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### **B83 2017 Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG) Update — A Discussion on Drug Analysis Techniques and A-B-C Categorization**

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After attending this presentation, attendees will better understand the principles behind the categorization of analytical techniques used for drug analysis.

This presentation will impact the forensic science community by providing up-to-date information on the resources offered by SWGDRUG, in addition to other recent activities.

SWGDRUG was formed in 1997 in a joint effort between the United States Drug Enforcement Administration (DEA) Office of Forensic Sciences and the Office of National Drug Control Policy (ONDCP). SWGDRUG works to improve the quality of the forensic examination of seized drugs and to respond to the needs of the forensic community by supporting the development of internationally accepted minimum standards, identifying best practices within the international community, and providing resources to help laboratories meet these standards. This presentation will comprise a discussion on SWGDRUG categories of analytical techniques and will also provide attendees with information on past and current SWGDRUG activities.

The development of new instrumental technologies and their introduction and use in seized-drug laboratories have brought up the need to clarify the classification of techniques into A, B, or C categories. In this presentation, the basis behind the three separate categories will be defined and discussed, from the point of view of structural characterization, discrimination ability, and the theoretically predictive value of each technique. Via example illustrations, this presentation will also discuss and emphasize the important factors to consider when establishing an appropriate laboratory analytical scheme, when the choice of techniques may depend on the particular analytical and judicial requirements of a laboratory.

During the summer of 2016, version 7.1 of the SWGDRUG Recommendations was approved and published ([www.swgdrug.org](http://www.swgdrug.org)). Also, Supplemental Document 6 (SD-6), titled “Examples of Measurement Uncertainty for Net Weight and Count Extrapolations,” was finalized and posted. This document provides step-by-step examples for estimating uncertainty for scenarios in which the net weight of an exhibit is obtained via extrapolation or when the total count of a dosage unit exhibit needs to be extrapolated.

Core committee members are also working on revising Part IVB of the SWGDRUG Recommendations, pertaining to the validation of analytical methods. Revisions include clarifications on the performance characteristics to be evaluated during the validation of both qualitative and quantitative methods. Examples of method validation schemes for routinely used techniques, such as color test, Gas Chromatography/Mass Spectrometry (GC/MS) and Infrared (IR) spectroscopy, will also be provided in a separate supplemental document. This presentation will also summarize recent updates on SWGDRUG resources, such as the MS library, the IR library, and the Drug Monographs.

The SWGDRUG core committee includes representatives from federal, state, and local law enforcement agencies in the United States, Canada, Brazil, Great Britain, Germany, Austria, Switzerland, Australia, and Singapore. The following forensic organizations are represented: the European Network of Forensic Science Institutes (ENFSI), the Academia Iberoamericana de Criminalística y Estudios Forenses (AICEF), the Asian Forensic Science Network (AFSN), and the United Nations Office on Drugs and Crime (UNODC). Core committee members also include



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forensic science educators and representatives from forensic science organizations across the United States, the American Society of Crime Laboratory Directors (ASCLD), the American Society for Testing and Materials (ASTM), and the National Institute of Standards and Technology (NIST).

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### **Criminalistics, SWGDRUG, Drug Analysis**