

January Newsletter

Better Justice Through Better Science[™]

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Cybergenetics News



Looking Forward to 2025

As we step into 2025, Cybergenetics remains committed to advancing criminal justice through cutting-edge technology. TrueAllele® continues to make justice more accessible to a wider audience. We provide precise reliable DNA data interpretation with pioneering products and services. Together with you, we're transforming unused evidence into real-world impact.

On Sunday evening, January 26th, NBC *Dateline* re-aired their "Premonition" episode about the John Yelenic murder, where <u>paradigm-</u> <u>shifting TrueAllele</u> revisited complex DNA evidence to firmly connect killer Kevin Foley to the crime.

Here's to another year of making a difference!

Case and Tech Highlight

How Error Rates Increase Match Statistic

<u>Reliability</u>



Reporting an error rate can transform low DNA match statistics into persuasive evidence. Unlike limited software, TrueAllele exactly quantifies the chance of falsely implicating the wrong person. This extra information gives juries confidence in match statistic reliability.

In January 2023, Jennifer Brown disappeared; she was later found in a shallow grave. In her house, a cadaver dog alerted police to the kitchen windowsill. Investigators thought the killer might have removed her body through the window. Her DNA was expected to be on the windowsill. Was her killer's DNA there as well?

The lab developed DNA data from the swab. TrueAllele examined the data, returning a low match statistic of 29 to defendant Blair Watts. And calculated an error rate of 1 in 400 – the chance of an uninvolved person having a statistic of 29 or more. This error rate gave more confidence in the match statistic, supporting the prosecutor's theory of the case.

Cybergenetics TrueAllele casework supervisor William Allan testified about the match statistic and error rate. This DNA evidence supported the defendant's having been in the victim's home, and dragging the victim's body through the kitchen window. The DNA helped secure Watts' firstdegree murder conviction. TrueAllele brought in the DNA, delivering justice for Jennifer.



Cybergenetics Know the answer™ Complimentary TrueAllele® DNA Screening

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Conferences



Cybergenetics at 77th AAFS

Cybergenetics is looking forward to attending the 77th annual scientific conference of the *American Academy of Forensic Sciences* (AAFS) in Baltimore, Maryland from February 19th to 22nd. Cybergenetics will be manning booth #104. On Friday, February 21st, our forensic scientists will be giving two talks and a poster presentation.

<u>11:30 - 1:00 PM</u> - Poster Presentation created by **William Allan**, MASc <u>Different TrueAllele Users, Same DNA Answer: A Multi-Center</u> <u>Proficiency Study</u>

• The objective TrueAllele® genotyping computer gets the same DNA match statistics, regardless of laboratory or analyst. The identification information doesn't depend on the sequencer or STR kit. TrueAllele learns lab parameters from evidence data without calibration. Our multi-center study shows that analysts everywhere get everything at once from all their DNA data.

<u>1:45 - 2:10PM</u> - Talk by **Jennifer Bracamontes**, MS <u>Overcoming Unscientific Opposing Arguments Using Relevant Data</u>

 Opposing lawyers and experts sometimes misrepresent scientific validation studies. Reliable forensic science and knowledgeable experts can overcome these distractions.
Powerful quantitative tools can show which issues are relevant, and which are not. The talk shows how to refute nonscientific arguments with that differentiation.

<u>2:30 - 2:45 PM</u> - Talk by **Kari Danser**, MS

Getting More From Less: Low-Level DNA Mixtures on Cartridges

 Cartridges are common pieces of evidence at crime scenes, and DNA data from cartridges is hard to obtain. TrueAllele technology can quickly extract identification information from this challenging data. TrueAllele could use more DNA data than manual interpretation from cartridge casings, especially low-level and mixture data, providing more informative results.

Presentations

Monthly Observance



National Human Trafficking Awareness Month

This January, Cybergenetics stands in solidarity with survivors during Human Trafficking Awareness Month. Our commitment to justice produces the cutting-edge TrueAllele technology, an instrumental information tool in solving human trafficking cases.

In April 2015, a Florida woman was abducted by a Louisiana gang and forced into prostitution. The gang brutally assaulted her when she attempted to escape. The police seized the handgun used in the sexual assault, and swabbed inside the barrel for DNA. Traditional manual review of the DNA data could not interpret the complex mixture. But TrueAllele could.

In a Jefferson Parish courthouse, a shell-shocked investigator told Cybergenetics' Dr. Mark Perlin the story of the savage pistol-rape. Dr. Perlin testified about this key DNA evidence, linking the weapon to gang member Willard Anthony. In December 2016, the jury convicted Anthony of rape and human trafficking. He was sentenced to life in prison without parole.



Video Feature

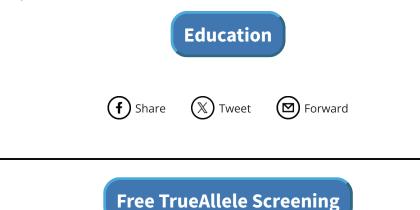
How AI Delivers Accurate and Objective

Forensic DNA Evidence



In November 2024, Dr. Mark Perlin spoke for an hour to lawyers and judges at a Duquesne University law symposium. He focused on three main topics: how human DNA interpretation fails, why computer artificial intelligence succeeds, and how people suppress computer intelligence. That is, the impact on justice of losing truth, finding truth, and hiding truth.

His talk on "AI delivers accurate and objective forensic DNA evidence" taught fundamental DNA evidence concepts through the murder case of *New York v. John Wakefield*. Dr. Perlin led the diverse audience through the crime, the DNA evidence, the TrueAllele results and trial, and the highest courts finding TrueAllele reliable. Why does man limit what machines can tell us? And how can proper incentives restore forensic information for criminal justice?



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