



Criminalistics Section - 2016

B41 Organization of Scientific Area Committees (OSAC) — Increasing Visibility of Standards in Forensic Science and the Potential Impact in the Laboratory and the Courtroom

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After attending this presentation, attendees will understand how the efforts of more than 700 subject matter experts (volunteers) appointed to the OSAC for forensic science and others could impact laboratory protocols, accreditation efforts, reports, expert testimony, and criminal justice proceedings.

This presentation will impact the forensic science community by illustrating how, as judges, prosecutors, and defense attorneys become acquainted with the *OSAC Registry of Approved Standards* and *OSAC Registry of Approved Guidelines*, direct and cross examination of expert witnesses will increasingly examine conformance with the published standards and guidelines used in conducting the forensic analysis and interpreting data. Expert witnesses will increasingly need to confirm in testimony the scientific validity of their protocols and candidly share with juries any limitations of their analyses and interpretations.

The OSAC design employs the essential requirements of developing consensus-based standards, which include openness, transparency, balance of interest, due process, and an appeals process that ensures each stakeholder's viewpoints are properly considered. In addition, the OSAC infrastructure brings a uniform standards recognition platform to the community, enhances scientific rigor, and increases communication among forensic scientists, research scientists, academicians, statisticians, attorneys, managers, and quality-assurance specialists. The OSAC structure consists of a Forensic Science Standards Board, three resource committees, five scientific area committees, and 24 subcommittees.

This presentation will impact the forensic science community by educating attendees on the processes employed by the OSAC to identify, foster development, and formally approve forensic science standards through publication on the *OSAC Registry of Approved Standards* and *OSAC Registry of Approved Guidelines*. These standards and guidelines will be implemented voluntarily by practitioners and incorporated into auditing processes by accreditation bodies. The high visibility of approved standards and guidelines on the OSAC registries will ultimately impact quality standards for report writing and expert testimony in the courtroom.

As the forensic science community is aware, the development of a quality infrastructure for forensic science was a key component of some of the reforms anticipated in the 2009 National Academy of Sciences (NAS) Report, *Strengthening Forensic Science in the United States – A Path Forward*. OSAC is now operational and beginning to populate the OSAC registries with approved standards and guidelines. As judges, prosecutors, and defense attorneys become acquainted with the *OSAC Registry of Approved Standards* and *OSAC Registry of Approved Guidelines*, direct and cross examination of expert witnesses will increasingly examine conformance with the published standards and guidelines used in conducting the forensic analysis and interpreting data. Expert witnesses will increasingly need to confirm in testimony the scientific validity of their protocols and candidly share with juries any limitations of their analyses and interpretations.

The consensus-based documentary standards and guidelines approved for posting on the OSAC registries will be considered by laboratory directors and quality-assurance managers as standard methods for specific analyses. Accreditation bodies will consider the published discipline-specific standards for incorporation into their International Organization for Standardization (ISO) 17025 supplemental standards. As forensic science practitioners increase employment of quantification, uncertainty measurements, and probabilistic models in casework, there will also be increased utilization of quantitative results and probabilistic data in laboratory reports and expert testimony.

Standards and Guidelines, OSAC, Accreditation