SC01 The Implementation of Forensic Science Standards in an Operational Setting: Challenges and Solutions

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Learning Overview: After attending this presentation, attendees will understand the challenges and solutions associated with the implementation of forensic science standards in an operational setting and will gain increased awareness regarding specific resources that are available to facilitate their implementation efforts.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by enhancing greater public awareness of the existence of forensic science standards and positively contribute to the advancement of the profession.

The 2009 National Academy of Sciences (NAS) Report highlighted the need for the forensic science community to embrace the adoption of consensus-based standards ("… standards and best practices create a professional environment that allows organizations and professions to create quality systems, policies, and procedures and maintain autonomy from vested interest groups. Standards ensure desirable characteristics of services and techniques such as quality, reliability, efficiency, and consistency among practitioners.").[1] During the past decade, significant progress has been made in this respect. Existing Standards Developing Organizations (SDOs) and newly created SDOs have championed these efforts, in partnership with the Organization of Scientific Area Committees for Forensic Science (OSAC) of the National Institute of Standards and Technology (NIST). According to a 2020 survey of the AAFS membership, 89% of respondents were aware of standards development activities within their disciplines. Support for these activities were >80% across all sections of the Academy and >90% across all levels of membership (Student Affiliates to Retired Fellows).

In this interdisciplinary symposium, operational laboratories share the challenges and solutions associated with standards implementation across a variety of scientific disciplines. Five recently published or updated standards from the Academy Standards Board (ASB) and American Society for Testing and Materials (ASTM) International will be used to demonstrate how operational laboratories overcame a variety of implementation challenges. Using illustrative examples in toxicology, DNA, seized drug analysis, disaster victim identification, and interdisciplinary training standards, leaders in operational laboratories will share their practical experience with standards implementation from within their organizations.

Finally, resources for laboratories who adopt (or who have already adopted) those standards will be shared using the OSAC Implementation "Toolkit." This process allows individual forensic science service providers that formally adopt consensus-based standards to be formally acknowledged, but it also enhances greater public awareness of the existence of the standards themselves and positively contributes to the advancement of the profession.

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.

Standards, Implementation, Forensic Science

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