90 minutes can change everything-
It's time to expedite crime-solving with rapid DNA

Joanie Brocato, Ph.D.
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Agenda

• What is Rapid DNA
• Impact of Rapid DNA
• Rapid DNA Booking Station Timeline
• Funding & Resources
Rapid DNA Technology as easy as 1,2,3

RapidHIT ID System enables testing at the point of action in 90 minutes or less

Collect
Individual or evidence sample

Process
90 minutes or less

Confirm
Identify individual or link to a crime while still in custody
Unlocking a World of Rapid Intelligence

Partners in forensics, law enforcement, and public safety can benefit from Rapid DNA results in many applications.

**Arrestee Testing**
Generate hits while still in custody and identify or exclude suspects faster.

**Investigative Lead Testing**
Use DNA in real time to solve crimes.

**Disaster Victim Identification**
Field deployable solution for immediate identification of disaster victims, identification of the missing, to reunite families.

**Combatting Human Trafficking**
Identify unaccompanied minors, limit human trafficking and illegal immigration.
Conduct family relationship verification.
FBI’s Vision for Booking Station

Rapid DNA Testing at the Booking Station

https://www.fbi.gov/services/laboratory/biometric-analysis/codis/rapid-dna
Impact of Rapid DNA in the Booking Station
Why arrestee testing in a booking station?

A DNA match led to Henderson’s capture and arrest, but faster DNA results could have prevented his release.

A lot can happen between collection and results.

**Dec 2016**
- Unknown profile from rape kit
- Female jogging along Mississippi River levee
- Man grabbed her from behind, dragged to water’s edge, punched her, broke bones and dislocated her hip and raped her

**Aug 2018**
- Second Victim
- Pregnant female dragged behind a grocery store, beaten, choked unconscious and raped in Algiers

**Oct 2019**
- Arrested/Booked
- Arrestee DNA collected
- Released
- Henderson arrested for Domestic Violence
- Punching his pregnant girlfriend and broke her jaw

**Dec 2019**
- Police must locate Henderson
- Henderson leaves Louisiana
- CODIS Hit matches Henderson’s DNA to both sexual assaults

**Suspected Algiers Rapist - Navarri Henderson**
'Fallen through the cracks:' Overdue DNA swabs link to murders, sexual assaults

Rachel Dissell, Cleveland Plain Dealer, May 13, 2018

One Story

1997
- 1997, Antonio Huffman, sexual assaulted 17-year-old female (rape kit collected, not tested until Sexual Assault Kit Initiative)

2012, 2015
- 2012, Huffman arrested, charged with felonious assault. No swab.
- 2015, Huffman arrested, charged for illegally possessing firearm. No swab.

2017
- 2017: SAK Task Force indicted DNA profile (from kit), named “John Doe 124”
Why arrestee testing in a booking station?

Collection up front improves submission, solvability and safety

- FY2016 SAKI solicitation purpose area for the collection of lawfully owed DNA.

- Conduct a census of convicted offenders who lawfully owed DNA and develop a plan to improve collection protocols to ensure sample collection policies adherence

- Cuyahoga County (OH) Prosecutor's Office was the first jurisdiction to receive funding.
  - Nevada Office of the Attorney General
  - Washington (OR), State Attorney's Office 4th Judicial Circuit (FL),
  - Charlotte-Mecklenburg Police Department
  - West Virginia Division of Justice and Community Services.
  - Tennessee Bureau of Investigation
  - City of Duluth (MN)
  - Washington State Attorney General's Office received -2nd

https://sakitta.org/beyond-the-kit
Collecting Lawfully Owed DNA to Assist with Sexual Assault Investigations/
2008 — END OF 2016: 15,000+ OWED DNA SAMPLES IN CUYAHOGA COUNTY

What does this mean? 15,370 individuals should have had their DNA collected (either at arrest or at conviction) to be entered into CODIS (DNA database), but did not.

WHY MISSED?

THE PROCESS:

Collect sample
Submit for testing
Follow up on hits in CODIS

14.9%
[n = 2,293] additional individuals now have their DNA in CODIS

2/3 were ‘cold hits’ – meaning the individual was not previously named as a suspect

Sexual assault was the most common crime

73% of forensic hits are being or have been reviewed

14.5% of reviewed cases resulted in prosecution; an additional 29% ongoing

569
Estimated Total Hits

3.7%
[n = 85] forensic hits to crimes

BOTTOM LINE: COLLECTING LAWFULLY OWED DNA SOLVES AND PREVENTS VIOLENT CRIMES

'Fallen through the cracks:' Overdue DNA swabs link to murders, sexual assaults

Rachel Dissell, Cleveland Plain Dealer, May 13, 2018
With Homicides Rising, Cities Brace for a Violent Summer

Homicide rates in large cities were up more than 30 percent on average last year, and up another 24 percent for the beginning of this year, according to criminologists.

By Neil MacFarquhar

- 2021 another Increase > 20%

- 1st time violent offenders
  - Greatest, positive impact from DNA collection & processing

- Results in lower recidivism, higher employment, education*

Houston Leaders Grapple With Continued Rise In Violent Crime

- FLORIAN MARTIN | POSTED ON MARCH 16, 2021, HOUSTON PUBLIC MEDIA

- 403 murders in 2020 - 43% increase vs 2019 - 2021, 35% increase from 2020
  Highest since 1990

- Average DNA Analysis TAT = 211 day

- Phased approach - reference samples to crime scene samples w/crime scene investigators licensed by the Texas Forensic Science Commission

“Every minute counts in an investigation and if we can more quickly provide good scientific information that helps catch the right suspect we will do that... This is about the right answer at the right time and Rapid DNA is a technology that provides an opportunity to do this if we use it responsibly.”

-Peter Stout, HFSC, CEO and president.

https://houstonforensicscience.org/event/60082d27zmNi6y%202021.pdf
https://www.fbi.gov/services/laboratory/biometric-analysis/codis/rapid-dna
**Why Arrestee Testing in the Booking Station?**

**BENEFITS**

- **Results in 90 minutes** vs weeks - months
- **Cost effective, scalable, efficient** crime fighting tool
- **Objective identification and elimination**
  - **Improved** DNA tracking & submission compliance
  - **Suspect** remains in custody

**IMPACTS**

- Every profile added results in a cost savings $1.5K to $19K
  - **Deter and prevent** future crimes
  - **Law Enforcement safety** and manpower
  - **Reduce** offender sample load on crime labs
  - **Guards against** racial bias, incorrect identifications and exonerations with objective data
  - **Closure** for victims and families

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Rapid DNA Timeline
Rapid DNA Major Milestones

2017
Rapid DNA Act
Authorizes the FBI Director to "issue standards and procedures for the use of Rapid DNA instruments and resulting DNA analyses."

2018
CODIS Updates
New CODIS software and other necessary interfaces for booking stations to communicate with CODIS.

2019
Pilot Testing Starts
"FBI 5" States include Arizona, Florida, California, Texas, Louisiana.

2020
Standards & Procedures Published
QA Standards & Operational Procedures made effective September 1, 2020

2021*
1st Agencies Go Live
After receiving Authority to Operate from FBI to use an Approved Rapid DNA Booking System
The individual is booked and fingerprints collected

Within **MINUTES** the following occurs:

- Fingerprint Verification
- Biographical Data Verification
- State Identification Number (SID) generated or verified

**UPGRADE & INTEGRATE DNA INTO THE SYSTEM THAT ALREADY EXISTS!**
Funding and Resources

• **Federal grants**: Monitor opportunities at Bureau of Justice Assistance (BJA) and National Institute of Justice (NIJ)
  
  BJA FY21 references funding to implement Rapid DNA technology in booking stations*

• **Federal earmarks**

• **State and Local Budgets**: Engage with state law enforcement associations and local leadership to establish business case for Rapid DNA investments

For more information [www.policegrantshelp.com](http://www.policegrantshelp.com)
Lisa Hurst lhurst@gth-gov.com

*For more information [BJA FY21 Edward Byrne Memorial Justice Assistance Grant (JAG) Program - State Solicitation](https://bja.ojp.gov/sites/g/files/xyckuh186/files/media/document/O-BJA-2021-135005.pdf)
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