



State of North Carolina

ROY COOPER
ATTORNEY GENERAL

Department of Justice
PO Box 629
Raleigh, North Carolina
27602

February 1, 2012

The Honorable Phil Berger
President Pro Tempore
North Carolina Senate
Legislative Building, Room 2007
Raleigh, NC 27601-2808

The Honorable Thom Tillis
Speaker of the House
North Carolina House of Representatives
Legislative Building, Room 2304
Raleigh, NC 27601-1096

Re: Targeting Violent Criminals by Investing in DNA

Dear Senator Berger, Speaker Tillis, and Members of the General Assembly:

Pursuant to applicable law, please find the attached report from the North Carolina Department of Justice on the State Bureau of Investigation's 2011 efforts to meet the growing demands from local law enforcement and prosecutors for DNA analysis.

Thank you for the opportunity to provide this information. We would be happy to respond to any questions you may have regarding this report.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kristi Hyman", with a long, sweeping horizontal line extending to the right.

Kristi Hyman
Chief of Staff

cc: Kristine Leggett, NCGA Fiscal Research Division



North Carolina Department of Justice

Targeting Violent Criminals by Investing in DNA

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Targeting Violent Criminals by Investing in DNA

While traditional investigations and detective work will always be integral to law enforcement, fighting crime has become increasingly reliant on technological and scientific advancement. DNA may be one of the most important crime fighting tools of modern times. Advances in technology have benefited the criminal justice system in many ways. In countless cases, DNA has identified the suspects, convicted the guilty, cleared suspects, and brought closure to victims and victims' families. In other cases, DNA has exonerated the innocent.

Chewing gum, hair and even cigarette butts left at a crime scene can lead detectives to the right suspect thanks to DNA analysis. DNA, or deoxyribonucleic acid, is a unique genetic fingerprint found in every cell of the human body. Just a tiny trace of the criminal's saliva or blood left behind at a crime scene can yield a DNA profile, which then can be compared to DNA samples from known criminals, arrestees or other crime scene evidence for a match.

DNA technology is perhaps most promising when used to solve crimes without an apparent suspect. In a rape case, for example, the victim may not be able to identify her attacker. When investigators examine evidence collected from the victim, they are often able to obtain a DNA sample from her attacker. This evidence can then be compared to millions of DNA profiles included in the state and national DNA database, commonly called the CODIS system. If the comparison yields a match to an offender, the rapist can be identified and brought to justice.

Attorney General Roy Cooper has led the push in North Carolina to use DNA technology to solve crimes and bring justice to victims by: 1) expanding the DNA database to include DNA samples from all convicted felons and certain arrestees; 2) making sure that no-suspect rape kits are quickly screened and analyzed, with any DNA evidence uncovered used to search the DNA database to pinpoint suspects; 3) speeding the review, audit and uploading of convicted offender and arrestee samples into the DNA database; and 4) helping local law enforcement respond to cold case DNA database hits.

The State Bureau of Investigation (SBI) is bringing advanced DNA technology to North Carolina's crime fighters with dramatic results. Thanks to increased investment by the General Assembly, federal grant funding, and the dedicated efforts of the men and women of the SBI, the SBI has helped catch more murderers, rapists and other criminals in 2011 alone than in the first ten years of the program combined. In 2011, the SBI had a total of 409 DNA database hits. Since criminals, and especially rapists, often strike again, a database "hit" can crack a cold case.

The SBI has made remarkable progress in screening, processing, analyzing and conducting subsequent DNA database comparisons to crime scene evidence. In no-suspect cases, a DNA analyst can compare a DNA profile developed from crime scene evidence to more than 219,000 DNA profiles in the SBI's DNA database to see if there is a match. If a profile match occurs,

this is commonly referred to as a “CODIS” hit, meaning a match to the Combined DNA Index System. Once a CODIS hit is made, it must be confirmed according to FBI requirements. This is accomplished by re-analyzing the original sample that was taken from the convicted offender or arrestee, which is stored at the State Crime Laboratory. The thumbprint taken at that time is also compared to the convicted offender’s or arrestee’s fingerprints on file in the SBI fingerprint database to confirm that the convicted offender or arrestee was the person giving the DNA sample. After this “in-house” confirmation is complete, a search warrant is written and served on the convicted offender or arrestee to obtain another sample of DNA. This sample is analyzed again to definitively confirm that indeed was the person whose DNA was identified in the original forensic evidence (crime scene evidence).

DNA technology is a remarkable crime fighting tool that can pinpoint or eliminate suspects, help local law enforcement officers take violent criminals off the streets and strengthen the public confidence in the criminal justice system. Our dramatic success fosters an increasing demand for DNA services from local law enforcement and prosecutors. We are meeting this challenge head on with conclusive results. Beginning February 1, 2011 law enforcement began collecting DNA from certain arrestees pursuant to the DNA Database Act of 2010.

We must continue to invest in the SBI to meet the growing demands from law enforcement, prosecutors and the criminal justice system for forensic laboratory services.

Summary of the Operations of the DNA Database Unit for 2011

2011 CODIS/Database Statistics

CODIS Hits for 2010: 409

Forensic Samples Uploaded: 854

Convicted Offenders Uploaded: 9,950

Arrestee Samples Uploaded: 4,400

The number of DNA records from arrestee expunged: 199 *(major workload impact associated with this effort)

Of the 199 expungements completed in 2011, 144 requests were approved. The expunction process and notification process for all approved and denied expungements were completed within the statutorily required 30 days. Additionally, the database unit has received a number of requests that could not be processed because no sample had been received for the specific arrest.

Several DNA samples have been rejected because they do not meet the statutory standards for collection pursuant to N.C.G.S. 15A-266.3A. For example, the laboratory has rejected samples

submitted for accessory after the fact to homicide (G.S. 14-7), assault by strangulation (G.S. 14-32.4(B)), and common law robbery (G.S. 14-87.1- sentencing provision).

2011 DNA Database Expenses (Convicted Offender and Arrestee Samples)

Staff Costs to Process DNA CODIS Samples	\$ 221,848
Private Laboratory expenses to process DNA CODIS Samples	\$ 453,960
Other operating expenses (e.g. supplies)	\$ 197,115
Total 2011 DNA Database Expenses	\$ 872,923

Arrestee Collection Kits

The State Crime Laboratory (Laboratory) continues to provide the standardized Arrestee/Offender DNA collection kit which was designed and initially distribute to all law enforcement in 2010. The Laboratory sends collection kits to law enforcement agencies upon request. This kit will continue to be used specifically for the collection of DNA from certain convicted offenders and arrestees.

Expungement Procedure

The State Crime Lab has been following our FBI approved expungement procedure and expunging qualifying Arrestee DNA profiles upon receipt of the AOC verification form. The expungement procedure outlines how expungements will be completed as directed by G.S. 15A-266.3 (A). If the arrestee qualifies for expungement, the DNA samples will be removed from the SBI DNA Databank and destroyed. Also, the DNA record will be removed from the SBI DNA Database and CODIS. The individual will be notified by letter whether or not his/her sample qualified for expungement. All expungements completed in 2011 were completed within the statutorily required 30 day time period with notification being sent to the subject and subject's attorney of record (if known/available).

As directed by G.S. 15A-266.5 (d), the Department of Justice (DOJ) and the Administrative Office of the Courts (AOC) have studied options for automating the expunction process.

Beginning June 1, 2012, G.S. 15A-266.3A (j) directs that defendants will no longer have to request expunction. Instead, prosecutors are directed to initiate the process within thirty (30) days of the occurrence of one of the qualifying events enumerated in the statute. Both DOJ and AOC agree that, under the procedures currently mandated by G.S. 15A-266.3A, the only potential automation is for AOC to develop automated reporting to notify the District Attorney (DA) of cases potentially eligible for DNA expunction, from which the DA may verify the cases'

eligibility. This automated list could be generated through the District Attorney's component of the Criminal Court Information System (CCIS). This function was not part of the original system design and would require additional development time. The added expenses of this additional functionality were not included in original cost estimates and would require additional funding.

Training Sessions

DNA training sessions were provided again in December of 2011 and January 2012 throughout the state of North Carolina to all law enforcement officers to explain the integration of DNA collection with the Live- Scan fingerprinting/booking process. Individuals from the Laboratory DNA Database Unit, Forensic Biology Section, Department of Justice and North Carolina Justice Academy provided 15 training sessions throughout the state in the following locations: Morganton, Raleigh, Salemburg, Greenville, Edneyville, Huntersville and Jamestown. During these sessions, attending law enforcement officers were provided a PowerPoint presentation, a lesson plan explaining the arrestee law and integration of Live Scan during the collection process as well as a DVD demonstrating the proper collection technique. All law enforcement agencies not in attendance at one of the training sessions will receive the same materials as provided during the training sessions from the State Crime Lab during the months of January and February 2012.

Live-Scan

The changes to the state's fingerprinting system to support DNA collection, which are expected to save processing costs and time for the Crime Lab and law enforcement agencies, were completed in May 2011. The DNA updates for MorphoTrak live-scans (fingerprint capture and submission devices) were also tested and verified ready to deploy at that time. Live-scan updates were deployed to the Mecklenburg County Sheriff's Office in May 2011, but live-scan changes at other law enforcement agencies with MorphoTrak live-scans were delayed to allow for time to create and provide an enhanced training program for law enforcement agencies.

Contracts with the four other live-scan vendors to make changes to their live-scans deployed within North Carolina were established in July and August 2011. To date, two of the vendors' live-scan updates have been tested, one is scheduled for testing on January 24, 2012, and one has yet to be completed. The vendors with incomplete live-scan changes represent 4 of approximately 200 live-scans deployed in North Carolina.

Installation of DNA updates to live-scans statewide began in December of 2011 coinciding with the DNA Arrestee Training Sessions and the delivery of updated DNA training to law enforcement agencies. Installation of live-scan updates is expected to be completed in over 80% of law enforcement agencies by January 31, 2012. The remainder of these installations is expected to be completed in February 2012.

Data Management System-SpecMan

The new specimen manager system, SpecMan was deployed on February 7, 2011 in time to support the receipt of arrestee DNA samples. The system allows the database unit to track all offender and arrestee samples that are received through upload and/or expungement. It contains only identifying information such as name, date of birth submitting agency, qualifying offense, etc. There are no DNA profiles in this system. Each DNA sample is assigned a unique barcode number which is used by the system for tracking purposes. The system is integrated with Live Scan, AOC, and CCH.

Additional time-saving features and reports were added to SpecMan in releases that occurred through June 2011. DNA expunction features are currently being added to SpecMan with an estimated completion date of February 28, 2012.

Validation

The Database Unit validated the in-house robotic platform used for convicted offender blood analysis to analyze DNA from the cheek cell collectors used in the standardized DNA collection kits for arrestees and convicted offenders. The robotic platform is currently run on a weekly and monthly basis and is used to analyze the quality control samples for each shipment of database samples outsourced to the vendor laboratory.

Storage System

To accommodate the convicted offender and arrestee specimens, the DNA Database Unit of the Laboratory purchased electronic filing systems for convicted offender and arrestee specimens. The convicted offender filing system can accommodate approximately 500,000 specimens and the arrestee filing system can accommodate approximately 400,000 specimens. Both systems are currently in use and housing database samples.

Personnel

Of the four DNA Forensic Scientist and three DNA technician positions posted last year, three of the four DNA Forensic Scientist positions have been filled and all three of the DNA technician positions have been filled. A candidate for the fourth DNA Forensic Scientist position has been presented with a salary qualification and the process is currently on-going. The Laboratory anticipates the need for further technician positions because of the increasing numbers of expunction requests.

ATTACHMENT I

DNA COLLECTION: HOW IT WORKS



DNA Collection: How it works

DNA collection upon arrest will save lives, prevent violent crime by repeat offenders, save investigative resources, improve ID procedures, reduce misidentification, reduce convictions based on false confessions, and clear hundreds of cold cases.

Nearly half the states have enacted laws requiring collection of DNA upon arrest, as has the U.S. government.

How it would work in North Carolina

- During a certain felony arrests, law enforcement will take a DNA sample just as they do fingerprints using a kit provided by the SBI.
- The cheek swab goes to the SBI, which logs the sample and verifies that it was taken properly, and then to a 3rd party laboratory for analysis.
- That analysis is 100% quality assurance reviewed by a qualified SBI forensic analyst prior to entry into the DNA database as per federal requirements.
- The DNA data is uploaded to state and national databases to search for “hits,” or matches to cold cases.

Background on SBI lab responsibilities:

The SBI currently uses a 3rd party lab for the analysis of the convicted offender samples and will do so with arrestee samples. The Crime Lab experts expedite analysis of crime scene evidence that may contain DNA that is run against the database of convicted offenders and arrestees so they can identify the perpetrator. SBI currently has contracts with LabCorp, Bode and Orchid Cellmark for the analysis of the convicted offender samples.

SBI staff will receive every sample, enter the arrestee data, verify that the sample was taken from a suspect accused of a qualifying offense, and prepare the sample for shipment to the vendor lab.

Afterward, SBI staff will receive the analysis from vendor lab, conduct 100% quality assurance review of every DNA profile, upload profile into CODIS (DNA database) and respond to DNA database “hits” to cold cases.

The “hits” require working with local law enforcement agency to identify the suspect. Fingerprints sets will be included in the DNA collection kit as a secondary resource to confirm identity.

If a person is permitted by court officials to expunge their DNA profile from the database (due to dismissal or acquittal or other qualifying event), the SBI removes it.

FBI Director's Quality Assurance Standard No. 17 Requires:

8.1.3 - Prior to the upload or search of DNA data, a 100% quality assurance analysis review of a vendor laboratory's DNA data shall be performed by an SBI forensic analyst by the NDIS participating laboratory (SBI Crime Lab) who is qualified in the technology, platform, and typing amplification test kit used to generate the data and participates in the laboratory's proficiency testing program.

NC Offender Hit to NC Case: How it Works Now

CODIS State Administrator at SBI notifies SBI Database Manager of hit as well as the SBI case analyst. SBI Database Manager starts the offender confirmation process.

- Requests SBI intelligence check – verifies that there is a qualifying offense, verifies that the offender was not incarcerated at the time of the offense, gives information on current location of offender.
- Requests SBI fingerprint verification – SBI Latent Evidence verifies that the fingerprints submitted with the offender sample match those on file for that individual.
- Requests confirmation of offender sample – DNA database analyst pulls the offender sample and re-runs the sample to ensure that the profile matches what was uploaded to the database, data is reviewed.

Once the confirmation process is done, the database analyst notifies the SBI case analyst of the offender's identity. This gives investigators probable cause to obtain a standard (confirmation sample) from the individual.

The investigating agency obtains a search warrant, often with SBI assistance, and obtains a DNA standard from the suspect which is then submitted to the SBI case analyst.

The SBI case analyst generates the profile for the DNA standard and compares this to the original crime scene evidence that was uploaded to CODIS. A SBI report is generated as to this match.

ATTACHMENT II

DNA FLOW CHART



SBI Crime Laboratory Forensic Biology Flow Chart

