

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 in the Booking Station

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.

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.

Below you can scan the QR code for more information about the North Carolina State Crime Laboratory.



We are committed to supporting and assisting stakeholders with this developing technology. If you have any questions regarding these guidelines or if your agency is considering the use of Rapid DNA instrumentation, please contact the Crime Lab at:

919-582-8700 or scan QR Code

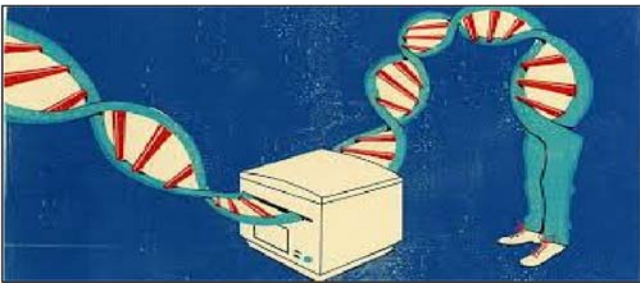


Rapid DNA Analysis and CODIS

A Guide for LEOs in North Carolina

North Carolina
State Crime Laboratory

March 2023



What is Rapid DNA Analysis?

- Per the FBI, Rapid DNA Analysis is the fully automated (hands free) process of developing a DNA profile outside of the DNA laboratory setting from a **qualifying arrestee reference sample mouth swab** in 1 to 2 hours without human intervention. This profile would immediately be enrolled in CODIS where it would be searched against all unsolved crimes in CODIS within 24 hours.
- As of March 2023, there are two Rapid DNA instruments approved for use by the Director of the FBI for performing Rapid DNA Analysis on **arrestee reference samples** in the law enforcement booking agency and on **any reference samples** in an accredited DNA laboratory.
- Rapid DNA is **NOT** currently approved for use on crime scene samples for entry and/or searching in CODIS.

- Rapid DNA instruments are currently not well-suited for the types of samples that are commonly encountered at crime scenes - variable amounts of DNA and mixtures. The FBI is working with all stakeholders to advance Rapid DNA technology so that it may be used for entry and/or searching of crime scene DNA profiles in CODIS in the future.

- **For the most up-to-date information, scan the QR code for the fbi.gov website.**



The Use of Rapid DNA for Crime Scene Samples

At this time, the State Crime Laboratory does **NOT** recommend the use of Rapid DNA Instrumentation for testing crime scene samples.

- There are many challenges that must be overcome in order for Rapid instruments to meet the Federal DNA requirements that will allow crime scene DNA profiles generated from these instruments to be entered into CODIS.
- These major challenges include the development of automated expert Rapid DNA systems that can reliably interpret

single source crime scene samples, the ability to manually interpret DNA mixtures, and the ability to determine the amount of DNA present.

Law enforcement partners should be aware that the use of Rapid DNA technology on crime scene samples may impact the suitability for subsequent testing and CODIS entry by an accredited forensic laboratory.

- The Forensic Biology Section will not conduct testing on an item if it was previously tested using Rapid DNA technology.
- A minimum of two swabs/samples must be collected from each crime scene sample and packaged separately. One swab is used for Rapid testing and the second swab can be sent to the NCSCL for traditional testing and CODIS entry.
- It is possible that two swabs from the same sampled area will produce different DNA profiles due to differences in technology.
- NCSCL analysts cannot consult on or review the results of Rapid DNA testing or testify in court to the findings.
- Federal requirements prohibit the NCSCL from providing a copy of the North Carolina State Database for searching outside the control of the laboratory.