

When DNA alone is not enough: exoneration by computer interpretation

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Jurisprudence Section
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Human Faces of Wrongful Conviction





Darryl Pinkins and Roosevelt Glenn and Probabilistic DNA Genotyping

Time Line

DNA
1989 Crime
Convictions
Appeals
WCC
Dr. Greg Hampikian
Dr. Mark Perlin & Cybergenetics
48 Hours
Freedom

Crime of December 7, 1989 Five Attackers



January 2, 1990 Arrests at Luria Brothers

- Darryl Pinkins
- Roosevelt Glenn
- William Durden
- Barry Jackson
- Gary Daniels

August 16, 1990

Cellmark Analysis

The DNA detected from the stains labelled seminal stains on the jacket and the material cutting from the sweater did not originate from any of the following individuals: William Durden Jr., Darryl Pinkins, Barry Jackson, Gary Daniels, or Roosevelt Glenn.

August 16, 1990

Cellmark Analysis

The DNA banding pattern identified in the seminal stains on jacket 3-3 and 3-4 that could not be attributed to the victim were similar in both of those pieces of evidence. Additionally, this DNA banding pattern was similar to one of the two non-victim DNA banding patterns identified in the seminal stain on jacket 3-1 and seminal stain on sweater #10.

October 26, 1990
Amended Charges

Charges against Barry Jackson and Gary Daniels dismissed based on theory that DNA analysis revealed victim and "two unknowns."

Conviction and Appeals of Pinkins

- Guilty on May 3, 1991
- Sentenced June 14, 1991, to 65 years
- Pursued Davis/Hatton June 29, 1992
- PCR for newly discovered December 16, 1992
- IU McKinney contacted August 18, 1999
- **DNA Testing Report Nov. 5, 2001: 'Same' Results**
- PCR Denied by Trial Court November 19, 2002
- Indiana appeal denied March 5, 2004
- Federal appeal denied February 8, 2007
- Petition to File Successor June 1, 2015
- Released April 25, 2016

Conviction and Appeals of Glenn

- Jury trial January 13, 1992 deadlocked
- Jury trial March 1, 1993 convicted one of three counts
- Sentenced April 22, 1993, 36 years
- Direct appeal August 29, 1995
- PCR filed November 14, 2003
- Trial Court Findings June 24, 2008, Denied Relief
- Indiana Court of Appeals decision April 22, 2009
- Glenn Released From Parole November, 2010
- Federal trial court habeas denied August 3, 2011
- Petition to File Successor June 1, 2016
- Conviction Vacated and Charges Dismissed January 30, 2017

Key Successor Issues

Legal Claims

Newly Discovered Evidence via TrueAllele®
Ineffective Assistance
Brady Violation

Factual Claims

TrueAllele® Identifies Five Unknowns
Use of Serology Inclusion in Face of DNA Exclusion
Faulty Hair Comparison
Snitch Testimony Suspect
Faulty Identification

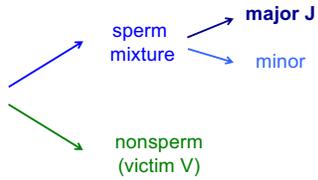
April 25, 2016



#1. Jacket evidence



Lab separates DNA into sperm and nonsperm



Match table 1

References

	V	Pinkins
J	-15.39	-18.00

Match table 3

References

	V	P	Glenn
 J	-15.39	-18.00	-15.39
 S	-15.39	-15.17	-15.39
 H	-15.39	-18.00	-15.39

Evidence vs. evidence

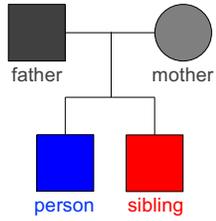
Different evidence genotypes?

	 J	 S	 H
 J	11.07	1.21	4.15
 S	1.21	10.22	-2.39
 H	4.15	-2.39	10.31

Similar genotypes



Kinship analysis



Sibling vs. evidence

	J	S	H
J	6.67	4.85	5.08
S	4.70	6.01	3.34
H	5.78	4.18	5.55

XY male genotype, so three brothers

Match table 3

		References			J	S	H
		V	P	G	J	S	H
J	-15.39	-18.00	-15.39	11.07	1.21	4.15	
S	-15.39	-15.17	-15.39	1.21	10.22	-2.39	
H	-15.39	-18.00	-15.39	4.15	-2.39	10.31	

Match table 5

References 

	V	P	G	J	S	H	JJ	JS
J	-15.39	-18.00	-15.39	11.07	1.21	4.15	-6.19	-7.66
S	-15.39	-15.17	-15.39	1.21	10.22	-2.39	-5.81	-8.09
H	-15.39	-18.00	-15.39	4.15	-2.39	10.31	-3.52	-5.80
JJ	-2.78	-8.50	-8.43	-6.19	-5.81	-3.52	7.05	-1.49
JS	-10.47	-5.79	-12.60	-7.66	-8.09	-5.80	-1.49	8.06

TrueAllele Pinkins findings

1. compared *evidence with evidence*
2. calculated *exclusionary match statistics*
3. revealed *5% minor mixture contributor*
4. *jointly analyzed DNA mixture data*
5. showed three perpetrators were *brothers*

Found **five** unidentified genotypes
 Defendants **not linked** to the crime

Computer transcended human analysis

Moving forward

Computer reanalysis of DNA data proved Pinkins innocence

- Exculpatory DNA evidence was available fifteen years ago
- Old 20th century human review couldn't deliver information
- New 21st century computer analysis overcame limitations
- Failed interpretation cost Pinkins 15 extra years in prison
- Thousands of cases with misinterpreted or "inconclusive" DNA
- Other innocents wrongfully imprisoned by old DNA methods
- Revisit "inconclusive" cases with new computer interpretation
- Re-examine old forensic data for new exculpatory evidence

Get *pro bono* DNA help – better science for better justice

More information

<http://www.cybgen.com/information>



- Courses
- Newsletters
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<http://www.youtube.com/user/TrueAllele>
TrueAllele YouTube channel



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