

MAKING HOUSE CALLS: THE PALM BEACH COUNTY FORENSIC BIOLOGY UNIT'S EXPERIENCE WITH OUTSOURCING VALIDATION

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The rigors of internal validation can present a daunting task to forensic laboratories. With the recent influx of available automation and related technologies to forensic DNA laboratories, the need for personnel dedicated to perform internal validation studies has increased dramatically. To capitalize on the expertise of the forensic community and reduce the learning-curve and time associated with a major platform transition, the Palm Beach County Sheriff's Office (PBSO) Forensic Biology Unit (FBU) entered into a contractual agreement with Sorenson Forensics to outsource the required internal validation of the Applied Biosystems (AB) 3130xl Genetic Analyzer and subsequent analyst training. Validation studies were performed in accordance with DAB/ SWGDAM guidelines. The on-site validation of Promega's PowerPlex® 16 multiplex STR system and its performance on the AB 3130xl was completed in addition to the development of the AB 3130xl procedure manual, quality assurance and quality control documents, and on-site training for the PBSO FBU DNA analysts. Validation studies were completed within four weeks, with all eight DNA analysts trained, tested, and deemed competent over an additional three month period, thus minimizing the total time burden on laboratory personnel and maximizing the PBSO FBU's ability to continue to process casework during this platform transition. The immediate benefits garnered from outsourcing this validation project and training far outweighed any perceived drawbacks associated with the reduced analyst interaction during the applied instrument studies. Timeline metrics, training logistics, cost factors, validation results, and challenges faced during the process will be presented.