the aegis of the Criminal Division of the U.S. Department of Justice. As an ICITAP advisor and instructor, Dr. Mozayani has taught all aspects of laboratory management and toxicology laboratory operations. Dr. Mozayani has been qualified as an expert witness in forensic toxicology and pharmacology in the states of Texas, Virginia, Maryland, Oklahoma, Florida, Kansas, California, Idaho, Montana, the Federal Court in Massachusetts and the numerous Military Courts of the United States.

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Dr. Warren C. Samms received his B.S. degree in Chemistry and Biology from Friends University in Wichita, KS in 2003, as well as his M.S. and Ph.D. degrees in Chemistry (emphasis in Biochemistry) from Wichita State University in 2007 and 2009, respectively. His graduate research focused on the biological characterization of toxic amphetamine analogs in neuronal tissue culture. He joined the HCIFS staff in March 2008 following an internship with the Sedgwick County (Kansas) Regional Forensic Science Center and a teaching assistantship with the Wichita State University Forensic Science program. He has provided testimony and technical expertise to committees in the Texas legislature regarding proposed legislation of emerging designer substances. He serves as a core committee member on the *Advisory Committee for the Evaluation of Controlled Substance Analogs*, a national panel of forensic and academic chemists. Dr. Samms is a fellow of the American Board of Criminalistics in the area of Drug Analysis and is the Drug Chemistry Manager for the Harris County Institute of Forensic Sciences.

3:20-4:00 Plenary Empire Ballroom	**Forensic Management Through Turmoil** Mr. Kevin Jones In January of 2011 the Wisconsin State Crime Laboratory Bureau was in a state of flux. A new Governor was taking office and changes proposed and made by his administration impacted the running and management of the Bureau's three laboratories. Stresses included a high vacancy rate in management positions, lack of clear leadership from the previous Division administration, preparing for ISO 17025 accreditation, appointment of a new Bureau Director, long standing internal personnel issues, and the inability to hold senior scientists due to low salaries to name a few items. The lessons learned and the success gained in this environment may be of value to others in forensic management.

Mr. Kevin Jones was appointed on January 3, 2011 as the Crime Laboratory Bureau Director for the Wisconsin Department of Justice. This is a new position for Wisconsin DOJ and Kevin is responsible for the management of the three crime laboratories of the Bureau and its 170 employees.

Kevin began his career as a bench forensic scientist at the North Louisiana Crime Laboratory in Shreveport, Louisiana in 1985 performing analysis in chemistry, biology, and crime scene. He took a position with the Washington State Patrol Crime Laboratory Division in 1988 and continued work in chemistry, criminalists, and field response. Kevin worked for the Washington State Patrol Crime Laboratory Division for the next 22 years in various laboratories within the state mostly in forensic management.

In 2009 Kevin took a position with the US State Department and serviced as a forensic mentor to the Afghan National Police National Forensic Laboratory in Kabul, Afghanistan. Kevin mentored the Director of this system as they worked to rebuild the laboratories after 30 years of war and strive.

Kevin has his BS and MS in Microbiology with both degrees' received from Northwestern State University in Natchitoches, Louisiana.

Kevin is on the board of the Association of Crime Laboratory Directors/Laboratory Accreditation Board and he is also a member of the Association of Crime Laboratory Directors and the American Association of Forensic Scientists.