



A107 Challenges and Lessons Learned From Having an External Expert Step Into the DNA Laboratory

Ray Wickenheiser, DPS, New York State Police Crime Laboratory System, Albany, NY 12226-3000; Mariel Mariel Candelario Gorbea, MSFS*, Laboratorio Forense de ADN/Serología Negociado de, San Juan, PR 00922*

Learning Overview: The goals of this presentation are to: (1) promote the understanding of the challenges faced when hosting an external expert; (2) provide and understand the challenges of the external expert; (3) understand the opportunity of providing outside expertise; and (4) realize the program goals through collaboration.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by demonstrating both the challenges and rewards discovered through having external experts visit the Puerto Rico Crime laboratory, speak with staff, directly observe lab conditions and resources, and work directly with staff to provide constructive recommendations. Through continued contact, relationship, and trust building, understanding of strengths and opportunities makes the best use of lab and expert time. Outside expertise liaisons provide an objective reservoir of capability, which can be leveraged to break logjams and obtain necessary resources.

On September 19, 2017, Hurricane Maria, a Category 5 hurricane, struck Puerto Rico, devastating the island population, crippling infrastructure, and leaving the vast majority of the island without power for weeks to months. The precarious fiscal situation of the island had already caused the Puerto Rico Crime Lab (Bureau of Forensic Sciences (FSB)) to lose a great number of valuable and highly trained employees, including crime scene investigators, questioned documents examiners, chemists, firearms and tool marks specialists, and digital evidence and DNA analysts. With this economic and environmental crisis at hand, the Department of Justice of Puerto Rico reached out to the American Society of Crime Laboratory Directors (ASCLD) for assistance in rebuilding its forensic capability. ASCLD responded by establishing a Board Meeting on the island to include planning sessions with Puerto Rican Crime Lab authorities to establish a consolidated response, including providing an extensive audit of operations, provision of recommendations, and application for grant funding to outsource backlogged cases and purchase new equipment.

A team of volunteer experts, including those with DNA, quality management, and laboratory operations expertise responded. After a few visits to Puerto Rico by ASCLD and the National Association of Attorneys General (NAAG) members, a Memorandum Of Understanding (MOU) agreement was established. The main goal of this MOU was to implement a laboratory assessment toward identifying the main needs. A team of four individuals visited the Bureau to meet with staff, directly evaluated laboratory infrastructure, equipment, and facilities, as well as laboratory policies, procedures, and metrics. Based on their findings, constructive recommendations were provided by the ASCLD and NAAG team.

Establishing external expert liaisons may represent a challenge. Experts must be welcomed by the host lab, with trust developed through ongoing contact. Through a trusted relationship, a better understanding of the current situation has been gained, along with what areas of the laboratory may need assistance, which can be built upon, and what solutions are a best fit to overcoming challenges of backlogs and resource issues. Recommendations must be tailored to the host lab to ensure they are receptive, that solutions will be embraced, implemented, and provide the assistance they are targeted toward.

Findings and recommendations were discussed with the Puerto Rico staff to ensure such recommendations were fit for implementation. Recently obtained equipment in the Puerto Rico FSB was in the process of validation, and additional recommendations were provided to complete needed validations, as well as to shift staff to the most beneficial components of operations. This was facilitated by a proposal for use of Rapid DNA technology in the morgue unit, freeing up necessary DNA analytical capability. A backlog reduction grant was written with support from external expertise using information provided by Puerto Rican staff. This effort not only enabled a shorter turnaround for the grant application, but also allowed Puerto Rico to apply for more grants by dividing up the work between the external support and the Puerto Rico staff.

The agreement and collaborations between the Puerto Rico FSB, ASCLD, and NAAG are a clear example of how external experts' liaisons with a host lab can provide a valuable viewpoint, adding legitimacy and voice to lab staff. The input and feedback provided have clearly aided the Puerto Rico FSB to identify their areas of need as well as to identify the most appropriate strategies to overcome challenges. In summary, the ASCLD-NAAG Puerto Rican initiative was as rewarding for the external experts as it was for the host lab: labs helping labs with shared expertise.

Outside Expert, DNA Lab, Disaster Recovery