

Revolutionising DNA analysis in major crime investigations

The Investigator Conferences
Green Park Conference Centre
May, 2014
Aylesbury, Buckinghamshire

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READING EAGLE

Originally Published: 2/19/2009 5:56:00 PM



Reading man accused of killing woman on grounds of Wernersville hospital held for court

Reading Eagle

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A Reading man accused of killing a Lebanon woman last May on the grounds of Wernersville State Hospital was held for court Thursday.

A preliminary hearing was held Thursday afternoon for Glenn Lyons at the South Heidelberg Township office of District Judge Ann L. Young.

Lyons is accused of killing Kathy A. Leibig, with whom police said he was having an affair.

Leibig was found in the back of her SUV in a parking lot near Wernersville State Hospital, police said. She had been stabbed 30 times, according to investigators.

Testimony was given from several prosecution witnesses, including a man who said Lyons spent the days following the killing on a drug binge.



Reading Eagle: Ryan McFadden
Glenn Lyons is accused of killing Kathy A. Leibig, with whom police said he was having an affair.

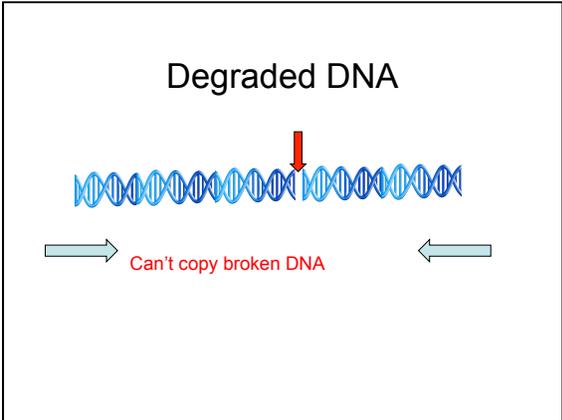
Commonwealth v. Lyons

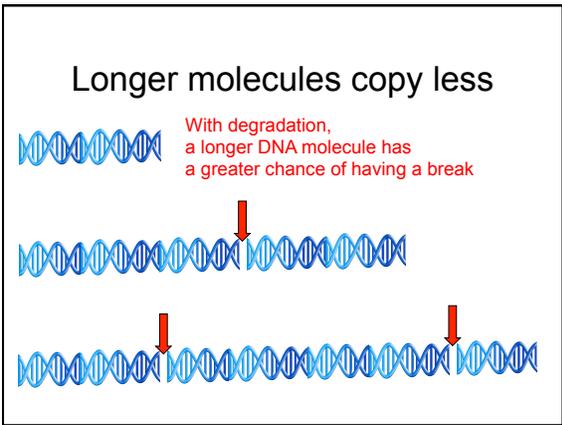
homicide: DNA mixture evidence

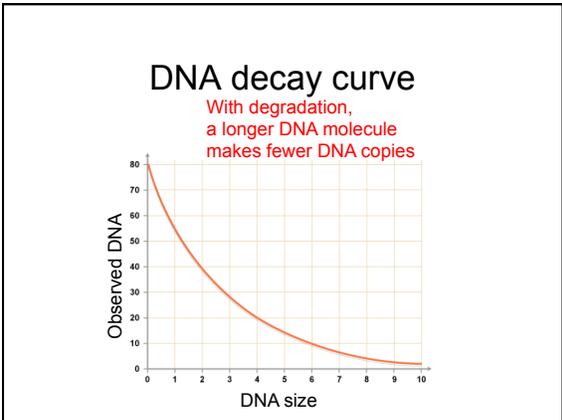


Victim's blood spatter
pulsating spray from
severed carotid artery

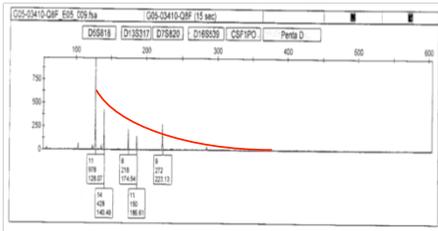
75% victim
25% other



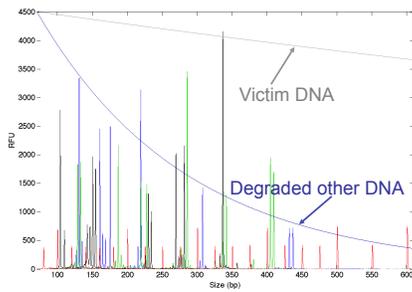




Degraded DNA signal



Degraded DNA Mixture



Match statistic comparison

Human 42,000
Computer 9,500,000,000,000

Computer Interpretation of Quantitative DNA Evidence

Commonwealth v. Lyons
June, 2011
Reading, PA

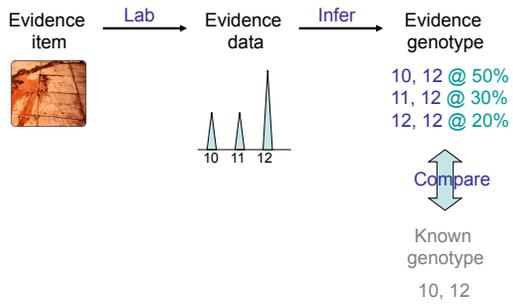
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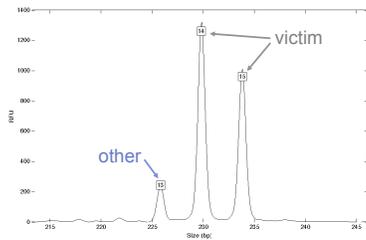
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DNA evidence interpretation



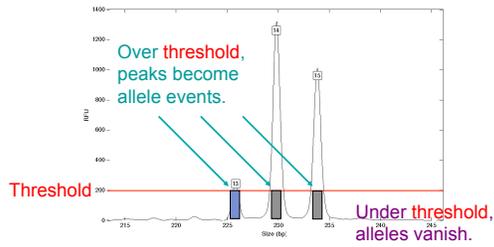
Computers can use all the data

Quantitative peak heights at locus D8S1179



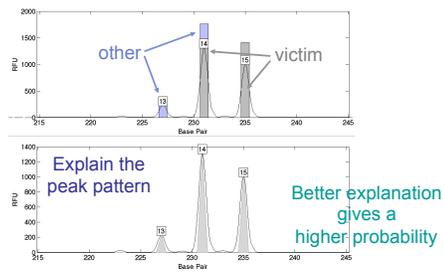
People may use less of the data

All-or-none allele peaks; ignore victim genotype

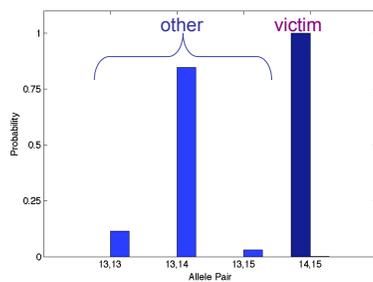


How the computer thinks

Consider every possible genotype solution

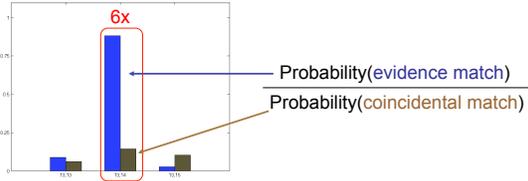


Evidence genotypes



DNA match information

How much more does the suspect match the evidence than a random person?



Is the suspect in the evidence?

A match between the suspect and the evidence is 9.46 trillion times more probable than coincidence.

Yes, with a reasonable degree of scientific certainty, evidence item Q9 contains DNA from the genotype of suspect item K2.

Is the victim in the evidence?

A match between the victim and the evidence is 1.27 quintillion times more probable than coincidence.

Yes, with a reasonable degree of scientific certainty, evidence item Q9 contains DNA from the genotype of victim item K1.

READING EAGLE

Originally Published: 11/2/2013

Pa. Supreme Court upholds death sentence for man who stabbed lover 30 times

Reading Eagle [Like](#) [Share](#) Sign Up to see what your friends like.

The state Supreme Court has upheld the death sentence for convicted murderer Glenn Lyons, ruling there was sufficient evidence of torture in the 2008 stabbing death of his lover, Kathy A. Leibig.

In a 29-page ruling, the high court said the death sentence was not due to passion or prejudice, but was the result of the jury's determination that Lyons stabbed Leibig 30 times over a 15-minute period and left her to bleed to death in the back seat of her car.

Lyons, now 47, of Reading had met Leibig of Millcreek Township, Lebanon County, in 2007 while both were employed by Linette Quality Chocolates, Heidelberg Township. They had an affair, but police said that ended on May 1, 2008, when Lyons killed Leibig, 45.



Reading Eagle: Tim Leedy

Getting Started

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



Sending Data

Cybergenetics uses the following information when processing your laboratory case data.

1. DNA process. Please give us some background information about your laboratory process, including DNA sequencer, STR kit, allelic ladder, size standards, positive and negative controls.
2. Evidence items. For each case, please list the case name, DNA items, and their amplifications. Please specify which data are of most interest to you.
3. References. Please provide known crime scene related DNA reference genotypes (e.g., victim, elimination). Such scene-related references can help infer informative genotypes from the evidence data. You can send either data or tables.
4. Suspects. Please provide suspect genotypes for comparison purposes. To ensure complete objectivity, we only use a suspect *after* genotype inference, solely to compute a likelihood ratio (LR) DNA match statistic. You can send either data or tables.
5. Populations. What population databases do you use for reference? If

Questions?