

Volume 2 | Issue 1 April 2021

ASCLD

Forensic Research Committee Bulletin



Dear Members,

The FRC published new awards this year and extended the deadline for nominations through March 1, 2021. A notification was sent to all ASCLD members and laboratories. Thank you for sending in nominations before and during the extension period. To find out more about the latest activities of the FRC, visit the task group sections in this bulletin for more information.



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

Lightning Talks

FRC HOT TOPICS

LIGHTNING TALKS

Lightning Talks are monthly talks are given at lunchtime to provide the community with brief snapshots of recent research findings across the field.

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

The Lightning Talks provided to date:

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: Novel Applications for Latent

Fingerprint Analysis.

COMING SOON!

Researchers Seeking Support from Practitioners

The FRC created a useful resource to connect researchers and practitioners for collaboration on projects of mutual interest in forensic science. This will lead to a Collaboration Directory where forensic scientists can learn about research projects that need their support. When the researcher completes the project the final reports will be posted in the Publication Directory.

The FRC Bulletin is designed to highlight developments within these core priorities.

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:

102 LEAP Participating Labs and Universities

29 Forensic Science Labs 73 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) challenges and needs of the forensic science community that are barriers to implementation.

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 with 17 submissions! 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.

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: 8 Executive Research Summaries 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.

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.

The subcommittee will take the initiative to engage the ASCLD membership through outreach efforts to identify current and emerging problems and will also review relevant literature to help identify the future of forensic science.

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 Award Committee of the FRC will recognize the winner during the 2021 ASCLD Annual Symposium.

FRC Outreach

The FRC recently presented "Advancing Research Within the Forensic Science Community: An update from the ASCLD Forensic Research Committee" at the virtual PITCONN meeting!

2021 ASCLD Symposium

Together Toward Tomorrow August 22-26, 2021 Boston, MA

ASCLD 2021 will showcase collaborations and partnerships, obtaining buy-in, implementing new technology, transforming an organizational culture, strengthening morale, talent acquisition, and more with information, tips, and lessons we can apply to ourselves, our organizations, and our profession.

Experiences workshops and presentations from dynamic experts and leaders from the forensic science profession and beyond.

Alone we can do so little; together we can do so much. - Helen Keller

Experience ASCLD 2021!

https://na.eventscloud.com/website/16907/

Meet the FRC Committee!

Henry Maynard – (Chair and LEAP), Lisa Yoshida (Evaluation/Validation Tracking), Ashley Hall (Research Innovation, LEAP Collaboration, and Excellent Evaluation/Validation 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.