



### W09 What They Don't Know Can Kill You

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**Learning Overview:** The goal of this workshop is to consider the function of standards in forensic disciplines and the ultimate role of forensic standards in the legal system.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by enabling attendees to understand: (1) how the legal community views and assesses the role of standards in court procedures; and (2) how standardization of methodologies and practices across an increasing number of forensic disciplines informs decisions by law enforcement and the courts. This presentation will alert forensic scientists on the need to engage in standardization activities to improve acceptability and use of forensic analyses, and, finally, this presentation will also raise the awareness of forensic laboratories to the advantages of voluntarily including newly developed forensic science standards in their procedures, even to the point of including them as part of lab accreditation to the International Organization for Standardization (ISO) standard #17025: General Requirements for the Competence of Testing and Calibration Laboratories.

The 2009 National Academy of Science (NAS) Report and the 2013 President's Council of Advisors on Science and Technology (PCAST) Report cast a shadow on the status of forensic science in the United States and identified the need for standardization to improve that status.<sup>1,2</sup> Even then, the forensic sciences involving DNA and toxicology were generally accepted sources of science-based information by law enforcement and the legal system—and they still are, but other forensic areas are eschewed as being less accurate and are, therefore, often considered unreliable. Lack of confidence is problematic when the acceptance and accuracy of evidence depends on information that is not available via DNA identification/exclusion or toxicology results. Too often, the scientific “truth” of evidence is left for the judge to determine, and attorneys are free to provide their own “scientific” interpretation. Indeed, under *Daubert*, the judge has become the gatekeeper for scientific evidence. Forensic scientists, on the other hand, conduct examinations, make identifications, record observations, perform analyses, and present results based on often rigorous procedures. Where, then, is the disconnect between the scientists and the legal system? What can standardization do to narrow the gap and increase court reliance on forensic results in a wider array of forensic disciplines as well as raise public confidence in both the legal and scientific communities.

Speakers from the Jurisprudence section will discuss the pros and cons of relying on forensic evidence and share their experiences, or lack thereof, and views with regard to forensic science standards. Forensic practitioners will discuss how they conduct their work, the role standards have in forensic determinations, and the difficulties of cross-jurisdiction acceptance of data. The head of a major crime laboratory organization will present results of an important survey detailing the use of forensic standards. Attendees will participate in lively question-and-answer sessions with the panelists aimed at drawing out additional information and identifying benefits and possible obstacles to increased use of forensic science standards.

#### Reference(s):

1. National Research Council (NRC), Committee on Identifying the Needs of the Forensic Science Community. (2009). *Strengthening Forensic Science in the United States: A Path Forward*. Washington, DC: The National Academies Press.
2. President's Council of Advisors on Science and Technology (PCAST). *Report to the President: Forensic Science in Criminal Courts: Ensuring Scientific Validity Of Feature-Comparison Methods*. (2016). Washington, DC: Executive Office of the President of the United States.

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#### Standards, Forensic Science, Jurisprudence