ASCLD
Forensic Research Committee
Bulletin

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Dear Members,

The FRC is excited to announce that winners have been selected for the new FRC awards. These recipients will be announced at the 2021 symposium in Boston, MA. Thank you for sending in your nominations for consideration.

To find out more about the latest activities of the FRC, visit the task group sections in this bulletin for more information.

> ***Strategic Goals****: Identify RDT&E needs, foster collaboration, and support the development of enduring future forensic capabilities.*

FRC HOT TOPICS

The mission of the ASCLD Forensic Research Committee (FRC) is to advance the core science of forensics by closing technology gaps and enabling future forensic technologies through their strategic goals. In support of these goals, FRC launched the FRC collaboration hub. The hub hosts the Researcher-Practitioner Collaboration Directory. If you are a researcher looking for practitioners to participate in your study, or if you are a practitioner looking for research opportunities, this is the place for you! View the directory or submit your project into the public directory on the FRC page. https://www.ascld.org/forensic-research-committee/

Searching for research topics that are a priority within the ASCLD membership, visit https://www.ascld.org/forensic-research-committee/ to review the 2019-2021 list.

Interested in a research partnership with a University? Want to host an intern? Sign up for the LEAP program today by clicking the appropriate button below, completing the form, and returning it to the ASCLD FRC. https://www.ascld.org/forensic-research-committee/

Looking for the latest webinar on hot topics within forensics, visit RTI for a complete list of previously recorded and upcoming live webinars: https://forensiccoe.org/opioid-crisis-a-public-health-enemy-webinar-series-identify-synthetic-opioids-using-ambient-ionization-tof-ms/

The FRC Bulletin is designed to highlight developments within these core priorities. The status of the LEAP project is featured in this issue. You are encouraged to submit any comments regarding this bulletin to ASCLDFRC@gmail.com

Core FRC Priorities

Fostering the development of collaborative relationships between forensic science labs and academia.

Laboratories & Educators Alliance Program (LEAP)

Objective: The objective of the Laboratories and Educators Alliance Program (LEAP) is to facilitate collaborative research between academia and forensic science laboratories. This joint effort between the American Society of Crime Lab Directors (ASCLD) and the Council of Forensic Science Educators (COFSE) identifies forensic science needs and provides a platform for laboratories, researchers, and students to seek projects aligning with their mutual research capabilities.

Status:

103 LEAP Participating Labs and Universities

29 Forensic Science Labs

74 Universities

Outreach efforts will now be taking place to socialize LEAP which is anticipated to increase the number of participating labs and universities.

Goal: To grow the number of LEAP participating labs to 150 by the end of 2021.

Evaluation and Validation Tracking

Objective: Provide a centralized location to share information that may be useful to the broader community of forensic practitioners. This will include timely evaluations of new tools or technology that labs are curious about, as well as recent validations of new tools or technology that can serve as a blueprint to help labs avoid reinventing an entire experimental design.

Status: The website collector is now live! https://www.ascld.org/validation-evaluation-repository/ Please submit your new and exciting evaluations and validations!

FRC STRATEGY: This cultivated repository is designed to catalog the outstanding work of experts in the field and share these results with the forensic science community. ASCLD is excited about creating an environment to foster communication and reduce unnecessary repetition of validations/evaluations which will benefit the practitioners working in the laboratory and the field.

If you've identified a validation or evaluation that you would like more information about, simply use the contact information provided to request a copy or chat with the experts who did the work.

FRC Awards

The winners of the ASCLD/FRC 2021 awards have been selected. Thank you to all of the applicants, it was a stiff competition! The awards recognize leaders in both forensic science research and evaluations/validations:

Innovation Award:
Objective: To acknowledge operational scientists who incorporate cutting-edge techniques to the practice of forensic science, and call attention to their work.

Outstanding Evaluation/Validation Award:
Objective: To recognize an outstanding evaluation/validation study that has been submitted to the FRC repository (https://www.ascld.org/validation-evaluation-repository/).

Future Forensics

Objective: To identify new and emerging needs and pain points within forensic science practice and to identify research, processes, technology and tools with potential to address the new and emerging needs.

Immediate Goal: To publish an executive summary of the research highlights found in the recent peer-reviewed literature from sources such as the INTERPOL research reviews and FLNTWG white papers, for the benefit of the ASCLD membership.

Status: Research highlights have been published on the FRC website. at https://www.ascld.org/forensic-research-committee/

Goal: To develop the infrastructure within the ASCLD FRC to facilitate rapid communications between the ASCLD membership regarding current and future needs in the forensic science enterprise.

LEAP Collaboration Award: **Objective**: To highlight a collaborative partnership between an academic lab and an operational forensic lab are LEAP partners and whose work is a significant contribution to forensic science. **Award Status**: The ASCLD/FRC will recognize the winners during the 2021 ASCLD Annual Symposium.	The subcommittee will take the initiative to engage the ASCLD membership through outreach efforts to identify current and emerging problems that impact them, and will also review relevant literature to help identify the future of forensic science practice using a "technology roadmap".

FRC Lightning Talks	**FRC Collaboration Hub**
Lightning Talks are monthly talks are given at lunchtime to provide the community with brief snapshots of recent research findings across the field. Stay tuned for upcoming talks in the Crime Lab Minute. Missed a Lightning Talk, watch the replay here: Recorded Talks **Episode 1**: Emerging Approaches for Seized Drug Analysis **Episode 2**: Strategies for Organic and Inorganic GSR Analysis **Episode 3**: Error rates in Forensic Science **Episode 4**: The Future of Genetic Genealogy **Episode 5:** Non-targeted Forensic Toxicology **Episode 6:** Non-targeted Novel Forensic Analysis of Latent Fingerprints **Episode 7**: Cognitive Bias in Forensic Science **Episode 8**: Tackling Stress and Trauma in Forensics **Episode 9**: Fentanyl signature analysis	The ASCLD Forensic Research Committee is proud to announce the launch of the Researcher / Practitioner Collaboration Directory. The goal is to create a directory to connect researchers with ongoing projects to practitioners who are willing to participate in the studies. It is ASCLD's hope that this listing will foster communication and cooperation between forensic researcher and practitioner communities. Recent Submissions Include: *Calculation of Likelihood Ratios for Forensic Comparison of Fired Cartridge Cases* by: Dr Rachel Bolton-King & Dr Geoffrey Morrison from Staffordshire University & Aston University *Case Contextual Information and its Variation among Forensic Laboratories* by Taylor Hopkins from Duquesne University Forensic Science and Law Program *DNAmix 2021* by Austin Hicklin and Jon Davoren from Noblis and Bode Technology For more information, please check out: https://www.ascld.org/researcher-practitioner-collaboration-directory/

Meet the FRC Committee!

Henry Maynard – (**Chair and LEAP**),
Lisa Yoshida (**Evaluation/Validation Tracking**)
Ashley Hall (**Research Innovation Award**)
Bruce Hoolihan (**Board member**)
Debbie Leben (**Outreach**)
Jose Almirall (**Future Forensics**)
Ed Sisco **(Lightning Talks)**
Jeff Comparin
Donna Wallace
Ashraf Mozayani
Henry Swofford
Jeremy Triplett

American Society of Crime Laboratory Director's Research Priorities 2019-2021

Research Area
Practical statistical approaches for the interpretation of forensic evidence
Development and validation of standardized forensic methods and conclusions in Impressions, Patterns, and Trace Evidence disciplines
Assessment of Examiners' Toolmark Categorization Accuracy (Firearms/Toolmarks)
Research to establish validated methods for THC quantity in plant materials, edibles, extracts, etc. that also accounts for the moisture content of the plant
Error Rates in Qualitative Methods of Analysis for Controlled Substances
The ability to detect and locate sufficient biological material (e.g., epithelial cells, extracellular DNA, etc.) associated with touched or worn objects, that is not visible to the eye or with alternate light sources, for downstream DNA analysis
Examiner Reliability Study: Black and White Box Studies on Bloodstain Pattern Analysis
Error rate studies on qualitative analysis (single tests and schemes) in Controlled Substances. The conclusion of such a study will also explain its limitations
Characterizing, Designing and Constructing Integrated DNA Mixture Interpretation Solutions
Expert System for Forensic Evidence Analysis (including mixtures) in DNA
Development of an Integrated and Multidisciplinary Approach for the Advancement of Data Collection, Data Management and Data Analysis to Aid Interpretation of Trace Evidence
Validation of Conclusion Scale in Forensic Document Examination
Comprehensive GSR Persistence Study
Specific Identification of Shooters via GSR
Evaluation into the Validity of Facial Comparison Training Methods (Facial Identification)

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