Preparing for a Successful Booking Station Implementation of the NDIS-approved ANDE™ Rapid DNA Identification System

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With the passage of the Rapid DNA Act of 2017, Congress has established a pathway for Rapid DNA testing of arrestees in 31 states. Seventeen of these states, including Louisiana and Florida, allow testing of those arrested for certain crimes immediately, while the remaining states require charging or indictment prior to DNA testing. The Louisiana State Police has extensive experience developing booking station DNA collection processes including electronic verification of DNA collectible charges through the Livescan terminal as well as a DNA on file feedback mechanism to minimize duplicate collections. Their lessons learned as they integrated into the AFIS Livescan booking process may well be relevant in the implementation in the Rapid DNA.

FDLE and LSP, along with the Defense Forensic Science Center, Belgium's National Institute of Criminalistics and Criminology, and NIST, participated in the Developmental Validation studies of the ANDE Rapid DNA System. In June, the ANDE 6C instrument (running both System and Expert System software), A-Chip, and associated FlexPlex chemistry received FBI NDIS approval. The goal of this extensive developmental validation study was to obtain, document, analyze, and assess the data generated by the ANDE System to determine if the system can reliably genotype buccal swabs in a manner compliant with the FBI's Quality Assurance Standards (QAS) and the NDIS Operational Procedures.

In this presentation, we will review the results of the developmental validation study, which demonstrate that the ANDE System provides "swab in – profile out" integrated STR profiling and is robust, reliable, and suitable for use in forensic human identification of single source buccal samples. Following this discussion, we will outline the approaches to implement Rapid DNA Identification at the booking station, including process flows and integration with the FBI's Rapid DNA Index System and DNA Index of Special Concern. The implementation of Rapid DNA into the booking station has the potential to dramatically improve societal safety by revolutionizing the speed and manner in which suspects are identified, enrolled in SDIS and CODIS databases, and searched against unsolved criminal cases.