What is Rapid DNA Analysis?

- Per the FBI, Rapid DNA Analysis is the fully automated (hands free) process of developing a CODIS Core Loci STR profile from a reference sample buccal swab. The “swab in – profile out” process consists of automated extraction, amplification, separation, detection, and allele calling without human intervention.

- The Rapid DNA Act of 2017 was enacted on August 18, 2017. This amends Paragraph (2) of section 210304(b) of the DNA Identification Act of 1994 (42 U.S.C. 14132(b)(2)), and allows the results of DNA analyses by criminal justice agencies using Rapid DNA instruments approved by the Director of the Federal Bureau of Investigation in compliance with the standards and procedures issued by the Director under section 210303(a)(5) to be entered into CODIS.

- As of August 24, 2017, there are no Rapid DNA systems yet approved for use by the Director of the Federal Bureau of Investigation for performing Rapid DNA Analysis.

Will the State Crime Lab use Rapid DNA?

At this time, the State Crime Laboratory does not plan to use Rapid DNA Instrumentation in DNA casework or DNA databasing. The FBI has no current plans to allow crime scene sample DNA profiles from Rapid DNA instrumentation to be entered into CODIS. In addition, the State Crime Laboratory DNA Database Section is processing arrestee samples faster than ever. It currently takes approximately two weeks from the time of receipt until an arrestee DNA profile is entered into CODIS.

DNA Database and Databank Legislative Changes

Multiple sections of the N.C. DNA Database and Databank Act require amendment prior to implementation of Rapid DNA Analysis for booking stations, including but not limited to:

- DNA sample collection
- DNA sample retention
- DNA sample analysis
- DNA sample expungement

Planning Ahead for Rapid DNA

If the necessary N.C. General Statute amendments take place, the following topics should be considered prior to the implementation of Rapid DNA Analysis in a booking station environment:

Instrumentation - The booking agency must acquire an NDIS-approved Rapid System. To date, there are no NDIS-approved systems.

Infrastructure—The booking agency must technically integrate the Rapid DNA Analysis process within their established electronic booking process. The booking agency will need to provide an IT environment capable of running Rapid DNA applications and must have network connectivity to the State Identification Bureau.

Cost—The booking agency should consider the cost of the instrumentation and consumables required to operate Rapid DNA instrumentation. A preventative maintenance plan would also be recommended.

Policy/Procedures - The booking agency must adopt and implement Rapid DNA policies and procedures to include sample collection and retention, training and authorized use of Rapid instruments, and quality control measures.

Personnel - The booking agency should consider the acquisition of additional personnel associated with the implementation of a Rapid DNA Program.