



### S1 Interdisciplinary Symposium: Progress in the Forensic Sciences Since the 2009 National Academy of Sciences (NAS) Report

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**Learning Overview:** Attendees will have an appreciation of the impact the 2009 Report by the NAS entitled *Strengthening Forensic Science in the United States: A Path Forward* has had on several forensic disciplines.

**Impact on the Forensic Science Community:** Forensic sciences have been under the shadow of the NAS Report for the past ten years. This symposium will impact the forensic science community by providing an update on the state of many disciplines with respect to method reliability and testimonial boundaries, both of which were called into question by the NAS Report.

The NAS Report, *Strengthening Forensic Science in the United States: A Path Forward*, commonly referred to as the NAS Report by the forensic community, was released in February 2009 during the Annual Scientific Meeting in Denver, CO. This Report was unprecedented because it brought to light many issues that had been hampering the evolution of forensic science. It provided 13 comprehensive recommendations, starting with the establishment of a National Institute of Forensic Sciences (NIFS). This was described as an independent federal entity designated with the responsibility of supporting and overseeing forensic science across the country. The authors advocated that law enforcement agencies should no longer be the primary administrators of their crime laboratories and that medical examiner systems should replace coroner's offices. Laboratory accreditation, individual examiner certification, and standardization of procedures were additional recommendations proposed in the NAS Report. Two significant recommendations to the forensic sciences, more specifically to the pattern-based evidence disciplines, revolved around: (1) improving their scientific foundations and reliability through research and validation, and (2) ensuring the accuracy of testimony offered by experts in court. Many of the NAS recommendations have not come to fruition, including the creation of NIFS. However, changes have occurred in response to some of the recommendations. Various questions can be posed to assess the impact of those changes. Has the community devoted time and resources to validating current techniques and methods? Are new disciplines embracing the scientific method? What does a "match" or an "identification" mean today? How conclusively are examiners allowed to state their results? What does the future hold for forensic expert testimony? Have court systems outside of the United States taken any notice of the changes occurring here?

This year's symposium will feature 13 speakers across both scientific and national borders who will provide their perspectives on how the NAS Report has changed (or not) their business practices over the past decade. Many of the forensic disciplines discussed in the report will be addressed, including DNA, friction ridge, firearms, documents, odontology, and digital/multimedia evidence examination. Responses in crime scene analysis and medicolegal investigations will be presented as well. Members of the legal community will also share their thoughts on how they interpret the conclusions made by forensic experts in written reports and in trial. In addition, the efforts of the National Institute of Justice (NIJ) to fund research in these areas will be discussed. This symposium intends to be a valuable session to forensic science practitioners, managers, and legal representatives.

#### National Academy of Sciences, Validation, Testimony