Anne Marie Schubert

- CEO Schubert Strategies
- Former Sacramento District Attorney 2015-2022
- Career Prosecutor for 32 years
- Led the Prosecution for *People v. DeAngelo-The Golden State Killer*
- National expert on cold cases, DNA and the use of genealogy to identify the guilty and exonerate the innocent



The Power of Forensic (investigative) Genetic Genealogy to Identify the Guilty and Exonerate the Innocent



TODAYS AGENDA

- ✓ **GSK |** The Case that started it all
- ✓ **How it was solved |** The Pioneering of a Technique
- ✓ **How far have we come |** Case Examples
- ✓ **Next Steps |** Where do we go from here?
- ✓ **Legal Considerations|** Balancing Privacy with Public Safety




60
MINUTES

Crime Spree 1974-1986

- Visalia: 120 Burglaries; Murder of Claude Snelling
- Northern CA: 50+ rapes; 2 murders;
- Southern CA: 10 murders; 2 attempt murders
- Total: 13 murders; 50+ rapes
  83 victims

Visalia, California (Tulare County)



April 1974 – December 1975

Approximately 120 residential burglaries
Sexual burglaries

Extensive ransacking —“The Ransacker”

Takes small items

Makeshift alarm system

Spends time eating and drinking

Homicide of Claude Snelling

September 11, 1975

16-year-old daughter awakened

Attempted abduction

Projectiles are a ballistic match to stolen gun in prior Ransacker case

Prior prowling victim



First Sacramento Crime — 1976



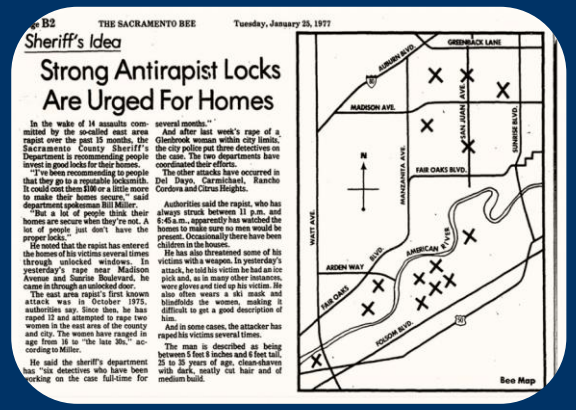


June 18, 1976

A 23-year-old woman is believed to be the first victim in the Sacramento area. She is raped inside her Rancho Cordova home after her attacker breaks in while she is alone. She survives



East Area rapes begin … and continue over the next two years with 29 more attacks, almost all in the Sacramento area



B2 THE SACRAMENTO BEE Tuesday, January 25, 1977

Sheriff's Idea

Strong Antirapist Locks Are Urged For Homes

In the wake of 14 assaults committed by the so-called east area rapist over the past 15 months, the Sacramento County Sheriff's Department is recommending people invest in good locks for their homes.

"I've been recommending to people that they go to a reputable locksmith. It could cost them $100 or a little more to make their homes secure," said department spokesman Bill Miller.

"But a lot of people think their homes are secure when they're not. A lot of people just don't have the proper locks."

He noted that the rapist has entered the homes of his victims several times through unlocked windows. In yesterday's rape near Madison Avenue and Sunrise Boulevard, he came in through an unlocked door.

The east area rapist's first known attack was in October 1975, authorities say. Since then, he has raped 12 and attempted to rape two women in the east area of the county and city. The women have ranged in age from 16 to "the late 30s," according to Miller.

He said the sheriff's department has "six detectives who have been working on the case full-time for several months."

And after last week's rape of a Glenbrook woman within city limits, the city police put three detectives on the case. The two departments have coordinated their efforts.

The other attacks have occurred in Del Dayo, Carmichael, Rancho Cordova and Citrus Heights.

Authorities said the rapist, who has always struck between 11 p.m. and 6:45 a.m., apparently has watched the homes to make sure no men would be present. Occasionally there have been children in the houses.

He has also threatened some of his victims with a weapon. In yesterday's attack, he told his victim he had an ice pick and, as in many other instances, wore gloves and tied up his victim. He also often wears a ski mask and blindfolds the women, making it difficult to get a good description of him.

And in some cases, the attacker has raped his victims several times.

The man is described as being between 5 feet 8 inches and 6 feet tall, 25 to 35 years of age, clean-shaven with dark, neatly cut hair and of medium build.

See Map



Rapist's reign of terror has Sacramento in a panic



East Area Rapist . . . Fear Grips Serene Neighborhoods

By IRIS YANG and BERTHA GAFFNEY-GORMAN
Bee Staff Writers

Jill Bradshaw is angry. She is afraid.

She is frightened because three women who live near her have been raped.

Jill Bradshaw is not her real name, but like other women in the area, she is afraid to identify herself.

Her once serene Rancho Cordova neighborhood is in the clutches of fear caused by a faceless man who wears hooded masks and rapes. Despoils. Degrades. And sometimes robs.

Law enforcement officers refer to him as the East Area Rapist.

Since last year, the white man described as being between 5 feet, 8 inches and 6 feet tall, 25 to 35 years of age, clean with dark, neatly cut hair and a medium build, has raped eight and attempted to rape two East Sacramento women.

Last month alone, he raped four women and attempted to rape two others. Two of his victims were in Del Dayo and two others in Carmichael.

All the rapes have occurred between 11 p.m. and 6:45 a.m. There have been no men in the homes of the victims, although sometimes children were present. The rapist has entered the homes through unlocked windows in all of the cases except one.

This man is not the only rapist in Sacramento, but according to the Sacramento County Sheriff's Department, he is a repeater with a high tendency toward violence.

As a result, the residents of the Sacramento communities have taken steps to protect themselves against the rapist.

Some husbands have cancelled overnight trips.

One man is installing iron bars on his windows and doors.

Other men are instructing their wives or girl friends in the use of handguns.

And still others have installed burglar alarms and floodlights around their homes.

Fear has tightened its grip on the communities of Del Dayo, Carmichael and Rancho Cordova. Rumors are rampant.

Publicity about the rapes was minimized because the sheriff's department feared widespread panic would result and because they hoped to entrap the rapist.

The sheriff's department has watched the rumors develop. "They are really getting out of hand," said department spokesman Bill Miller about the misinformation being passed around by residents.

Stories have it that rapes in the areas were occurring every hour, said one Del Dayo woman. A Rancho

See Page A3, Col. 1

Los Angeles Times

Man in the Window

Mapping the Golden State Killer

By PAIGE ST. JOHN, LORENA IÑIGUEZ ELEBEE, ELLIS SIMANI & PRIYA KRISHNAKUMAR

JUNE 11, 2019



The Impact on the Sacramento Community







- Blitz Attack; blinding victims with flashlight
- Masked
- Tying up victims w/ ligatures/shoe laces
- Dishes on back of males
- Clenched Teeth
- Extensive ransacking
- Taking small items/souvenirs
- Eating and drinking in victims kitchen
- Increased violence over time





Homicide of Brian and Katie Maggiore

› **February 2, 1978**

Attempted Double Homicide in Goleta, Calif.

(Santa Barbara County)



- **October 1, 1979**
- **Sleeping couple awakened in similar fashion as E.A.R.**
- **Suspect loses control of scene and flees on stolen bicycle**

Homicide of Robert Offerman and Debra Manning





December 30, 1979

Goleta, Santa Barbara County

Homicide of Charlene and Lyman Smith

March 13, 1980

Ventura, Ventura County





Originally Published in The Press-Courier, Monday, March 17, 1980 VenturaCountyCrimeBlog.com

Attorney, Wife Beaten to Death In Ventura Home

By RICK NIELSEN

A prominent attorney being considered for a Superior Court judgeship and his wife were found beaten to death Sunday in the bedroom of their hillside home in Ventura, an official reported.

Dead are Lyman Robert Smith, 43, and his wife, Charlene, 33, of 572 High Point Drive.

Ventura police Capt. Paul Lydick said the couple appeared to have been dead for "three or four days" from bludgeon-type injuries to their heads.

He said the mortal wounds appeared to be inflicted with a club-type weapon.

Lydick said no motives have been established in the double homicide and autopsies are expected to be conducted today to determine the exact causes of the deaths.

Smith's 12-year-old son by a previous marriage, Gary of Ventura, made the grisly find when he went to visit the couple at 2:15 p.m. Sunday.

"We received a call from a hysterical child reporting the incident," according to Lydick. He said when officers arrived they found the couple in the bedroom.

Gary lives about a half mile from the Smith residence and frequently walks to his father's home to visit, according to Lydick.

He said a preliminary investigation by homicide detectives found no signs of a forced entry into the Smith home.

Lydick said he did not know if the couple were sleeping when they were viciously beaten. He said there were no signs of a violent struggle in the room.

Mrs. Cari Marchetti, a next door neighbor, said she was shocked over the deaths. "They (the Smith's) were a very nice couple who seemed to get along well with everyone," she said.

"It's just terrible." Smith's law partner, Phil Drescher, said. "I just can't understand why anyone would want to kill Lyman and his wife."

Smith was associated with Drescher and Blaine Romney in law practice in Santa Paula.

Smith reportedly was one of four attorneys being considered by the California State Bar Committee for appointment to one of two newly authorized Superior Court judgeships.

The committee submits recommendations to the governor for the appointment.

Drescher said Smith was a

(See Slayings, Page 2)

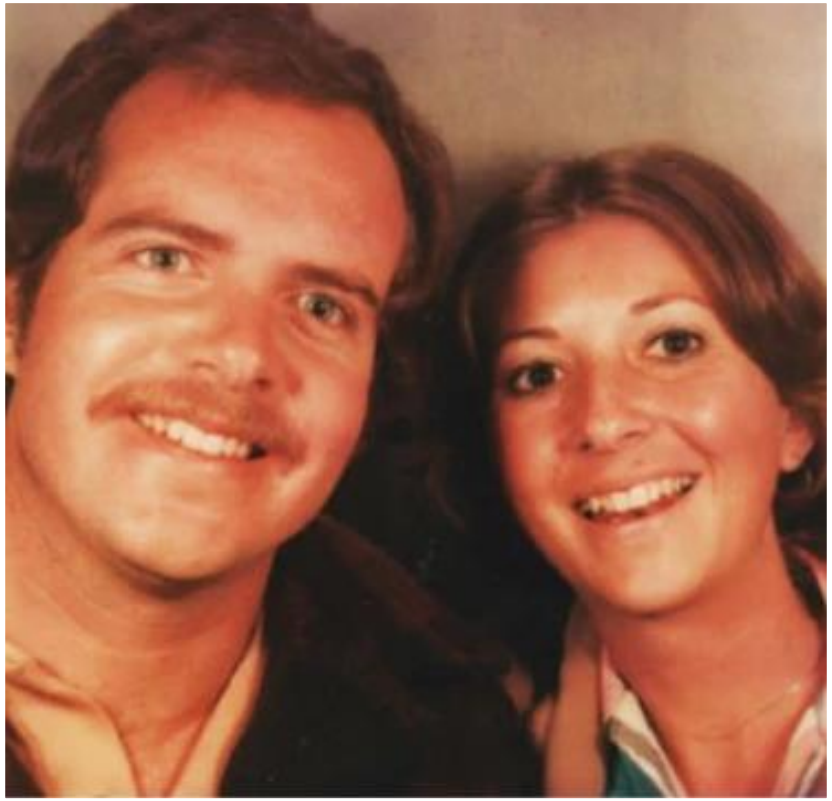
LYMAN ROBERT SMITH
Santa Paula attorney

CHARLENE SMITH
Slaying victim

Homicide of Keith and Patrice Harrington

August 19, 1980

Laguna Niguel, Orange County



Homicide of Manuela Witthuhn

February 6, 1981

Irvine, Orange County



Homicide of Cheri Domingo and Greg Sanchez





July 27, 1981

Back in Goleta

Homicide of Janelle Cruz

May 5, 1986

Irvine, Orange County



Case Linkages

→ 1996: “New” DNA analysis confirms Orange County homicides linked

Harrington (Orange County Sheriff)

Witthuhn (Irvine Police Dept.)

Cruz (Irvine Police Dept.)

- 1998: DNA evidence from Ventura County Smith case is linked
- 2001: DNA Evidence from Smith linked to Domingo/Sanchez
- DNA uploaded to CODIS: DNA hits to Orange County and Ventura cases
- Several rapes in Contra Costa County believed to have been committed by E.A.R. are linked to the murders

Original Night Stalker linked to crimes statewide



1 **Between 1976 and 1979** up to 50 rapes were attributed to the East Area Rapist near Sacramento. DNA evidence in 2001 linked the rapes with the Southern California killings of the Original Night Stalker.

2 **Dec. 30, 1979 –** 3:05 a.m. Robert Offerman, 44, and Alexandra Manning, 35. The killer breaks into their Goleta condo, ties them up, then shoots them.



Cheri Domingo and Gregory Sanchez

3 **March 13, 1980 –** Unknown time. Lyman Smith, 43, and Charlene Smith, 33. The killer ties them up in their Ventura home, rapes Charlene, then bludgeons both to death.

4 **July 27, 1981 –** 3:30 a.m. Cheri Domingo, 35, and Gregory Sanchez, 27. She is bound and bludgeoned, and he is shot and beaten to death in a Goleta home.

5 **Aug. 19, 1980 –** 11 p.m. Keith Harrington, 24, and Patty Harrington, 28. The killer ties up the newlywed couple in their home on Cockleshell Drive in Dana Point, rapes Patty, then beats them both to death.







6 **Feb. 5, 1981 –** After 11 p.m. Manuela Witthuhn, 28. She had just returned to her home on Columbus in Irvine from visiting her husband in the hospital. The killer ties her up, rapes her and bludgeons her to death.

7 **May 4, 1986 –** Between 10:45 p.m. and midnight. Janelle Cruz, 18. The killer enters her home shortly after her visiting boyfriend leaves. Her parents were away on vacation. He ties her up, rapes her and beats her to death.



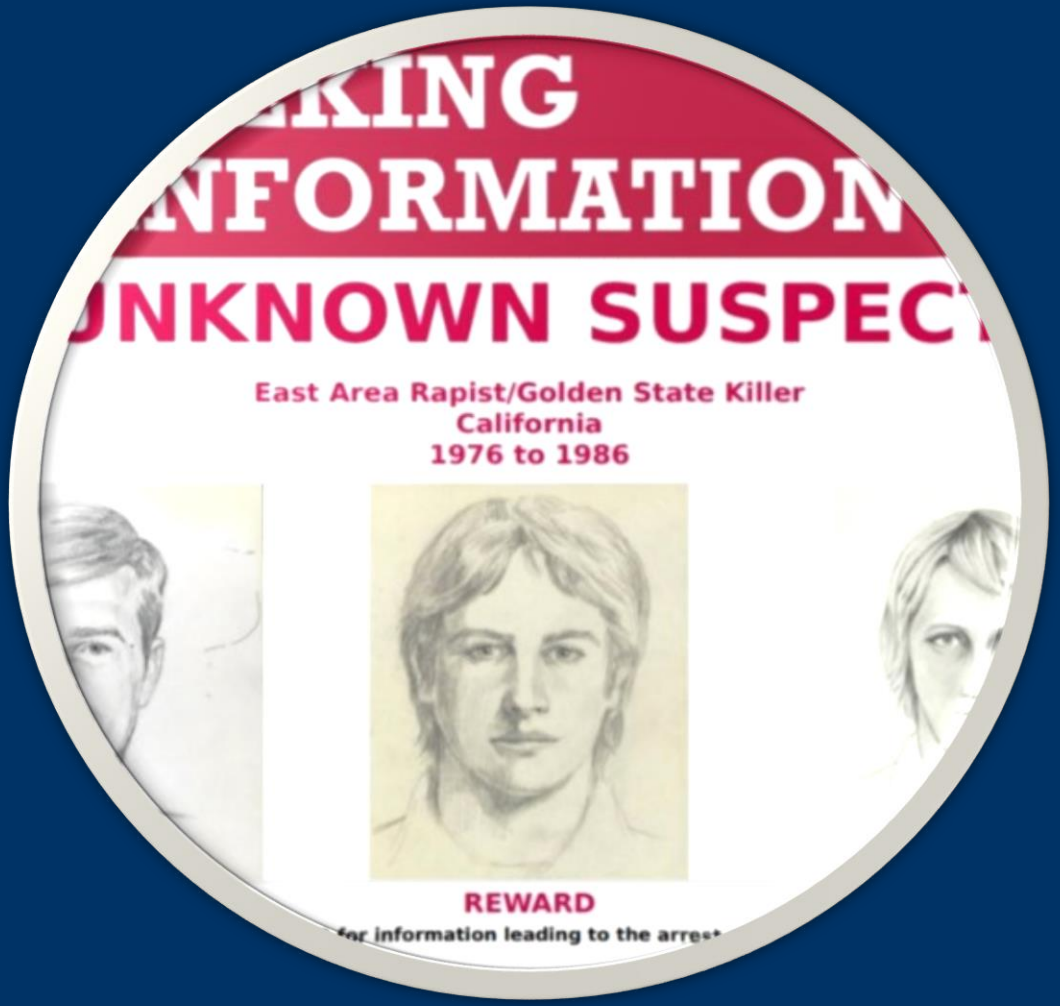


Note: The Night Stalker, **Richard Ramirez**, received his nickname for local killings starting in the mid '80s. The Original Night Stalker began his killing spree before Ramirez, but it was not known to be the work of one serial killer until recently.

STAFF GRAPHIC



June 2016: FBI offers $50,000 reward for GSK







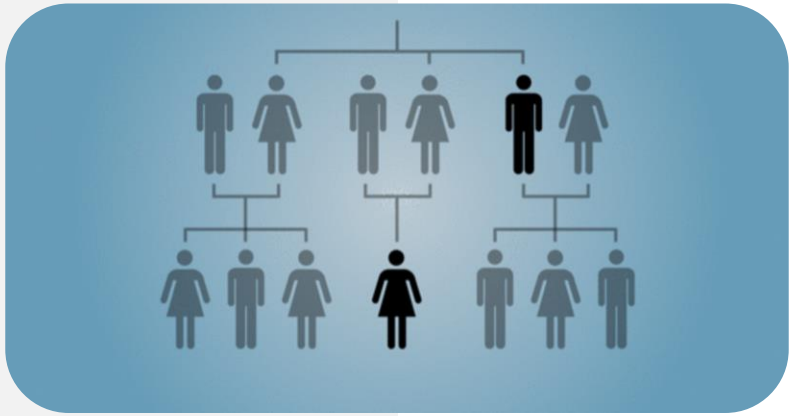
How We Solved it

The pioneering of a technique

Is genetic genealogy testing a possibility?

- **CODIS Search:** No Hits
- **Familial Search:** No relative of G.S.K. identified in CODIS





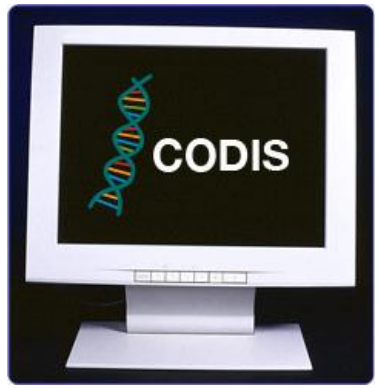

CODIS

CODIS: Combined DNA Index System
HOW THE DATABANK WORKS

Unsolved Case With DNA evidence

Convicted Offender DNA Samples

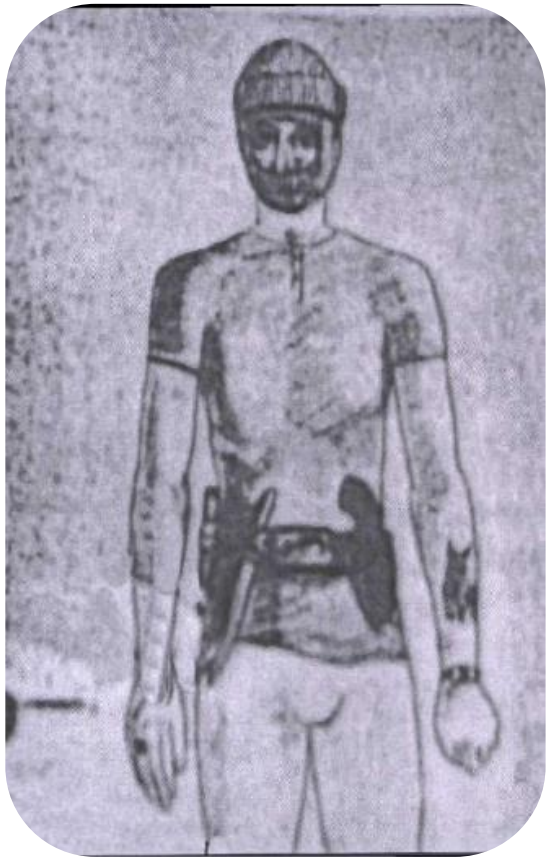
CODIS
COMBINED DNA INDEX SYSTEM



- ✓ COLD HIT
- ✓ CASE TO CASE HIT

GSK “known” physical characteristics

- 5’8” to 5’11”
- 160lbs to 180lbs
- Athletic build
- Light colored eyes
  - (**blue, green or hazel)
- Brown or blond hair
- Likely born between 1940 and 1960
- **Premature balding
- ** Italian ancestry but fair skin

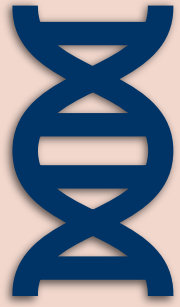


What Is Investigative Genetic Genealogy?

A combination of genealogy and DNA analysis to develop investigative leads in cases with unidentified remains or unsolved crimes

Law enforcement seeks to name a perpetrator by using DNA to connect relatives and then using genealogy research to build family trees to determine the perpetrator's identity.

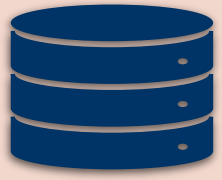
How Does Investigative Genetic Genealogy work?



EXTRACT DNA FROM EVIDENCE



SEND TO INDEPENDENT LAB FOR SNP TESTING



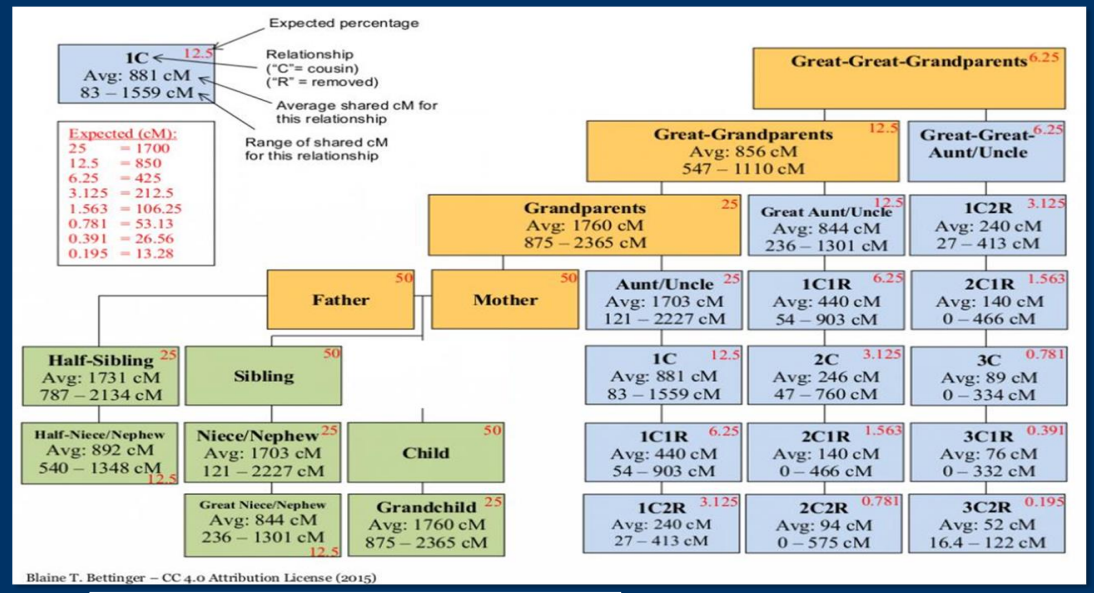
OBTAIN TEXT FILE OF RAW SNP DATA

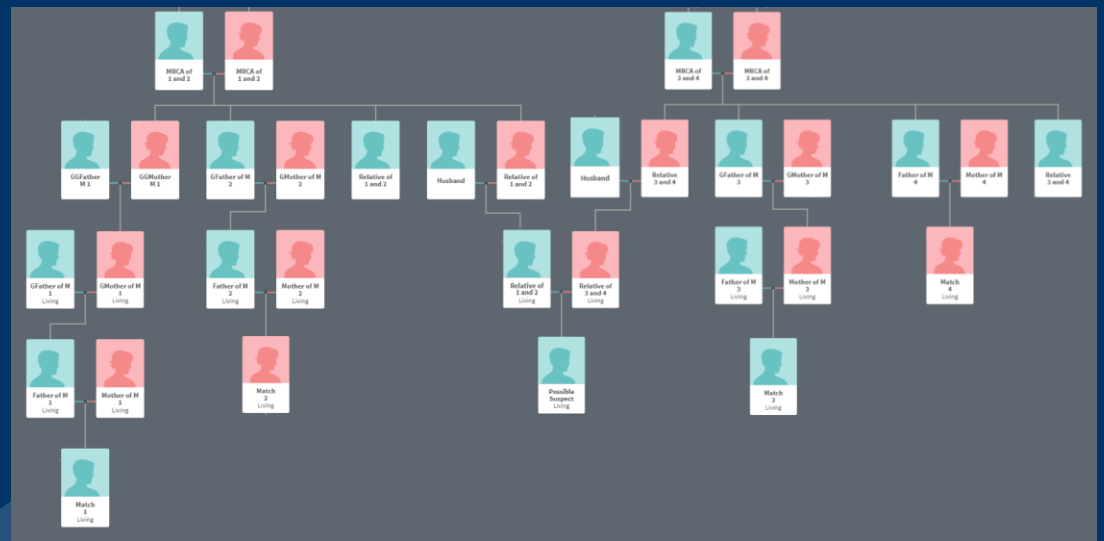


UPLOAD RAW SNP DATA TO GENEALOGY DATABASE LIKE GEDMATCH.COM OR FAMILYTREEDNA.COM

Building the Family Tree





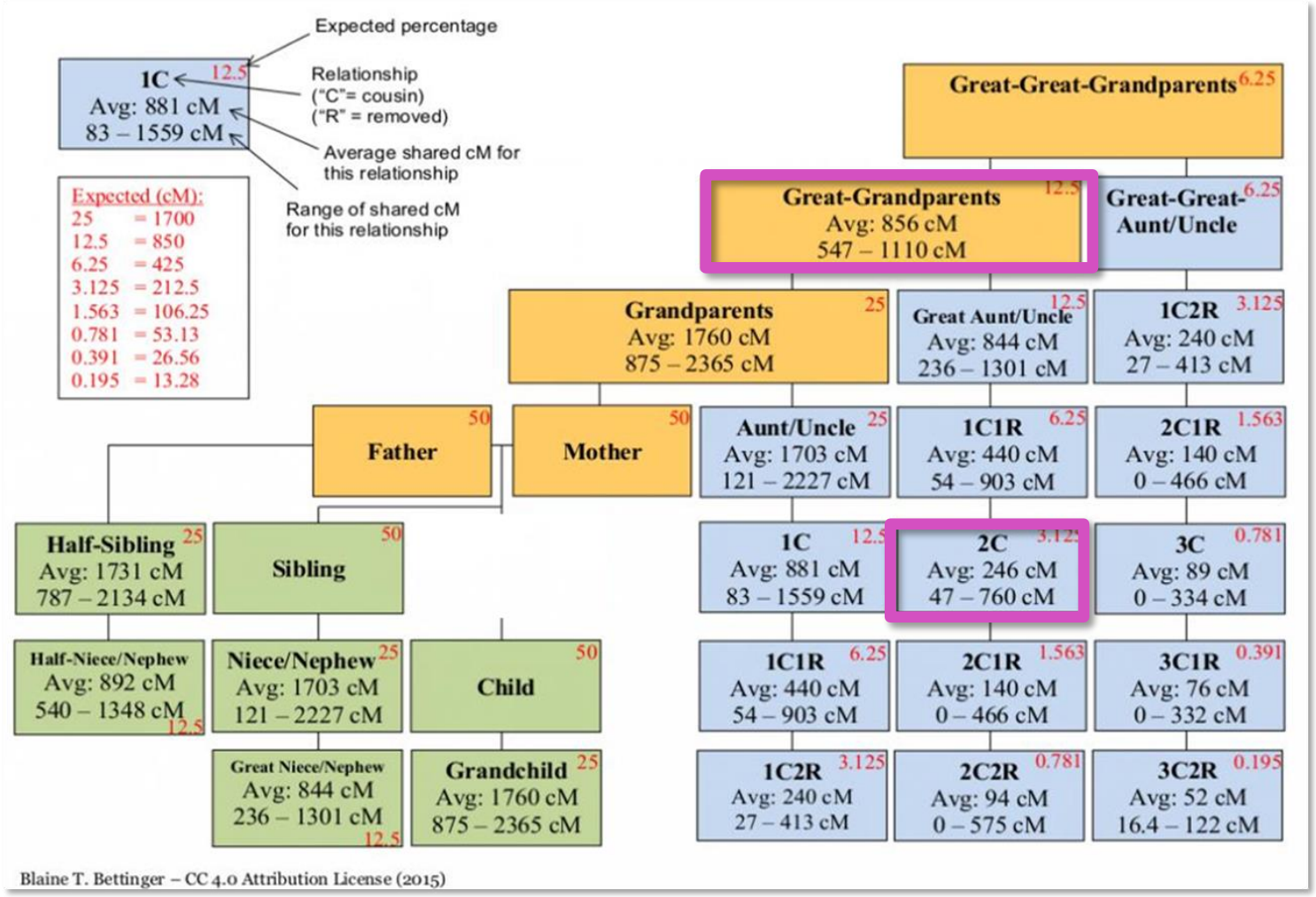


Building the Family Trees

Genealogy databases can identify relatives based on how much DNA is shared.

Investigators and genealogists can work backwards to identify common ancestors …

… then move forward to fill in the tree and identify a potential suspect.



Blaine T. Bettinger – CC 4.0 Attribution License (2015)

Building the Family Trees

Investigators must pore over:

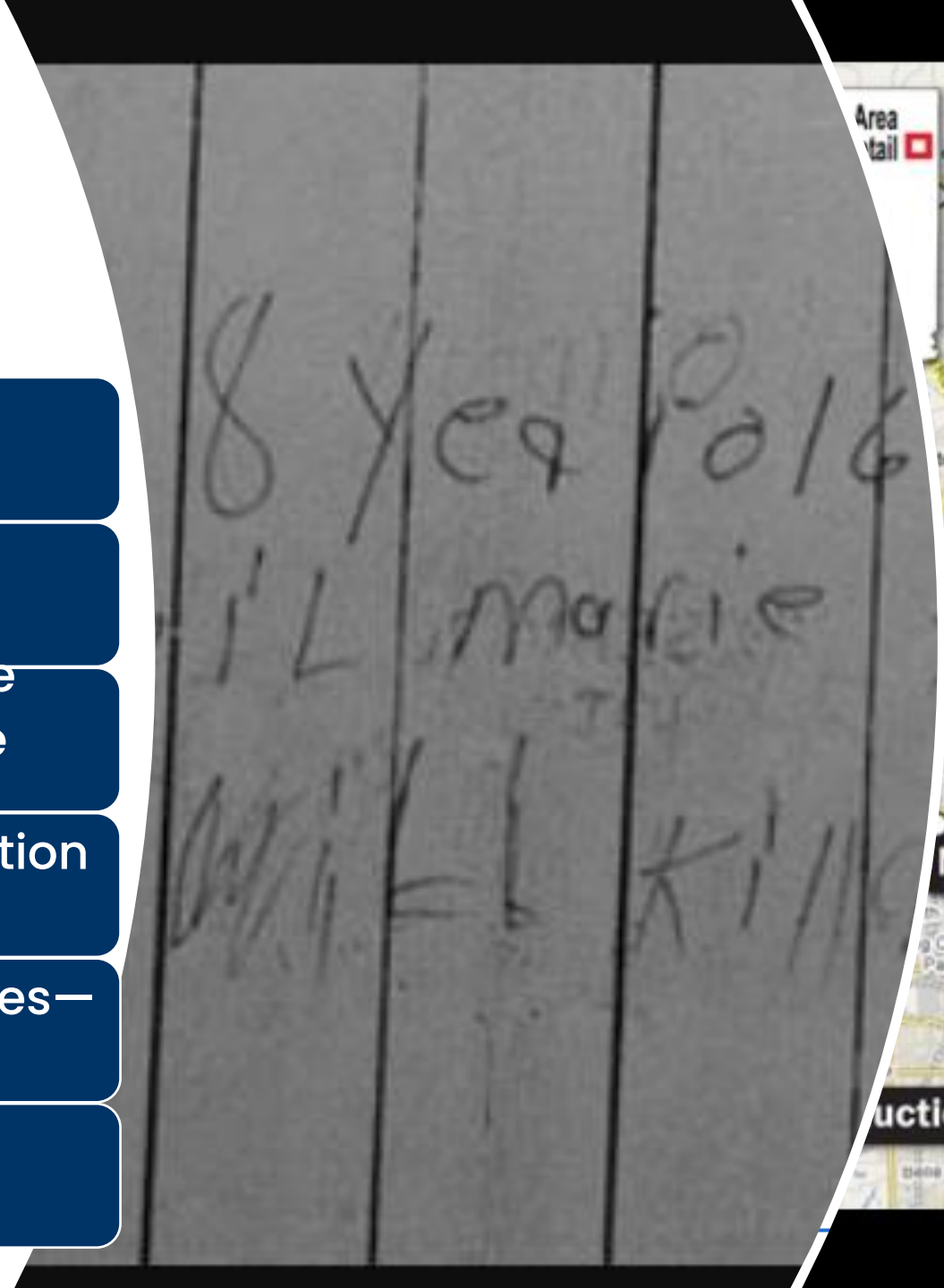
- Census Records
- Gravesite locators
- Newspaper Obituaries
- Commercial databases
- Law enforcement databases
- May consider consulting a Genealogist





Identifying or Eliminating Persons of Interest

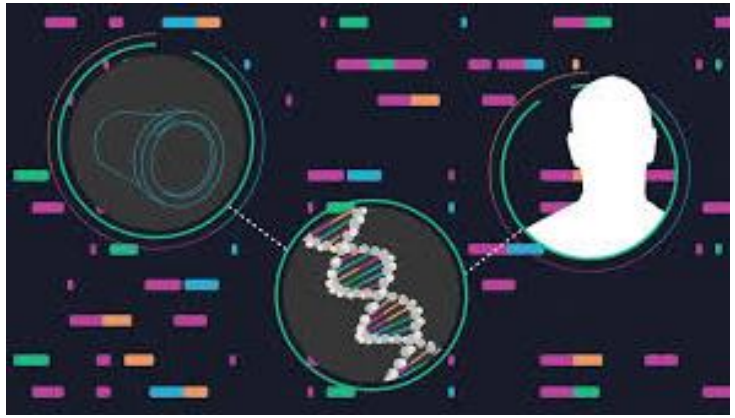
- Building a timeline
- Is the suspect in the correct age range?
- Was the suspect in the area at the time of the crime?
- Background investigation of POI
- Investigative databases—public and private
- Military records





When a Potential Suspect Is Identified Through Tree-Building







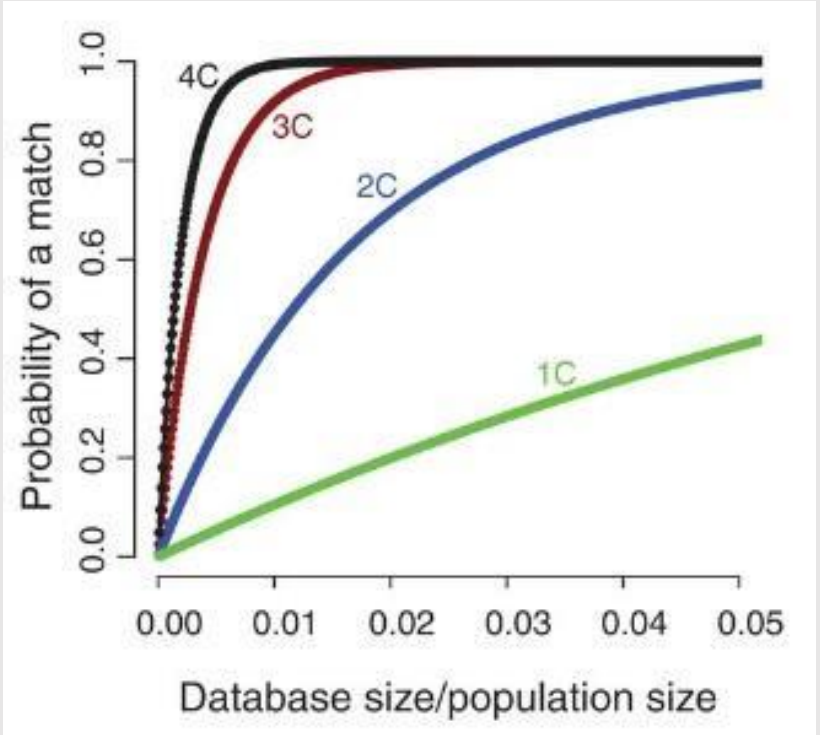
	Reference Sample	Oral Swab #5-4sp	R. Nipple Swab #5-6	Buccal Swab #211 Blood #212
D8S1179	13,14	13,14	13,14	13,14
D21S11	29,31	27,(29),31	27,(29),31	27,31
D7S820	8,11	8,11	8,11	8,11
CSF1PO	9,12	(9),10,12	9,12	10,12
D3S1358	16,17	14,15,(16),(17)	14,15,16,17	14,15
TH01	6,7	(6),7,9	(6),7,(9)	7,9
D13S317	13	11,(13)	11,13	11
D16S539	11	10,(11),13	10,11,13	10,13
D2S1338	NT	19,(20),(23),24	NT	19,24
D19S433	NT	(12),13,14	NT	13,14
vWA	16,19	15,(16),(19)	15,(16),(19)	15
TPOX	8,10	8,10	8,10	8,10
D18S51	12,13	(12),13,19	12,13	13,19
AMEL	X	X Y	X (Y)	X Y

Need to collect a confirmatory sample (abandoned)

Perform STR DNA testing and compare results to crime scene forensic unknown

Probability of Finding a Relative in a Genealogy Database

- **1% Sample of Representative Population:**
  - 58% chance of matching a 2nd cousin
  - 95% chance of matching a 3rd cousin
- **5% Sample of Representative Population:**
  - 97% chance of matching a 2nd cousin
  - 99% chance of matching a 3rd cousin



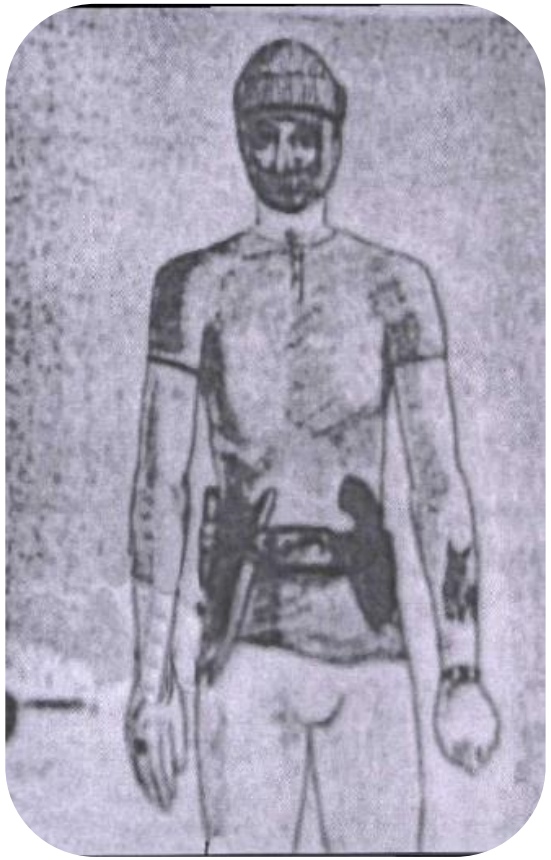
https://www.biorxiv.org/content/10.1101/350231v2

The Power of the Tool

GEDmatch	≈ 2M Profiles*	80% -3rd cousin (3C)
FamilyTreeDNA	≈ 2M Profiles*	80% -3rd cousin (3C)
MyHeritage	≈ 5M Profiles*	95% - 3C
23andMe	≈ 12M Profiles*	99% - 3C
ancestryDNA	≈ 20M Profiles*	97% - 2nd Cousin

GSK “known” physical characteristics

- 5’8” to 5’11”
- 160lbs to 180lbs
- Athletic build
- Light colored eyes
  - (**blue, green or hazel)
- Brown or blond hair
- Likely born between 1940 and 1960
- **Premature balding
- ** Italian ancestry but fair skin



Auburn Policeman Dismmissed In Shoplifting Accusation

Joseph DeAngelo, the Auburn policeman accused of shoplifting a can of dog repellant and a hammer at a Sacramento drug store last month, was fired this week.

Auburn City Manager Jack Sausser said DeAngelo failed to answer any of the city's investigations and did not request an administrative hearing so was dismissed Monday.

"There was justifiable grounds to remove him from the public sector," Sausser said Monday.

DeAngelo, who is represented by Chico attorney Maurene Wheland, was not available for comment.

Auburn Police Chief Nick Willick Tuesday said, "It is very important that the community have the utmost trust and faith in its officers' integrity; when this trust and faith has been compromised, officers can no longer effectively function in the community."

According to Willick, as a result of an investigation into DeAngelo's fitness and conduct, the city has determined that dismissal was warranted.

DeAngelo was cited by Sacramento County Sheriff's deputies for allegedly shoplifting July 21, at the Pay N' Save Store off Greenback Lane in Citrus Heights.

According to Sheriff's reports, DeAngelo was caught trying to steal the items by store employees.

DeAngelo has 15 days to file a formal appeal to the city's 5-member Personnel Appeals Board.

Colwell - DeAngelo Pair Announce Engagement

Announcement has been made of the engagement of Bonnie Jean Colwell and Joseph James DeAngelo, Jr. No definite date has been set for the wedding.

The bride elect is the daughter of Mr. and Mrs. Stanley B. Colwell of rural Auburn and the future bridegroom is the son of Mrs. Jack Bosanko of Auburn and Joseph J. DeAngelo, Sr. of Korea.

Miss Colwell was graduated from Del Oro High School and Sierra College where she is a lab assistant in the Science Department. She is affiliated with the Life Science Club, AGS (honor society) and the President's Honor Roll.

Young DeAngelo is a graduate of Folsom High School and Sierra College. He is employed by Sierra Crane and Hoist Co. of Newcastle. He is affiliated with the Vet's Club, AGS, President's Honor Roll and the International Diving Association, N.A.U.I.

Job's Corner

Bethel No. 148, Auburn, held election of officers last Thursday at 7:30 p.m. in the

state/local

TUESDAY, MAY 11, 1976 — PAGE 1-B

SOURCE: EXETER SUN

EXETER SUN

and News of People YOU Know

WEDNESDAY, AUG. 22, 1973 SINGLE COPY 15c

Navy veteran serves Exeter as policeman

James DeAngelo Jr. believes that without law and order there can be no government and without a democratic government there can be no freedom. Law enforcement is his career, he says, and his job is serving the community.



JAMES DeANGELO JR. —photo by Exeter Studios

Anti-Burglary Funds Okayed

Anti-burglary teams for the Exeter-Farmersville area and Tulare have been approved for 1976-77 by the Central California Criminal Justice Planning Board.

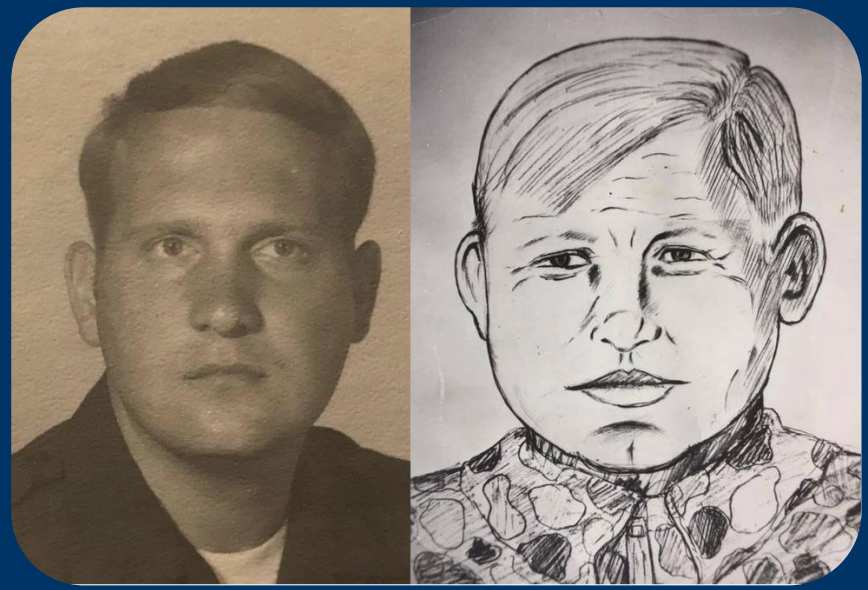
Funding for the second year of the Exeter and Farmersville police departments' program, known as "Joint Attack on Burglary," will begin on Aug. 1.

Funds from federal, state and local governments will pay the salaries of two officers, Sgt. Greg Lanford of Farmersville and Sgt. Joe DeAngelo of Exeter. The two officers will investigate burglaries and attempt to prevent them by informing the public about burglary prevention methods.

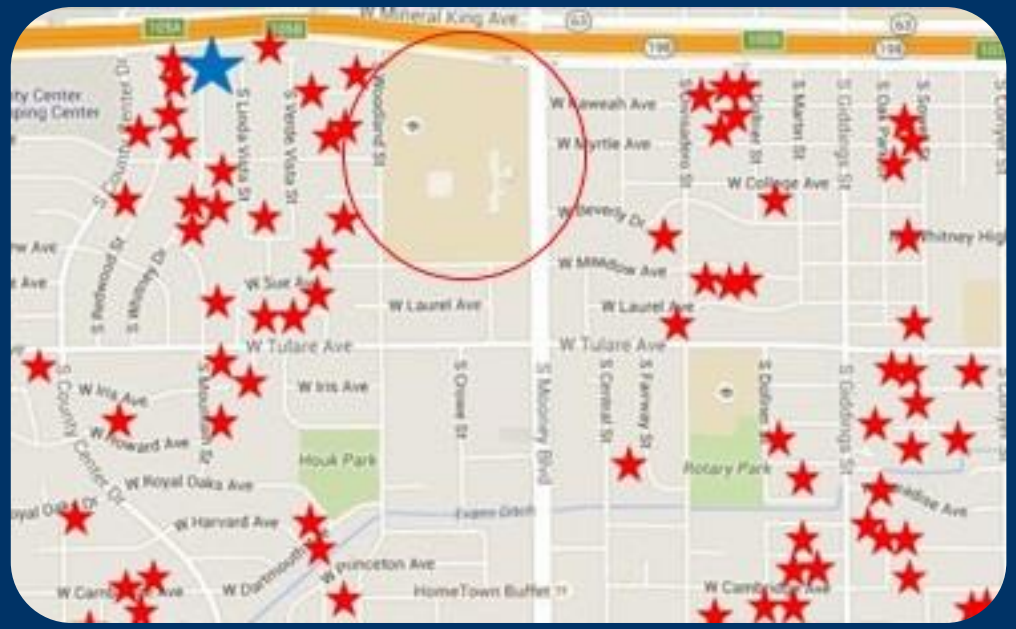
Lt. Garry Meek of the Farmersville Police Department said burglaries decreased by 14 per cent in Exeter and Farmersville during the first six months of the program. He said 103 burglaries occurred during that period, compared to 120 during a corresponding six-month period during the year before the program began.

In Tulare, the police department's "Burglary Repression Team," will begin its third year on July 1. Officers conducting the program are Charles Day and Dennis Rhyman.

Police officials said a 7 per cent decline in burglaries has occurred in Tulare since the program began in July 1975.



Investigation Discovery





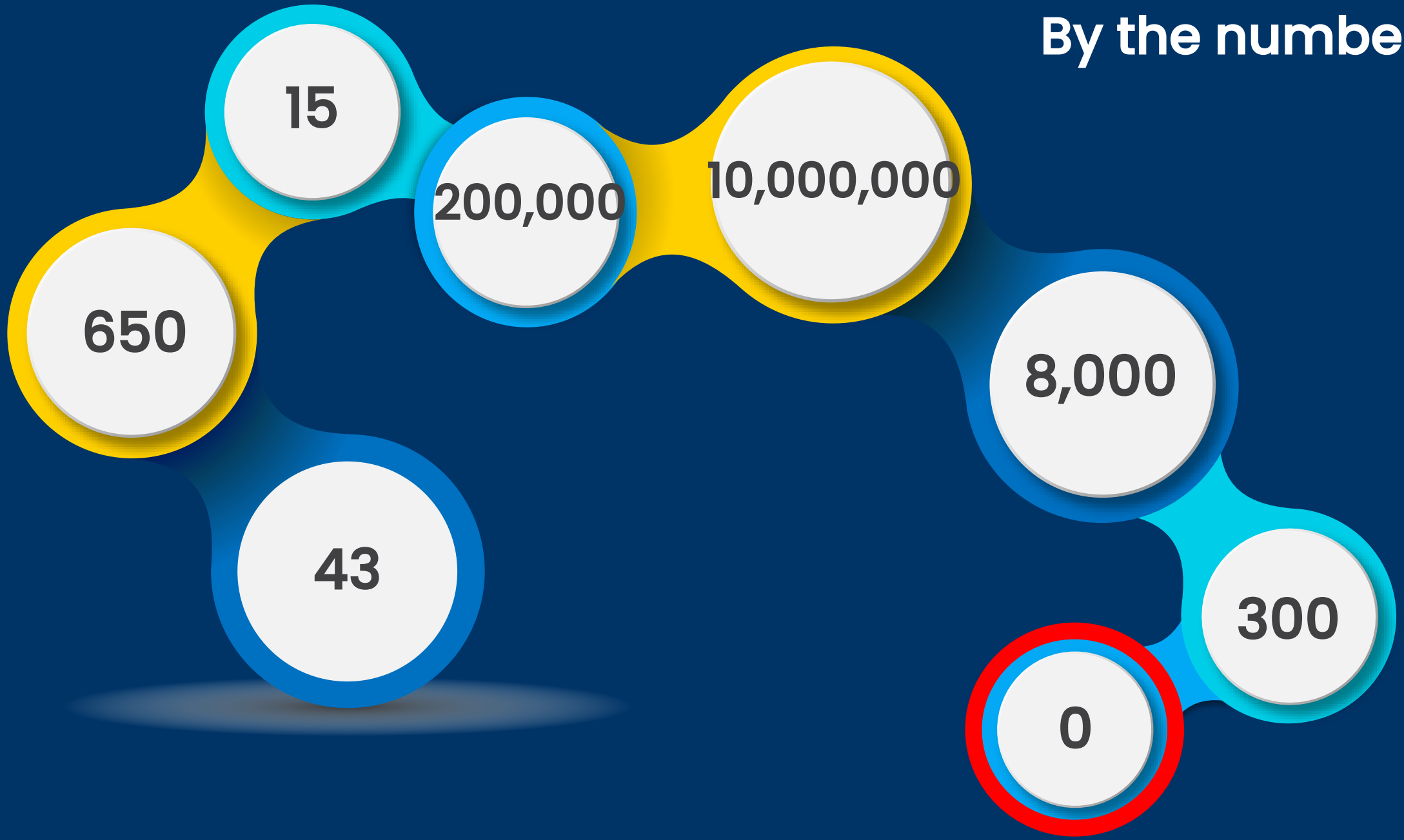


APRIL 24, 2018



Joseph DeAngelo is identified as The Golden State Killer

By the numbers...

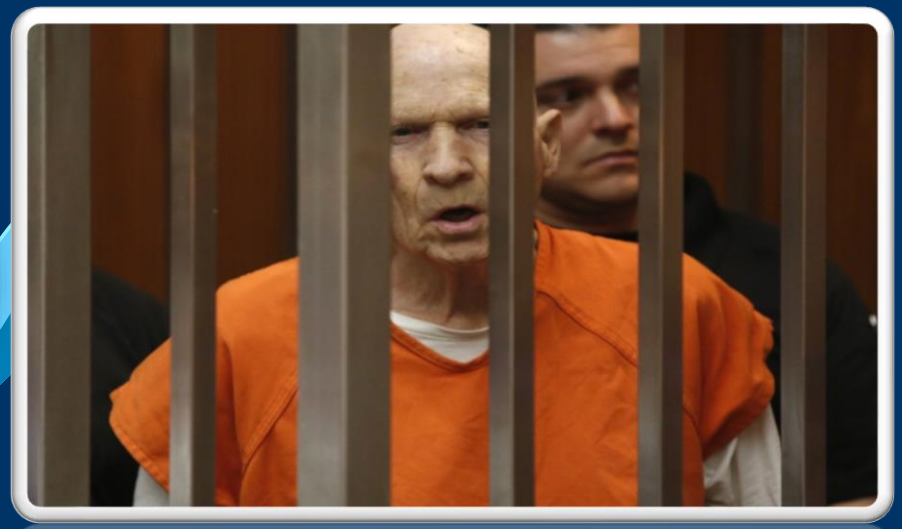


By the numbers...

6

217

63



The Prosecution of the Golden State Killer

Largest Multi-Jurisdiction Prosecution in California History

Six Separate Counties on "Team Justice"

Sacramento: Lead Office
Contra Costa
Tulare
Orange
Santa Barbara
Ventura





The Prosecution of the Golden State Killer

Pled Guilty to First Degree Murder all 13 murders with enhancements

Pled Guilty to All Kidnapping for Robbery Charges

Admitted ALL the uncharged crimes

Sentenced to Life without Parole



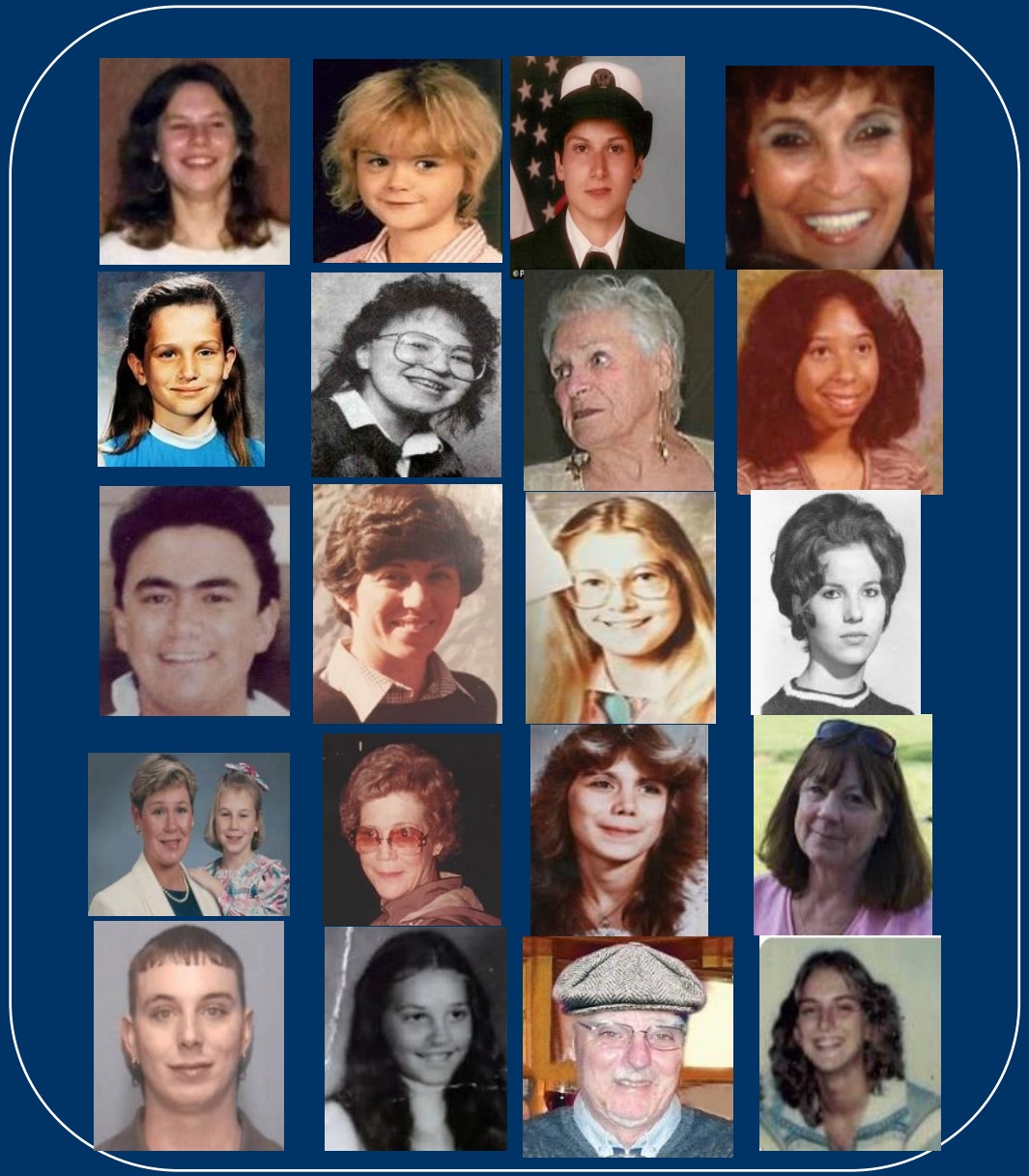


Where do we go from here?

Unidentified Human Remains	13,400 (10% homicide)
Unsolved Murders	250,000
Sexual Assaults/Year	444,000
Unidentified DNA profiles in CODIS	1,322,543

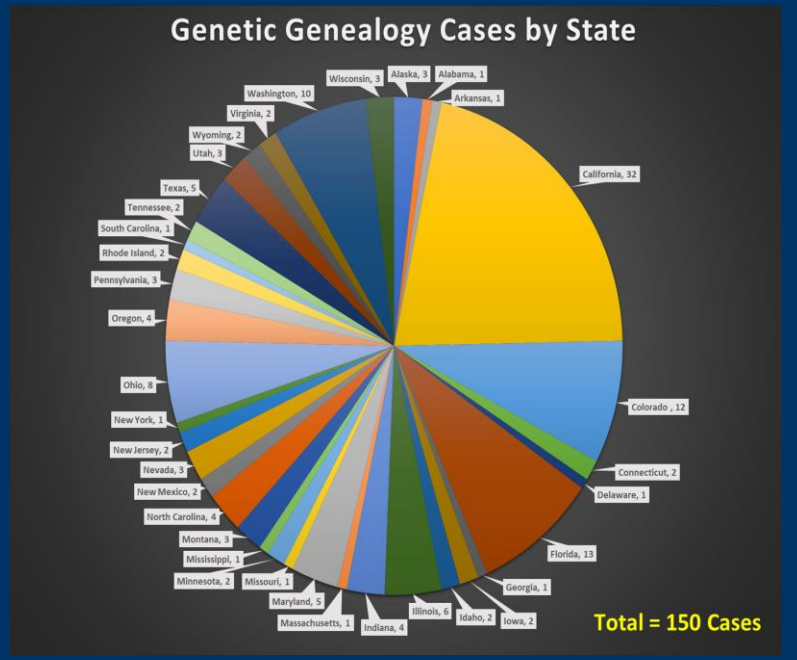
All Current / Active cases

https://www.ojp.gov/pdffiles1/nij/grants/301932.pdf | https://www.rainn.org/statistics/criminal-justice-system | https://le.fbi.gov/



How Far Have We Come?

Case Examples



Sacramento Cases: Guilt and Innocence

Serial Rapist

First John Doe Warrant in California 1993-1994

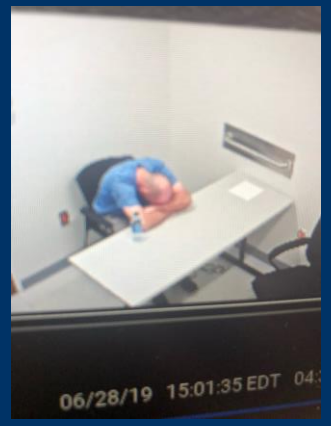
OXYGEN SHOWS EPISODES & VIDEOS NEWS PODCASTS DETECTIVE'S DEN SCHEDULE SEARCHING FOR

Crime Time › › › FAMILY CRIMES SAFETY CELEBRITY SCANDALS UNSUNG HEROES SOCIAL MEDIA CRIMES

JULY 2, 2019, 3:21 PM ET

Cold Cases

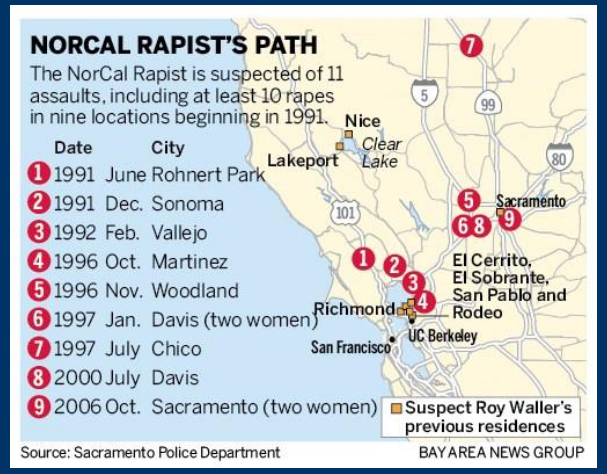
Ex-Prison Worker Arrested After DNA Evidence Connects Him To Brutal 1990s Rapes, Police Say





Nor Cal Serial Rapist

1991-2006







Exoneration of Ricky Davis; the identification of real killer

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NATION

California man spent 15 years in prison. DNA, genealogy websites were just used to free him.

Don Thompson The Associated Press

Published 7:42 a.m. ET Feb. 14, 2020 | Updated 8:57 a.m. ET Feb. 14, 2020





The Murder of Jane Hylton and Conviction of Ricky Davis







Conviction of Ricky Davis

- Davis's girlfriend main witness implicating Ricky
- After several interviews with law enforcement, girlfriend claimed she *bit the victim* and Davis stabbed her to death
- Girlfriend was a heavy meth user
- Girlfriend testified at trial under plea agreement
- Davis was convicted based primarily on this testimony

Post Conviction DNA Testing Nightgown and Fingernail Scrapings

Bitemark—left posterior shoulder





Post Conviction DNA Testing

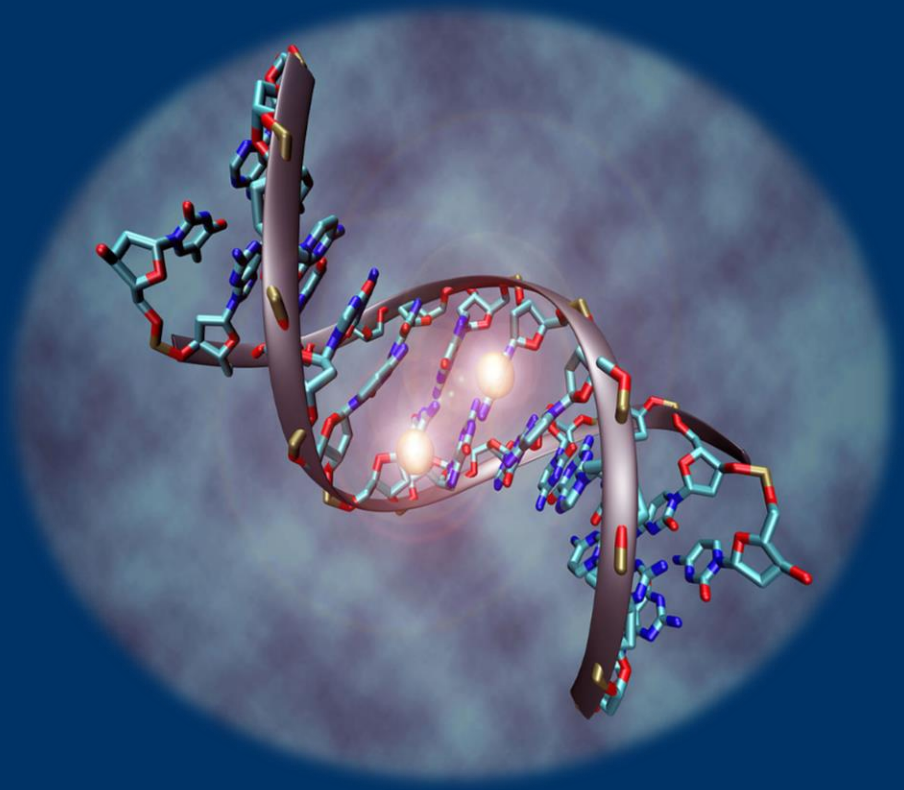
- Bite Mark revealed male DNA; excluded girlfriend (refuted her trial testimony)
- DNA was NOT Ricky Davis
- Forensic Investigative Genetic Genealogy identified Michael Green
- Green later pled guilty to murder





Legal Considerations Using Genealogy to Identify the Guilty and Exonerate the Innocent

- Privacy Considerations
- Laws and Legislation
- Court Considerations
  - Discovery
  - Motions in Limine
  - Admissibility Hearings
  - Presentation of Evidence



Questions ?

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