FBI PLAN FOR RAPID DNA INTEGRATION AND ENHANCEMENT OF CODIS

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The first generation of Rapid DNA (R-DNA) prototype instruments have been available for one year. These platforms were developed for automated typing and allele calling of the 13 CODIS core STR loci. Results are produced in approximately 90 minutes with minimal operator intervention. A high-level assessment of prototype performance will include STR profile accuracy, reproducibility, and generalized success rate. The presentation will discuss experimental design and data analysis for the first assessments of instrumentation conducted in collaboration by the United States National Institute of Standards and Technology, the Department of Homeland Security, the Defense Forensic Science Center, and the FBI. The FBI's initial plan for the integration of R-DNA as an enhancement to CODIS will also be presented. The final operational goal of the FBI R-DNA initiative are commercial instruments capable of producing a CODIS-compatible profile in one hour with effective integration into existing CODIS structure to register and search reference samples during the booking process.