# Familial DNA Search Investigations Mitch Morrissey - Denver District Attorney

#### Familial DNA Database Searches

- Investigators use the DNA database to search for near matches to solve crimes committed by relatives of the people in the database.
- Siblings, and parents can be linked to crimes because their relative's DNA closely resembles DNA found at a crime scene.



## Policy Consideration - Why These Investigations are Important?

- DNA evidence is found in the most violent crimes... Murders, Sexual Assaults, Sexual Assaults on Children.
- 90% of the victims of crimes where DNA evidence is critical are women.
- The next largest percentage of victims are children.



## Policy Consideration - Why These Investigations are Important?

 Important in solving cases and exonerating the innocent.



#### Familial DNA Searches in the UK

- In Great Britain, at present Familial DNA intelligence packages have been produced for 157 specific serious crime investigations.
- Confined to 'cold case reviews' and 'hard to solve' serious crime investigations.



## Perpetrators Identified by Familial Investigations



Joseph Kappen



Tahir Mahmood



Craig Harman



James Ben Davies



James Lloyd



Jason Thomas Ward

## Perpetrators Identified by Familial Investigations







Christopher Downes



Geoffrey Godfrey



Russell Bradbury



Daniel Alderson



Jeffrey Gafoor

## Perpetrators Identified by Familial Investigations



Dale Burrows







Derek Young



David Newton



Ian O'Callaghan



Bronagh Bond

## Familial DNA Investigation After An Exoneration

- In 1988, Lynette White was brutally murdered.
- In 1990, three men were wrongfully convicted of the murder and spent 4 years in prison.
- A familial search of DNA from the scene lead to the real killer.



Cardiff Three

#### Kinship Analysis

- A murder went unsolved for 15 years.
- Then British authorities ran the DNA profile through their database.
- The DNA profile of a 14year-old boy was close.
- The boy's uncle matched exactly.
- When questioned, the uncle admitted to the murder.



Jeffrey Gafoor

## Perfect Post-Conviction Case for a Familial Investigation

- In 1995 Ott was convicted of murdering a16 year-old, based on the testimony of a man who said he saw Ott cut the victim's throat.
- DNA testing in 2007 showed that semen found on the victim was from an unidentified man who had also left DNA in a 1997 murder and 2007 murder.
- Prosecutors in Milwaukee County did not oppose Ott's release for the 1995 case and requested six months to determine whether to try him again.



Chaunte Ott

### Denver's DNA Human ID Research - Familial Searches

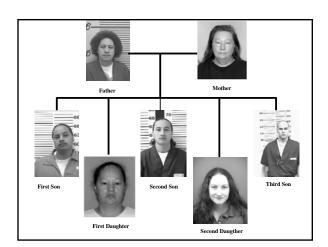
- Searched all unknowns (900) against Denver's DNA database (1700).
- Used Dr. Brenner's DNA·VIEW software (Disaster module).
- In three separate cases there was a 90% chance that two individuals were related.
- Y-STR DNA testing showed that the individuals had the same Y-DNA type.

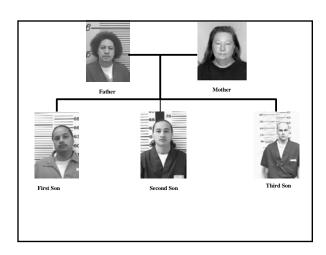


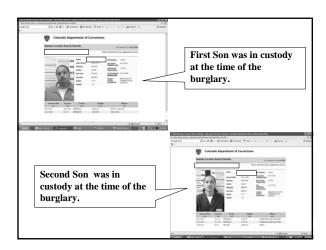
#### Denver DNA Database Familial Searches

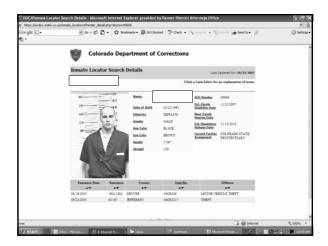
- A 90% chance that a DNA profile in an unsolved burglary came from a male offspring of a known sample.
- The father was in the DNA database for a 2002 aggravated assault.
- Y-STR DNA types matched.











#### Colorado's DNA Human ID Research -Familial Searches

- A search all forensic unknowns against state DNA database has been completed (about 2,000 against 80,000).
- Used DNA·VIEW software.
- We obtained 13 separate cases where there is a 90% chance that two individuals are related.
- We obtained 15 separate cases where there is a 75% chance that two individuals are related.



#### Colorado's DNA Human ID Research -Familial Searches

- We ran Y-STR testing on 6 male pairs where there was at least a 75% chance that two individuals are related.
- All 6 male pairs had the same Y-STR types.
- We will obtain the name of the offender in the database and conduct a conventional investigation.



#### Colorado's DNA Human ID Research -Familial Searches

- There were 9 pairs with one or more female profiles where there was at least a 75% chance that two individuals are related.
- We will obtain the name of the offender in the database and conduct a conventional investigation.



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