Dear Colleagues,

Today I would like to talk about timely forensic service. Traditionally in government, crime labs included, all too often the amount of resources allotted to an undertaking is fixed. No-one wants to pay more taxes. With the phenomenal improvements in forensic technology and application, the demand for forensic service has skyrocketed. With that fixed pie of resources, this has meant doing the best we can with what we have, which in nearly all crime labs has resulted in backlogs. The supply of our services does not meet the demand.

Another fact is that the vast majority of investigators' time, energy and resources are spent investigating crime immediately after it was committed. Investigative resources are spent while a case sits at the lab not being analyzed but waiting its turn to be started behind other cases. A 100 day response time from submission to report represents 80 days waiting in line and 20 days or less of actual hands on analysis time. Having a backlog at a crime lab is akin to having a backlog at a fire station. Can you imagine getting a fire alarm call and responding that you cannot get to the fire because there is a backlog of fires so they will need to wait three days? Not only are investigative resources burning while cases sit, but criminals have the opportunity to commit the same or escalating crimes on new victims.

We need to do a better job on several fronts. We must continue to seek improved methods to streamline analyses without jeopardizing quality. We must work with contributors to limit expansive examinations that are likely to add limited value to investigations. We must also better represent the value of using the objective data driven information to improve investigations earlier. This means making a case for the resources needed to start cases the day they are submitted. Cases should not sit at the crime lab waiting to be started.

Ray

Past President David Stafford

It is with sorrow that we share with our membership the notification of the passing of Dr. David T. Stafford, Past President of ASCLD. Dr. Stafford passed away a few weeks ago at the age of 82. In his early years, Dr. Stafford worked as a nuclear chemist for Oak Ridge National Laboratory and he researched radioactive fuels for the Department of Energy. He later became a toxicologist for Shelby County, TN (Memphis) coroner’s office and he wrote the toxicology report on Elvis Presley. As Director of the Chemical Pathology and Toxicology Lab at the University of Tennessee (Memphis), he taught forensic pathology and as a contractor to Hewlett Packard, he traveled extensively helping crime labs come to terms with gas chromatographs and mass spectrometers. In his later years, Dr. Stafford served as a professional witness testifying in many forensic cases.
His son-in-law, John Malik, wrote a heart felt eulogy to Dr. Stafford the night he passed away, [http://chefjohnmalik.com/tears-of-his-daughter/](http://chefjohnmalik.com/tears-of-his-daughter)

Please make a note of the new mailing address:
ASCLD Office
5 Glen Road Suite 123
Garner, NC 27529
Thank you for your prompt attention.

- **Forensic Scientist I, II, III, Chemistry**. Kansas Bureau of Investigation, Topeka, KS, Expires: July 31, 2017
- **Forensic Scientist I, II, III, Biology**. Kansas Bureau of Investigation, Topeka, KS, Expires: July 31, 2017
- **Forensic Scientist I, II, III**. Kansas Bureau of Investigation, Topeka, KS, Expires: July 31, 2017
- **Non-Tenure Track Forensic Science Faculty Position**. Pennsylvania State University, University Park, PA, Expires: October 13, 2017
- **Forensic Scientist II (Crime Scene), CS-12**. DC Government – Department of Forensic Sciences, Washington, DC, Expires: July 20, 2017
- **Forensic Science Lecturers (2)**. University at Albany, SUNY, Albany, NY, Expires: August 31, 2017
- **Staff Chemist**. ORAU (Oak Ridge Associated Universities), Charlottesville, VA and OCONUS, Expires: September 29, 2017
- **Forensic Scientist II**. Scottsdale Police Department, Scottsdale, AZ, Expires: July 23, 2017
- **Forensic Scientist I**. Scottsdale Police Department, Scottsdale, Arizona, Expires: July 23, 2017
- [Impression Evidence/Latent Print Discipline – Forensic Science Policy and Management: An International Journal](http://www.tandfonline.com/toc/ufpm20/current)
Rapid DNA Technology Forum
When: August 15th - 17th, 2017 from 8am - 5:30pm EST
Where: The Alexandrian in Old Town, Alexandria, VA

The FTCoE will host the Rapid DNA Technology Forum on August 15-17, 2017 in Alexandria, VA. Rapid DNA technology has quickly advanced over the past several years with two commercially available systems being adapted to analyze the CODIS panel, and the introduction of the Rapid DNA Act of 2017 which may soon become law. This forum will provide the forensic community an opportunity to be updated on commercially available Rapid DNA technologies, and hear lessons learned from several early adopters spanning local law enforcement and federal agencies. The evolution of Rapid DNA will be discussed along with technologies currently in development which have the potential to impact the future of forensic DNA analysis.

Identify Synthetic Opioids using Ambient Ionization TOF-MS
When: July 19th, 2017 at 1pm EST

This webinar will present the results of the evaluation of Direct Sample Analysis Time-of-Flight Mass Spectrometry to provide rapid identification of eighteen fentanyl analogues and related synthetic opiates.

This webinar series will bring a multifaceted perspective to how diverse criminal justice disciplines are addressing these challenges; sharing their knowledge; and advancing science, technology and law. Dealing with the impacts of the opioid crisis to the criminal justice system require better reporting, surveillance, research, technology and policy than are currently in use. The need to understand the epidemic and its effects goes beyond knowing your own profession — it takes a global perspective to fully act and make a difference.

Click HERE to find out more and Register!

Episode 9 Podcast!!
Just Blood Spatter

In episode nine of Just Science, funded by the National Institute of Justice’s Forensic Technology Center of Excellence [Award 2016-MU-BX-K1101], we spoke with Dr. Marc Smith, from the Georgia Institute of Technology. Dr. Smith’s NJI funded research in blood spatter has connected computational fluid dynamics with empirical studies to improve the understanding of blood spatter onto solid, slanted surfaces. His work looks at many variables, including droplet size, speed, surface roughness and wettabity. Listen and Subscribe HERE.

Subscribe to the channel at:
Google Play
iTunes
Stitcher
Soundcloud
S. 2577 (114th): Justice for All Reauthorization Act of 2016
https://www.govtrack.us/congress/bills/114/s2577

2016 Justice for All Act: What You Need to Know - hosted by A2LA
July 11, 2017, Tuesday, 2:00pm to 3:00pm Eastern Daylight Time

Matthew Gamette, Laboratory Director of the Idaho State Police Forensic Science Services, will be joining to provide an informational overview of the Justice for All Act, signed in December 2016. Attendees can expect to leave with an understanding of its effects on forensic science services providers and practitioners. Gerry LaPorte, Director of the Office of Investigative and Forensic Sciences, NJI, will be joining to provide an informational overview of the Coverdell Grant Process and the role accreditation plays in this process. Attendees can expect to leave

Forensic Scientist 2, Idaho State Police, Meridian Idaho, Expires: July 19, 2017
- Impression Evidence/Latent Print Discipline – Forensic Scientist 1, Idaho State Police, Meridian Idaho, Expires: July 19, 2017
- Forensic (Latent Print) Examiner, Raleigh/Wake City-County Bureau of Identification, Raleigh, Expires: July 21, 2017
- Post doctoral scholar, The Pennsylvania State University, Forensic Science Program, Department of Biochemistry and Molecular Biology, University Park, PA, Expires: August 31, 2017
- Forensic Analyst II – Priority DNA, Sorenson Forensics, Salt Lake City, UT, Expires: July 19, 2017
- Criminalist (Journey or Senior DOQ), Solano County, Fairfield, CA, Expires: July 21, 2017
- Latent Print Laboratory Director, NYS Division of Criminal Justice Services, Albany, NY, Expires: September 15, 2017
- Bilingual Accreditation Manager, ANSI-ASQ National Accreditation Board, Cary, NC, Expires: September 14, 2017
- Software Tester, JusticeTrax, Inc., Mesa, Arizona, Expires: July 31, 2017
- QA/QC Project Coordinator, Harris County Institute of Forensic Sciences, Houston, Texas, Expires: July 31, 2017
- Audio/Video Forensic Analyst, Houston Forensic Science Center, Houston, TX, Expires: September 30, 2017
- Staff DNA Analyst (#01611), ORAU, Charlottesville, VA and OCONUS, Expires: October 2, 2017
- Senior DNA Analyst (#01607), ORAU, Charlottesville, VA and OCONUS, Expires: October 2, 2017
- Principal DNA Analyst (#01604), ORAU, Charlottesville, VA and OCONUS, Expires: October 2, 2017
- Associate DNA Analyst (#01593), ORAU, Charlottesville, VA and OCONUS, Expires: September 29, 2017
- Lab Manager, Sorenson Forensics, Salt Lake City, Expires: August 2, 2017
- DNA Analyst I & II, Sorenson Forensics, Salt Lake City, Expires: August 2, 2017
- DNA Technician, Sorenson Forensics, Salt Lake City, Expires: August 2, 2017
- Serologist, Sorenson Forensics, Salt Lake City, Expires: August 2, 2017

NFSTC  News

NFSTC is now offering online proficiency testing in crime scene investigation to agencies across the globe. After the Fact has been used as the competency standard since 2011 and is a cost-effective training tool. Assessments are $250 and available at www.csi-skills.com.

michelle.chernicoff@nfstc.org

https://mailchi.mp/1b269ff3ca21/rvfbk1gg9-1182349[10/26/2018 2:54:01 PM]
with a basic understanding of the accreditation process and how an organization’s accredited status will be considered as part of their application to the Coverdell Grant.

https://cc.readytalk.com/registration/#/?meeting=4drsfhnz7xbi&campaign=4r576e37fwmh

click here to register

DNA - Bode

16th Annual DNA & Investigators Conference – Bode East, September 11-14 in Philadelphia, PA

ASCLD/RTI Backlog Series

Archival versions of the ASCLD/RTI Backlog Series can be found at the following links:

The Paradox of Backlog Reduction – How Doing Less Can Be Doing More
Taking the First Steps Toward Backlog Reduction
Managing Customer Expectations and Education
How to Increase your Staff without Increasing Budget
Efficiency Improvements
Developing a Statewide Approach to Backlog Management
Case Acceptance Policies and Guidelines

ASCLD/RTI Rapid DNA Series

Archival versions of the ASCLD/RTI Rapid DNA Series can be found at the following links:

Rapid DNA: The QAS and NDIS
Rapid DNA: Arizona DPS and Richland County, SC
Rapid DNA: Booking Stations and CODIS

Next Professional Orientation Schools Scheduled

The next Professional Orientation Schools for New Crime Laboratory Scientists have been scheduled to begin on August 14 and October 9th. Laboratory directors and supervisors with new employees are encouraged to have them enroll as soon as possible. For more information or to enroll, please visit www.imcollinsjr.com/pos.html. To reach the instructor, John Collins, please call (517) 803-4063 or email at forensicdirector@gmail.com.

Evidence Technology Magazine
http://www.evidencemagazine.com

FORESIGHT 20/20

The American Society of Crime Laboratory Directors (ASCLD) has received funding from the Laura and John Arnold Foundation to develop software that will transfer data from forensic Laboratory Information Management Systems (LIMS) to FORESIGHT, a business quantitative process tailored to forensic laboratories.

The goal of the project, called FORESIGHT 20/20, will be to allow laboratories to easily upload business-relevant information from their individual LIMS to the FORESIGHT project, hosted at West Virginia University.

Software development and installations for JusticeTrax Alpha labs is progressing. The software

https://www.nfstc.org/

June 2017 Newsletter

OSAC Promotes Hundreds of Forensic Science Standards, Guidelines, and Other Documents During 2017 OSAC Public Status Reports & Open Discussions

The webcasts and PowerPoint presentations are available for public viewing on the NIST OSAC website.

The OSAC Registry is a trusted repository of high-quality, science-based standards and guidelines for forensic sciences.

WK58027 - Standard Practice for Preserving Ignitable Liquids and Ignitable Liquid Residue Extracts from Fire Debris Samples (link is external)
WK58028 - Standard Guide for Forensic Examination of Non-Reactive Dyes in Textile Fibers by Thin-Layer Chromatography (link is external)

New Approved Standards

ASTM E2926 - 17 Standard Test Method for Forensic Comparison of Glass Using Micro-X-ray Fluorescence (µ-XRF) Spectrometry (link is external)
ASTM E1588 - 17 Standard Practice for Gunshot Residue Analysis by Scanning Electron Microscopy/Energy Dispersive X-Ray Spectrometry (link is external)

E30.12 Digital and Multimedia Evidence

The following work item is underway:

WK58084 - Standard Practice for Computer Forensics (link is external) is a work item revision to existing standard ASTM E2763-10

Learn more about ASTM E30 (link is external).
provides a dashboard of the labs' own stats and FORESIGHT stats, among other information. The information, formatting, and interface may vary somewhat by vendor.

Bode Cellmark Forensics provides advanced forensic solutions offering crime labs ways to reduce their workloads and budgets.

Bode's newest offerings include: Sexual Assault Kit Backlog Reduction Program streamlines processes to eliminate backlogs of untested sexual assault kits.

Bode Buccal 2™ is uniquely designed to improve DNA databanking collecting and automate processing. The Bode Buccal 2 is a DIRECT COLLECTION SYSTEM that requires minimal training. There is NO Transfer Step Required.

Independent Validation Services are customized to meet your laboratory's needs. Validation services provide completely unbiased analysis on your equipment, chemistries, or process.

Featured Article:

His name was Wilmer Souder. A physicist at the National Bureau of Standards, now known as the National Institute of Standards and Technology (NIST), Souder played an important role in the early days of forensic science. He helped send countless murderers, bootleggers, gangsters and thieves to prison, and he kept such a low profile partly out of concern for his and his family’s safety. Perhaps as a result, he was not long remembered for his forensic work, and his influence on the developing field of forensic science was not as great as it might have been.

NIST Library just finished scanning Souder’s nine notebooks and has made them available for anyone to view via the NIST Digital Archives:

http://nistdigitalarchives.contentdm.oclc.org/cdm/landingpage/collection/p16009coll67

Bringing together experts from the forensic, research, legal, and law enforcement communities to strengthen forensic science and create a safer, more just society.

https://www.nist.gov/topics/forensic-science

Upcoming Events

International Forensic Science Error Management Symposium
July 24-28, 2017

Establishment of an Office of Forensic Sciences and a Forensic Science Board Within the Department of Justice
Revision 2/14/17


Download the article here

https://mailchi.mp/1b269ff3ca21/rvfbk1gg9-1182349[10/26/2018 2:54:01 PM]
Formed in 2000, CFSO is an association of six forensic science professional organizations: American Academy of Forensic Sciences; American Society of Crime Lab Directors; International Association for Identification; International Association of Forensic Nurses; National Association of Medical Examiners; and Society of Forensic Toxicologists - American Board of Forensic Toxicology.

These professional organizations together represent more than 21,000 forensic science professionals across the United States.

The mission of the CFSO is to speak with a single forensic science voice in matters of mutual interest to its member organizations, to influence public policy at the national level and to make a compelling case for greater federal funding for public crime laboratories and medical examiner offices. The primary focus of the CFSO is local, state and national policymakers, as well as the United States Congress.

http://www.thecfso.org/newsletter/CFSO_Newsletter_201705.pdf

Grant Assistance for DNA

1. Find contact information for your State Emergency Management (SEM) office at https://www.bjs.gov/index.cfm?ty=grants
2. Call or write the website of your State SEM Office.
3. Request information on SEM and other Federal grants.
4. Request a contact in the state office for grants.
5. Find the contact information for your State’s SEM Office.
6. Contact SEM Office.
7. Contact SEM Office.
8. Contact SEM Office.
9. Contact SEM Office.
10. Contact SEM Office.
11. Contact SEM Office.

State Grant Assistance for DNA

1. Find contact information for your State Emergency Management (SEM) office at https://www.bjs.gov/index.cfm?ty=grants
2. Call or write the website of your State SEM Office.
3. Request information on SEM and other Federal grants.
4. Request a contact in the state office for grants.
5. Find the contact information for your State’s SEM Office.
6. Contact SEM Office.
7. Contact SEM Office.
8. Contact SEM Office.
9. Contact SEM Office.
10. Contact SEM Office.
11. Contact SEM Office.

Coming soon...... The Forensic Research Committee

https://mailchi.mp/1b269f3ca21/rvfbk1gg9-1182349[10/26/2018 2:54:01 PM]
Forensic Science Assessments: A Quality and Gap Analysis - Fire Investigation
José Almirall, Hal Arkes et al
AAAS; 89 pages; July 11, 2017

NIJ Forensic Science R&D Reports for ASCLD Crime Lab Minute Vol 10

These research reports have been submitted by the National Institute of Justice (NIJ) especially for their relevance to crime laboratory activities. ASCLD has not reviewed nor does it necessarily endorse the findings of this research.

Report: NIJ's DNA Analysis, Capacity Enhancement and other Forensic Activities
This report summarizes NIJ’s approach to improving forensic science includes long term strategic advances and necessary immediate relief to address the challenges of satisfying increasing demand for DNA analysis. From 2008 to 2014, the turnaround time for analysis has remained nearly constant, while testing capacity increased by over 60 percent. Average cost per case has decreased from $1,279 in 2007 to $607 in 2014. And since 2008, uploads of DNA profiles to the Combined DNA Index System (CODIS) have increased 143 percent. The need for this assistance has never been greater, through capacity building, technical assistance, research, development, evaluation and dissemination, NIJ is working to address the challenges experienced by forensic laboratories.

Tune in to the FTOCoe Just Science Podcast!
NIJ’s Forensic Technology Center of Excellence has launched Just Science, a podcast for forensic science professional and others interested in learning how crime laboratories are working to produce more accurate results, become more efficient and solve more crimes. The podcast covers every forensic science discipline. Recent episodes discussed lab management, human factors, 3D optical topography, subjective probability, DNA mixture interpretations and economics and crime labs.

The Evidence for Very Small Particles
NIJ recently published an article in Forensics discussing the work of Stoney Forensic in developing an investigatory technique called “very small particle analysis.” This approach involves the careful examination of dust on an object to trace it back to its original location, or the comparison of two or more

An opportunity to work at JusticeTrax doesn’t come around very often. We have a Software Tester position open! This one is going to go fast!

Please read about the opening at https://justicetrax.com/employment/

The Software Tester basic function is to validate the quality of JusticeTrax products. The Software Tester finds weaknesses in the products in an efficient and timely manner so that Software Developers can resolve them before customers experience a problem. The position reports to the Quality Manager.

Experience with JusticeTrax applications, especially LIMS-plus, may be substituted for experience as a software tester.

Following a number of requests from recipients for a direct link to the digest, I am in the process of creating a web-page on the ChemCentre web-site (www.chemcentre.wa.gov.au) for you to directly link to. I am hopeful that this will be active when the next issue of the digest is published and I will notify you accordingly. Please also continue providing me with feedback that enhances the value of this publication.

DR JOHN COUMBAROS
MANAGER – STRATEGY, RESEARCH & DEVELOPMENT
Forensic Science Laboratory
Postal: PO Box 1250, Bentley DC WA 6983
Location: Corner Manning Road and Townsing Drive, Bentley WA 6102
T +61 8 9422 9819 F +61 8 9422 9831

Developing Reliable Methods for Microbial Fingerprinting of Soils

Soil evidence has the potential of being a valuable tool for linking a suspect, victim, or item to a crime scene. Currently, however, only class characteristics of soil are considered in traditional analysis. This NIJ-supported research project examined the utility of soil bacterial profiling via next-generation sequencing of the 16S rRNA gene to identify a soil’s origin. The researchers successfully differentiated soil samples from diverse and similar habitats back to their location of origin 100 percent of time in multidimensional space and 87.5 percent of time through supervised classification. Time and space within a habitat did not affect bacterial profiles enough to hinder location-of-origin assignment. Soil collected from evidentiary items remained clustered nearest its location of origin with 100 percent accuracy, even after a full year or long-term storage. The success in tracing soils back to a location of origin demonstrates the potential of next-generation sequencing of bacteria, in conjunction with a combination of robust statistical techniques, for the individualization of forensic soil samples.

Quantitative Algorithm for the Digital Comparison of Torn Duct Tape

Researchers from University of California, Davis sought to minimize human contextual bias in decisions about whether torn duct tape found at a crime scene matches a duct-tape roll found in a suspect’s possession by combining digital image analysis and an objective, quantitative algorithm in assessing the likelihood of a match. These NIJ-supported researchers performed edge detection and morphological smoothing operations on high-resolution images of torn duct tape edges to extract the torn-edge coordinates. In 97 percent of examined tears, the true match had the lowest observed sum of square residuals, with false positive rates ranging from 0.5 percent for some types of hand-torn duct tape to 62 percent for scissors-cut duct tape. This work provides a starting point for quantitative assessment of the likelihood of physical end matching of duct tape without human contextual bias.

Non-Medical Use of Prescription Drugs: Policy, Law Enforcement, and Diversion Tactics

The goal of this University of Central Florida study was to determine whether Florida law HB 7095 and related legislation reduced the number of pain clinics abusively dispensing opioid prescriptions in the State, as well as to assess the logistics of administering the law. The findings presented in this NIJ-supported report indicate that the Florida effort against rampant “pill mills” was largely successful, which is consistent with research that has documented reductions in opioid-related deaths in Florida. Further, the findings show the key role of interagency cooperation in the success of the legislation, which in conjunction with Florida’s legislation, should be considered a model for future efforts in reducing easy access to prescription opioids.

Differential Sampling of Footwear to Separate Evidentiary Particles from Background Noise

This NIJ-supported project by Stoney Forensic tested the ability to separate particle signals on the footwear soles using differential analysis of loosely held, moderately held, and strongly held particle fractions. Prior research has used a generalized sampling of particles on footwear soles from both contact and recessed areas shows the retention of particles from earlier contacts. The current study determined that although particles on the contact surfaces of footwear were removed and replaced, particles on the more recessed areas of the sole were not. Three environmental exposure sites were chosen to have different characteristic particle types (soil minerals) and shoes of two types (work boots and tennis shoes) were tested. Some shoes were exposed to only one environment, and others were exposed to all three in

Forensic Dogs Locate Spot Where Amelia Earhart May Have Died

NIKUMARORO ISLAND, KIRIBATI Four bone-sniffing dogs that were brought to this remote Pacific island to search for traces of Amelia Earhart have identified a spot where the pioneering aviator may have died 80 years ago.

Forensic scientists recover human DNA from mosquitos

Group leader Toshimichi Yamamoto says, “Ours is the first study to systematically apply modern DNA profiling techniques to the challenging forensic analysis of mosquito blood meal. We hope this will help crime scene investigators collect reliable evidence that could be used to guide investigations and support convictions. Although we need to take some steps to improve our methods and obtain more data, with more accurate quantification methods, we might be able to estimate the time after mosquitos’ blood feeding with even greater accuracy.”

Battelle Releases NIJ MSP DNA Forensic Methods Study (Multi-Video)

A Battelle study for the National Institute of Justice (NIJ) demonstrates that the technology provides the accuracy, reproducibility and sensitivity needed to support forensic investigations.

Forensic Pathology Program to Address ME’s Office Demand

Rochester will be home to the second forensic pathology fellowship program in the state, even as the Monroe County Medical Examiner’s Office grapples with a heavy case load of autopsies generated by drug overdoses.

Forensic evidence allowed at trial in 1996 killing of Frederick teen

Assistant Public Defender Matthew Frawley, Harris’ attorney, argued on June 27 to bar some testimony of Dr. Stephen Cina, a forensic consultant and former medical examiner who performed the autopsy on Hoffmaster’s body. Cina is expected to testify about test results that prosecutors will argue proves that Harris had sex with Hoffmaster around the time of her death.

Lebanese army prosecutor orders forensic probe into Syrian deaths

BEIRUT (Reuters) - A Lebanese military prosecutor ordered forensics to examine the
Florida International University researchers sought to demonstrate the utility of an analytical chemistry tool that is relatively new to forensic laboratories, Laser Induced Breakdown Spectroscopy (LIBS), in conducting elemental analysis of ink, paper, and soil evidence quickly and with little or no sample preparation. The commercial LIBS instrumental results were compared to previously optimized in-house LIBS systems and also to the alternative forensic tools, which offer good analytical performance but suffer from either very high costs and significant complexity (in the case of LS-ICP-MS) or analytical limitations in the form of sample requirement and relatively high detection limits (in the case of mXRF and SEM-EDS). Although less mature than LA-ICP-MS, LIBS also shares the benefits associated with laser ablation methods, with the added advantage of improved speed, versatility, ease of operation, affordability, and portability. This NJI-supported project shows that both LA-ICP-MS and LIBS are useful analytical tools for the analysis of paper, inks, soil, and cotton.

Method Validation for a Statistically Based Comparison of Tool Marks using Gelsight-Based Three Dimensional Imaging and Novel Comparison Algorithms for Firearm Forensics

TopMatch technology for structural 3D imaging and comparison of cartridge casings shows excellent and continually improving match accuracy; however, in order to fully establish the base credibility of the platform, it was necessary to establish best-scanning practices and to demonstrate that the method meets the quality-control criteria of other forensic instruments. This NJI-supported project by Cadre Research Labs aimed to enhance TopMatch by establishing best practices and conducting a set of methodology studies. The project complements the previous studies on accuracy and evidence stability by addressing the remaining issues of precision, repeatability, reproducibility, contamination risk, and performance checks. In addition, researchers studied the effects of cleaning protocols, focus variation, and ambient lighting variation.

Measuring the Frequency Occurrence of Handwriting and Hand-Printing Characteristics

One of the basic axioms of handwriting comparison is that no two writers use the exact same set of handwriting characteristics. The database created by NJI-supported researchers and the resulting frequency occurrence proportions provide the forensic and judicial communities with some empirical data with which to assess the question. The specific approach in collecting samples that match the U.S. demographics provides unique insight and substantive data on the quantitative relationship between the presence/absence of readily identifiable features and key demographic factors as noted by Huber and Headrick (age, gender, ethnicity, education, location of second/third grade schooling, and handedness) while controlling for other factors, such as temporal state and geographic locations. The original set of specimens collected from a wide spectrum of participants provided an initial large collection that was eventually pared down to achieve what is considered a representative sample from the entire target population.

Gunshot Residue in a Non-Firearm Detainee Population

Studies have shown varying amounts of gunshot residue (GSR) in the police environment, with most being on surfaces within facilities occupied and operated by law enforcement. This NJI-supported study by researchers at the Harris County Institute of Forensic Sciences examined whether GSR contamination could be found on the hands of detainees at the Harris County Jail (Texas) who were held to the sole.

Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS) and Laser Induced Breakdown Spectroscopy (LIBS) Analyses of Paper, inks, and Soils

More than 1,000 kits holding possible evidence of sexual assault in Montana were never tested. State officials are working to see whether those untested kits hold answers as to how Montana should respond to future assault cases.

University of New Haven Cyber Forensics Team Launches Digital Forensics Database

The University of New Haven announced today it has created a digital forensic evidence archive to revolutionize how
Comparison of Microspectrophotometry and Fluorescence Excitation-Emission Matrix (EEM) Spectroscopy for Non-Destructive Fiber Examination

When spectral information is used in the study of fiber evidence, variations within a fiber source lead to the recommendation that multiple spectra be collected from each fiber to properly characterize the sample. Although this methodology is sufficient for comparison of profiles with obvious differences, the chemometric methods used in this NIJ-supported study from researchers at the University of Central Florida show higher accuracies than the visual method commonly used in forensic laboratories. Current practices in forensic labs that involve fluorescence microscopy do not take advantage of the information content that exists in the spectral signature of textile fibers. The coupling of a microscope to a spectrophotometer allows for the acquisition of a complete training set of EEMs for fiber dye identification from an individual fiber. Accounting for the variance of the EEM spectra at different regions along the length of the fiber provides a useful training set that can be used as the basis for principal component cluster analysis.

Development of a Mobile, Automated Tool Mark Characterization/Comparison System

This NIJ-supported project developed a portable prototype instrument that provides forensic examiners with the ability to characterize a tool-marked surface, compare the data from that surface to data files obtained from any other surface, and assess the likelihood that the marks on the two surfaces were made by the same tool. To date, the system has been successfully tested on data sets consisting of fully striated marks created from 50 sequentially manufactured screwdrivers, quasi-striated markings produced by 50 sequentially manufactured shear-cut pliers, and impression marks produced by 50 sequentially manufactured cold chisels.

The Interpretation of Patterned Injuries in Medicolegal Death Investigation

In this report, NIJ-supported researchers describe the results of their survey evaluating the effect of image processing and image quality on the ability of forensic pathologists to accurately interpret images of patterned injury of the skin. The study consisted of three surveys: the first, a collection of “classic” images that most pathologists disagree with; the second, a collection of images with slightly lesser quality; and the third, images with even lesser quality. To determine which method of examining the images was most accurate, the researchers assessed the accuracy of each method, along with the number of disagreements between the two methods.

Forensic Fire Investigations Need More Scientific Input, AAAS Report Finds

July 12, 2017 – The American Association for the Advancement of Science released a report Tuesday on the quality of fire investigation in the United States. It explores inaccuracies in the existing literature about fire investigation that can affect the beliefs and behavior of investigators, assesses laboratory analytical methods and the state of computer modeling of fires; weighs the value of dogs over current electronic “sniffing” devices for finding residues of ignitable liquids at fire scenes; and stresses the need for more use of controlled test fires under a wide variety of conditions to produce “ground truth” for fire investigators.

These Famous People Were Dug Up After Death—Here’s Why

Surrealist painter Salvador Dalí’s final resting place may not be so final after all. His body was recently ordered exhumed for paternity testing, making him the latest entry in a surprisingly long list of famous people exhumed in the name of science.

Scientific Forensic Fire Science for Improved Fire Investigation, American Association for the Advancement of Science, 2017

Forensic Fire Investigations Need More Scientific Input, AAAS Report Finds

July 12, 2017 – The American Association for the Advancement of Science released a report Tuesday on the quality of fire investigation in the United States. It explores inaccuracies in the existing literature about fire investigation that can affect the beliefs and behavior of investigators, assesses laboratory analytical methods and the state of computer modeling of fires; weighs the value of dogs over current electronic “sniffing” devices for finding residues of ignitable liquids at fire scenes; and stresses the need for more use of controlled test fires under a wide variety of conditions to produce “ground truth” for fire investigators.

These Famous People Were Dug Up After Death—Here’s Why

Surrealist painter Salvador Dalí’s final resting place may not be so final after all. His body was recently ordered exhumed for paternity testing, making him the latest entry in a surprisingly long list of famous people exhumed in the name of science.

Buprenorphine, and oxycodone can benefit these potential drug interactions with methadone, and expert witnesses for cases. Information on indirect impact the criminal justice systems, as many in these professions are called upon as consultants and expert witnesses for cases. Information on potential drug interactions with methadone, buprenorphine, and oxycodone can benefit these...
Evaluating a Novel Fluorescent Dye to Detect Anogenital Injury in Women of Color

NIJ-supported researchers at the University of Virginia tested fluorescent dyes to detect sexual assault injuries on different skin colors and tones. Trials were conducted to identify non-toxic suitable dyes that can be easily visualized using equipment already in common use among forensic examiners and will not interfere with subsequent forensic DNA testing. Findings suggest that fluorescein is both safe and feasible to use in detecting genital injury across all skin tones. However, additional research on alternative dyes across all skin tones is recommended.

Development of an Analytical System for Comparison and Identification of Fiber Dyes

In order to overcome challenges to generalized fiber dye characterizations, this NIJ-supported research explored a significant range of dyestuffs that span numerous major dye application classes, chemistries, chromophores, and fiber types, using techniques and methodologies currently available in most forensic laboratories. Numerous aspects of dye analysis, from extraction through micro analytical characterization, classification, and identification were examined for a set of 300 commercially prevalent dyestuffs. The results show that dye identification can be conducted using techniques available in many labs. It is anticipated that this research will provide a basis from which laboratories can expand their approach from a generalized comparison of color between questioned and known materials to a specific identification of the colorants present in a sample. This has the potential to increase the significance of results in the prosecution or defense of a case and improve the value of investigative leads in cases for which a comparison sample does not exist by constraining or identifying specific dyes.

Trace Metal Analysis by Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry and X-Ray K-Edge Densitometry

This NIJ-supported dissertation by an Iowa State University researcher describes studies on determining trace elements in samples with forensic importance, including trace analysis in lipstick, copper wire, fly larvae and porcine skin tissue for gunshot residue and bullet residue in bones, as well as soil from decomposed pig carcasses.

Pre-Feedback Eyewitness Statements: Proposed Safeguard against Feedback Effects on Evaluations of Eyewitness Testimony

This NIJ-supported study from an Iowa State University researcher tested pre-feedback statements as a safeguard for protecting against, and correcting for, the effects of confirming feedback on evaluations of eyewitness testimony. Results suggest that confirming feedback did not appear to have any influence on witnesses in the no pre-feedback statements condition. Additionally, confirming feedback did not impair evaluators' abilities to discriminate between accurate and mistaken eyewitnesses in the conditions in which witnesses provided pre-feedback statements. Witnesses' pre-feedback statements to evaluators did not improve evaluators' abilities to discriminate between accurate and mistaken eyewitnesses who received feedback. Finally, evaluators tended to judge witnesses who gave no pre-feedback statements more favorably than they judged witnesses who gave pre-feedback statements.

Evaluation of a Novel Fluorescent Dye to Detect Anogenital Injury in Women of Color

NIJ-supported researchers at the University of Virginia tested fluorescent dyes to detect sexual assault injuries on different skin colors and tones. Trials were conducted to identify non-toxic suitable dyes that can be easily visualized using equipment already in common use among forensic examiners and will not interfere with subsequent forensic DNA testing. Findings suggest that fluorescein is both safe and feasible to use in detecting genital injury across all skin tones. However, additional research on alternative dyes across all skin tones is recommended.
The Bureau of Justice Statistics (BJS), in collaboration with the National Institute of Justice, seeks applications for the administration of the 2018 Census of Medical Examiners and Coroners' Offices (CMEC). The new census will obtain and update information about operations, workload (including backlogs), staffing, training, policies, and procedures of approximately 2,400 medical examiners and coroners (ME/C) offices that are responsible for providing medicolegal death investigation (MDI) services to America's criminal justice system. Among other responsibilities, the recipient of funds will act as the data collection agent, update the roster of ME/C offices, revise and update the previous data collection instrument as necessary, administer the 2018 census, and transmit final deliverables and data files to BJS.

Deadline: Applicants must register with Grants.gov prior to submitting an application. All applications are due by 11:59 p.m. eastern time on July 24, 2017.

Eligibility: Eligible applicants are national, regional, state, or local public and private entities, including for-profit and nonprofit organizations, faith-based and community organizations, institutions of higher education, federally recognized Indian tribal governments as determined by the Secretary of the Interior, and units of local government that support initiatives to improve the functioning of the criminal justice system. For-profit organizations must forgo any profit or management fee.

Contact Information: For assistance with any other requirements of this solicitation, contact Connor Brooks, BJS Statistician, by telephone at 202-307-0765 or by email at AskBJS@usdoj.gov. Include “CMEC” in the subject line.

The Bureau of Justice Statistics' (BJS) Federal Justice Statistics Program (FJSP) collects, standardizes, and publishes statistics about the federal response to crime and the operation of the federal criminal justice system. The FJSP produces annual standard analysis files (SAFs), which document the federal criminal case processing stages from arrest to prosecution, pretrial release, adjudication, sentencing, appeals, and corrections. The FJSP also produces linking files that permit analysis of defendants and cases across stages of the federal criminal justice system. With this solicitation, BJS seeks an agent to implement the Federal Justice Statistics Analytical Support Program (FJSASP) project. This project is designed to provide scientific and technical support to BJS for methodological research, statistical analysis, and the generation of statistical reports using data from the FJSP. In addition, the FJSASP will work with BJS to identify additional sources of data to further enhance the FJSP (e.g., immigration enforcement and court statistics, enforcement data from federal regulatory agencies, civil data from the federal courts, and staffing and budget statistics).

There are three priority areas for this project: (1) using the FJSP data to address pressing
substantive questions about the federal justice system through the production of statistical reports, (2) assessing the strengths and shortcomings of the FJSP data for federal criminal justice statistical reporting purposes and proposing and implementing methodological solutions to address deficiencies, and (3) identifying and assisting to integrate outside data sources with FJSP data files.

Deadline: Applicants must register with Grants.gov prior to submitting an application. All applications are due by 11:59 p.m. eastern time on August 7, 2017.

Eligibility: Eligible applicants are limited to for-profit (commercial) organizations, nonprofit organizations (including tribal nonprofit or for-profit organizations), faith-based and community organizations, and institutions of higher education (including tribal institutions of higher education). For-profit organizations (as well as other recipients) must forgo any profit or management fee.

Contact Information: For assistance with any other requirements of this solicitation, contact Mark Motivans, BJS Statistician, by telephone at 202-307-0765, or by email at askbjs@usdoj.gov. Include “2017FJSASP” in the subject line.

Full solicitation in PDF format (PDF 488K)