

E76 Setting a New Standard in Access and Quality for Forensic Science and Justice Training

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Learning Overview: The goal of this presentation is to provide a proven working solution to answer real-world needs and push forensic science and justice forward.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing attendees with an example of a working connection between laboratory practitioners and their academic researcher counterparts to increase their ability to identify a needs gap in methods, training, and equipment development.

There exists a siloed barrier between scientific research, real-world laboratory conditions, and practical field applications of technology. These worlds are often viewed as mutually exclusive, when, in fact, there is a deep-rooted need for a functioning symbiotic relationship. Researchers and laboratory practitioners often do not reach out to each other for collaboration in development of methods, training, and equipment beneficial to forensic science analysts in the cause of criminal justice. Working laboratories have the real-world experience to address the needs gap and offer possible working solutions. Research laboratories have the resources, including time and funding, to evaluate these new solutions. Field practitioners have the environmental experience to inform the development of useful technologies.

This forensic science and justice initiative brings together existing interdisciplinary collaborations to address discrepancies in forensic science practice and training and organize opportunities for practitioners and agencies to partner with researchers to solve real-world analysis and justice equality problems. By creating a relationship between laboratories and new technology development, this initiative encourages discussion on improving forensic science practice beyond the bench and courtroom.

We seek to expand experiential learning opportunities across forensic and traditional science disciplines, not just those in the traditional laboratory setting. The most recent partnerships include: (1) a program to serve regionally underserved Sexual Assault Nurse Examiners (SANE); (2) a microwave-accelerated DNA extraction method to speed investigative rapid DNA testing on both standard and challenging samples; (3) research to enhance public safety through effective identification, investigation, and prosecution of anti-Lesbian, Gay, Bisexual, Transgender, Questioning, Intersex, and Gender Non-Conforming (LGBTQ/GNC) hate crimes; (4) connections between environmental forensics and public health; (5) the creation of a new sampling device for ignitable liquid residue, or the evidence left behind at the scene of a fire, for use in investigations; (6) a two-year project with four metropolitan prosecutor's offices to improve data and analytical capacity, develop and implement new performance indicators to assess progress over time, and respond to the need to ameliorate racial and ethnic disparities in the justice system; (7) advancement of detection K-9 programs with state law enforcement; (8) testing to improve juror comprehension of forensic testimony and its effects on decision-making and evidence evaluation; (9) new digital information forensic course development and instruction for criminal investigators; (10) delivery of forensic training of effective evidence collection techniques to non-scientific practitioners in advanced locations in service of international courts of law; and (11) application of proven eye-witness recall techniques to improve COVID-19 contact tracing methods.

By building these cross-cutting relationships, we provide direct communication between practitioners and researchers—breaking down the previously held silos—to push forensic science training to higher levels of quality.

Training, Research, Innovation