



*American Academy of Forensic Sciences  
American Society of Crime Laboratory Directors  
American Society of Crime Laboratory Directors,  
Laboratory Accreditation Board  
International Association for Identification Society of  
Forensic Toxicologists/  
American Board of Forensic Toxicology  
National Association of Medical Examiners  
International Association of Forensic Nurses*

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## **Scientific Working Groups in Forensic Science**

A forensic science Scientific Working Group (SWG) is organized to establish minimum standards for a forensic discipline. Currently, the SWGs are not a regulatory body and standards promulgated are left up to the individual entity to adopt and implement. The standards 1) establish practice and protocols; 2) establish quality assurance and quality control; and 3) provide education and training requirements. Additionally, SWGs support establishment of a uniform Code of Professional Practice, provide guidance for accreditation and certification requirements in their respective discipline, identify areas of research and development needs, and provide scientific foundation documentation to assist in admissibility hearings.

Overall, the work product of the SWGs addresses criticisms of the forensic sciences, such as those in the 2009 National Academy of Sciences report, “Strengthening Forensic Science in the United States: A Path Forward.”

Providing adequate funding and infrastructure for the SWGs is one of the most economical ways to advance and standardize forensic science in the United States.

### **History of the Scientific Working Groups**

For over twenty years, the Federal Bureau of Investigation (FBI) has actively organized and sponsored many Technical Working Groups (TWGs). The TWGs were later renamed Scientific Working Groups (SWGs) to distinguish them from other similarly tasked groups sponsored by the United States Department of Justice. The Drug Enforcement Administration has also sponsored a SWG for many years (SWGDRUG). The purpose of the SWGs was then, and continues to be, the establishment of professional forums in which local, state, international, and federal government experts, together with academic and commercial scientists, can address operational issues arising within specific forensic disciplines.

The original technical working group, the Technical Working Group on DNA Analysis Methods (TWGDAM) was first convened in November of 1988 and was hosted by the FBI. This group was created to “validate the new DNA technology, to share protocols and establish guidelines” for crime laboratories to use. The suggested guidelines were published in the journal “Crime Laboratory Digest” and were widely followed and implemented by the forensic community thus becoming de-facto standards recognized by courts.

The DNA Identification Act of 1994 authorized the FBI to formally establish the Combined DNA Index System (CODIS) and authorized the creation of the Federal DNA Advisory Board. This legislation adopted the TWGDAM Guidelines as a national standard to be followed until the Federal DNA Advisory Board could formally

recommend quality assurance standards. When the statutory period for the DNA Advisory Board expired, the Scientific Working Group on DNA Analysis Methods (SWGDM) was tasked by the FBI Director to monitor, maintain, and revise the documents. (<http://www.swgdam.org>).

### **Current Status of Scientific Working Groups**

Most disciplines in forensic science have a similar SWG, of which there are approximately 20 (see list at the end of this document). All SWGs have the same mission to create a forum for increased quality in the discipline they represent. All SWGs provide direction to the scientific community they represent by providing minimum standards on topics such as method validation, report writing, education, training, proficiency testing, equipment calibration and interpretation of data.

With the exception of SWGDAM and perhaps SWGDRUG, the SWGs representing the other disciplines have not experienced the same robust and sustained federal funding. Guidance, leadership, and consistent funding are required to provide all SWGS with the necessary tools to continue to be an effective and positive influence in the forensic science community. The implemented legislation that led to the growth and leadership of SWGDAM and its success should be looked upon as a model to create a permanent structure for each SWG.

Additional information regarding federal support and federal funding for many of the SWGs can be found at: [http://www.nist.gov/oles/forensics/scientific\\_working\\_groups.cfm](http://www.nist.gov/oles/forensics/scientific_working_groups.cfm)

### **Current List of SWGs**

- FISWG - Facial Identification Scientific Working Group
- SWGANTH - Forensic Anthropology
- SWGDAM - DNA Analysis Methods
- SWGDE - Digital Evidence
- SWGDOC - Questioned Documents
- SWGDOG - Dogs and Orthogonal Detection
- SWGDRUG - Analysis of Seized Drugs
- SWGDVI - Disaster Victim Identification
- SWGFAST - Latent Fingerprints
- SWGFEX - Fire and Explosives Scenes
- SWGGSR - Gunshot Residue
- SWGGUN - Firearms and Toolmarks
- SWGIT - Imaging Technologies
- SWGMAT - Materials Analysis
- SWGMDI – Medicolegal Death Investigation
- SWGSTAIN - Bloodstain Pattern Analysis
- SWGTOX – Forensic Toxicology
- SWGTREAD - Footwear and Tiretracks
- SWGWILD - Wildlife Forensics
- SWGGEO - Geological Materials