

## **May Newsletter**

Better Justice Through Better Science <sup>™</sup>

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# **Cybergenetics News**

TrueAllele and Law Day: Out of Many, One



May 1 is Law Day, a national day set aside to celebrate the rule of law. The day celebrates how American law protects our liberty, strives for justice, and contributes to freedom. This year, Law Day's theme was "The Constitution's Promise: Out of Many, One". In Latin, "out of many, one" is our national motto – *E Pluribus Unum*.

A crime scene can be a tangle of evidence. A mixture combines many people's DNA into one evidence item – *E Pluribus Unum*. In forensic science, we want to find the one suspect from the many people. That's what our TrueAllele® technology does so well.

TrueAllele separates a DNA mixture into genotypes. Untangling a genetic jumble transforms complex evidence into simple pictures. Out of many people comes one DNA truth – *E Pluribus Unum* – securing our liberty, justice, and freedom. Happy Law Day!

#### TrueAllele Earns its "Made in USA"

### **Certification**



Cybergenetics is proud to announce that its flagship TrueAllele® product has been <u>officially certified as Made in USA</u> by Made in the USA Brand, LLC. This distinction makes TrueAllele the only wholly American-invented, developed, produced, and tested probabilistic genotyping technology for accurate forensic science.

Trusted by law enforcement, forensic laboratories, and the justice system, TrueAllele delivers accurate DNA results—even from complex mixtures and degraded samples. The new *Made in USA* certification affirms our commitment to American innovation, scientific excellence, and advancing public safety with reliable, domestically built tools. We remain dedicated to pursuing truth through advanced technology.

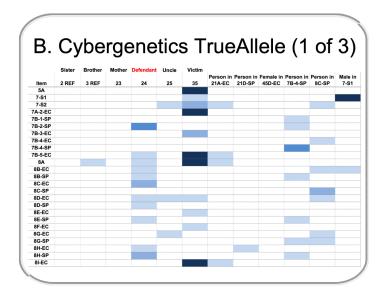
**Press Release** 



## In This Issue

### <u>Forensic Magazine Reboots "DNA Matters"</u>

#### **Column**



Cybergenetics' chief scientist Dr. Mark Perlin published a two-part story this month in his ongoing *Forensic Magazine* "DNA Matters" column. In <u>How to Solve a DNA Mystery, Part 1</u> Dr. Perlin lays out the unsolved forensic puzzles in the DNA defense of *California v. Manuel Lopez*. Lopez faced the death penalty, accused of murder—and worse—in the death of toddler Apollo Torres.

Dr. Perlin writes, "So much evidence making so little sense. Weeks of transcripts from many witnesses nagged by DNA discrepancies—conflicting rectal swabs, immaculate mother, battered child. Something was missing, and we needed an answer soon."

He describes the case and its 76 informative DNA evidence items. The prosecution, defense, crime laboratory, and TrueAllele science all offered different perspectives.

He writes, "The DNA results posed two confounding puzzles:

- 1. Rectal swabs taken at different times gave conflicting results. At the hospital, Apollo's initial rectal swab showed Lopez's DNA. But in a later autopsy, Lopez wasn't in the victim's rectal swab sperm fraction. How does DNA magically vanish?
- 2. Apollo's mother was his primary caretaker. She fed, dressed, changed and held him. How could her immaculate DNA not be on any item?"

**DNA Mystery Part 1** 

But looking over witness transcripts days before he testified, Dr. Perlin "had the strangest idea." Scientific insights from the comprehensive TrueAllele match results had given the crucial clues. He reveals the astounding answers in <a href="How to Solve a DNA Mystery">How to Solve a DNA Mystery</a>, <a href="Part 2">Part 2</a>.

**DNA Mystery Part 2** 

For more details about the Lopez case, see Dr. Perlin's <u>talk at the 2021</u>

<u>American Academy of Forensic Sciences</u> annual meeting. And read <u>more "DNA Matters"</u> by Dr. Perlin, as published in *Forensic Magazine*.

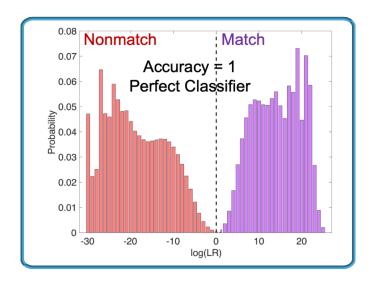


#### What is the Accuracy of a DNA Match?

In everyday life we are faced with uncertain binary outcomes based on numerical scores. In diagnosing ovarian cancer, for example, a high CA-125 blood test score indicates cancer, while a low score suggests otherwise. More accurate diagnostic tests produce scores that can better distinguish between the two outcomes.

The same is true for forensic DNA match. A likelihood ratio (LR) match statistic puts a numerical score to a DNA comparison. A large score points to a match, while a small score doesn't. More accurate probabilistic genotyping can better classify DNA match based on the LR score.

DNA match classification accuracy can be determined directly from a genotype. Highly accurate genotypes have widely separated match and nonmatch curves. Less accurate genotypes don't distinguish match and nonmatch as well. TrueAllele's validated classification ability is shown below.



Some experts opposing reliable DNA evidence use non-scientific arguments. They often ignore crucial match statistic information, like magnitude and error rate. In February 2025, Cybergenetics TrueAllele analyst Jennifer Bracamontes gave a scientific <u>AAFS talk on "Overcoming unscientific opposing arguments using relevant data"</u>. She showed how

quantifying DNA match classification accuracy can overcome specious arguments.

In April 2025, TrueAllele chief scientist Dr. Mark Perlin spoke to a *George Mason University* forensic science class using the same PowerPoint slides. In <a href="https://doi.org/10.10/10.2016/j.com/">his lecture video</a>, Dr. Perlin first introduces DNA match classification and its accuracy. Then, like Jennifer, he applies these concepts to federal cases (*Johnson, Sandoval, Mills*) where Cybergenetics overcame TrueAllele court challenges by using better science.

**AAFS Talk** 



### **Conferences**



If you are attending upcoming conferences, stop by our booth to learn how TrueAllele interprets complex DNA evidence data that traditional methods can't resolve. We'll share real case examples, explain how to request a free DNA screening, and answer questions about how TrueAllele supports investigations, defense strategies, and post-conviction reviews. Whether you're reexamining evidence or dealing with inconclusive lab results, we're here to help!

- I.J.O.A. Illinois Juvenile Officers Association 2025 Annual State Conference
  - o Location: Peoria Pere Marquette, Peoria, IL
  - Dates: June 11-13

Stop by our trade booth to learn how TrueAllele technology can help you solve your most complex DNA cases. Hear our presentation about TrueAllele investigation of juvenile crime.



#### Free TrueAllele Screening

Contact Cybergenetics today, making the impossible routine<sup>™</sup>



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