

Volume 1 | Issue 5
December 2020

ASCLD

Forensic Research Committee Bulletin



Dear Members,

The FRC recently launched Lightning Talks and several new awards to highlight the innovative and scientific work being conducted throughout the forensic science community. Visit the task group sections in this bulletin for more information. The application for the awards can be found at https://www.ascld.org/forensic-research-committee/. Completed applications are submitted electronically to ascldfrc@gmail.com



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

FRC HOT TOPICS



LIGHTNING TALKS

Lightning Talks are periodic talks, given at lunchtime to provide the community with brief snapshots of recent research findings across the field. Talks focus on recently published research or recent challenges practitioners are facing that could be benefited by research. If you are interested in providing a Lightning Talk, consider the following:

Talks may be highlights of recent reports (i.e. Needs Assessment)

Talks may be used to promote other research related activities (i.e. black box white box studies, round robins, etc.)

The talks will last no more than 30 minutes and have three presenters per session

The theme of the next lightning talk will be Error Rates in Forensic Science and will feature Jay Koehler from Northwestern University School of Law, Brett Gardner from University of Virginia School of Law, and Ted Vorburger from the National Institute of Standards and Technology. The talk will be on Thursday January 7th at 1:00 EST. To register, go

to https://www.ascld.org/lightning-talks-registration.

Missed a Lightning Talk, watch the replay here: Recorded Talks

If you would like to give a lightning talk, or would like to suggest a topic for a future lightning talk, please e-mail <u>ASCLDFRC@gmail.com</u>.

FORENSIC RESEARCH COMMITTEE

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:

98 LEAP Participating Labs and Universities

26 Forensic Science Labs 72 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.

Implementation

Objective: To promote and facilitate interlaboratory collaboration related to RTD&E and validation efforts to strengthen the foundations and facilitate the transitions of new technologies & capabilities into mainstream forensic science practice.

Status: Received input from forensic science laboratories regarding potential or planned implementation efforts related to standards, practices, and methods as well their challenges, capabilities, and strategies for implementation.

Responses have been received from a survey sent to ASCLD membership related to (i) the adoption and implementation of standards, practices, and methods currently on the OSAC Approved Registry and (ii)

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 which will benefit the practitioners working in the laboratory and the field.

If you find a validation or research project 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.

Goal: To have at least 40 evaluations or validations of new technology available on the website by the end of 2021

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/

challenges and needs of the forensic science community that are barriers to implementation.

The survey results are were analyzed and summarized by a working group between the Forensic Research Committee and the Standards and Accreditation initiatives Committee. The results are summarized HERE.

Goal: To provide a central location for ASCLD members to identify, connect, and coordinate with other laboratories conducting research, development, testing, evaluation (RDT&E) and validation activities related to the implementation of new methods and technologies.

Goal: To facilitate communications between the ASCLD membership regarding current and future needs in the forensic science enterprise.

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 AWARDS

The FRC announces three awards for 2021: the 2nd Annual Innovation Award, and the inaugural Outstanding Evaluation/Validation Award and LEAP Collaboration Award.

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/).

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 application window for the three awards will be open from December 14, 2020 to January 18, 2021. The Award Committee of the FRC will evaluate the applications and establish committees as necessary to meet demand. The final award decision will be made in 2021 and the winner will be recognized during the 2021 ASCLD Annual Symposium.

FRC Outreach Meet with the FRC at the AAFS in 2021!

As details become available for a virtual FRC table, updates will be provided in this section.

2021 AAFS Annual Scientific Meeting

First Virtual Meeting

Meeting Theme: One Academy Pursuing Justice Through Truth in Evidence

https://aafs.org/AAFS/Meetings/2021-Meeting/2021-Annual-Meeting.aspx

Ashraf Mozayani <u>Ashraf.Mozayani@tsu.edu</u>

Meet the FRC Committee!

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



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)

You are encouraged to submit any comments regarding this bulletin to ASCLDFRC@gmail.com or contact the Task Group Point of Contact for more information.