Colleagues,

With recent statutory changes toward marijuana in the U.S. over the last several years, many laboratories are struggling to develop laboratory policies and procedures for THC in plant material and edibles. The ASCLD Board has received multiple requests from members to solicit ideas and feedback from the ASCLD community and provide the information received to the membership.

Matthew Gamette has developed a short survey about marijuana policies in your jurisdiction, your laboratory’s current testing policies, and the impact of recent marijuana legislation in your jurisdiction on your laboratory.

We would be extremely grateful if you would take a few minutes to complete this survey. The ASCLD Board will compile the information and produce a report that can serve as a resource to you in the changing landscape of marijuana statutes across the U.S.

Survey Link:  
https://www.surveymonkey.com/r/29HFLPH

Have a great week!

-Jeremy Triplett

CRIME LAB MINUTE SURVEY

As we review the information and design of the Crime Lab Minute, we are seeking input from the members to ensure that we are providing current and relevant information to members weekly. Suggestions are encouraged. Thank you in advance for your participation.

https://www.surveymonkey.com/r/7ZK92DN

- Communications Committee
Research Reports

NIJ Forensic Science R&D Reports for ASCLD Crime Lab Minute Vol 4
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.

White House Announces National Microbiome Initiative
The White House Office of Science and Technology Policy, in collaboration with federal agencies and private-sector stakeholders, is announcing the National Microbiome Initiative (NMI). The NMI aims to advance understanding of microbiomes in order to aid in the development of useful applications in areas such as health care, food production, and environmental restoration. The National Institute of Justice invested $3.2 million in FY 2015 in microbiome related research, including work on the necrobiome as an indicator of time-since-death in the investigation of human remains, the soil microbiome for analysis of trace soil evidence, and the trace microbiome as an orthogonal method to human DNA analysis for associating people with evidence and environments.

Accreditation Training

ANSI-ASQ National Accreditation Board (ANAB) ANAB provides accreditation for ISO/IEC 17025 forensic test laboratories and ISO/IEC 17020 forensic inspection agencies and a wide variety of training, workshops, and academic programs.

ISO/IEC 17020 and Audit Preparation for Forensic Police Agencies
September 15-16, 2016, Alexandria, VA
Cost: ASQ member $600, non-ASQ member $650
The Reliability of Pattern Classification in Bloodstain Pattern Analysis, Part I: Bloodstain Patterns on Rigid Non-absorbent Surfaces

NIJ-supported researchers from the Minnesota Department of Public Safety recently published an article in the Journal of Forensic Sciences. Abstract retrieved 5/16/16:

The study was designed to produce the first baseline measure of reliability in bloodstain pattern classification. A panel of experienced bloodstain pattern analysts examined over 400 spatter patterns on three rigid, non-absorbent surfaces. The patterns varied in spatter type and extent. A case summary accompanied each pattern that either contained neutral information, information to suggest the correct pattern (i.e., was positively biasing), or information to suggest an incorrect pattern (i.e., was negatively biasing). Across the variables under examination, 13 percent of classifications were erroneous. Generally speaking, where the pattern was more difficult to recognize (e.g., limited staining extent or a patterned substrate), analysts became more conservative in their judgment, opting to be inconclusive. Incorrect classifications increased as a function of the negatively biasing contextual information.

Decomposition Rates Between Humans, Pigs May Vary Wildly
The work of NIJ-supported researchers from the University of Tennessee, Knoxville was recently featured in Science Magazine and Forensic Magazine. Abstract retrieved 5/16/16:

The past three decades of human decomposition have demonstrated that certain factors promote decomposition, such as high temperatures and insect access, yet the rate of decomposition varies considerably in macro- and micro-environments. Not all researchers have access to human cadavers, however, and therefore have employed nonhuman animals as surrogates for humans in decomposition studies. The results from some of these animal model studies have been used in the courts to support postmortem interval estimations of human decedents. Nonetheless, the scientific validity of substituting data from nonhuman carcasses for human cadavers has enjoyed limited evaluation. This project directly compares the decomposition dynamics of human, pig and rabbit subjects placed simultaneously in the same ecological niche to determine whether, in the same settings, pig and rabbits are appropriate analogs for humans in terms of decomposition research and estimates of postmortem intervals.

The Role of Interface Shape on the Impact Characteristics and Cranial Fracture Patterns Using the Immature Porcine Head Model

NIJ-supported researchers from Michigan State University recently published an article in the Journal of Forensic Sciences. Abstract retrieved 5/16/16:

The forensic literature suggests that when adolescents fall onto edged and pointed surfaces, depressed fractures can occur at low energy levels. This study documents impact biomechanics and fracture characteristics of infant porcine skulls dropped onto flat, curved, edged, and focal surfaces. Results showed that the energy needed for fracture initiation was nearly four times higher against a flat surface than against the other surfaces. While characteristic measures of fracture such as number and length of fractures did not vary with impact surface shape, the fracture patterns did depend on impact surface shape. While experimental impacts against the flat surface produced linear fractures initiating at sutural boundaries peripheral to the point of impact (POI), more focal impacts produced depressed fractures initiating at the POI. The study supported case-based forensic literature suggesting cranial fracture patterns depend on impact surface shape and that fracture initiation energy is lower for more focal impacts.

Applying Lean Design to Crime Laboratories

Over the past decade, several tools have been developed to increase organizational efficiency and reduce backlogs in laboratories, including process mapping and Lean Sigma Six. More recently, a process of Lean Sigma Six. More recently, a process of Lean Design has been applied in crime laboratories to streamline processes and reduce backlogs.

Bode Cellmark Forensics

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
- Bode Buccal 2™

Bode’s newest offerings include:

- Sexual Assault Kit Backlog Reduction Program
- Bode Buccal 2™

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

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

Employment Opportunities

Forensic Examiner I or II, City of Rapid City – Rapid City Police Department, Rapid City SD, Expires: July
variation of Lean Sigma Six — Lean Design — has been applied successfully to the planning and construction of health care research and development and quality management laboratories. A report from NIJ’s Forensic Technology Center of Excellence, Development of a Lean Facility Design Roadmap for Design-Bid-Build Forensic Facilities, presents a crime laboratory design model that incorporates Lean Design thinking into the planning and construction of forensic facilities. The report includes a comprehensive set of checklists and guidelines to integrate Lean concepts and principles into the traditional approaches described in the National Institute of Standards and Technology’s updated Forensic Science Laboratories: Handbook for Facility Planning, Design, Construction and Relocation.

Sexual Assault Kits in Houston, TX: Case Characteristics, Forensic Testing Results, and the Investigation of CODIS Hits

This NIJ-supported report describes findings from the Houston Sexual Assault Kit Action-Research Project focused on the characteristics of a sample of 493 previously unsubmitted sexual assault kits. This study measured forensic testing results and investigative outcomes of cases with CODIS hits. A DNA profile was developed from 55 percent of the kits and a profile was uploaded to CODIS in 43 percent of the kits. A CODIS hit was returned for 21 percent (n=104) of the sample. Of the kits where a CODIS hit was returned, 44 percent had expired statute of limitations and 26 percent of the hits had victims that were unable to be contacted or unwilling to participate in the follow-up investigation.

Characterization of Designer Drugs: Chemical Stability, Exposure, and Metabolite Identification

New NIJ-supported research conducted by RTI International examined the stability of popular designer drugs and identify major degradation products, and identify the major metabolites. The research identified metabolites suitable as potential markers of use, degradation products, and pyrolysis products that may be left in an ash residue to use for confirmation of the parent compound. Although new designer drugs are coming to market faster than targeted testing can keep up, by performing a thorough and systematic study looking at families of structurally related compounds, the researchers are able to predict markers for broad classes of compounds.

Development of a Modern Compendium of Microcrystal Tests for Illicit Drugs and Diverted Pharmaceuticals

NIJ-supported researchers from the McCrone Research Institute have developed a comprehensive compendium of microcrystal tests that had previously been developed for illicit drugs and diverted pharmaceuticals. The researchers included 19 drugs and developed techniques for drugs that have non-traditional delivery mechanisms. The resulting electronic compendium will include recommended protocols and morphologies of crystals (including photomicrographs), infrared spectra of microcrystals, and potential interferences. Most importantly, the compendium will include optical and crystallographic properties of the resultant microcrystals. The Compendium of Microcrystal Tests for Illicit Drugs and Diverted Pharmaceuticals will be available with free access to all forensic scientists.

Development of a Science Base and Open Source Software for Bloodstain Pattern Analysis

NIJ supported the Iowa State University of Science and Technology to develop a better method to determine the region of origin of blood spatters based on sound fluid mechanics principles. The method, which is about four times more accurate than current methods based on straight trajectories, reconstructs the curved trajectories of blood drops from 3D inspection of blood spatters. The researchers modified a 3D microscope used in the project to make it portable and available for use at a crime scene. Although the method was extremely accurate, the researchers conclude that “it is unlikely that the method will be used widely in a crime scene in a near future.” The microscope cost is prohibitive ($50,000),

1, 2016

Criminalist, Ohio State Highway Patrol Crime Lab, Columbus, OH, Expires: June 19, 2016

DNA Technical Lead, Alameda County, Oakland, CA, Expires: June 23, 2016


Forensic Scientist 1, DNA Analyst (DPS #17981), New Mexico DPS Forensic Laboratory, Santa Fe, NM, Expires: July 2, 2016

Forensic Toxicologist or Trainee, Virginia Dept. of Forensic Science, Norfolk, VA, Expires: June 14, 2016


Forensic Scientist 2, Chemistry Analyst, New Mexico Department of Public Safety, Santa Fe, New Mexico, Expires: June 16, 2016

DNA Laboratory Supervisor, Austin Texas Police Department, Austin, Texas, Expires: July 30, 2016

Forensics Account Manager, Sorenson Forensics, Salt Lake City, Expires: July 19, 2016

CHIEF FORENSIC LABORATORIES, Los Angeles County Medical Examiner – Coroner, Los Angeles, CA, Expires: June 30, 2016

Forensics DNA Analyst, Sorenson Forensics, Salt Lake City, Expires: August 13, 2016

Sheriff’s Supervising Forensic Scientist – Fingerprints and Crime Scene Investigation, Ventura County Sheriff’s Office, Ventura, CA, Expires: August 11, 2016


Computer Forensic Analyst, Houston Forensic Science Center, Houston, TX, Expires: July 28, 2016

Latent Print Examiner, Durham Police Department, Durham, NC, Expires: July 18, 2016

ICITAP Forensics Experts, Engility Corporation, Mexico City, Expires: July 1, 2016


SEROLOGIST III / ASSISTANT TECHNICAL LEADER, Serological Research Institute, RICHMOND, CA, Expires: July 8, 2016

Forensic Analyst – Audio/Video, Houston Forensic Science Center, Houston, TX, Expires: June 30, 2016

Crime Scene Investigator, Houston Forensic Science Center, Houston, TX, Expires: June 30, 2016

Manager of Biometry, Houston Forensic Science Center, Houston, TX, Expires: June 30, 2016

and any surface rougher than 1 micrometer will likely create too much noise in the measurement of stain volumes (to be useful).

**Analysis of Drugs of Abuse in Human Hair: Surface Contamination and Localization of Analysis**

NIJ-supported researchers from RTI International examined the effects of environmental contamination of human hair leading to external deposition of methamphetamine and heroin on drug tests designed to identify drug use. The researchers investigated how well normal hair washing and extended decontamination removed the drugs from hair. The researchers noted that prior studies have raised significant concerns about contamination confounding hair test results, and noted the results of this RTI study, "continue to raise such concerns." They also noted that many hair testing laboratories institute decontamination procedures prior to testing hair samples for drugs, but said, "our studies show that a decontamination step alone is likely not sufficient to remove contributions from external contamination."

**Improving Detection of Crime Scenes**

NIJ's Forensic Science Technology Center of Excellence recently published a new forensic science success story about developing new methods to detect blood evidence at crime scenes. The most common method for detecting blood stains is to spray a crime scene with luminol, but this has its disadvantages. It can produce false positives when reacting with many common household items, dilute blood samples to a level at which DNA cannot be recovered, and smear blood spatter patterns that are often critical in determining how a victim was attacked. With the support from NIJ, researchers from the University of South Carolina in Columbus, South Carolina, developed a prototype thermal infrared (IR) camera that can rapidly and selectively identify blood stains in ambient lighting without the use of reagents.

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**Forensic Conferences**

- **WVU Forensic Management Academy**
  August 28 – September 2, 2016
  Six days on-site in Pittsburgh, PA
  $1995 before March 31; $2250 after March 31
  [Click here](#) for course description and registration.

- **International Association for Identification – Cincinnati, OH**
  Sep 18-23, 2016: [International Symposium on the Forensic Sciences – Auckland, New Zealand](#)
  Oct 3-7, 2016: [Midwestern Association of Forensic Scientists (MAFS) – Branson, Missouri](#)
  Oct 16-21, 2016: [Society of Forensic Toxicologists – Dallas, TX](#)
  Oct 2016: [Southwestern Association of Forensic Scientists – Galveston, TX](#)

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**Forensic Training**

**Houston Forensic Science Center**

<table>
<thead>
<tr>
<th>Course</th>
<th>Date</th>
<th>Price</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime Scene investigation</td>
<td>July 11-15, 2016</td>
<td>$495.00</td>
<td><a href="https://www.eventbrite.com/e/crime-scene-investigation-tickets-24328941519">https://www.eventbrite.com/e/crime-scene-investigation-tickets-24328941519</a></td>
</tr>
<tr>
<td>Advanced Fingerprint Comparison</td>
<td>September 19-23, 2016</td>
<td>$450.00</td>
<td><a href="https://www.eventbrite.com/e/advanced-fingerprint-comparison-tickets-25678891255">https://www.eventbrite.com/e/advanced-fingerprint-comparison-tickets-25678891255</a></td>
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</tbody>
</table>

**Technical Lead – Biology**

Houston Forensic Science Center, Houston, TX, Expires: July 5, 2016

**Forensic Chemist**

ORAU, Ft. Gillem, GA (& OCONUS), Expires: July 31, 2016

**Supervising Forensic Identification Specialist**

Los Angeles County Sheriff's Department, Los Angeles, California, Expires: June 22, 2016

**Forensic Scientist – Questioned Documents**

Dept. of Forensic Science, Roanoke, VA, Expires: June 30, 2016

**Assistant/Associate Professor of Forensic Science**

Department of Forensic Science, College of Criminal Justice, Sam Houston State University, Huntsville, Texas, Expires: December 31, 2016

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Course: Crime Scene Investigation  
Date: October 10-13, 2016  
Price: $450.00  
Link: [https://www.eventbrite.com/e/crime-scene-investigation-tickets-25698765700](https://www.eventbrite.com/e/crime-scene-investigation-tickets-25698765700)

HFSC Courses in November  
Course: Palm Print Comparison Course  
Date: November 2-4, 2016  
Price: $350.00  
Link: [https://www.eventbrite.com/e/palm-print-comparison-tickets-24487118631](https://www.eventbrite.com/e/palm-print-comparison-tickets-24487118631)

HFSC Courses in December  
Course: IAI Crime Scene Certification Exam Preparation: CSCSA Level  
Date: December 12-16, 2016  
Price: $495.00  

**Law Enforcement Innovation Center**

The Law Enforcement Innovation Center (LEIC) is an agency of the University of Tennessee Institute for Public Service at the University of Tennessee. Formed in 1997, LEIC is a leading training and technical assistance provider for the law enforcement community across the nation. Over the past 15 years, more than 30,000 law enforcement officers, other criminal justice practitioners, public school personnel, and community members have completed our training and educational programs.  
http://leic.tennessee.edu/

**Ron Smith & Associates Training**

**National Forensic Quality Manager Training Academy**

It is truly amazing that, until now, there has never been a national training academy specifically designed for Quality Managers. Forensic Quality Managers have been expected to learn from "on the job" training that they may receive from a variety of sources, but none of this training has been consistent in the industry. Organizations like the Association of Forensic Quality Assurance Managers have been huge in helping to organize various workshops and classes, but it was never intended to take the place of a complete training program. With forensics being under such intense scrutiny these days, agencies who perform forensic analysis must ensure that their work is performed under the guiding principles and standards which are now becoming more clearly defined each day. We, in the forensic industry, have not embraced Quality Management training as aggressively as we should.

Ron Smith & Associates, Inc. is known as one of the premier forensic training companies in the world. Our teams of subject matter experts and support staff have successfully designed and offered hundreds upon hundreds of highly sought after training opportunities all across the United States and abroad. RS&A is now ready to take on the challenge of building a National Forensic Quality Manager Training Academy which will soon become the cornerstone of forensic training in this very critical area.

June 20, 2016 through July 1, 2016 in Pearl, MS. Academy tuition is $2,500.00 with only 25 seats available. Click here for complete academy details and to complete an academy application today!

**National Footwear & Tire Track Training Academy**

Coming Fall 2016  
RS&A now offers a Footwear and Tire Track Training Academy which includes 4 weeks of footwear examination training followed by 2 weeks of tire track examination training. Applicants can elect to complete the entire 6 week footwear and tire track academy or break it up and choose only the 4 weeks of footwear training or the 2 weeks of tire track training. The academy graduates of this 6 week program will learn the skills necessary to complete supervised footwear and tire track casework and will be ready to apply for a IAI Footwear Certification once time requirements have been met. It is scheduled to begin Fall of 2016 in Hattiesburg, MS at the Camp Shelby Joint Forces Training Center. Only 20 academy applicants will be selected to attend. For the entire 6 week footwear and tire track academy the cost is set at $11,250.00. The 4 week footwear only academy is set at $7,500.00 and the 2 week tire track only academy is $3,750.00. Cost includes academy instruction, room and board, and 3 meals per day according to training selection. Click here for complete details and to apply for admission today.

**JUNE 2016**

Introduction to the Science of Friction Ridge Examination  
Location: Albuquerque, NM  
Class Dates: 06-13-2016 thru 06-17-2016  
Tuition: $600.00 | Hours: 40
Advanced Sequential Processing - A Hands On Workshop  
Location: Boston, MA  
Class Dates: 06-14-2016 thru 06-17-2016  
Tuition: $600.00 | Hours: 32

IAI Latent Print Certification Test Preparation Training  
Location: Sanford, FL  
Class Dates: 06-27-2016 thru 07-01-2016  
Tuition: $600.00 | Hours: 40

New courses and class locations are added daily so be sure to check the website at:  
www.RonSmithandAssociates.com

The American Society of Crime Lab Directors, along with RTI, have made the below webinars available.

- ASCLD Train the Directors Latent Prints Webinar - Archival
- ASCLD Train the Directors DNA Discipline Webinar - Archival
- ASCLD Train the Directors Controlled Substance Webinar – Archival
- ASCLD Train the Directors Digital Multimedia Evidence Webinar – Archival
- ASCLD Train the Directors Toxicology Webinar – Archival
- ASCLD Train the Directors Firearms Webinar – Archival
- False-Positive/Negative Error Rates in Cartridge Case Comparisons
- ASCLD Rapid DNA Webinar 1 – Archival
- Version ASCLD Rapid DNA Webinar 2 – Archival Version
- ASCLD Rapid DNA Webinar 3 – Archival Version

Cambridge Healthtech Institute’s Inaugural DNA Forensics  
Exploring New Frontiers in Forensic DNA Investigation

August 23-24, 2016 | Grand Hyatt Hotel | Washington, DC  
Advances in DNA profiling technologies are enabling faster and more accurate results, in some cases moving procedures from the lab to the crime scene. Emerging tools such as next-generation sequencing are also creating new possibilities in forensic DNA investigation, but with that comes unfamiliar scientific and legal implications.

Cambridge Healthtech Institute’s Inaugural DNA Forensics event will examine new technologies, changing policies, and trends in forensic DNA investigations. Special focus will be given to next-generation sequencing (NGS), including statistical analysis and interpretation of DNA profiles. Optimizing extraction techniques and isolation will also be addressed with an emphasis on challenging samples. Overall, this event aims to address existing bottlenecks while introducing solutions and new concepts in the DNA identification field.

Day 1 | Day 2 | Short Courses | Download Brochure

News Around the Globe

High-tech lab may help sheriff crack 1983 'Baby Moses' cold case  
MyPalmBeachPost  
In a statement, it said its Laboratory of Molecular Identification uses DNA analysis to identify human remains, and its Laboratory of Forensic ...

Police calls: String of drug related incidents  
Mansfield News Journal  
The item will be submitted to the crime lab for testing and charges forwarded to the prosecutor's office, pending lab results, according to a police report.

Austin police DNA lab closed amid forensics commission's concerns  
MyStatesman.com  
Shutdown of Austin Police Department's DNA lab could mean delays for cases in ... “Having said that, we have reached out to the Texas Forensic Science ... tests narcotics samples at the Austin Police Department crime lab in 2013.

Douglas County makes case that its crime lab is the one the public wants  
Omaha World-Herald  
The Douglas County Crime Lab is one of two major public crime labs in ... . In addition, UNMC officials, who already perform DNA testing for law ... lab services at UNMC could function as a training ground for future forensic scientists.

APD’s DNA lab temporarily shutting down  
KVUE.com  
AUSTIN - The Austin Police Department's DNA Lab is temporarily shutting down for ... to be identified because of the procedures being used within the crime lab. Having said that, we have reached out to the...
Physicists Confirm DNA Has Second Layer Of Hidden Information
Science World Report
For the first time ever, a team of physicists from the Leiden Institute of Physics, Netherlands, have reached to a conclusion that DNA has a second layer ...

Lead sought in Berit Beck Case
Fond du Lac Reporter
On Thursday, Lt. Cameron McGee and Detective Charles Sosinski transported evidence collected from Beck's van to the State Crime Lab in Madison ..

FBI's new public enemy no. 1: deadbeat Illinois
Crain's Chicago Business
Ken Zericle, who retired as laboratory director for the Connecticut Department of Public Safety, said the importance of verifying identity and criminal ..

Forensics evidence leads to the arrest of Easton woman in burglary
WMDT
Those fingerprints were later sent to the Maryland State Police crime lab for analysis and the crime lab confirmed that the fingerprints belong to ..

Chandler Homicide Update
Grundy County Herald
... says the investigation in the murder of Samantha Kirtland Chandler is ongoing. Evidence from the case has been turned over to the TBI Crime Lab

DNA from skin cells could implicate the innocent....
ABA Journal
But new studies show a person's DNA can be transferred to an object that is ... A case study illustrating the problem was presented in February at a meeting of the American Academy of Forensic Scientists, Scientific American reports

Defense hires forensic expert in Hiawatha Robinson case
WPMI Local 15 News
MOBILE COUNTY, Ala. (WPMI) — A status hearing was held Tuesday morning for Hiawatha Robinson. He's on trial, accused of sodomizing and ..