



### **W01 Proposed Revisions to the Federal Bureau of Investigation (FBI) Quality Assurance Standards – DNA**

*Kristy Kadash, PhD\*, Jefferson County Regional Crime Lab, 200 Jefferson County Parkway, Golden, CO 80401; Jocelyn R. Carlson, MS\*, FBI, 2501 Investigation Parkway, Quantico, VA; Susannah Kehl, MS, FBI Laboratory, 2501 Investigation Parkway, Quantico, VA 22135; and Kristin Schelling, MS, 7320 N Canal Road, Lansing, MI 48913*

---

After attending this presentation, attendees will be informed of the proposed changes to the FBI Quality Assurance Standards for Casework and Databasing laboratories. Laboratory personnel will be aware of any changes to policies and procedures that may be necessary in order to comply with the new standards.

This presentation will impact the forensic science community by providing an opportunity to learn about the proposed changes to these quality standards in advance. All National DNA Index System (NDIS) -participating laboratories are required to adhere to and be audited against the revised standards when these standards become effective.

The Scientific Working Group on DNA Analysis Methods (SWGDM) is revising and updating the Quality Assurance Standards (QAS) for Forensic DNA Testing Laboratories and the Quality Assurance Standards for DNA Databasing Laboratories. Upon completion, SWGDAM will forward the revised QAS to the Director of the FBI and recommend them for issuance. Once approved and an effective date is established, all NDIS-participating laboratories must adhere to and be audited against the revised QAS by the effective date.

The last major revision of the QAS occurred in 2009, with additional revisions issued in 2011. Many changes in technology, interpretation approaches, and casework applications have occurred since then. These include such topics as the development of sophisticated software programs for interpretation and statistics, the expansion of the Combined DNA Index System (CODIS) core Short Tandem Repeat (STR) loci, the emergence of legacy data, and the implementation of Rapid DNA technology. In addition, next generation sequencing and non-STR markers could be adopted in forensic casework or databasing laboratories in the near future. As a result, efforts have been made over the past two years to bring the standards up to date with the demands of today's laboratories and to look forward to tomorrow's needs. This has involved some restructuring and re-organizing of the QAS document and the associated audit document.

Information from past audits, the feedback posted on the SWGDAM Frequently Asked Questions website, and suggestions gathered from laboratories were used to clarify standards that have led to confusion for laboratories and auditors. Where appropriate, elements of the discussion sections of the audit document were incorporated into the standards to better ensure compliance. The goal of these revisions is a document that is adaptable to new advances in the field of human DNA identification yet strict enough to retain confidence that the highest quality testing results are being reported.

Workshop discussion will include the revision process, the revisions under consideration, and the anticipated timeline for approval, issuance, and compliance. This workshop will provide insight into the thought processes behind the proposed changes and will allow workshop participants to collaborate on methods to meet and ensure continued compliance to the standards within their laboratories.

This workshop is being provided with the goal of giving laboratories a closer look at the new QAS in order for participants to initiate preparations that may be needed in their laboratories to achieve compliance to these new standards.

---

#### **DNA, Quality, Audit**