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THE 9/11 ATTACKS AND DNA ANALYSIS AT THE FBI LABORATORY

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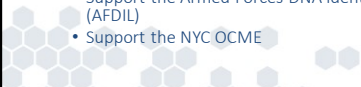
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FBI Response to 9/11/01 Attacks

- Largest investigation in the history of the FBI
 - Would there be more attacks?
- FBI Laboratory began receiving evidence on 9/12/01
 - 24/7 operation initially
- Laboratory has received over 11,000 items
 - Nuclear DNA conducted on over 300 items
- Mission of the DNA Unit was:
 - **Aid the investigation**
 - Support the Armed Forces DNA Identification Laboratory (AFDIL)
 - Support the NYC OCME




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9/11 Attacks: DNA Unit Support

- Mission of the DNA Unit was:
 - **Aid the investigation**
 - Analyze evidence to identify potential co-conspirators
 - Support the Armed Forces DNA Identification Laboratory (AFDIL)
 - Analysis of "alternative known" samples
 - Support the NYC OCME
 - DNA profiles from hijacker's clothing
 - Provided DNA extracts for additional testing




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DNA at the FBI in 2001

- Thirteen autosomal loci
- Team-based analysis approach
 - Forensic examiners with assigned biologists
 - Specialized biologists
- Film-based quantitation (Slot blots)
- Tube-based amplification
- No automation/robotics
- Single capillary electrophoresis instrument
- No LIMS
 - Paper chain of custody
 - Paper-based case files




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DNA at the FBI in 2021

- 21 autosomal loci
- Y-STRs
- Targeted application of personnel
 - Cross-training of biologists
- Real-time PCR quantitation
- Plate amplification
- Automation/robotics
- Sixteen capillary electrophoresis instrument
- LIMS
- Digital case files
- Probabilistic Genotyping




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CODIS at the FBI in 2001

- # of Convicted Offender profiles in CODIS: 750,929
- # of Forensic Specimens: 27,897
- # of Investigations Aided: 3,635
- No Missing Persons/Unidentified Human Remains profiles
- No software capable of kinship analyses



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CODIS at the FBI in 2021



- Total # of Offender profiles in CODIS: 18,883,660
 - Convicted offender, arrestee, detainee, legal
- Forensic Specimens: 1,103,683
- Investigations Aided: 549,516 (cumulative)
- Missing Person profiles: 2,169
- Relatives of Missing Person: 28,391
- Unidentified Human Remains: 14,104
- Pedigree Trees: 16,612

(Above numbers as of 4/30/21)



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