



## A104 Forensic Training and Development of the Erbil Forensic Laboratory, Iraq

Sarah J. Seashols, MS\*, Virginia Commonwealth University, Department of Forensic Science, 1020 West Main Street, PO Box 843079, Richmond, VA 23284-3079

After attending this presentation, attendees will have an understanding of the state of the forensic laboratory system and training in Iraq. Topics addressed will include an overview of evidence collection at the crime scene, the laboratories' role in the Iraqi criminal justice system, and the United States and Coalition's continuing efforts to equip and train the laboratory system to full operational status. Cultural and historical background within the country as relevant for an understanding of the challenges faced by the laboratories will also be addressed.

This presentation will impact the forensic science community by describing the status of the Iraqi Forensic Laboratory System, as part of the overall nation-building process undertaken by the United States and Coalition. It will also give practitioners an understanding of the challenges encountered in setting up forensic laboratories under challenging conditions.

The U.S. and Coalition have worked since the beginning of the second Gulf War in 2003 to build and equip the forensic laboratory system of the country of Iraq and to integrate it into the existing criminal justice system. Despite significant challenges presented by terrorist activity, infrastructure, and logistics, the Iraqi Forensic Laboratory System, consisting of three full-service laboratories, one training and research laboratory, and seven comparative forensic laboratories, has been established and is operational. Analyst training has taken place both in-country as well as abroad over the past several years and has developed many well-qualified laboratory scientists.

This presentation focuses on the objectives and results of the mentoring and training contract of Iraqi analysts, which took place in Erbil in 2009 and 2010, and the challenges that the Iraqi Forensic Laboratory System faces as it moves forward. The project entailed mentorship of and advanced instruction in the major forensic disciplines within the Erbil Forensic Laboratory, located in the northern autonomous region of Kurdistan. Mentors worked with analysts in the various disciplines to develop written protocols, assisted in ordering of supplies and in arranging for equipment installations, as well as technical mentorship of validation processes. Instructors delivered advanced training in the major disciplines to analysts from all regional labs within Iraq, utilizing both theoretical and practical training.

The DNA and Chemistry section startups of the Erbil Forensic Laboratory were a point of focus within the project. Manufacturer's representatives traveled to Erbil, installed the instruments, and provided initial instrument analysis and maintenance training. Mentors and Instructors worked with the analysts to ensure that proper procedures were developed. During this time period, the first forensic cases in Iraq for Chemistry and DNA were analyzed and reported out.

The laboratory system has an ultimate objective of ISO accreditation and will continue to progress towards that goal. Major challenges faced by the Erbil Forensic Laboratory and the Iraqi forensic laboratories system-wide, include further advancement in power, temperature, and humidity regulation within laboratories for preservation of delicate instrumentation, the expansion of supply chain and delivery logistics for supplies and consumables, and hiring and training of more analysts, plus further training and development of the existing analysts. At the evidence collection and receipt level, increased training is necessary for judicial investigators, judges, and crime scene personnel, both in evidence collection and in education of the laboratories' capabilities. This holistic approach is currently being addressed and will need to continue as such. All sections will continue to require the assistance of external experts, acting as technical leaders or mentors, in the near future. The DNA unit specifically will address further challenges, including databasing within a

tribal culture, the establishment of theta, and the development of DNA databank and search capabilities. Iraq, Laboratory Startup, New Forensic Lab