

PULL

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COURT OF COMMON PLEAS

DEC 28 2010

LINDA K. FANKHAUSER, CLERK,
PORTAGE COUNTY, OHIO



Nancy H. Rogers
Attorney General
State of Ohio

IN THE COURT OF COMMON PLEAS OF Portage COUNTY, OHIO¹

State of Ohio,

Plaintiff,

Case No. 95-CR-220

v.

Tyrone L. Noling

(Name)

Defendant.

APPLICATION FOR DNA TESTING²

Inmate Number 222-599

Address where currently incarcerated Ohio State Penitentiary

Social Security Number 280-68-4694

For what offense or aggravating circumstances are you requesting a DNA test?

Aggravated murder

Conviction Date 1 / 24 / 96

Sentence Death sentence

¹ This Application must be filed in the Court that you where you were convicted.

² If any governmental agency receives this Application, please notify the Ohio Attorney General's Office at (614) 644-7233.



If you are serving a sentence of incarceration, how much time is remaining on your sentence?

N/A - Indefinite sentence

Were you convicted as a result of a:

Jury Trial?

Judge Trial?

Plea of Guilty or No Contest?

What defense was presented in your case at the time of your plea or trial?

Innocence - Actually innocent of the crime

What evidence should be tested for DNA?

Cigarette butt found at the crime scene

Was this DNA evidence collected? Yes

Where was this DNA evidence found? Driveway of the victims' house

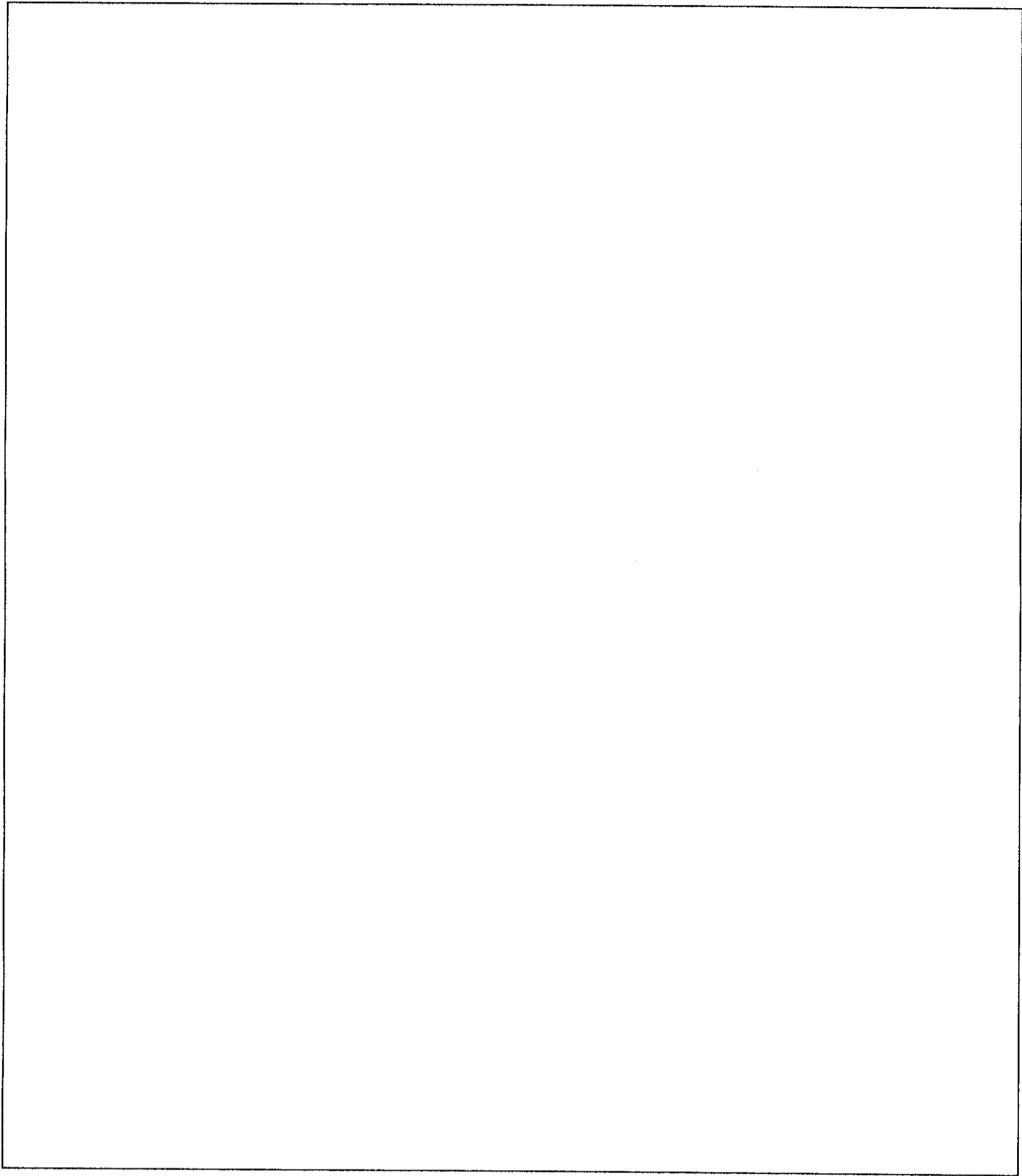
Was this DNA evidence used by the prosecution in your case? Yes

Did the prosecution claim it was your DNA? No - Not after testing was performed

Would testing prove that it was not your DNA? Yes - Previous testing excluded Mr. Noling as DNA donor

Explain why a DNA test would have changed the outcome of your case (Be specific):

Please see attached brief in support of DNA testing.



(Use Additional Sheets if Necessary. Pursuant to Section 2953.73 of the Revised Code, you may attach supporting affidavits and/or documents.)

12-2-2010
Date

Alvina Molina
Inmate Signature

ACKNOWLEDGEMENT

In order for your application to be considered, you must sign this acknowledgement. By signing the acknowledgement, you acknowledge and agree to all of the following:

- (1) That sections 2953.71 to 2953.81 of the Revised Code contemplate applications for DNA testing of eligible inmates at a stage of a prosecution or case after the inmate has been sentenced to a prison term or a sentence of death, that any exclusion or inclusion result of DNA testing rendered pursuant to those sections may be used by a party in any proceeding as described in section 2953.81 of the Revised Code, and that all requests for any DNA testing made at trial will continue to be handled by the prosecuting attorney in the case;
- (2) That the process of conducting postconviction DNA testing for an eligible inmate under sections 2953.71 to 2953.81 of the Revised Code begins when the inmate submits an application under section 2953.73 of the Revised Code and the acknowledgment described in this section;
- (3) That the eligible inmate must submit the application and acknowledgment to the court of common pleas that heard the case in which the inmate was convicted of the offense for which the inmate is an eligible offender and is requesting the DNA testing;
- (4) That the state has established a set of criteria set forth in section 2953.74 of the Revised Code by which eligible inmate applications for DNA testing will be screened and that a judge of a court of common pleas upon receipt of a properly filed application and accompanying acknowledgment will apply those criteria to determine whether to accept or reject the application;
- (5) That the results of DNA testing conducted under sections 2953.71 to 2953.81 of the Revised Code will be provided as described in section 2953.81 of the Revised Code to all parties in the postconviction proceedings and will be reported to various courts;
- (6) That, if DNA testing is conducted with respect to an inmate under sections 2953.71 to 2953.81 of the Revised Code, the state will not offer the inmate a retest if an inclusion result is achieved relative to the testing and that, if the state were to offer a retest after an inclusion result, the policy would create an atmosphere in which endless testing could occur and in which postconviction proceedings could be stalled for many years;
- (7) That, if the court rejects an eligible inmate's application for DNA testing because the inmate does not satisfy the acceptance criteria described in paragraph (4) above, the court will not accept or consider subsequent applications;
- (8) That the acknowledgment memorializes the provisions of sections 2953.71 to 2953.81 of the Revised Code with respect to the application of postconviction DNA testing to inmates, that those provisions do not give any inmate any additional constitutional right that the inmate did not already have, that the court has no duty or obligation to provide postconviction DNA testing to inmates, that the court of common pleas has the sole discretion, subject to an appeal as described in this paragraph, to determine whether an inmate is an eligible inmate and whether an *eligible*

inmate's application for DNA testing satisfies the acceptance criteria described in paragraph (4) above and whether the application should be accepted or rejected, that if the court of common pleas rejects an eligible inmate's application, the inmate may seek leave of the supreme court to appeal the rejection to that court if the inmate was sentenced to death for the offense for which the inmate is requesting the DNA testing and, if the inmate was not sentenced to death for that offense, may appeal the rejection to the court of appeals, and that no determination otherwise made by the court of common pleas in the exercise of its discretion regarding the eligibility of an inmate or regarding postconviction DNA testing under those provisions is reviewable by or appealable to any court;

- (9) That the manner in which sections 2953.71 to 2953.81 of the Revised Code with respect to the offering of postconviction DNA testing to inmates are carried out does not confer any constitutional right upon any inmate, that the state has established guidelines and procedures relative to those provisions to ensure that they are carried out with both justice and efficiency in mind, and that an inmate who participates in any phase of the mechanism contained in those provisions, including, but not limited to, applying for DNA testing and being rejected, having an application for DNA testing accepted and not receiving the test, or having DNA testing conducted and receiving unfavorable results, does not gain as a result of the participation any constitutional right to challenge, or, except as provided in paragraph (8) above, any right to any review or appeal of, the manner in which those provisions are carried out;
- (10) That the most basic aspect of sections 2953.71 to 2953.81 of the Revised Code is that, in order for DNA testing to occur, there must be an inmate sample against which other evidence may be compared, that, if an eligible inmate's application is accepted but the inmate subsequently refuses to submit to the collection of the sample of biological material from the inmate or hinders the state from obtaining a sample of biological material from the inmate, the goal of those provisions will be frustrated, and that an inmate's refusal or hindrance shall cause the court to rescind its prior acceptance of the application for DNA testing for the inmate and deny the application;
- (11) That, if the inmate is an inmate who pleaded guilty or no contest to a felony offense and who is using the application and acknowledgment to request DNA testing under section 2953.82 of the Revised Code, all references in the acknowledgment to an "eligible inmate" are considered to be references to, and apply to, the inmate and all references in the acknowledgment to "sections 2953.71 to 2953.81 of the Revised Code" are considered to be references to "section 2953.82 of the Revised Code".

12-2-2010
Date

Jerome Voling
Inmate Signature

CERTIFICATE OF SERVICE

I hereby certify that a copy of this Application for DNA Testing including Acknowledgement was mailed by regular United States mail to the Portage County Prosecutor at the following address: 466 South Chesnut Street, Ravenna, Ohio 44266

_____ and to Nancy H. Rogers, Ohio Attorney General, DNA Testing Unit, 150 East Gay Street, 16th Floor, Columbus, Ohio 43215, on the 27th day of December, 2010.

[Handwritten Signature]
Inmate Signature

IN THE COURT OF COMMON PLEAS
PORTAGE COUNTY, OHIO

STATE OF OHIO,

Plaintiff,

-v-

TYRONE NOLING,

Defendant.

CASE NO. 95-CR-220

JUDGE JOHN A. ENLOW

**MEMORANDUM IN SUPPORT
OF APPLICATION FOR POST-
CONVICTION DNA TESTING**

This is a capital case.

Post-conviction DNA testing in Tyrone Noling's case can provide a complete DNA profile of the cigarette butt police collected from the Hartig crime scene. With new technology, that DNA profile can be used to identify a single individual, whereas technology at the time of Noling's trial was unable to identify a single individual. In addition, since Noling's trial, a number of documents have surfaced that were never disclosed to Noling by the State. These documents indicate alternate suspects to the crime, investigated by police at the time of the murders. Most recently, documents have surfaced that not only indicate one of the alternate suspects could be linked to the murders, but show that testing done at the time of investigation could not exclude this alternate suspect as the person who smoked the cigarette left at the Hartig crime scene. Advancements in DNA technology could literally point the finger at the true perpetrator. Unlike the inconsistent trial testimony of Noling's co-defendants, all of whom pointed the finger at Noling and all of whom who have since recanted their testimony, DNA evidence is reliable and unbiased.

I. PROCEDURAL HISTORY

Tyrone Noling is filing this Application for Post-Conviction DNA Testing (“Second Application”) subsequent to the Ohio General Assembly and the Ohio Supreme Court’s correction of the Ninth District’s definition of “definitive DNA test,” as well as in response to newly discovered evidence.

Noling originally filed an Application for Post-Conviction DNA Testing (“First Application”) on September 25, 2008 in the Portage County Court of Common Pleas. In his First Application, Noling requested post-conviction DNA testing of a cigarette butt found at the crime scene. Neither of the victims in this case were smokers. At the time of Noling’s First Application, Noling was only aware of the testing done to compare the profile on the cigarette butt to himself and his co-defendants.¹ In its Opposition to Noling’s First Application (“State’s Opposition”), the State raised three main arguments. This Court, however, only addressed the State’s argument with regard to R.C. 2953.74(A) – in brief, the State argued that the prior DNA test conducted was definitive and, therefore, was a bar to post-conviction DNA testing. Exhibit A (“State v. Noling, Judgment Entry, March 11, 2009, Case No. 95 CR 220”). Agreeing with the State and denying the First Application, this Court held that Noling’s prior DNA test was definitive and therefore the prior DNA test was a bar to post-conviction DNA testing. This Court did not address Noling’s or the State’s remaining arguments.

In its denial of the First Application, this Court relied on a Ninth District Court of Appeals decision, *State v. Prade*, 2009-Ohio-704. Noling appealed, and the Ohio Supreme Court denied jurisdiction. *State v. Noling*, 2009-Ohio-0773 (discretionary appeal not accepted, Brown,

¹ Noling only recently discovered that other testing had been performed by the State, as they had not previously disclosed this information. See Motion For New Trial, June 21, 2010, Case No. 95 CR 220.

C.J., and Lanzinger and Cupp, J.J. would order additional briefing before deciding jurisdictional question).

Since this Court's denial of the First Application, and the Ninth District's decision in *Prade*, there have been additional, significant changes to both the law and facts of Mr. Noling's case. First, the Ohio Supreme Court overturned the Ninth District's decision in *Prade* holding that a prior DNA test is not definitive when a new DNA technology can reveal new information about the perpetrator. *State v. Prade*, 126 Ohio St.3d 27, 2010-Ohio-1842, ¶ 19. Second, the Ohio General Assembly passed, and the Governor signed into law on April 5, 2010, changes to the post-conviction DNA testing statute – the amended statute now defines “definitive DNA test,” and overrides the Ninth District decision in *Prade* and similarly decided cases.

In addition to these changes in the case law and to the statute, there have been changes to the facts in Mr. Noling's case. These factual changes have come in the form of newly discovered evidence – police reports and scientific test results, previously undisclosed by the State – which point to alternate suspects. Based on this new information, Noling filed a Motion for New Trial on June 21, 2010. (Case No. 95 CR 220, Entry of June 21, 2010).

In regard to the newly discovered evidence, it is important to note that a comparison was made of one of the alternate suspects to the genetic material found on the cigarette butt. This test and its results, along with other police reports about this suspect, were never previously disclosed by the State. The results of this comparison show that this alternate suspect could not be excluded as a contributor to the cigarette butt. The State performed a blood type comparison between the alternate suspect and the smoker of the cigarette butt, and used a primitive form of DNA testing to make the comparison between the smoker of the cigarette butt, and Noling and

his co-defendants. The testing methods used by the State at trial were imprecise,² out of date, and unable to identify any one individual as the perpetrator. However, new advanced DNA testing methods, unavailable at the time of trial, could determine whether there is a match between the alternate suspect(s) and the cigarette butt.

In light of the change in law and the statute governing “definitive DNA test,” as well as the newly discovered evidence, Tyrone Noling files this Application for Post-Conviction DNA Testing (“Second Application”). As set forth below, Noling meets all of the statutory requirements for Post-Conviction DNA Testing and his Second Application should be granted.

II. BACKGROUND OF POST-CONVICTION DNA TESTING IN OHIO

DNA testing is now used systematically to help apprehend the guilty and identify the wrongly accused and convicted.³ The State and Federal DNA databases, which contain inventories of DNA profiles from unsolved cases and from convicted offenders, are solving crimes, both old and new, at unprecedented rates. To date, post-conviction DNA testing has conclusively demonstrated the factual innocence of more than 260 wrongfully convicted persons in the United States.⁴ Nine of these post-conviction DNA exonerations have occurred in Ohio.

A. Tremendous advances in DNA testing have been made since Tyrone Noling was convicted in this case.

In the fifteen years since Tyrone Noling was convicted, great advances in DNA technology have been made. (Affidavit of Cassie Johnson (hereinafter “Johnson Aff.”), ¶ 2

² Both RFLP and HLA DQ α DNA testing, the two types of testing available at the time of Noling’s trial, not only cannot make a positive match, but both types of testing sometimes entail subjective judgment as compared to today’s DNA technology, such as STR DNA testing. See Exhibit B.

³ To illustrate, DNA testing performed at the FBI laboratory *excluded 20 percent of the primary suspects*, and resulted in a match with the primary suspect in only about 60 percent of the cases. Convicted by Juries, Exonerated by Science: Case Studies in the Use of DNA Evidence to Establish Innocence After Trial, Nat’l Instit. Just., Off. Just. Programs, U.S. Dept. Just., Pub. No. 161258 (June 1996) at xxviii. See also Marcus Franklin, “DNA Pinpoints a New Suspect in 2003 Slaying” ST. PETERSBURG TIMES, Jan. 8, 2004 available at http://www.sptimes.com/2004/01/08/news_pf/Southpinellas/DNA_pinpoints_a_new_s.shtml (child molesting charges dropped against an Indiana man who was in jail for ten months when DNA evidence excluded him).

⁴ Case files collected at www.innocenceproject.org.

(attached as Exhibit C)). New and highly sensitive testing methods have been developed, and all forms of testing, both new and old, have continued to evolve and become more sensitive with each passing year. (*Id.* at ¶ 2). In 2007, there were three types of DNA testing that were already well-established and widely utilized, with more new and improved types of testing always on the horizon. The three primary forms of DNA testing today are: nuclear or “STR” DNA testing, mitochondrial or “mtDNA” testing, and y-chromosome or “Y-STR” DNA testing. (*Id.* at ¶ 2).

STR or “nuclear” DNA testing, which is the type used by most state labs, has been in use for roughly 15 years depending on the region of the country. (*Id.* at ¶ 3). And although this form of testing has been around for many years, STR DNA testing has improved and become more sensitive as collecting, extracting, and testing methods have continued to advance. (*Id.* at ¶ 3). STR DNA profiles, collected by state and federal authorities, are maintained in the Combined DNA Index System (“CODIS”). CODIS was established and funded by the FBI, and developed specifically to enable public forensic DNA laboratories to create searchable DNA databases of authorized (which currently includes only STR, which comes from STR and mini-STR DNA testing) DNA profiles. <http://www.dna.gov/dna-databases/codis> (December 6, 2010).

The second type of testing, mitochondrial DNA testing, was used by the FBI starting in 1996, and has come into widespread use in the past five or six years. (Johnson Aff. at ¶ 4). A primary advantage of mtDNA testing is that it allows hair, teeth, bone, and other biological materials to be tested that are unable to be tested under the traditional STR testing methods. (*Id.* at ¶ 4).

The third type of DNA testing, which has undoubtedly had the greatest impact on post-conviction innocence claims in recent years, is Y-STR testing. Y-STR testing was not commercially developed until approximately 2002, and has only gained widespread usage in the

criminal justice system in the past few years. (*Id.* at ¶ 5). Y-STR testing generates a DNA profile from the y-chromosome in biological materials. (*Id.* at ¶ 5).

Because only males have a y-chromosome, this form of testing has led to great forensic breakthroughs in cases, new and old, involving a male attacker and a female victim, such as in rape and murder cases. (*Id.* at ¶ 6). To illustrate, in a typical rape case, the rape kit may contain a vaginal swab taken from the victim at the hospital following the attack. Because the biological material on the swab is collected by rubbing the swab against the inside of the victim's vaginal cavity, a typical swab in a rape case will likely contain mostly female DNA, i.e., the DNA of the victim herself. (*Id.* at ¶ 6). If semen from her attacker is present, it is the hope of those collecting the swab that some of this semen will also be caught on the swab. Even in the best case scenarios, however, it is often true that *most* of the DNA on the swab will be from the victim herself, not the perpetrator. (*Id.* at ¶ 6). Under traditional DNA testing methods, such as STR, lab technicians performing the DNA testing would often not be able to obtain a DNA profile of the male rapist because of the overwhelming percentage of female DNA present on the swab, often called the "female overwhelm effect." (*Id.* at ¶ 6).

Y-STR testing avoids this problem because it detects and reads only the male perpetrator's y-chromosome on the swab, thereby ignoring the overwhelming percentage of female DNA present that would otherwise "drown out" the male perpetrator's DNA profile. (*Id.* at ¶ 6). Since its first use a few years ago, Y-STR testing has continued to improve and become more sensitive with each passing year, providing the opportunity for more and more old cases to be definitively resolved. (*Id.* at ¶ 6).

In addition to the advances mentioned above, new DNA testing advances are always on the horizon. A relatively new type of testing commonly referred to as "mini-STR" is now being

used in some cases. (*Id.* at ¶ 7). Mini-STR testing works on the same principles as the traditional STR testing, but allows for very small or extremely degraded samples to be successfully profiled—samples that would be too small or degraded for traditional methods to generate a DNA profile. (*Id.* at ¶ 7). As mini-STR testing works on the same principles as traditional STR testing, these profiles can be run through CODIS for comparison.

The upshot of these various technological advances for post-conviction cases is that DNA testing can now conclusively determine innocence or guilt in many cases where such a determination was impossible even a few years ago. (*Id.* at ¶ 8). Using these new methods, scientists can examine crime scene materials collected in 1990, 2000, or even more recently, and may be able to identify the true perpetrator in cases where they could not before. (*Id.* at ¶ 8). At the time of the trials in such cases, the parties may have believed that no biological material was left by the perpetrator, or believed that if any biological material was left behind, it was a trace amount that was too small of a sample for DNA testing to be performed. (*Id.* at ¶ 8). Now, however, conclusive DNA results can be obtained in many of these cases. (*Id.* at ¶ 8).

A perfect example that highlights this phenomenon is the Ohio case of Clarence Elkins. Mr. Elkins was convicted in June of 1999 in Summit County for raping his niece, Brooke Sutton, and raping and murdering his mother-in-law, Judith Johnson. STR DNA testing was in use in the state of Ohio in 1998 at the time of the crime and at the time of Mr. Elkins' trial in 1999. Prior to trial, however, DNA testing was not performed on several of the key pieces of evidence, such as the victims' vaginal swabs and underwear, because of the belief that no male DNA was present on these items, or that DNA technology in use at the time would not be able to detect the trace amounts of male DNA on them. In 2005, however, newly-developed Y-STR testing, arranged by the Ohio Innocence Project and performed at Orchid-Cellmark, was employed in the

Elkins case. (*Id.* at ¶ 9). Y-STR testing was able to extract the perpetrator's profile from these items. (*Id.* at ¶ 9). This new form of testing not only demonstrated Mr. Elkins' innocence, resulting in his release on December 15, 2005, but implicated the true perpetrator, Earl Mann, who was indicted by a grand jury in July of 2007 for committing the crimes for which Mr. Elkins served 7.5 years in prison.⁵ Earl Mann pled guilty to these crimes in August of 2008.⁶

The Elkins case is not an aberration. Numerous exonerations around the country have occurred in recent years as a result of new advances in DNA technologies – advances that were not available at the time of the innocent inmates' trials. (Johnson Aff. ¶ 10). Indeed, a 2003 study, which took the vaginal swabs from 104 "old" rape cases, demonstrated the efficacy of Y-STR testing. The cases in the 2003 study were all tested by local lab authorities at the time of investigation and trial. The local lab authorities could not find any semen or male DNA on the swabs. Thus, these cases were deemed "non-DNA" cases, and relied on eyewitness testimony and other evidence less reliable than DNA. Like in the Elkins case, however, the study's utilization of Y-STR testing was able to find male DNA, and generate a DNA profile of the perpetrator, in 28.8% of these 104 cases that had previously been labeled as "non-DNA" cases. (*Id.* at ¶ 10). *See also*, Sudhir K. Sinha, et. al., *Development and Validation of a Multiplexed Y-Chromosome STR Genotyping System, Y-Plex 6 for Forensic Casework*, J. FORENSIC SCI., Vol. 48, No. 1 (2003) (study attached as Exhibit D). Interestingly, this study of Y-STR testing was done in 2003, when Y-STR testing was relatively new. The study employed a Y-Plex 6 testing kit. Today, just five years later, some advanced labs are employing a more sensitive Y-Plex 17

⁵ See James Ewinger, *Earl Mann Pleads Not Guilty*, CLEVELAND PLAIN DEALER, July 11, 2007 (available at http://blog.cleveland.com/metro/2007/07/earl_mann_pleads_not_guilty.html).

⁶ Mike Tobin, *Mann pleads guilty in case that sent Elkins to prison*, Cleveland Plain Dealer (available at http://blog.cleveland.com/metro/2008/08/mann_pleads_guilty_in_case_tha.html).

testing kit, making today's Y-STR testing almost three times more sensitive than the type that was used in the above study. (*Id.* at ¶ 10).

The advances in Y-STR testing are illustrative of the advances in DNA testing in general. As time has passed, all forms of testing have continued to improve and become more sensitive. (*Id.* at ¶ 11).

B. Ohio has a new DNA testing bill, SB262, which corrects many of the problems with the previous DNA testing bill, SB11.

In 2003, the Ohio General Assembly passed a DNA testing bill, commonly known as Senate Bill 11 ("SB11"), which afforded a one-year window for inmates to apply for DNA testing to prove their innocence through post-conviction DNA testing. SB11 was set to expire on October 29, 2004, but House Bill 525 extended the sunset provision in the original bill for another year. Thus, SB11, Ohio's first DNA testing bill, finally expired on October 29, 2005.

SB11, while perhaps well-intended, was seriously flawed. As set forth in the attached legal memorandum, entitled "March 1, 2006 Ohio Senate Testimony of Mark Godsey, Professor of Law and Faculty Director of the Ohio Innocence Project," hereinafter "Godsey Testimony," SB11 suffered from several deficiencies.⁷ First, SB11 set forth the strictest standard for DNA testing of any state DNA testing bill in the United States. *See*, Godsey Testimony at 3-7 (comparing Ohio's SB11 to DNA testing statutes from other states). As a result of this strict standard, it was very difficult for inmates to meet the testing criteria. Only 15 of the more than 300 Ohio inmates who applied for testing were ultimately given a chance to prove their innocence through DNA testing under SB11.

⁷ "Godsey Testimony," attached as Exhibit E, is legal memorandum that was submitted to the Ohio General Assembly on March 1, 2006, setting forth the problems inherent in SB11. Professor Godsey provided this memorandum to the General Assembly in support of Ohio's new DNA testing law, SB262, which was passed in 2006 to replace its flawed predecessor, SB11.

Second, and perhaps most problematic, SB11 did not allow for inmates to take advantage of any of the new advances in DNA testing that have been developed in recent years. This fact made SB11 a legal irony: the law purported to offer inmates a chance to prove their innocence through DNA testing, but it did not allow them to use the latest technologies or other tools which are necessary for the vast majority of post-conviction innocence cases. *See, Godsey Testimony at 8-12.*

Another flaw in SB11 was the failure to allow inmates a chance to prove their innocence by making a comparison of the DNA from the crime scene to alternative suspects or to known felons in the FBI's CODIS database of DNA profiles. *See, Godsey Testimony at 12-14.* Finally, SB11 failed to allow inmates who pleaded guilty a realistic chance to prove their innocence. The law gave prosecutors unfettered discretion to deny testing to any inmate who pleaded guilty. This prosecutorial decision was not subject to appeal or review by any court. In essentially every case in which an inmate who pleaded guilty applied for DNA testing under SB11, his application was denied outright by the prosecution with no mechanism for review.

After the expiration of SB11, the many flaws that became glaringly visible in that law prompted the General Assembly to pass Ohio's new and improved DNA testing law, commonly referred to as SB262. SB262 is significantly different than SB11 in many important respects. First, SB262's threshold standard for obtaining DNA testing – whether a favorable test for the inmate would be “outcome determinative” – is defined with a lower standard than the strict standard that was set forth in SB11. This new language regarding the “outcome determinative” standard relaxes the threshold test, and makes it easier for inmates to obtain DNA testing if they re-apply for testing under the new law.

SB262 also fixes the other problems that were apparent with SB11. Among other improvements, it allows inmates: (1) to use cutting edge, advanced testing to prove their innocence; and (2) to meet the outcome determinative standard by comparing the biological material at the crime scene to third parties or to known felons in the CODIS database. Although SB262 carried over the restriction for inmates who pleaded guilty, offering them testing only when the prosecution agreed to testing, this provision has subsequently been held unconstitutional and stricken from the statute. *See, State v. Sterling*, 113 Ohio St. 3d 255 (2007). Thus, inmates seeking DNA testing who pleaded guilty are now, under SB262, to be given the same consideration on the merits by the courts as their counterparts who were convicted after trial. Unlike SB11, SB262 has no sunset provision. Thus, it is a permanent law.

C. The Ohio Legislature and the Ohio Supreme Court have corrected prior inaccurate definitions of “definitive DNA test”

When the Ohio General Assembly passed SB11, and subsequently SB262, they did not define the phrase “definitive DNA test.” *State v. Prade*, 2009-Ohio-704; Exhibit F (Ohio Rev. Code 2953.71 current through March 16, 2010, incorporating SB11 and SB262). Without a clear definition, some Ohio courts defined “definitive DNA test” too narrowly. Specifically, the Ninth District Court of Appeals in *Prade*, although acknowledging the advancements in DNA testing methods,⁸ found there was an exclusion result because old testing had “excluded Prade as a contributor to the DNA extracted from the various pieces of evidence.” The Ninth District concluded that since there was an exclusion result, the prior DNA test was definitive. *State v. Prade*, 2009-Ohio-704, ¶ 12-13. The Ninth District stated that “the General Assembly did not

⁸ The State’s own DNA expert acknowledged at the time of trial that the victim’s DNA would overwhelm any other DNA profile present. *State v. Prade*, 126 Ohio St.3d 27, 2010-Ohio-1842, ¶ 18.

include the availability of newer testing methods as a factor that a court must consider in determining whether an eligible inmate has had a prior definitive DNA test.” *Id.* at ¶ 13.⁹

The lack of a clear definition from the General Assembly allowed courts to ignore what new DNA testing methods and technologies could detect or how these new methods could now be used to match or identify profiles of individuals, similar to the way prosecutors use these technologies and methods to solve cold cases.¹⁰ Ignoring new technology is especially egregious in light of the limitations of previous, older types of DNA testing used. The difference in capability between current DNA technologies and previous testing methods is especially glaring when the previous form of testing is as primitive as blood typing or DNA testing such as RFLP or NLA DQα.¹¹ Both the Ohio Supreme Court and the Ohio General Assembly recognized that advancements in DNA technology are critical to obtaining new information from the evidence about the perpetrator, and both the court and the legislature set out to define “definitive DNA test” and prevent courts from ignoring the ability of new DNA technology to detect information that it previously could not. *See, State v. Prade*, 2010-Ohio-1842, ¶ 29.

First, the Ohio Supreme Court stated that the limitations of prior testing could not be ignored when determining whether a prior definitive DNA test had been performed when the Court overturned the Ninth District Court of Appeals’ decision in *Prade* on May 4, 2010. *Id.* ¶ 30. The Ohio Supreme Court stated:

⁹ It is also important to note that both the trial court and the Ninth District Court’s outcome determinative analysis in *Prade* was done from the perspective that there was a prior, definitive DNA test, and that it was an exclusion result. *State v. Prade*, 2010-Ohio-1842, ¶ 27.

¹⁰ Prosecutors offices in Ohio use new DNA technologies and the ability to match a DNA profile from a crime scene to a perpetrator through CODIS to solve cold cases in Ohio. e.g., <http://prosecutor.cuyahogacounty.us/Unit.aspx?uid=32&uname=Cold%20Case%20Squad> (December 2, 2010); <http://www.lakecountypProsecutor.org/crimelab/crime3.html> (December 2, 2010). Since 2005, Ohio has obtained over one million dollars in federal funding to solve cold cases using new DNA technology. http://www.dna.gov/funding/cold_case/ (December 2, 2010).

¹¹ See, Section III.B.1 for definitions.

Because defendant was excluded as a contributor to the DNA that was typed in this case, the lower courts concluded that the prior DNA tests done in 1998 were definitive. However, the only information that the DNA testing on the lab coat was that [the victim]'s blood was present on her lab coat. The state's expert agreed that the 1998 DNA "test results [did] not give [him] any information about the killer" and that "the bite mark show[ed] [him] [the victim]'s DNA only." Therefore, the testing excluded defendant only in the sense that the DNA found was not his, because it was the victim's. But the "exclusion" excluded everyone other than the victim in that the victim's DNA overwhelmed the killer's DNA due to the limitations of the 1998 testing methods. Therefore, the exclusion was meaningless, and the test cannot be determined to have been definitive. *Id.* at ¶ 19.

Since "new DNA testing methods are now able to provide new information that was not able to be detected at the time of defendant's trial," the Ohio Supreme Court held "that a prior DNA test is not 'definitive' within the meaning of R.C. 2953.74(A) when a new DNA testing method can detect information that could not be detected by the prior DNA test." *Id.* at ¶ 23.

The Ohio Supreme Court also found that the approach of both the trial court and the Ninth District Court in *Prade* were in error with respect to their outcome determinative analysis taken from the perspective that the prior DNA test was definitive. *Id.* at ¶ 27. Due to both lower courts' concentration on this erroneous finding that the prior DNA test was definitive, the Ohio Supreme Court found that the lower courts "then dealt with whether new testing would be outcome-determinative in a limited manner that made no attempt to engage in any concerted application of the statutes relevant to that issue." *Id.* In other words, reliance on the erroneous definition of "definitive DNA test" in outcome determinative analysis was in error.

Although the Ohio Supreme Court's decision in *Prade* is indisputably significant to an inmate's ability to seek post-conviction DNA testing when new DNA technology can reveal new information about the perpetrator, the *Prade* Court did note that they were not addressing whether the advancement of DNA technology alone is enough to secure post-conviction DNA

testing.¹² For example, the Court specifically stated that they were not addressing the issue of whether to allow new DNA testing when a prior DNA test provided a match and the inmate was simply asking for a new test using the latest methods. *Id.* at ¶ 29. Instead, the Court limited its holding “to situations in which advances in DNA testing have made it possible to learn information about DNA evidence that could not even be detected at the earlier trial.” *Id.* In sum, while the Court did not address whether an advancement in DNA technology alone is enough to grant post-conviction DNA testing, the Court highlighted the fact that it was partially the development of new DNA technology “that prompted the General Assembly to enact R.C. 2953.71 through 2953.83 in order to allow otherwise qualified inmates the opportunity to take advantage of advances in technology that were not available at the time of their trials.” *Id.*, citing, *State v. Emerick*, 170 Ohio App.3d 647, 2007-Ohio-1334, 868 N.E.2d 742, ¶ 18.

In addition to the Ohio Supreme Court’s reversal of the Ninth District in *Prade*, the Ohio General Assembly also reacted to the Ninth District’s decision in *Prade* (and other Ohio courts that followed the Ninth District’s reasoning) by defining “definitive DNA test” and taking into account advancements in DNA technology. The General Assembly’s definition, signed into law on April 5, 2010, overrode the Ninth District’s decision in *Prade*. For purposes of post-conviction DNA testing and, in direct reaction to the Ninth District’s decision in *Prade*, the significant change was that SB77 defined “definitive DNA test.” SB77 added R.C. 2953.71(U),¹³ which defines “definitive DNA test” as meaning:

A DNA test that clearly establishes that biological material from the perpetrator of the crime was recovered from the crime scene **and** also clearly establishes whether or not that biological material is that of the eligible offender. A prior DNA test is not definitive if the eligible offender proves by a preponderance of

¹² “We do not have before us the issue of whether to allow new DNA testing in cases in which a prior DNA test provided a match or otherwise provided meaningful information and the inmate is simply asking for a new test using the latest testing methods.” *State v. Prade*, ¶ 29.

¹³ O.R.C. 2952.71(U) went into effect on July 6, 2010. Exhibit G, O.R.C. 2953.71, as of July 6, 2010.

the evidence that because advances in DNA technology there is a possibility of discovering new biological material from the perpetrator that the prior DNA may have failed to discover. Prior testing may have been a prior “definitive DNA test” as to some biological evidence but may not have been a prior “definitive DNA test” as to other biological evidence. (emphasis added)

One other change brought about by SB77 is that, effective July 1, 2011, a person eighteen years of age or older, **arrested** for a felony offense shall have a DNA specimen collected.

O.R.C. Section 2901.07(B)(1); *See*, http://www.legislature.state.oh.us/bills.cfm?ID=128_SB_77 (December 19, 2010). Prior to the passage of SB77, DNA was only collected from those who were convicted or plead guilty to certain qualifying offenses. O.R.C. 2901.07(B)(2); *See*, http://www.legislature.state.oh.us/bills.cfm?ID=128_SB_77 (December 19, 2010). The DNA profiles gathered under the expanded collection brought about by SB77 will be uploaded to CODIS along with those profiles previously permitted under previous DNA collection law. These additional DNA profiles will expand CODIS, the DNA database.

III. STATEMENT OF FACTS

A. Noling’s Trial

Noling was put on trial in January 1996 for the murder of Bearnhardt and Cora Hartig, whose bodies were found on April 7, 1990 in their home in Atwater, Ohio by a neighbor’s son who had become suspicious and had gone to check on the couple (Tr. 657, 659). When no one answered the door, the neighbor’s son looked through the window and saw the Hartigs’ bodies lying on their kitchen floor and he called the authorities. (Tr. 658-60). It was determined that the couple had been shot to death.

In early April of 1990, Tyrone Noling was barely eighteen years old. He had left home and was staying at a house in Alliance, Ohio with friends and acquaintances. The group included Gary St. Clair, Butch Wolcott, Joseph Dalesandro, and Johnny Trandafir. They were staying at the house of John Trandafir, Sr.—Johnny Trandafir’s father and Gary St. Clair’s stepfather. Mr.

Trandafir had been in a car accident and was in the hospital. (Tr. 824). Thus, they were in the home with no adult supervision.

With no adult supervision or financial support, Noling and the other boys began getting into trouble. Ultimately, Noling committed two robberies (one with St. Clair) in the neighborhood where the Trandafirs lived. (Tr. 949-50, 836-37). It did not take long for the police to figure out who the perpetrators of the robberies were, and Noling—along with St. Clair, Dalesandro, and Wolcott—were all arrested. (Tr. 1062). Upon their arrest, the youths were questioned by detectives from the Portage County Sheriff's Office about the Hartig murders.

Initially, nothing came of the questioning about the murders that would implicate Noling. In 1992, however, he was indicted for the Hartig murders, but in June of 1993, following a hearing, the court entered a *nolle prosequi*. It was not until 1995 that Noling was again indicted. Shortly before the second indictment, the State rescinded its plea agreement with Dalesandro.

Noling's trial began in January of 1996. Wolcott, Dalesandro, and St. Clair were all called as prosecution witnesses. Wolcott and Dalesandro both gave testimony, albeit inconsistent with regard to significant details, that supported the State's theory of the case.

Dalesandro and Wolcott testified that after the robbery of the Murphy home, all four drove to Atwater, Ohio where Noling chose a house to rob. (Tr. 842-43, 1047-50). Once at the Hartig house on Moff Road, Dalesandro and Wolcott testified that they waited in the car, while Noling and St. Clair approached the Hartig's front door. (Tr. 846-47, 1050-52). Dalesandro and Wolcott testified that, some time later, Noling and St. Clair came running from the Hartig home and got back into Dalesandro's car. (Tr. 848, 1053). Dalesandro testified that he smelled smoke coming from Noling's gun. (Tr. 1054). Wolcott testified that he saw Noling's gun smoking. (Tr. 851). They also testified that Noling admitted to the Hartig's murders. (Tr. 850-51).

Although Dalesandro and Wolcott succumbed to the pressure to incriminate Noling, St. Clair stood his ground. *See*, Exhibit H (Affidavits of Butch Wolcott, Gary St. Clair, and Joseph Dalesandro). St. Clair recanted his statement prior to trial. Once on the stand, St. Clair disputed that they had ever gone to Atwater, let alone committed the murders. (Tr. 961, 972). The State requested that the trial court declare St. Clair a hostile witness. (Tr. 963). The trial court granted the request, and the State impeached St. Clair via a complete review of a prior incriminating statement. (Tr. 963, 968-88). St. Clair maintained that investigators and his attorneys had coached him in giving the incriminating statement. (Tr. 996-1000).

Compared to the crimes of previously undisclosed alternate suspect Daniel Wilson,¹⁴ (discussed in detail in Section C.1 below), the crimes committed by Noling and the other youths were amateurish and non-violent. When Noling and the others found themselves in need of money, they began “car shopping” or looking for unlocked cars from which they would take items and whatever money they could find. (Tr. 825, 947). This scheme did not provide them with enough money, and testimony alleged that Noling decided to commit a robbery to obtain more money. (Tr. 827).

Still in need of money, the youths thought they might have better luck with nearby homes. In early April 1990, the boys committed two robberies in Alliance. Noling and St. Clair robbed the Hughes home on April 4, 1990, feigning car trouble to gain entry. (Tr. 949-50). The Hugheses lived about a block from the Trandafir home. (Supp. Hrg. Tr. 70-71). The following day, Noling robbed the Murphy home, using the same ruse. (Tr. 836-37). The Murphy’s also lived very close to the Trandafir home—close enough that Noling was able to walk through the woods behind the Trandafir home to get to the Murphy’s house. (Tr. 1036).

¹⁴ *Wilson v. Mitchell*, 498 F.3d 491 (6th Cir. 2007).

There was no violence at either of these robberies. Noling carried a weapon with him, but showed no inclination to harm anyone. Noling admitted to firing his weapon during the Murphy robbery; however, it was accidental and he immediately checked on Mrs. Murphy's well-being. (Tr. 1370). Mr. Murphy verified this version of events in his testimony. In contrast, the Hartig's murders were committed with extreme force and violence. In fact, there were virtually no similarities between the robberies and the Hartig murders, yet the trial court allowed extensive testimony about these robberies.

The extreme violence and, specifically, the shooting of the Hartigs were committed with a .25 caliber semi-automatic gun. Although this was the same type of gun that Noling had stolen in the Hughes robbery (Tr. 834, 1038), and accidentally shot in the Murphy robbery (Tr. 837, 1043, 1094), the weapon stolen from the Hughes robbery was eventually found. (Tr. 1240). Police confirmed that it was the gun stolen from the Hughes robbery and fired during the Murphy robbery. (Tr. 1256). Furthermore, a ballistics test revealed that this was **not** the same weapon used to kill the Hartigs. (Tr. 1241-43). The weapon used to murder the Hartigs has never been recovered.

At trial, Portage County Police Detective Duane Kaley testified that Noling told him there were two .25 caliber automatics (Tr. 1240), and Dalesandro corroborated this testimony when he testified that the boys possessed two small automatic guns. (Tr. 1066). However, this testimony is disputed by the testimony of St. Clair, Wolcott, and even Dalesandro himself who all testified that the boys possessed a BB gun, a shotgun, and **one** .25 caliber automatic, the gun stolen during the Hughes robbery. (Tr. 832, 842, 949, 953, 1033-34, 1040, 1048, 1066).

Neither Noling's nor any of the others' fingerprints were found in the Hartig's home. (Tr. 753). A cigarette butt found outside the Hartig home was tested against saliva samples taken

from the youths and none was a match. (Tr. 721). In fact, there was absolutely no physical evidence tying Noling or any of the others to the crime scene. Moreover, no stolen property was identified or linked to Noling or the others.

B. Recantations from all three co-defendants after Noling's trial

In the aftermath of Noling's conviction, Wolcott and Dalesandro have recanted. As previously mentioned, St. Clair recanted his statement prior to trial. All three provided affidavits in support of Noling's post-conviction petition which has been denied. (Affidavits attached as Exhibit H). When Dalesandro initially refused to testify against Noling, the State attempted to revoke the agreed upon sentence and increase the amount of time Dalesandro was to serve in prison. *See*, Exhibit H. All three were coerced and intimidated into providing statements about Noling's guilt and testifying against him. All three continue to maintain that neither Noling nor any of them were involved in the Hartig murders in any way.

C. The State's failure to disclose admissible evidence which pointed to alternate suspects

The State failed to disclose two important categories of admissible evidence at the time of Noling's trial. The first category relates to a strong alternate suspect, the second category relates to suspicious gun activity (coupled with additional alternate suspects) around the time of the Hartig murders.

1. DNA evidence and affidavits suggest Dan Wilson as an alternate suspect

The prosecution failed to disclose several pieces of evidence that Noling's counsel could have used to support an alternate-suspect defense. First, the prosecution did not provide defense counsel with police investigative notes that describe statements made by Nathan Chesley which inculpated his foster brother, Daniel Wilson, as a possible suspect in the Hartig murders. (Ex. J). Nathan Chesley lived as a foster child in the home of Shirley Spinney. (Ex. J; January 13, 2010

Affidavit of Nathan Chesley, "Chesley Affidavit" (Attached as Exhibit K)). Spinney also fostered Daniel Wilson, who visited the Spinney home while Chesley was a resident. (Chesley Affidavit). Not long after the Hartig murders, Portage county authorities obtained statements made by Chesley. (Ex. J). In the statements reported to the police, Chesley described not only how he thought the Hartig murders were cool, but also that his brother¹⁵ committed them. (Ex. J).

After finally receiving the police reports describing statements made by Chesley after a recent public records request, Noling's counsel obtained an affidavit from Chesley confirming that he made the statements reported to police on April 24, 1990 in reference to his foster brother Daniel Wilson and that he "believe[s] the Hartig murders were crimes that Wilson was capable of and likely committed." (Chesley Affidavit).

Chesley's affidavit provides further support for Wilson as an alternate suspect. *Id.* In his affidavit, Chesley stated that Wilson was a heavy drinker and a violent person who frequently made threats and once tried to stab his foster mother. *Id.* Furthermore, Chesley stated that Wilson was committing thefts and breaking into homes at the time of the Hartig murders, that he may have had guns, and that he drove a blue Dodge Omni. *Id.* Another foster brother, Kenneth Amick, also recently provided Noling's counsel with an affidavit regarding Wilson, attesting to the fact that he drove a blue car. (January 13, 2010 Affidavit of Kenneth Amick, "Amick Affidavit" (Attached as Exhibit L)). The new information about the blue car is significant because, in notes from an interview with witness Jim Geib, also withheld by the prosecution and addressed in Noling's previous motion for new trial, Geib told authorities that on the day of the Hartig murders, he saw a dark blue, midsize car leaving "that general location [of the Hartig home]" at around 4:30 p.m. (Motion for New Trial, Nov. 3, 2006, Portage County, State v.

¹⁵ In this statement attributed to Chesley in the police notes, the reference to his brother was discovered, through an investigation by Noling's counsel after receipt of the undisclosed police report through a recent public records request, to be a reference to his foster brother, Daniel Wilson. Chesley Affidavit.

Noling, Case No. 95 CR 220, p. 8, Exhibits A and C, "Geib interview"). In addition, Wilson had a history of home invasion and victimizing the elderly:

When he was fourteen years old, Wilson broke into an elderly neighbor's home. When the neighbor surprised him, Wilson struck the elderly man, causing him to fall and break his hip. Wilson then ripped the phone cord out of the wall and left. The neighbor was not found for two days and died as a result of his injuries and the lack of medical attention. *Wilson v. Mitchell*, 498 F.3d 491, 496 (6th Cir. 2007).

The above referenced quote was used by the State to obtain a sentence of death for Daniel Wilson in a case where Wilson burned a woman alive in the trunk of her car. *Id.* As a result of his conviction in this case, Wilson's STR DNA profile is in CODIS.¹⁶

In addition to the statements made by Chesley, the prosecution withheld results from a DNA test of a cigarette butt found at the scene (Ex. I) which did **not** match samples taken from Tyrone Noling and his co-defendants, but also **did not exclude** Daniel Wilson (Tr. 721; Ex. I). Over a year after the Hartig murders, authorities were still keenly interested in Wilson as an alternate suspect in the murders. On June 19, 1991, the Ohio Bureau of Criminal Identification and Investigation conducted a DNA analysis on a cigarette butt found outside of the Hartigs' home—the only physical evidence found at the scene. (Ex. I). The cigarette butt was tested against a saliva sample taken from Daniel Wilson, and the test did not exclude Wilson as a possible match. *Id.* Authorities also conducted analyses using saliva samples from Noling and his co-defendants. (Tr. 721). Neither Noling nor his co-conspirators matched the DNA found on the cigarettes. *Id.* While the prosecution disclosed Noling's results to counsel, the prosecution **withheld** the fact that they tested Wilson against the cigarette butt and the results of Wilson's test.

¹⁶ O.R.C. 2907.01(B)(2). Daniel Wilson was executed on June 3, 2009. http://www.dispatch.com/live/content/local_news/stories/2009/06/03/wilson_dies.html (December 19, 2010).

2. The State failed to disclose reports of suspicious gun activity coupled with additional alternate suspects

Although the documents previously undisclosed by the State point to Daniel Wilson as a strong alternate suspect, other previously undisclosed documents also point to members of the VanSteenberg family as other alternate suspects. The VanSteenberg family was investigated at the time of the Hartig murders. Specifically, the VanSteenbergs were questioned with respect to the Hartig murder weapon, a .25 caliber automatic. The weapon used to kill the Hartigs was never recovered. Just days after the Hartig murders, Detectives Doak and Kaley interviewed Larry Clementson; Raymond VanSteenberg; and Dennis VanSteenberg, Raymond's son. Exhibit J, Motion for New Trial, June 21, 2010, State v. Noling, Case No. 95 CR 220, Portage County. Each of the interview reports includes details about a missing .25 caliber automatic gun, the same type of gun that was used to shoot and kill the Hartigs. *Id.* The prosecution disclosed these interview reports to defense counsel, but the prosecution did not disclose a statement provided by Marlene VanSteenberg, Raymond VanSteenberg's sister-in-law. Exhibit M. When Marlene VanSteenberg's statement, previously undisclosed by the State, is pieced together with the police interviews of Larry Clementson, Raymond VanSteenberg, and Dennis VanSteenberg, there are two possible scenarios for an alternate suspect.

The first scenario is that Dennis VanSteenberg disposed of the gun that the police were looking for as the potential murder weapon in the Hartig case. This scenario concurs with the details in Clementson's statement, and with a statement by Marlene VanSteenberg, in which she described a conversation she had with Shelton Morris¹⁷ and stated that Morris told her that Dennis threw the gun out the window of the truck he was driving, which belonged to Raymond VanSteenberg. Exhibit M. In addition, Clementson stated that he knew that the police had the

¹⁷ Shelton Morris was the boss of Marlene VanSteenberg's husband.

wrong gun and that Dennis told him that the gun that the Sheriff's office wanted has been used to kill three other people. In other words, Raymond had turned the "wrong" gun into the police to keep the police from finding the gun they were looking for – the one used to kill three people.

Dennis has a long history of run-ins with the law, including violence and theft.¹⁸ Dennis is a viable alternative suspect under the first scenario. Under a second scenario, Raymond is also a viable alternate suspect – based on the previously undisclosed statement of Marlene VanSteenberg where she stated that Raymond asked Marlene to lie to police about the gun he turned into them and was upset when she would not lie. Raymond admitted to Marlene that he threw away the gun because "he just had to do it." Exhibit M. In other words, under the second scenario, the Hartig murder weapon was disposed of by Raymond VanSteenberg.

In addition, there is evidence, not disclosed at the time of trial, that an insurance agent of the Hartig's had a motive to kill the Hartigs, and police reports showed that two of these insurance agents were investigated and additional information potentially connecting them to the Hartig murders was obtained. With respect to motive, police reports contained information that Bearnhardt Hartig told his family doctor that his insurance agent defaulted on a loan the Hartigs gave him, and Mr. Hartig was going to demand immediate payment. Exhibit D, Motion for New Trial, November 3, 2006, Case No. 95-CR-220. When the Hartigs bodies were found, they were seated at the kitchen table, Mr. Hartig still had his wallet and the Hartig's desk was ransacked. Exhibit G-H, Motion for New Trial, November 3, 2006, Case No. 95-CR-220. The Hartigs had two insurance agents – Lewis Lehman and William LeFever. Lehman owned a .25 titan

¹⁸ Portage County Criminal Docket Numbers for State v. Dennis VanSteenberg: 2009 CR B 00448 R (domestic violence), 1999 CR B 03231 R (criminal damaging), 2004 CR B 02039 R (criminal damaging), 2001 CR B 01005 R (disorderly conduct), 1992 CR B 01804 (open container), 2003 CR B 03546 R (domestic violence), 1995 CR B 00445 (domestic violence), 2006 CR B 03062 R (assault), 1993 CR B 03199 (telephone harassment), 1992 CR B 01045 R (domestic violence), 1994 CR B 02008 R (theft), 1992 CR B 02246 R (domestic violence), 1995 CR B 01237 R (domestic violence), and 2003 CR B 03305 R (domestic violence).

handgun (one of only four models that could have been the murder weapon). Exhibit E, Motion for New Trial, November 3, 2006, Case No. 95-CR-220; Tr. 1243. Lehman claimed he sold the gun years prior to an unknown person; however, the Hartig's other insurance agent, William LeFever, saw the gun only four years before the murders. Exhibit F, Motion for New Trial, November 3, 2006. When authorities requested that Lehman take a lie detector test, he refused. Exhibit N, Motion for New Trial, November 3, 2006, Case No. 95-CR-220.

When police questioned LeFever, they read him his Miranda rights. LeFever then told police that he conducted business with the Hartigs at the kitchen table where their bodies were found. In addition, a witness, Jim Geib, described a man, matching LeFever (dark haired man, in his thirties) leaving the area of the Hartig's home at a high rate of speed around the time of the murders. Exhibit L, Motion for New Trial, November 3, 2006, Case No. 95-CR-220.

IV. ARGUMENT

A. Prior testing does not bar Tyrone Noling from post-conviction DNA testing

Ohio law is clear that the type of DNA testing done prior to Noling's trial is not a bar to further testing. In *Prade*, the Ohio Supreme Court overturned the Ninth District and held "that a prior DNA test is not 'definitive' within the meaning of R.C. 2953.74(A) when a new DNA testing method can detect information that could not be detected by the prior DNA test." *State v. Prade*, 2010-Ohio-1842, ¶ 23. The Supreme Court's reversal is particularly important since this Court's denial of Noling's First Application relied exclusively upon the Ninth District's decision in *Prade*. Exhibit A. The Ohio General Assembly also superseded the Ninth District's decision in *Prade* by statute – adopting a new definition of "definitive DNA test" in SB77. O.R.C. 2953.71(U). In particular, the statute now provides that "[a] prior DNA test is not definitive if the eligible offender proves by a preponderance of the evidence that because advances in DNA

technology there is a possibility of discovering new biological material from the perpetrator that the prior DNA may have failed to discover.” *Id.*

In the present case, both new DNA technology and new evidence mean that Noling’s prior testing was not “definitive” under Ohio law. HLA DQ α DNA testing (“DQ α ”) and blood typing were the two types of testing performed on the cigarette butt prior to the 1996 trial. DQ α DNA testing was used to compare the profile on the cigarette recovered from the crime scene against Noling and his co-defendants. However, only blood typing was used to compare the profile on the cigarette butt with alternate suspect, Daniel Wilson. DQ α DNA testing only analyzes a small section of DNA. Due to this limitation, the DQ α DNA testing method can exclude people but it cannot be used to “match” a profile with a suspect. Blood typing is even more primitive and more general than DQ α DNA testing, and it certainly cannot be used to identify an individual. *Fundamentals of Forensic DNA Typing*, Butler, John M., Chapter 3, Historical Methods, pp. 45-60 (2010).

As discussed previously, neither type of testing – DQ α or blood typing – used at the time of trial was able to provide any information about the killer. *See generally, State v. Prade*, 2010-Ohio-1842, ¶ 19 (“the [old] 1998 DNA ‘test results [did] not give [] any information about the killer”). Significantly, only blood typing was used for the comparison of Daniel Wilson to the cigarette butt. Even if DQ α had been used, it would not have been able to definitively match Daniel Wilson with the profile on the cigarette butt because, at the time of Noling’s trial, DNA technology was unable to identify a single individual. *See, Fundamentals of Forensic DNA Typing*, Butler, John M., Chapter 3, Historical Methods, pp. 45-60 (2010). In other words, DQ α was unable to identify the perpetrator who left the cigarette butt at the Hartig crime scene.

Unlike the testing done prior to Noling's trial, the DNA technology is now available to identify the individual whose DNA profile is on the cigarette butt. In particular, the new STR DNA testing (unavailable at the time of Noling's trial) does not rely on a small, specific section of DNA. As a result, STR profiles are now used by prosecutors' offices throughout the country to solve "cold cases," as STR profiles can be used to identify a perpetrator – unlike previous DNA testing methods like such as RFLP or DQ α , or blood typing analysis.

STR DNA testing is not only able to make an identification, but STR profiles of convicted felons are stored in a DNA database known as CODIS.¹⁹ STR profiles are submitted by state and federal authorities, each with their own criteria for taking the DNA profile of an individual. CODIS makes the identification of perpetrators through an STR DNA profile easier. In addition, a profile obtained from a type of DNA testing called mini-STR can be run through CODIS for comparison for a possible match.²⁰

In sum, the ability to identify the smoker of the cigarette butt, and potentially the perpetrator, was unavailable at the time of Noling's trial. The advancements in DNA technology and testing methods, and the development of the CODIS database, which SB77 further expands in July 2011,²¹ can detect information that could not have been detected by either the prior blood test or the prior DQ α DNA test. The information that can now be detected is a complete DNA profile, which can be used for a match or identification through the use of CODIS. *See*, O.R.C.

¹⁹ The Ohio Attorney General oversees Bureau of ("BCI") which maintains the Combined DNA Index System ("CODIS"), which is part of the FBI's National DNA Index System ("NDIS"). "CODIS is a database that contains the digital profiles of DNA from crime scenes and convicted felons. Through CODIS, DNA profiles from convicted offenders can be linked to evidence from unsolved crimes and serial crimes can be linked at the local, state or national level." [http://www.ohioattorneygeneral.gov/getattachment/8bdfc3aa-215a-4cbd-84c7-21bcb019ce3d/Bureau-of-Criminal-Identification-and-Investig-\(1\).aspx](http://www.ohioattorneygeneral.gov/getattachment/8bdfc3aa-215a-4cbd-84c7-21bcb019ce3d/Bureau-of-Criminal-Identification-and-Investig-(1).aspx), p. 11 (December 2, 2010).

²⁰ Mini-STR profiles can be uploaded to CODIS for comparison because mini-STR DNA testing evaluates the same thirteen core STR loci. *See*, <http://www.ncjrs.gov/pdffiles1/nij/grants/220297.pdf> (December 19, 2010); *See also*, *Fundamentals of Forensic DNA Typing*, Butler, John M., p. 154 (2010).

²¹ In July 2011, those arrested for felonies in Ohio will have their STR DNA profile in the federal DNA database known as CODIS. In addition, each state has different criteria for the taking an STR DNA profile from an individual for submission to CODIS. For example, New York has a number of misdemeanors which are DNA qualifying offenses.

2953.74(E). Not only can more information about the perpetrator be detected through new, modern DNA testing methods, but, given that only blood testing was used for the comparison to an alternate suspect, a prior DNA test was never performed. Nor could the defense have even requested such as test, as the information regarding Daniel Wilson was never turned over by the State.

For the above stated reasons, 2953.74(A) is not a bar to post-conviction DNA testing for Tyrone Noling.

B. Tyrone Noling qualifies for DNA testing under SB262.

For a convicted person to obtain DNA testing under R.C. 2953.74, the Court must find, in pertinent part, that:

1. DNA testing was not performed at the time of trial, DNA testing was not generally accepted at the time of trial, the results of DNA evidence were not generally admissible in evidence, or DNA testing was not yet available. R.C. 2953.74(B)(1).
2. Biological material was collected from the crime scene or victim of the offense for which the inmate is eligible and is requesting testing, and this evidence still exists. R.C. 2953.74(C)(1).
3. The sample contains scientifically sufficient material to extract a test sample, the parent sample is not so minute as to risk destruction, and the sample is not degraded or contaminated to the extent it is scientifically unsuitable for DNA testing. R.C. 2953.74(C)(2).
4. At the trial stage, the identity of the person who committed the offense was an issue, and one or more of the defense theories asserted at trial was of such a nature that, if DNA testing is conducted and an exclusion obtained, the exclusion result will be outcome determinative. R.C. 2953.74(C)(3) and (4).
5. If DNA testing is conducted and an exclusion result is obtained, the results of the testing will be outcome determinative. R.C. 2953.74(C)(5).
6. From the chain of custody of the parent sample, there is no reason to believe that they have been out of state custody or would have been tampered with or contaminated since they were collected. R.C. 2953.74(C)(6).

As demonstrated below, Noling meets each of the requirements of R.C. 2953.74. Accordingly, this Court should grant his application for post-conviction DNA testing.

1. Modern, more accurate forms of DNA testing were not available, and thus were not performed at the time of trial.

At the time of Noling's trial, only two types of DNA testing were available and accepted. The first was "DNA Profiling" which detects the presence of Restriction Fragment Length Polymorphisms (RFLPs) in the DNA. (1993 Serological Research Institute Analytical Report (hereinafter referred to as "Serological Report"), pg. 4 (Attached as Exhibit N)). The second method, used in Noling's case, was HLA DQ α which relies on identifying a small specific section of DNA. *Id.* Although there may be an elimination of a person using this system, an identification to the exclusion of all others is not possible. *Id.* HLA DQ α testing was used on the cigarette butt recovered from the scene, and was able to eliminate Noling, Dalesandro, St. Clair, and Wolcott as the smoker of the cigarette, and thus eliminate them as the person who left it at the scene. *Id.* at 3. Since a HLA DQ α profile is not unique to each specific person, although the results were able to exclude Noling and the other three suspects as the donor, the profile cannot be used to generate an exact match to the actual donor of the cigarette butt. Due to their inherent limitations, HLA DQ α profiling and similar techniques are being replaced by more accurate and scientifically discriminatory testing methods like STR. (Discussed in detail in Section IV.A above.)

2. Biological material was collected from the crime scene and this evidence still exists.

The cigarette butt found in the Hartig's driveway is the only known item of physical evidence collected from the crime scene that is capable of being subjected to DNA testing. The State does not dispute that this piece of evidence is still in existence and can be retested with more modern methods. Due to the lack of evidence indicating a struggle between the victims

and the perpetrators, and the absence of any other physical evidence left by the suspected perpetrators, it is unlikely that there is any further biological material that can be subjected to DNA testing.

3. The samples are suitable for DNA testing.

The biological evidence from this case should be in a condition to permit the analysis that Noling seeks. The item consists of a flattened, smoked, white filtered cigarette butt with no apparent logo. *See*, Serological Report at 2. In the initial testing on the cigarette butt performed at Noling's trial, a small section of the cigarette butt was extracted and tested. *Id.* The remainder of the cigarette butt is still be available for further DNA testing and remains in the custody of the Portage County Prosecutor's Office.

Technology has advanced tremendously in the past decade, and modern DNA testing could now provide more conclusive results as to who committed these murders – even in the case of relatively limited physical evidence, such as the cigarette butt recovered from the Hartig's driveway. Specifically, STR testing would provide a unique profile that could be run through CODIS possibly resulting in a hit to a known offender. Additionally, Y-STR testing is more sophisticated and accurate than both STR and the forms of testing used at the time of Noling's trial. Y-STR testing should be able to identify the presence of DNA from a smaller, more degraded parent sample if STR testing would not result in the positive presence of DNA suitable for testing. For example, an STR test may find that not enough DNA exists on the cigarette butt, or that the sample is too degraded to yield a profile. Using Y-STR on the smaller, more degraded sample could produce a profile that will be used to compare to alternate male suspects and their male relatives.

“Newer DNA analysis techniques enable laboratories to develop profiles from biological evidence invisible to the naked eye, such as skin cells left on ligatures or weapons... Valuable DNA evidence might be available that previously went undetected in the original investigation.” Using DNA to Solve Cold Cases, Nat’l Instit. Just., Off. Just. Programs, U.S. Dept. Just., (July 2002) at 5. Y-STR and mtDNA testing, along with the newly emerging “mini-STR” type of testing, are able in many cases to derive a DNA profile from old, badly degraded samples. It is possible that skin cells and saliva from the true perpetrator will be found on the cigarette butt and that STR or Y-STR testing could discover that DNA. In short, there is no reason to believe at the current time that any DNA samples that have been or might be recovered in this case could not be successfully subjected to modern forms of DNA testing.

4. The identity of the perpetrator was an issue at trial.

DNA testing requests are limited to cases where identity is an issue at trial. *People v. Urioste*, 736 N.E.2d 706, 711-712 (Ill. App. Ct. 2000) (the identity requirement guards against “frivolous requests by limiting the remedy to those cases where identity was truly at issue, cases where the use of the new technology could test properly preserved genetic material to either confirm or decidedly negate other identification evidence that produced the conviction.”). The very purpose of the post-conviction DNA statute is to use advanced scientific technology to test the State’s identification proof – proof a jury has already determined to be beyond a reasonable doubt – to determine if a wrongful conviction has occurred. *See generally, State v. Peterson*, 836 A.2d 821 (N.J. Super. A.D. 2003). Although the issue of identity is present in every criminal case,²² where the defendant specifically disputes that he was the person who perpetrated the charged acts, identity is a “significant issue” in the case.

²² To warrant a conviction, the evidence must establish beyond a reasonable doubt the identity of the accused as the person who committed the crime.

Tyrone Noling has maintained since the time of his initial interrogation to the present day that he had nothing to do with the murder of the Hartigs on April 7, 1990. Also, the perpetrator's identity was a primary issue at the trial stage of this case. "What we're here to argue about is who committed these crimes" (Tr. 642-43); "...we're here to dispute that Tyrone Noling had anything to do with the homicides of these folks." (Tr. 645).

5. A result will be outcome determinative.

Under SB262, Tyrone Noling is entitled to DNA testing if a favorable test would be "outcome determinative." SB262 changed the language and application of the "outcome determinative" standard from its predecessor law, SB11, in several important ways.

First, the legislature expressly lowered the "outcome determinative" standard from the rigid way it had previously been defined in SB11. This relaxation of the "outcome determinative" language makes it easier for an inmate to obtain DNA testing under SB262 as contrasted to SB11. Attorney General Jim Petro explained the differences in the new "outcome determinative" standard in a brief that he filed in the recent case of *State v. Emerick* in the Montgomery County Court of Common Pleas. *Emerick* involved an application for DNA testing under SB262, filed after the inmate had previously been denied DNA testing pursuant to the former, and more restrictive, "outcome determinative" standard of SB11. The Attorney General explained the changes in the "outcome determinative" standard as follows:

Under the former version of R.C. 2953.71(L) (SB11), "outcome determinative" meant that

had the results of DNA testing been presented at the trial of the subject inmate . . . no reasonable factfinder would have found the inmate guilty of that offense . . .

Under the new version of R.C. 2953(L), enacted by SB 262 in 2006, "outcome determinative" means that

had the results of DNA testing been presented at the trial of the subject inmate . . . there is a strong probability that no reasonable factfinder would have found the inmate guilty of that offense.

The former "outcome determinative" standard required a court to find that no reasonable factfinder would have found the inmate guilty of the offense in order to grant the DNA application. Under the new "outcome determinative" standard, ***a court need only find a strong probability that no reasonable factfinder would have found the inmate guilty.*** Further, in determining whether the new "outcome determinative" criterion has been satisfied, the court is to consider all available admissible evidence related to the inmate's case. Because the legislature has changed the standard to be used for the "outcome determinative" finding, the Attorney General does not believe that a DNA application filed under the revised statutes is barred from consideration on the basis that the previous DNA application was denied because it did not meet the "outcome determinative" standard under the former statutes.

See, Ohio Attorney General's Response to Defendant's Application for a DNA Test, *State v. Emerick*, Case No. 94.CR-1548, Montgomery County Court of Common Pleas, Judge Gorman (attached as Exhibit O) (emphases added).

In other words, SB262 relaxed the "outcome determinative" language to make it more in line with the standard for a motion for new trial pursuant to Rule 33. Indeed, Ohio Criminal Rule 33(A)(6) allows a defendant to seek a new trial upon a showing that new evidence exists. Cases interpreting this rule have upheld new trials in post-conviction, after the deadline has elapsed, upon a showing of a "strong probability" that the new evidence would change the outcome of the trial. *State v. Petro*, 148 Ohio St. 505 (1947). Under this standard, a defendant is not required to demonstrate that the new evidence alone would definitively and absolutely prevent a jury from convicting, as SB11 required, but rather, that the evidence presented in the context of the case creates a "strong probability" that a jury would acquit.

This relaxation from "no" reasonable factfinder would convict, under SB11, to a "strong probability" that no reasonable factfinder would convict, under SB262, softens the standard and brings it into sync with the "strong probability" language of *Petro* and the other cases

interpreting Rule 33. It changes the inquiry from absolutes to probabilities, allowing the reviewing court to use common sense judgments about what a jury would probably or likely do if it were to reconsider the case with the benefit of new DNA evidence that is favorable to the inmate.

The second change, and most important change with respect to Noling, is that SB262, unlike SB11, offers an inmate several different tools and avenues with which to meet the outcome determinative standard. Specifically, an inmate can meet the standard and prove his innocence by matching the DNA from the crime scene to an alternative suspect, or by getting a “cold hit” to a felon whose DNA profile is in the FBI’s CODIS database. R.C. 2953.74(E); *See also*, Godsey Testimony, 12-14, (explanation as to how this mechanism works in practice). An inmate can also meet the outcome determinative standard by employing advanced testing previously unavailable under SB11, as detailed *supra* in this brief.

In addition to the plain language of the statute, case law demonstrates that DNA testing would be outcome determinative for Tyrone Noling. In *Reynolds*, the Second District recognized that advancements in DNA testing were instrumental in “prompt[ing] the General Assembly in 2003 to enact R.C. § 2953.71 through R.C. § 2953.83.” *State v. Reynolds*, 186 Ohio App. 3d 1, 2009-Ohio-5532, ¶ 13. The Second District also held that, once a third party’s DNA is uncovered, R.C. 2953.74(E) “specifically permits an applicant to have the unknown DNA result uploaded into CODIS in order to search for a match to a known felon.” *Id.* at ¶ 20; *See, Id.* at ¶ 22. In other words, the Second District permitted the uploading of a DNA profile to CODIS as an additional tool under the statute to establish outcome determinative.

Even more closely analogous to Noling’s case is the Eighth District’s decision in *State v. Ayers*, 185 Ohio App.3d 168, 2009-Ohio-6096, *appeal denied*, *State v. Ayers*, 2010-Ohio-0323.

In *Ayers*, the Eighth District acknowledged that the newly available ability to upload a DNA profile to CODIS could be outcome determinative despite a prior exclusion result. *State v. Ayers*, 2009-Ohio-6096. Ayers asked for DNA testing of pubic hairs found in the victim's mouth, on her dentures, and on one of her footies. *Id.* at ¶ 32. The State argued "that (1) since the jury was told that Ayers was excluded as a source of the biological materials collected at the crime scene, (2) this knowledge was considered by the jury, and (3) the jury still convicted him, the change in the outcome determinative standard is meaningless." The Eighth District disagreed with the State and held that "an exclusion result is not the only factor to consider when deciding whether DNA testing will be outcome determinative. In addition to the amendments to R.C. 2953.71(L), other amendments to the statutes recognize the advances in DNA testing and provide inmates the avenue to access the Combined DNA Index System ('CODIS')." *Id.* at ¶ 33, 34.

Applying the law to the facts in *Ayers*, the Eighth District stated:

Although none of this evidence matched Ayer's DNA profile, it is possible that refinements in testing could identify the source of the DNA and perhaps establish proof that another person had been in the victim's apartment at the time of the murder. *Id.* ¶ 42.

The Eighth District held that the trial court abused its discretion in denying Ayers' application for DNA testing. *Id.* ¶ 43.

Therefore, applying Ohio law to Noling's case, new DNA results obtained on the cigarette butt left at the Hartig home would be outcome determinative in this case under the relaxed standard of SB262. Under outcome determinative analysis in Noling's case, there are at least five main factors that show that there is a "strong probability that no reasonable fact finder would have found [Noling] guilty." These factors are: (1) recantations of all three main trial witnesses, St. Clair, Dalesandro, and Wolcott; (2) undisclosed police report implicating Daniel

Wilson as the perpetrator; (3) an undisclosed test which did not exclude Daniel Wilson as the perpetrator; (4) other alternate suspects revealed in additional undisclosed police reports; and (5) advancements in DNA testing and technology.

In evaluating whether post-conviction DNA testing would be outcome determinative, the court should first consider all available, admissible evidence. O.R.C. 2953.74(B)(1) and (2). Available, admissible evidence includes the recantations of Noling's co-defendants, Wolcott, Dalesandro, and St. Clair. Available, admissible evidence also includes previously undisclosed evidence regarding the alternate suspects. The court must next evaluate what the new DNA technology can tell us about the perpetrator, in light of all the available, admissible evidence. *See*, O.R.C. 2953.74(B)(1) and (2).

The available, admissible evidence shows that the only link between Noling and the Hartig murders – i.e., Noling's co-defendants – is problematic. Noling was convicted based on the identification and testimony of Wolcott, Dalesandro, and St. Clair, and Noling's previous involvement in robberies. There were no other eyewitnesses that saw Noling in the area around the Hartig home at anytime. There was no physical evidence tying Noling to the crime. There can be little doubt that the jury relied upon the trial testimony of the three "accomplices," as did the State. The State's reliance on the testimony of the three, now recanting "accomplices" was so great, that, even when St. Clair recanted prior to Noling's trial, the State called him to testify anyway, and had him declared hostile. It was at this point that the State revoked St. Clair's plea bargain. St. Clair is currently serving a life sentence for the Hartig murders. His original plea agreement was a five to twenty-five year sentence.

Moreover, all three "accomplices" have recanted their trial testimony and disavowed any statements made prior to trial. St. Clair, Wolcott and Dalesandro have denied their own and

Noling's involvement in the Hartig murders. They stated that they were pressured into testifying by lawyers and family in order to avoid execution, and by Prosecutor Ron Craig. *See*, Exhibit H. Wolcott and Dalesandro stated that they told Prosecutor Craig that Noling was not involved in the Hartig murders. This fact was not disclosed to Noling's counsel at the time of trial. *Id.*; *See also*, Andrea Simakis, *Lies Put Man on Death Row, Three Claim*, The Plain Dealer (August 13, 2006) (attached as Exhibit P). All of the previous robberies that Noling was involved in were non-violent, and one of the robbery victims stated that the boys were very polite during the course of the robbery. Mark Kuz, *The Unlikely Triggerman*, Cleveland Scene (September 10, 2003) (attached as Exhibit Q). Further, all of the previous robberies took place in the same neighborhood as the home that Noling was staying at in Alliance, Ohio, and the Hartig house was located in Atwater, Ohio, which is approximately 10 miles away. All of these facts are available, admissible evidence.

The previously undisclosed evidence is also, **now**, available, admissible evidence. The State did not disclose this evidence at the time of Noling's trial. This "new" evidence, in the form of police reports, interviews and scientific tests, points to alternate suspects. *See*, Sections III.C.1 and 2, herein. In addition, counsel for Noling has recently obtained affidavits from some of the witnesses in the undisclosed police reports. Exhibit H. An alternate suspect casts even further doubt on the original trial testimony of the three, now recanting, "accomplices" and the jury verdict.

From the information in the previously undisclosed documents, Daniel Wilson is the strongest alternate suspect. Wilson, at the age of fourteen, broke into a house to rob its owner. The owner, an elderly man, was home when Wilson broke in the house. Wilson beat him, and left him for dead. In fact, the man later died from his injuries. *Wilson v. Mitchell*, 498 F.3d 491,

496 (6th Cir. 2007). Wilson was identified as the perpetrator. Perhaps with the Hartigs, Wilson decided not to make the same mistake of leaving an eyewitness alive to identify him.

Aside from Wilson's criminal history prior to the Hartig murders, a withheld police report states that Wilson's foster brother implicated Wilson in the Hartig murders. The foster brother also stated that Wilson drove a blue car. Exhibit J, Chesley Affidavit. This vehicle description is important because another previously undisclosed police report contained a statement from a witness that he saw a blue car leaving the area of the Hartig home around the time of the murders. The police even went so far as to compare Wilson's blood type with that found on the cigarette butt from the Hartig crime scene. Wilson could not be excluded. Exhibit I. Despite the fact that Wilson was not excluded from the cigarette butt, and witnesses point to him as the perpetrator, the police reports and the test results containing this information were never turned over to Noling's counsel, let alone presented to Noling's jury. Daniel Wilson, subsequent to the Hartig murders, murdered a woman named Carol Lutz. Wilson's conviction for this crime put his DNA profile into CODIS, and put Wilson on death row. O.R.C. 2907.01(B)(2); *Wilson v. Mitchell*, 498 F.3d 491, 497 (6th Cir. 2007).

There are other alternate suspects who are associated with the missing murder weapon in the Hartig murders. These suspects are Raymond and Dennis VanSteenberg and William LeFever. *See*, Section III.C.2 herein.

New DNA technology would further strengthen the alternate suspects in this case. STR DNA testing can provide a much more complete and accurate DNA profile, as to the partial profiles of RFLP or DQ α DNA analysis. The complete profile provided by STR allows for

identification of an individual perpetrator, rather than an exclusion of some segment of the population, like DQ α or blood typing.²³

This is one of the advancements in DNA technology that prompted the general assembly to pass the post-conviction DNA testing statute. *State v. Reynolds*, 2009-Ohio-5532, ¶ 13. In addition, the ability of STR DNA testing to identify individuals is the primary reason that CODIS was established. CODIS would not be useful to law enforcement if it only had the ability to exclude a segment of the population. The ability of STR DNA technology to identify individuals is what makes CODIS a useful new application of DNA technology and a tool for law enforcement.

CODIS, through new, STR DNA technology, can be used to meet the outcome determinative standard. *State v. Reynolds*, 2009-Ohio-5532, ¶ 20, 22. The new ability to obtain an STR DNA profile, and upload that result to CODIS can render post-conviction DNA testing outcome determinative despite a prior exclusion result. *State v. Ayers*, 2009-Ohio-6096. Even though Noling's jury heard that Noling and his "accomplices" were excluded from the cigarette butt, new DNA testing and the ability to upload an STR DNA profile to CODIS is outcome determinative in the context of the available, admissible evidence. Refinements in DNA testing could identify the source of the DNA, and establish proof that another person was at the Hartig murder scene. *See, Ayers*, 2009-Ohio-6096, ¶ 42. If the DNA profile on the cigarette butt at the Hartig crime scene is that of a known felon, with a record for similar crimes, or one of the alternate suspects, DNA testing is clearly outcome determinative. This is especially true if the

²³ DQ α and blood typing are also subject to human error as a result of the subjective determinations that are required. Modern DNA testing is not subject to this same type of error.

DNA profile is a match to Daniel Wilson, given the undisclosed information linking Wilson to the Hartig murder and Wilson's criminal history.²⁴

The other alternate suspects could be matched through CODIS, or they could simply be matched through a direct comparison of DNA samples. Again, such a match was not possible at the time of Noling's trial.

In addition to STR DNA testing, Y-STR also represents another advancement in DNA technology. If no hit from CODIS is obtained, Y-STR testing can be used to generate a profile that can be compared against the profile of alternative male suspects and their male relatives from the same paternal bloodline. Y-STR would be extremely preferable to obtain a profile on possible suspects who are unreachable or deceased, since their Y-STR profiles would be the same as any male in their paternal bloodline. Since neither of the Hartigs were smokers, it is likely that whoever left the cigarette butt at the scene was the murderer. This theory is supported by the prosecution ordering initial testing on the cigarette butt. A positive match from the DNA obtained on the cigarette butt to either a known offender via CODIS or a known suspect from the case would create the strong probability that no reasonable factfinder would have found Tyrone Noling guilty of the Hartig murders, and thus satisfy SB262's outcome determinative standard. In addition to a positive match to an alternate suspect or a known offender, the above discussed five factors show that there is a "strong probability that no reasonable fact finder would have found [Noling] guilty" and these factors show that Noling has satisfied the outcome determinative standard.

²⁴ If a known felon with a similar history to Wilson, i.e., violence and theft, was matched to the DNA profile on the cigarette butt from the Hartig crime scene through CODIS, this too would create a strong probability that no reasonable fact finder would have found Tyrone Noling guilty. Given the recantations of all three of Noling's co-defendants, Noling's prior record is the only remaining contested reason for his conviction.

In sum, at least five separate factors exist which would demonstrate a “strong probability that no reasonable fact finder would have found [Noling] guilty” – thus satisfying the outcome determinative standard. These factors include (1) recantations of all three main trial witnesses, St. Clair, Dalesandro and Wolcott; (2) undisclosed police report implicating Daniel Wilson as the perpetrator; (3) undisclosed test which did not exclude Daniel Wilson as the perpetrator; (4) other alternate suspects revealed in additional undisclosed police reports; and (5) advancements in DNA testing and technology.

6. The biological evidence has not left State custody or been tampered with since it was collected

From the chain of custody of the parent samples, there is no reason to believe that the biological evidence has been out of state custody, tampered with, or contaminated since originally collected. The biological evidence in this case has been in the State’s continuous possession and control since it was collected during the investigation of the crime. There is no reason to believe that the evidence has been contaminated or tampered with while in the State’s possession and control.

IV. CONCLUSION

Advanced DNA testing of the cigarette butt from the crime scene is capable of proving Tyrone Noling’s innocence of the crime for which he was convicted and is currently incarcerated on death row. He has met all the relevant statutory requirements concerning post-conviction DNA testing. For the above stated reasons, this application should be granted.

WHEREFORE, for the reasons stated in the instant Memorandum in support thereof, Tyrone Noling respectfully requests that this Court:

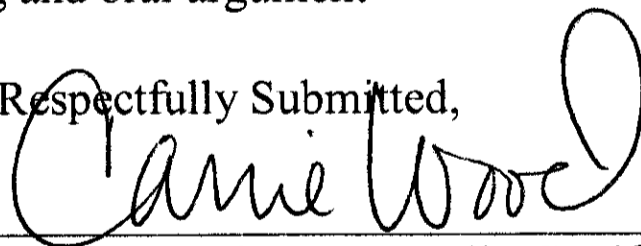
1. Order a thorough search for any remaining biological material that was collected during the investigation and prosecution of the case, whether or not it was introduced as evidence at trial. The search should include, but not be limited to, the following entities:

the Portage County Clerk of Court's Office, the Portage District Court of Appeals Clerk's Office, the Atwater Police Department, the Portage County Prosecutor's Office, and any other law enforcement laboratories or offices which were associated with the investigation of the case.

2. Order the Respondent to produce all chain of custody documents and contemporaneous business records (*e.g.*, log books, chain of custody documents, evidence receipts, *etc.*) from all agencies and entities that once possessed the biological material at issue, indicating the transfer, release and/or destruction of evidence, as well as the protocols that were in place for the preservation, storage, and destruction of such material during the time of the trial;
3. If Respondent or its agents respond to Tyrone Noling's application by claiming that they cannot find any relevant biological material suitable for DNA testing, then this Court should grant Tyrone Noling the right to conduct discovery pursuant to the Ohio Rules of Civil Procedure in order to vindicate his adversarial rights to engage in the process of determining whether relevant biomaterial exists that is suitable for DNA testing, which rights are protected by both the Ohio and United States Constitution, U.S. Const. amends. V, VI, VIII, IX and XIV; Ohio Const. art. I, §§ 1, 2, 5, 9, 10, 16 and 20.
4. If relevant biomaterial is discovered, then this Court should order the release of the biological evidence to a reputable laboratory for post-conviction DNA analysis, specifically STR and/or Y-STR testing;
5. In addition to or in the alternative to the relief sought above, this Court should conduct an evidentiary hearing on Tyrone Noling's application;
6. If a DNA test is conducted and it points to another perpetrator, then this Court should immediately release Tyrone Noling from prison, declare him innocent, void his convictions, and expunge his record relating to this case; and
7. Order such other and further relief to which Tyrone Noling may be justly entitled.

Tyrone Noling also requests a hearing and oral argument

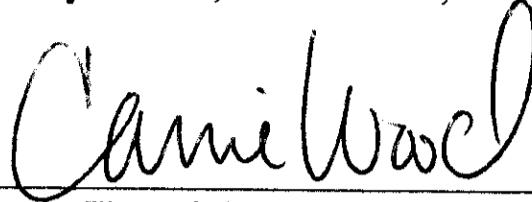
Respectfully Submitted,



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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Memorandum in Support of Application for Post-Conviction DNA Testing was delivered by U.S. Mail to Victor V. Vigluicci, Prosecuting Attorney, 466 South Chestnut Street, Ravenna, OH 44266 and to Richard Cordray, Ohio Attorney General, DNA Testing Unit, 150 East Gay Street, 16th Floor, Columbus, OH 43215 on this 28th day of December, 2010.



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IN THE COURT OF COMMON PLEAS

PORTAGE COUNTY, OHIO

FILED
COURT OF COMMON PLEAS

MAR 11 2009

LINDA K. FANKHAUSER, CLERK
PORTAGE COUNTY, OHIO

STATE OF OHIO

Plaintiff

CASE NO. 95 CR 220

-v-

JUDGE ENLOW

TYRONE LEE NOLING

JUDGMENT ENTRY

Defendant

In February of 1996 in a jury trial Tyrone Noling was convicted of two counts of aggravated murder and accompanying death specifications, two counts of aggravated robbery and aggravated burglary. The defendant was sentenced to death. Numerous appeals have been filed including two applications for post conviction relief, all of which have been denied. The defendant has filed application pursuant to RC §2953.71 through §2953.81 for additional DNA testing.

At the scene of the crime a smoked, flattened, white filtered cigarette butt was found, collected as evidence, and subsequently tested for DNA. That DNA test is attached to the prosecutor's brief and marked Exhibit B. Blood samples were taken from all co-defendants, including Tyrone Noling, and the DNA test concluded that none of the co-defendants including Tyrone Noling smoked that cigarette.

Revised Code §2953.74 states:

- (A) *If an eligible inmate submits an application for DNA testing under section 2953.73 of the Revised Code and a prior definitive DNA test has been conducted regarding the same biological evidence that the inmate seeks to have tested, the court shall reject the inmate's application.*
-

The threshold issue presented to this court is whether or not the DNA test previously allowed in 1993 was a definitive test. In *State of Ohio versus Douglas Prade*, 2009-Ohio-704, the Ninth District Court of Appeals discussed what constituted a definitive DNA test and they concluded that the test excluding Douglas Prade from DNA samples taken from his deceased ex-wife was a definitive test. Their analysis basically used the plain meaning of definitive in that if it would exclude the individual defendant from the item tested; it was a definitive test. Many times DNA tests are inconclusive and if that were the case then it would not be a definitive test.

In this case as Tyrone Noling and all his co-defendants were excluded as not being the person who had smoked that cigarette, therefore, it was a definitive DNA test.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED that Defendant Tyrone Noling's application for DNA testing be and is hereby **OVERRULED.**


JOHN A. ENLOW, JUDGE

cc:

Portage County Prosecutor's Office
Attn: Pamela Holder, Staff Attorney

Ohio Public Defender's Office
Attn: Kelly L. Culshaw, Esq.
8 East Long Street, 11th Floor
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James A. Jenkins, Esq.
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Cleveland, OH 44113

Dennis Lager, Portage County Public Defender

Figure 1: RFLP Autorad in a Rape Case

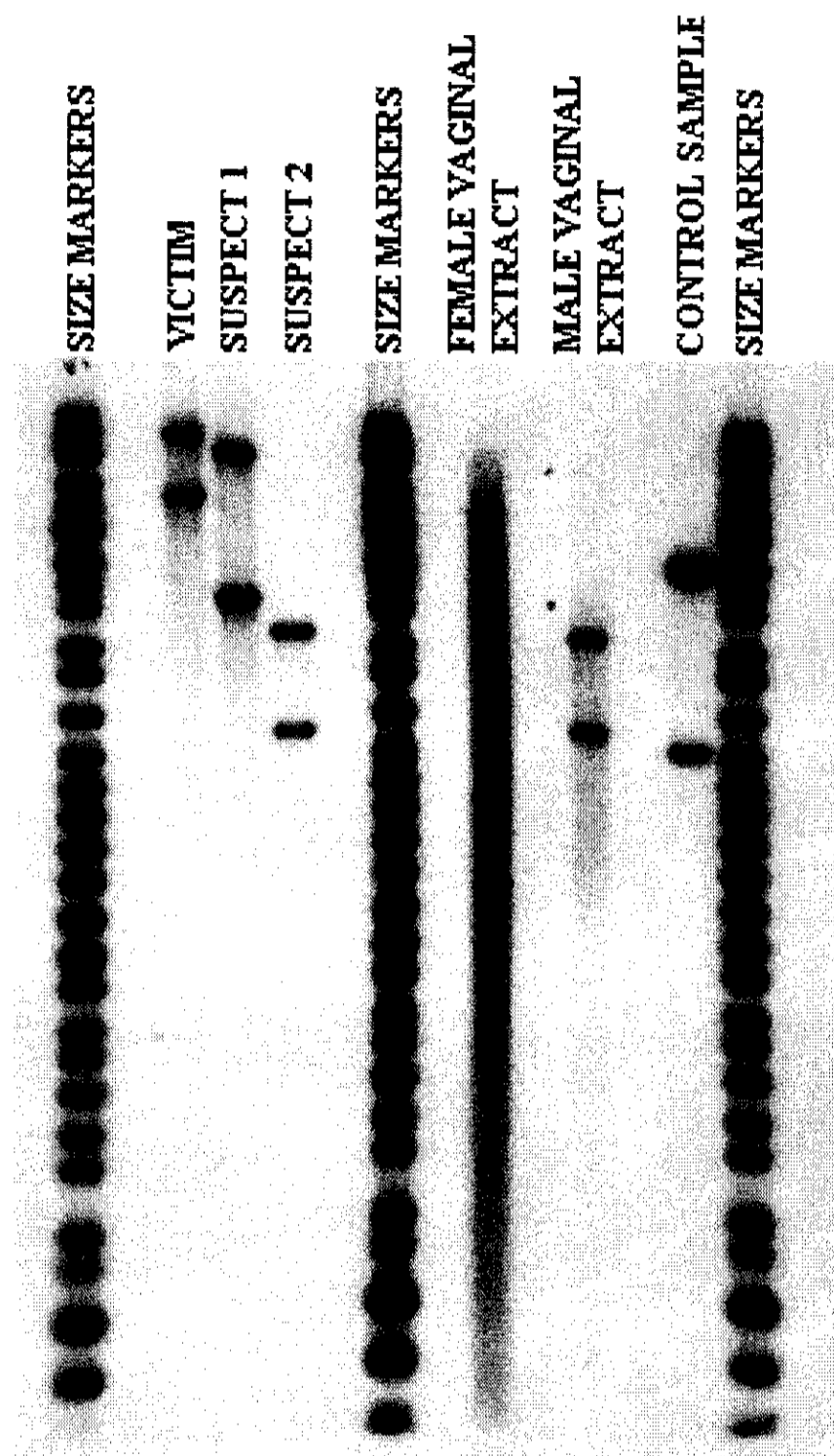


Figure 2: Test Strip Showing Polymarker (top) and DQ-Alpha (bottom) Test Results

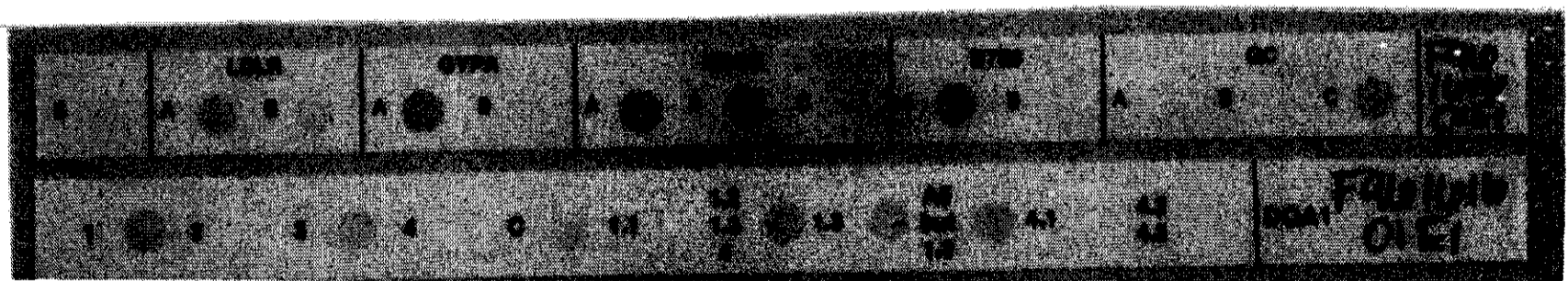
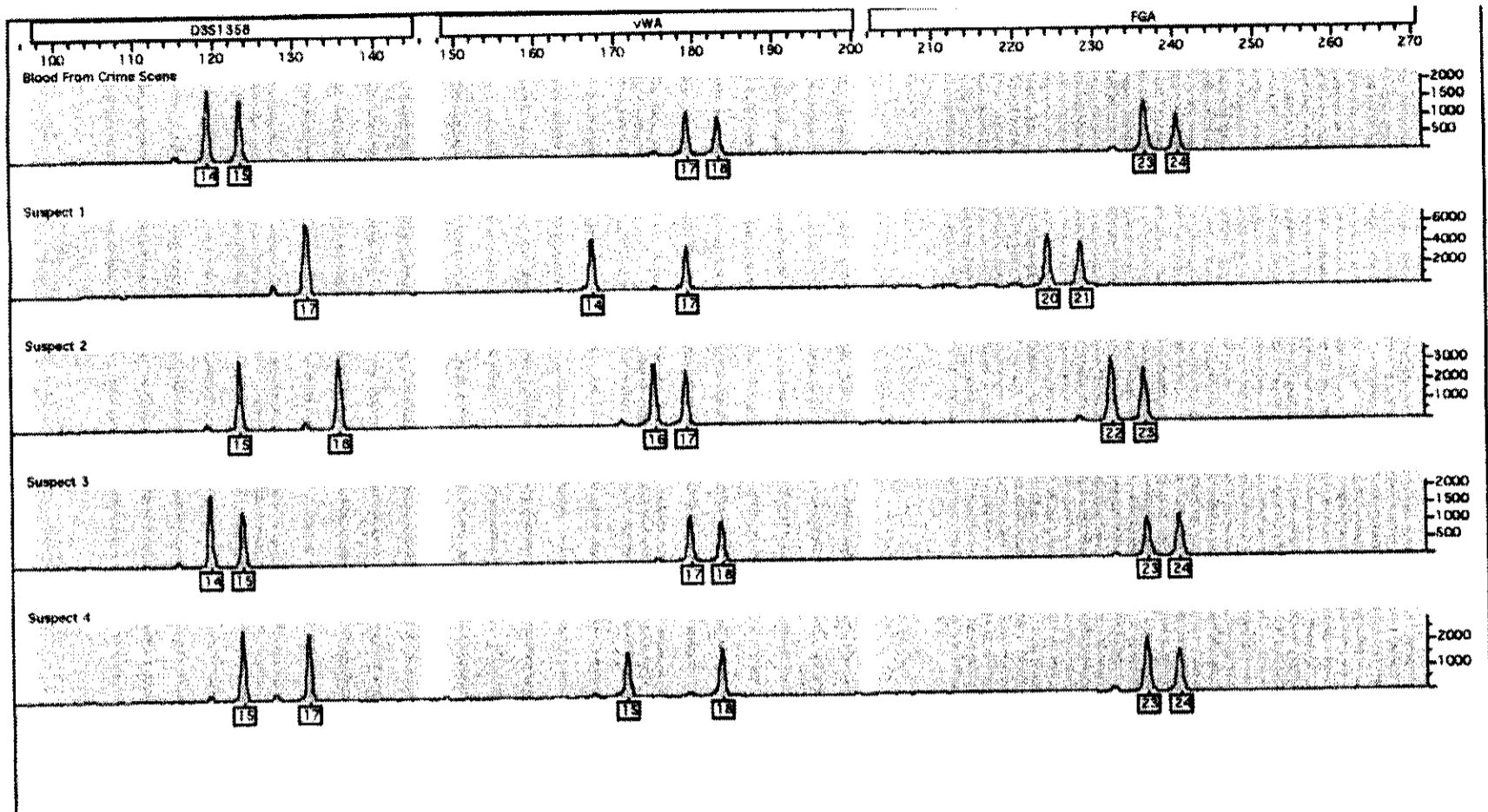


Figure 3: STR Test Results



Cassie Johnson Affidavit

1. My name is Cassie Johnson. I have a Bachelor of Science degree in Biology and Chemistry from Texas Christian University. I have two Master of Science degrees from the University of North Texas Health Science Center, with emphases in Biochemistry and Forensic Genetics. I am employed as a Forensics Supervisor and the Technical Leader of Y-STR and Mitochondrial DNA Testing at Orchid Cellmark. Orchid Cellmark is a leading provider of DNA testing services, including forensic DNA testing services. Orchid Cellmark is located at 13988 Diplomat Drive, Suite 100, Farmers Branch, TX 75234. I have been employed at Orchid Cellmark since 2002. I have testified more than 20 times on DNA testing. My CV is attached.
2. In recent years, great advances in DNA technology have been made. New testing methods have been developed, and all forms of testing, both new and old, have continued to evolve and become more sensitive. In 2007, there are three types of DNA testing that are already well-established and widely utilized: autosomal or "STR" DNA testing, mitochondrial or "mtDNA" testing, and Y-chromosome or "Y-STR" DNA testing.
3. STR analysis is the type of DNA testing used by most state labs. Although STRs were first described in 1991, the first STR multiplex, which examines multiple markers on the DNA, wasn't available until 1996. Since this time, STR testing has improved and become more sensitive as collecting, extracting and testing methods have continued to advance.
4. Variations in mitochondrial DNA have been examined for ~20 years, but the FBI didn't begin performing mtDNA testing until 1996. A primary advantage of mtDNA testing is that it allows hair, teeth, bone and other biological materials to be tested that often cannot be successfully typed using the traditional STR testing methods.
5. The third type of DNA testing, which has been used in several post-conviction innocence claims in recent years, is Y-STR testing. Orchid Cellmark began Y-STR testing in 2002, and this type of testing has gained more widespread usage in the criminal justice system

since the development of commercially available Y-STR kits. Y-STR testing generates a DNA

profile from the male-specific Y-chromosome in biological materials.

6. Because only males have a Y-chromosome, this form of testing has led to great investigative leads in cases, both new and old, many of which involve a male attacker and a female victim, such as in rape and/or cross-gender murder cases. For example, in a rape case, the sexual assault kit may contain a vaginal swab taken from the victim at the hospital following the attack. Because the biological material on the swab is collected from the victim's vaginal cavity, it is reasonable to expect that the swab may contain a large amount of female DNA, i.e., the DNA of the victim herself. If seminal fluid from her attacker is present, it is the hope of those collecting the swab that some of this seminal fluid will also be collected on the swab. Under traditional STR DNA testing methods, analysts performing the DNA testing may not be able to obtain a DNA profile of the male rapist because of the overwhelming percentage of female DNA present on the swab. Y-STR testing avoids this problem, because it detects only the male Y-chromosome on the swab, thus ignoring the overwhelming percentage of female DNA present that may otherwise "drown out" the male perpetrator's DNA profile. Since its first use several years ago, Y-STR testing has continued to improve and become more sensitive, providing the opportunity for more and more cases to be definitively resolved.

7. In addition to the advancements mentioned above, DNA testing continues to progress. For example, a new type of analysis commonly referred to as "mini-STR" testing can now be used in some cases. Mini-STR testing works on the same principles as the traditional STR testing, but allows for very small, degraded, or compromised samples to be successfully profiled—samples that may be too challenged for traditional methods to generate a DNA profile.

8. The advantage of these technological advances for post-conviction cases is that a DNA profile may now be developed from items which were previously unsuccessfully typed or potentially not attempted due to the compromised or limited nature of the sample. Using modern DNA testing methods, scientists can examine crime scene materials both new and old – those

collected recently or perhaps several decades ago – in order to either inculcate the true perpetrator in cases where they could not before, or exculpate an accused individual. At the time of the trials in such cases, many samples may not have been tested due to the suspected trace amount of biological material available for testing, or the thought that the perpetrator may not have left any biological material behind. Now, however, conclusive DNA results may be obtained in many of these cases.

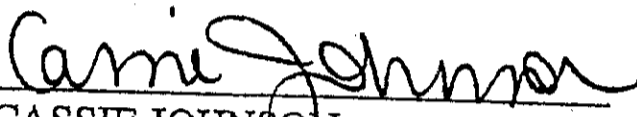
9. A perfect example that highlights this phenomenon is the recent Ohio case of Clarence Elkins. Mr. Elkins was convicted in 1999 in Summit County for raping his niece, Brooke Sutton, and raping and murdering his mother-in-law, Judith Johnson. Orchid Cellmark performed the post-conviction DNA testing in that case. I have been informed that STR DNA testing was in use in the state of Ohio in 1998 at the time of the crime and at the time of Mr. Elkins' trial in 1999. I have also been informed that prior to trial, DNA testing was not performed on several items of evidence, such as the victims' vaginal swabs and underwear, because of the thought that no male DNA was present on these items, or that DNA technology in use at the time would not be able to detect the trace amounts of male DNA on them. In 2004, however, the Ohio Innocence Project arranged to have Y-STR testing performed at Orchid Cellmark in the Elkins case. Y-STR testing was able to generate male DNA profiles from several of the submitted items. This new form of testing eventually contributed to the exoneration of Mr. Elkins on December 15, 2005.

10. The Elkins case is not an aberration. Many exonerations around the country have occurred in recent years as a result of new advances in DNA technologies---advances that were not available at the time of the inmates' trials. A 2003 study from France which examined 104 sexual assault swabs demonstrates the efficacy of Y-STR analysis. These were all swabs in which spermatozoa were not visually identified. Like in the Elkins case, however, Y-STR testing was able to detect male DNA in up to 28.8% of these 104 swabs (*see study attached as Exhibit*

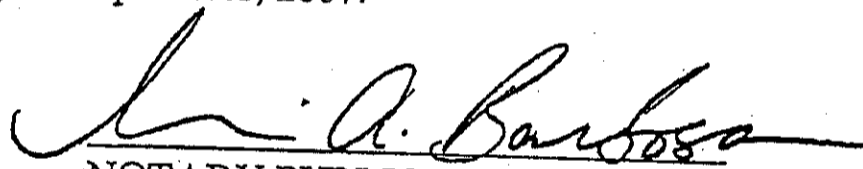
C). This study primarily focused on testing three DNA markers. Today, just four years later, Orchid Cellmark is utilizing a Y-STR testing kit (Yfiler) that examines 17 locations of the Y-chromosome.

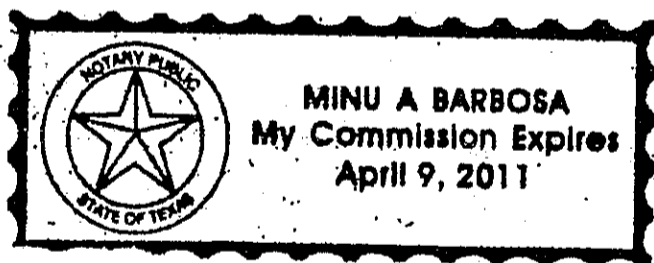
11. The discussion above about the advances in Y-STR testing holds true for DNA testing in general. As time has passed, all forms of testing have continued to improve and become more sensitive.

FURTHER AFFIANT SAYETH NAUGHT.


CASSIE JOHNSON

SWORN TO and subscribed before me, a Notary Public, in and for said County and State, on this 7th day of September, 2007.


NOTARY PUBLIC



Appendix C:

Y-STR as Proof of Rape When Sperm Cells
Cannot Be found

Y-STR AS PROOF OF RAPE WHEN SPERM CELLS CANNOT BE FOUND

Isabelle Sibille¹, Charlotte Duverneuil², Geoffroy Lorin de la Grandmaison¹,
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Summary

Identification of spermatozoa is the biological evidence most often sought in the examination of rape victims. Absence of spermatozoa usually terminates biological investigations, and the victim's testimony can therefore be contested. We assessed the utility and reliability of PCR amplification using Y-chromosomal STR polymorphisms in specimens taken from female victims of sexual assault with negative cytology.

Overall, when sperm cells could not be found, Y-chromosome STRs were detected and demonstrated sexual penetration in 28.8% of 104 swabs obtained from 79 victims. In the population of victims examined more than 48 hours after the sexual assault, Y-STR were still observable in 30% of cases. These results show that swabs can be taken from victims for Y-chromosome DNA typing even after a long lapse of time between the sexual assault and medical examination.

Introduction

Identification of spermatozoa is the biological evidence most often sought in examination of alleged sexual assault victims. The identification relies on Papanicolaou staining of smears. The sensitivity of the detection can be improved by limited proteinase K digestion prior to examining slides. The basis for this limited digestion is the increased sensitivity to proteases of epithelial cells compared to sperm cells. Under mild digestion, the flagella is destroyed, but the very compacted sperm cell nuclei are still undigested. This difference of sensitivity is also used to prepare DNA from sperm cells. After mild digestion and sperm nuclei washing steps, more stringent lysis conditions allow extraction of the male DNA component, which is characterized by means of autosomal STR analysis. In the best cases a pure male DNA profile can be obtained. In less favorable examinations, depending on the efficiency of the epithelial cells digestion and the number of sperm cells, a mixed profile can be obtained and, providing the female DNA profile is available, a partial male profile can be deduced. However, in many cases, the male component of the DNA mix cannot be interpreted, or is even absent. In practice, when no sperm cell is visible on cytological examination, male autosomal DNA analysis fails, and failure to demonstrate the presence of spermatozoa terminates the biological investigation. In such cases, the testimony of the victim is open to contentation.

Absence of spermatozoa in specimens taken from victims of sexual assault can be explained by a number of factors including penetration without ejaculation, an oligospermic or azoospermic assailant, a non penile penetration, or a prolonged post-coital interval. In this regard, vaginal inflammation, salivary enzymes and anal bacteria accelerate the sperm cell lysis. The longer the interval between intercourse and the sampling, the fewer the sperm cells detected. This well known fact often leads the doctors of the forensic unit to not take swabs beyond three days.

However, failure to demonstrate the presence of spermatozoa does not preclude the presence of Y-chromosome from male DNA, resulting either from the presence of lysed sperm cells or male epithelial cells. It should be pointed out that in both these cases, the male DNA will be obtained in the so called "epithelial fraction", which is the one obtained after mild protease digestion.

The objective of this study was to evaluate the feasibility of Y-STR analysis in negative specimens from cytologic examination. Molecular techniques using Y-chromosome-specific DNA probes are new tools

capable of identifying Y-bearing sperm and non-sperm cells. As shown in this work, Y-STRs can provide evidence, particularly in cases of negative cytology [1, 2] and in instances involving old samples leading to difficult DNA extraction [3].

The postulate would be to use a single step digestion, under conditions designed to lyse either the male epithelial and sperm cells. In the second step, Y-STR analysis was performed. The rationale for this protocol was that theoretically, the primers designed to hybridize to Y-STR sequences would not hybridize to female DNA. Thus, Y-STR analysis should still be possible when the male to female DNA ratio is well below the 1/50 threshold for detection of male autosomal STRs.

Most of the human Y-chromosome does not recombine during meiosis and remains unchanged from generation to generation. Paternal lineages [4] and Y-chromosome polymorphism in different populations [5] can be established with Y-primers. In fact, these primers hybridize to polymorphic sequences of Y-chromosome organized into large interspersed tandemly repeated arrays. A set of seven primer pairs - DYS 19, DYS 389, DYS 390, DYS 391, DYS 392, DYS 393 and DYS385 - is currently used to research Y-chromosome in forensic studies and to determine paternity [6]. With such a set the haplotype diversity is in the 0.997 range in European populations. Many more are available and useful determination of individuals can be achieved with up to 19 markers. The experimental procedures for multiplex amplification of various sets of Y-STR markers are described in the literature.-

For this study, which was designed to evaluate the possibility of Y-STR analysis, we focused on three markers : DYS389, DYS393 and AMG.

2. Materials and Methods

2.1. Selection of Specimens

One hundred and four swabs without spermatozoa detected by cytology were collected from 79 alleged female victims of sexual assault. The sites where the specimens were taken were cervicovaginal, anal or oral. For 20 women, multiple swabs were available, corresponding to various sites. All swabs were blind-collected among the multiple samples taken from each victim. All specimens used for cytology were excluded. Cytology used conventional Papanicolaou to stain the smears. The swabs for Papanicolaou staining were not the ones used for DNA extraction.

2.2 DNA extraction

DNA extraction was performed in one single step. Swabs were rehydrated for 2 hours in H₂O at room temperature, centrifuged in Forensic tubes (Polylabo, Strasbourg, France) for 10 minutes at 10 000 g. The cell pellet was washed once in H₂O, centrifuged as above and digested for 2 hours at 56°C in the presence of proteinase K (20 µg/0.15 ml final), DTT (4mM final) to allow digestion of sperm nuclear proteins and Chelex resin (4% final) to chelate divalent ions inhibiting the PCR. The tubes were then incubated at 100°C for 8 minutes, centrifuged for 3 minutes and the supernatants were used for amplification.

Additional controls were performed with sterile swabs (2 in each extraction series) and known positive swabs in cytological examination (4 to 8 in each series), known negative swabs from the female staff (4 in each series). A total of 12 different extractions were carried out in separate series.

Amplifications were performed in a 2400 or 9700 thermocycler (Perkin Elmer, Foster City, CA) after an initial denaturation step of 3 minutes at 94°C, for 40 cycles of 30 seconds at 94°C, 30 seconds at 60°C and 60 seconds at 72°C, followed by a final elongation step of 7 minutes at 72°C. The PCR mix was as follows: 0.25 µM of amelogenin primers, or 0.1 µM of DYS389 primers, 1IU Taq polymerase (Boehringer, Mannheim), 0.2 µM of each dNTP, 1.5 mM MgCl₂, 50 mM KCl and 10 mM Tris-HCl pH 8.3 for 25 µl reactions. The PCR products were detected on an ABI 310 instrument (Perkin-Elmer). The primer sequences are as in Kayser and al.[6].

To minimize the risks of contamination, all the DNA extraction and amplification steps were performed by a female technician, even if this does not ensure against secondary DNA transfer. We also performed Y-

3. Results

3.1 Characteristics of the Subjects

The characteristics of the alleged victims are summarized in table I. Briefly, the age range ran from 3 to 75 years old and the median was 22. The number of assailants was more than one in 14% (11/79) of the cases. The assailant was a stranger 41.8% (33/79) of the time. Vaginal, oral and anal penetration was alleged in respectively 72.2% (57/79), 29.1% (23/79) and 13.9% (11/79) of the cases. Perineal trauma occurred in 30.4% (24/79) of the cases and other physical injuries were seen in 17.7% (14/79) of the cases. The range of the lapse of time between alleged sexual assaults and the medical examinations was from 2 to 192 hours. The median was 20 hours. In two cases the lapse was not known. None of the 79 victims had any sexual intercourse during the interval between the sexual assault and the medical examination.

Victims age	median: 22 (range: 3 to 75 years old)
Assailant: single	68/79 (86%)
Assailant not known by the victim	42/79 (62%)
Vaginal penetration	57/79 (72%)
Oral penetration	23/79 (21%)
Anal penetration	11/79 (14%)
Perineal trauma	24/79 (30%)
Other physical injuries	14/79 (18%)
Lapse of time between the assault and medical examination	median: 20 hours (range: 2 to 192 hours)

Table I.

3.2 Y chromosomal DNA analysis

Y-chromosome STRs were amplified from the DNA samples prepared as described in the Material and Methods section. The most sensitive marker was DYS393. In 24/104 (23.1%) swabs, amplification made it possible to detect the Y-chromosome STR DYS393, whereas DYS389 and AMGY were detected in 11/104 (10.6%) and 6/104 (5.8%) of DNA samples, respectively. Seventy four swabs (71.2%) were not suitable for amplification of Y chromosome material. Discrepancies were noted in 5 swabs in which DYS393 was negative and DYS389 was positive. Y DNA was detected in 25 cases of vaginal penetration, in 3 cases of anal penetration and in 2 cases of oral penetration. Figure 1 shows the lapses in time between the alleged sexual assault and the medical examinations according to the Y DNA findings.

Overall sensitivity	DYS393	24/104	23%
	DYS 389I / DYS 389II	11/104	11%
	AMG	6/104	6%
	None	74/104	71%
Discrepancies	DYS389 + / DYS 393 -	5/80	6%

Table II.

3.2 Y chromosomal DNA analysis

Y-chromosome STRs were next amplified from the same DNA samples with the Yplex 6 kit under the recommended procedure (30 cycles). Overall, the results were superimposable to the results obtained with the in house procedure (40 cycles). The difference of sensitivity is probably due to the higher Taq amount required in the Yplex procedure.

4. Discussion

Absence of spermatozoa in specimens from victims of sexual assault can be explained by a number of factors including a prolonged post-coital interval, an oligospermic or azospermic assailant, a vasectomized or orchidectomized assailant, penetration without ejaculation, digital penetration, use of a condom, douching after intercourse, use of spermicidal agents, menstruation, vaginal inflammation [1]. Spermatozoa are rapidly destroyed in the mouth by salivary enzymes and in the anus by bacterial enzymes [7]. False negative findings due to excessive inflammation or haemorrhage can now be avoided by using proteinase K treatment before cytological examination [8].

A cytological examination is usually performed in sexual assault investigations. Failure to demonstrate the presence of spermatozoa is frequent [9,10] but does not exclude the presence of male DNA (Y-chromosome). Exfoliated male epithelial cells resulting from penetration were identified using Fluorescence In Situ Hybridization, which does not make the identification of an assailant possible [1,2], and there is one rape case reported in the literature where Y-STR analysis was successfully made [11]. However, no systematic investigation demonstrating the interest of the method had been carried out until now. Nonetheless, encouraging data have been published: based on positive PSA test results on traces from rape cases, in which 35% of male autosomal DNA typing failed, Y STR typing was possible in half of these failed tests [12]. These data possibly reflect the sensitivity of Y-STR typing in a mix with amplification of male/female cell ratios of up to 1:2000, whereas the limit of male DNA detection is 1:50 for autosomal STR typing [13].

Cases reported here, having negative cytology but with male DNA detected by Y-chromosomal STR polymorphisms, can be explained by either a very low amount of sperm cells [13] or identification of Y-bearing non-sperm cells. Non-sperm male cells could be epithelial or inflammatory cells that are indistinguishable from the victims' cells with conventional cytology.

Our data suggest that sensitivity to detection using Y STR amplification could be higher than cytology. Regarding all the positive cases in this study we cannot exclude the eventuality that spermatozoa were absent in specimens used for cytology and present in specimens used for molecular biology. This study has now to be extended to Y-STR analysis on the same exact swabs as the ones used for cytological examination. As for now, our data should by no means be regarded as a rigorous comparison of the sensitivity of cytology vs PCR.

Under our experimental conditions, sensitivity of amplification was $DYS393 > DYS389 > AMG$. The increased sensitivity of the $DYS393$ marker as compared to $DYS389$ cannot be due to amplification of a X-chromosome homologue of $DYS393$ since it has never been observed on control female DNA under our experimental conditions (see figure 2 bottom panel). Thus, the increased sensitivity is probably due to a lower yield of amplification for $DYS389$. Among the factors responsible for this yield, the hybridization of primers is the most important. We did not specifically focus on this relative decrease, because with a commercially available primer mixes we obtained a sensitivity identical to the one with the in house protocol. Amelogenin appeared to be the least sensitive marker (see figure 2, top panel). However, the absence of detection of Y material is probably due to the competition between X and Y hybridization sites. The amelogenin primers hybridize to both the X and Y sequences, and Y-chromosomes are likely not to be detected when the amount of X material exceeds, by far, the amount of Y-chromosome material [13]. Differential lysis should be preferred to Y-STR typing each time cytologic analysis shows a reasonable amount of sperm cells because of the accuracy of identification. Probabilities of random matches are usually in the 10^{-6} - 10^{-10} range with STR, whereas they are in the 10^{-4} - 10^{-6} range with Y markers [15]. Although differential lysis allows typing of rapists by autosomal STR analysis and comparison with offenders databases [15], differential lysis was expected to fail due to the absence of detected sperm

cells on Papanicolaou stained smears. With the method used here, Y chromosome detection is not hampered by the loss of sperm cells during the washing steps. Moreover, any male non-sperm cell DNA extracted with this technique, is lost with the differential lysis. Thus, this method provides evidence of penetration, independently of ejaculation, sperm cell count, yield of differential lysis and proportion of female cells in the sampling.

Concluding remarks:

Our data show that Y chromosome analysis provides evidence of the presence of male cells in up to 28,8% of alleged female victims of sexual assault with negative Papanicolaou staining. This is useful for non-penile penetration as well. Presence of Y DNA in cases with negative cytology can provide proof of sexual contact and could be used to corroborate the testimony of female sexual assault victims. Additional evidence (Y-typing of consensual partners) is needed because recent consensual intercourse before sexual assault or before examination cannot be excluded. This method showed the feasibility of haplotype determination on swabs initially characterized as 'negative'. Although not tested here, the method is likely to be simplified by multiplex amplifications as described in [16] or commercial kits as described here. Careful evaluation of the PCR conditions is still to be achieved for detection of a low copy number of Y-DNA material. Y-STR profiles are not recorded in the French database for convicted sexual offenders. Consequently, autosomal STR analysis should be considered when the cytology is positive. An important point of our study is that the Y-chromosome was detected in 33% of victims examined more than 96 hours after the sexual assault (Fig. 1). Spermatozoa are rarely detected in such intervals, especially in oral or anal swabs [17]. Our results show that swabs ought to be taken from victims for Y-chromosome DNA typing even after long lapses of time between sexual assaults and medical examination.

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Fig. 1. Delays between alleged sexual assault and examination according to the Y DNA findings. The numbers in the boxes represent the number of negative (empty boxes) or positive (filled boxes) victims for the presence of Y DNA material.

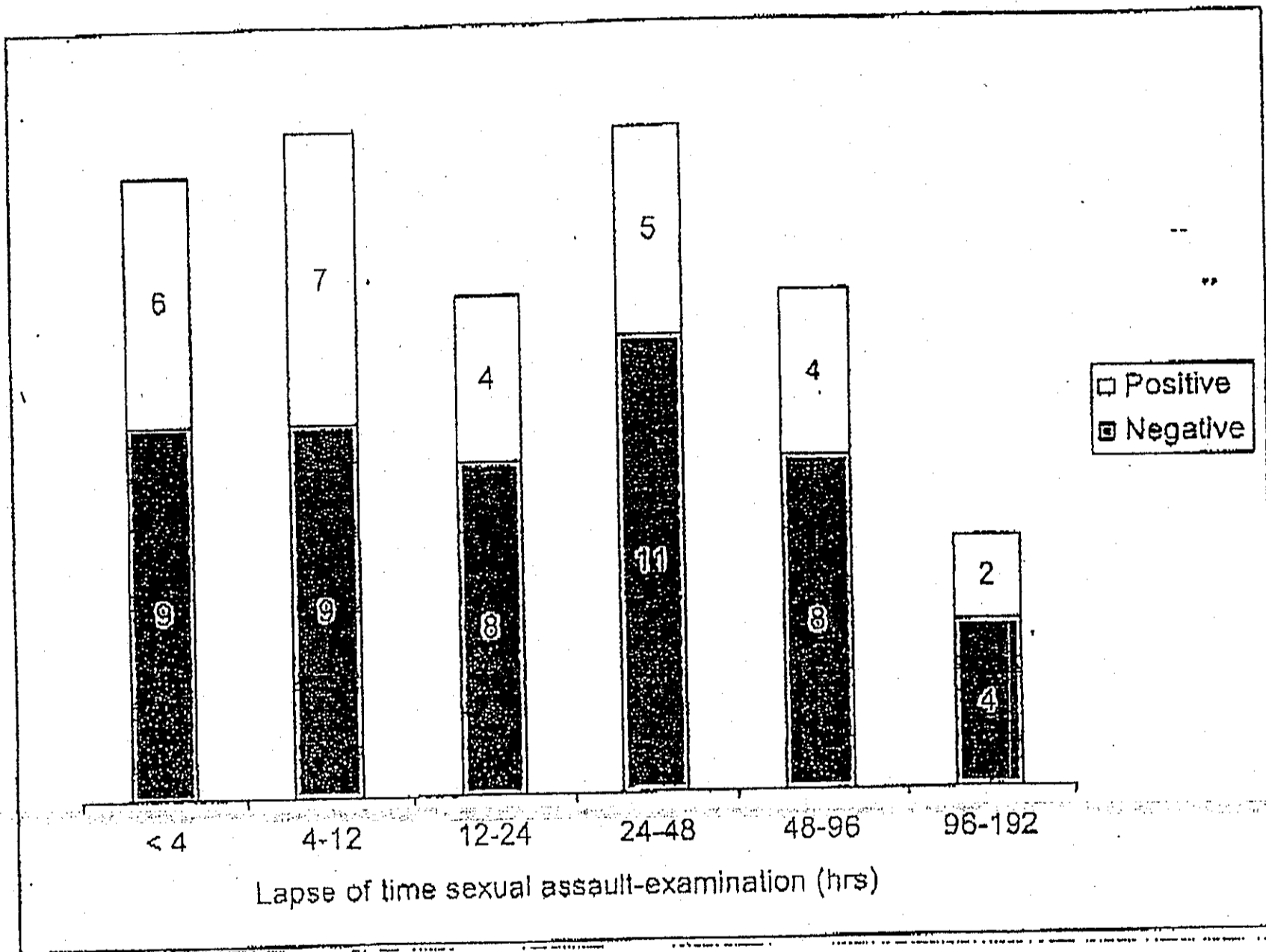
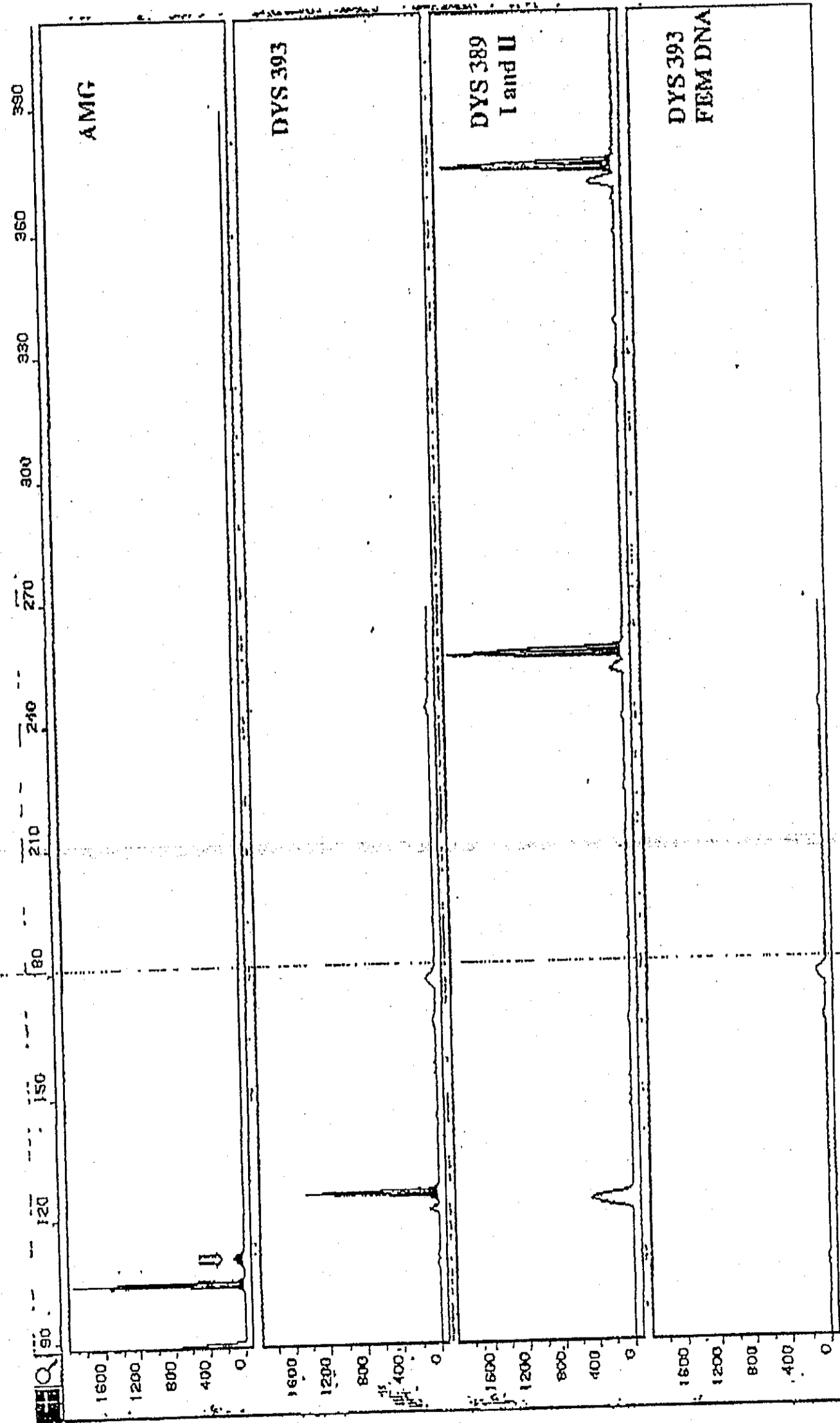


Figure 2
Y STR amplification of casusistic material (three top panels). Top panel : Amelogenin amplification, arrow : Y-specific AMG-allele. Bottom panel, control female DNA amplified with DYS393 primers. Top scale : size calculated from the Rox 500 marker. Vertical scales : arbitrary RFU.



Curriculum Vitae

CASSIE L. JOHNSON, M.S.

Education

M.S. Biomedical Sciences (Forensic Genetics), University of North Texas Health Science Center, Fort Worth, TX, 2002

M.S. Biomedical Sciences (Biochemistry), University of North Texas Health Science Center, Fort Worth, TX, 2001

B.S. Biology and Chemistry, Texas Christian University, Fort Worth, TX, 1999

Professional Experience

Forensics Supervisor & Technical Leader of Y-STR and Mitochondrial DNA Analysis
Orchid Cellmark Inc., Dallas, TX 11/13/06 – Present

Forensic DNA Analyst IV 7/1/05 – 11/12/06
Orchid Cellmark Inc., Dallas, TX

Forensic DNA Analyst III 8/19/02 – 6/30/05
Orchid Cellmark Inc., Dallas, TX

Intern 2/22/02-7/02
Orchid Cellmark Dallas, Dallas, TX

- Responsible for developing and validating a Y-STR multiplex (ABI 3100 compatible) that can be used in forensic and family reconstruction casework.

Graduate Student 2001-2002

University of North Texas Health Science Center, Fort Worth, TX

Department of Pathology and Anatomy

- Emphasis on forensic DNA testing
- Internship project at Orchid Cellmark involved development and validation of a Y-STR 10-plex

Graduate Student 2000-2001

University of North Texas Health Science Center, Fort Worth, TX

Department of Molecular Biology and Immunology

- Performed research in a biochemistry lab dealing with the regulation of p53 in anti-cancer drug induced cell death

Teaching Assistant

1998-1999

Texas Christian University, Fort Worth, TX
Biology Department

- Assisted students in the laboratory portion of a freshman biology course designed for pre-med students

Forensic Laboratory Experience

DNA Extractions (including mixed stains)	Fall 2001 - present
Amplification	Fall 2001 - present
Analysis & Reports	September 2002 - present
Y-STR Experience	February 2002 - present
Mitochondrial DNA Experience	February 2003 - present

Courtroom Testimony Experience

Provided DNA testimony in the following states:

- California
- Colorado
- Florida
- Indiana
- Kansas
- Kentucky
- Ohio
- Oklahoma
- Massachusetts
- Michigan
- New Mexico
- Texas

Level of Training Completed

Casework Analyst Qualified – 2002 Orchid Cellmark Dallas

Professional Associations

American Academy of Forensic Science

Association of Forensic DNA Analysts and Administrators

Member of the U.S. Y-STR Database Consortium

Seminars/Workshops/Continuing Education

The Innocence Project of Texas Conference – invited speaker: September 8, 2007 (Fort Worth, TX)

Applied Biosystems' Human Identification University – Future Trends in Forensic DNA Technology – invited speaker: July 2007 (Austin, TX and Anaheim, CA)

Don Hancock (Rockhurst University Continuing Education Center, Inc). The Basics of Knock-Your-Socks-Off Customer Service. April 20, 2007.

Bob Sippell (CareerTrack). Management Skills for New or Prospective Managers. April 10-11, 2007.

Alan Levy, Assistant District Attorney (Tarrant County, TX). Providing Expert Testimony on Forensic DNA Testing: A Prosecutor's Perspective. March 5, 2007.

American Academy of Forensic Sciences – 2007

Charles Brenner, Ph.D. – The Use of Statistics and DNA View in the Forensics Laboratory. February 13, 2007.

Applied Biosystems' Human Identification University – Future Trends in Forensic DNA Technology – invited speaker: March 2006 (Austin, TX), April 2006 (Chicago, IL), June 2006 (Berkeley, CA)

American Academy of Forensic Sciences – 2006

16th International Symposium on Human Identification – 2005

Midwestern Association of Forensic Scientists – invited speaker: April, 2005

American Academy of Forensic Sciences – 2005

1st Annual LAFS Meeting – December 2004

15th International Symposium on Human Identification – 2004
Y-STRs: Practical Considerations and Interpretations Workshop

Association of Forensic DNA Analysts and Administrators – August 2004

American Academy of Forensic Sciences – 2004
Workshop #21: Y-STR Analysis on Forensic Casework.

Debra DiGiacamo – Real-Time PCR for DNA Quantification seminar. October 6, 2003

Tennessee Bureau of Investigation – Forensic Applications of Y-chromosome DNA
Typing Symposium – 2003

George Carmody, Ph.D. – Statistical Analysis of Forensic DNA Evidence workshop.
April 28-30, 2003

13th International Symposium on Human Identification – 2002

Association of Forensic DNA Analysts and Administrators – July 2002

Bruce Budowle, Ph.D., Chief Biological Scientist at the Federal Bureau of Investigation –
The Need for the Detection of Biological Agents for a National Bioterrorism Program
seminar – 2002

ABI 3100 training – 2002

American Academy of Forensic Sciences (AAFS) – Young Forensic Scientists Forum –
2002

Association of Forensic DNA Analysts and Administrators – Forensic examination,
criminal justice and life in the courtroom and Mixture: Interpretation Guidelines –
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TECHNICAL NOTE

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Development and Validation of a Multiplexed Y-Chromosome STR Genotyping System, Y-PLEXTM 6, for Forensic Casework*

ABSTRACT: A Y-chromosome multiplex polymerase chain reaction (PCR) amplification kit, known as Y-PLEXTM 6, has been developed for use in human identification. The Y-PLEXTM 6 kit enables simultaneous amplification of six polymorphic short tandem repeat (STR) loci located on the non-recombinant region of the human Y-chromosome. These loci are: DYS393, DYS19, DYS389II, DYS390, DYS391, and DYS385. Our studies show that as little as 0.2 ng of template DNA can be used for analysis. The specificity of the amplification reaction enabled analysis of male DNA in a male:female DNA mixture at a ratio of 1:125. Among the six Y-STR loci, the maximum mean stutter percentage was 11.9 for allele at DYS389II locus. Attempts at amplification of DNA from various animal sources revealed that the Y-PLEXTM 6 primers are human specific. Details of the development of the kit, generation and description of the allelic ladders, and validation of the multiplex PCR are presented. In addition, Y-STR allele and haplotype frequencies in three populations have been investigated. The data indicate that results obtained using the Y-PLEXTM 6 kit are robust, sensitive, and reliable and can be used in human forensic and male lineage identification cases.

KEYWORDS: forensic science, Y-chromosome, short tandem repeats, DNA typing, human identification, multiplex, polymerase chain reaction, Y-STR, Y-PLEX, DYS393, DYS19, DYS389II, DYS390, DYS391, DYS385

Short tandem repeat (STR) loci are distributed ubiquitously throughout the genome and have become useful genetic markers for human identification due to their high power of discrimination and possibility of being amplified in a multiplex fashion (1–3). STR loci are now routinely used in forensic casework and paternity evaluations. In forensic DNA analysis, additional genetic markers, such as mitochondrial DNA (4,5) and Y-chromosome specific STR loci (6–9) are becoming increasingly important in investigating difficult cases.

The ability to identify male specific DNA in a mixed gender DNA sample can be valuable evidentiary information in resolving some cases. The haploid nature of Y-specific genetic markers may aid in genetic characterization of male contributors in a multiple source

DNA sample. In assaults where a female victim has struggled with the assailant, her nail scrapings may have minimal amounts of foreign DNA from a male assailant. In some cases, autosomal STR results may contain predominantly female alleles mixed with alleles from the male suspect at minimal levels, making it difficult, if not impossible, to differentiate the suspect's profile from the stutter peaks of the victim's profiles; valuable probative information may be lost. Therefore, polymorphic STR loci residing on the non-recombining region of the Y-chromosome (and with unipaternal mode of inheritance) can play a very useful role in resolving difficult cases where male and female biological material is mixed together.

The importance of Y-chromosome markers in human identification has been evaluated for forensic applications. In fact, there are a number of studies relating to multiplex analysis of Y-chromosome markers (7,9–15). However, a standardized and validated commercial multiplex system with a sequence-verified allelic ladder has not been available for forensic casework. An informative core set of eight Y-STR loci have been described and they are: DYS19, DYS385, DYS389I, DYS389II, DYS390, DYS391, DYS392, and DYS393 (7,16–18). We report here the development and validation of a Y-PLEXTM 6 PCR kit comprising six Y-STR loci: DYS393, DYS19, DYS389II, DYS390, DYS391, and DYS385. The studies support that this six locus Y multiplex system can be used to obtain reliable results for forensic casework and male lineage studies.

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* Part of the work was presented at the 52nd Annual Meeting of AAFS, 2000.

Received 15 Feb. 2002; and in revised form 10 May 2002 and 2 July 2002;

accepted 15 July 2002; published 13 Nov. 2002

Materials and Methods

The custom primers, fluorescent labeled and unlabeled, were synthesized and obtained from commercial sources (Life Technologies, Rockville, MD; Operon, Alameda, CA). AmpliTaq Gold[®], performance-optimized polymer POP 4, matrix standards (FAM, ROX, TAMRA, and JOE), GS500ROX, formamide, and other supplies for use of the 310 Genetic Analyzer and 377 DNA Sequencer were obtained from Applied Biosystems (Foster City, CA). TBE buffer (100X) was obtained from Life Technologies (Rockville, MD). Long Ranger[®] gel packs were from BioWhittaker Molecular Applications ApS (Denmark). All other chemicals used in this study were of analytical grade. A male cell line DNA (ATCC 45514) and a female cell line DNA (ATCC 45510) were used as positive and negative controls, respectively. The samples for database studies were obtained from unrelated males from the indicated population groups and were anonymized before analysis.

Extraction and Quantitation of DNA

The DNA from anonymous donor samples was obtained from buccal swabs or blood drawn in EDTA vacutainer tubes and was extracted either by phenol-chloroform (19), Chelex[®] (20) or extraction from FTA paper (21) procedures. The quantity of human DNA was determined by slot blot hybridization using the Quantiblot kit (Applied Biosystems, Foster City, CA) and following the manufacturer's recommended protocols.

Amplification

Amplification reactions were set up as follows: 5.0 μ L of 5X Y-PLEX[™] 6 Primer Mix; 0.5 μ L of AmpliTaq Gold[™] (5 units/ μ L); 2 to 5 ng of DNA template. The volume was adjusted to 25 μ L using sterile water. Final concentration of the buffer in amplification reaction was 1.4X. Amplification reactions were performed in a 9600 or 9700 Thermal Cycler (Applied Biosystems, Foster City, CA) or a PTC-200 Peltier Thermal Cycler (MJ Research, Waltham, MA) with conditions as follows: 95°C, 10 min; 30 cycles of 94°C, 30 s; 59°C, 1 min and 70°C, 1 min; 60°C, 60 min and 4°C until the samples were removed from the thermal cycler. The positive control (2 to 5 ng of male DNA, ATCC 45514) and the negative control (2 to 5 ng of female DNA, ATCC 45510) were amplified with every batch of amplification reaction.

Analysis of Amplified Product on 310 Genetic Analyzer

Amplified products were prepared by combining 1.0 μ L of PCR product and 24.0 μ L Hi-Di formamide containing 0.5 μ L GeneScan[®]—500 [ROX] Size Standard in a 200 μ L tube. The samples were denatured at 95°C for 3 min using either a 9600 or 9700 Thermal Cycler. The denatured products were electrophoretically separated on a 310 Genetic Analyzer using performance optimized polymer 4 (POP-4), filter set A, and an injection time of 5 s as described in the "ABI Prism[™] Genetic Analyzer, User's Manual" (Applied Biosystems, 1998). The run time was approximately 26 min, or sufficient time necessary to elute the 450 base pair size standard peak in GS500 ROX. A matrix file using the matrix standards FAM, JOE, ROX, and TAMRA was generated and used.

Analysis of Amplified Product on 377 DNA Sequencer

Amplified products were prepared by combining 1.0 μ L of PCR

a 200 μ L tube. The samples were denatured at 95°C for 3 min using a 9700 Thermal Cycler. The denatured products were electrophoretically separated on the 377 DNA Sequencer using filter set A as described in the "ABI Prism[™] 377 DNA Sequencer User's Manual" (Applied Biosystems, 1998). The run time was approximately 3 to 4 h (time necessary to elute the 450 base pair size standard peak in GS500 ROX). A matrix file using the matrix standards FAM, JOE, ROX, and TAMRA was generated and used.

Sequencing of Alleles

Individual alleles, after amplification, were sequenced by using BigDye[™] terminator cycle sequencing using ABI 377 DNA Sequencer (Applied Biosystems, Foster City, CA).

Validation Studies

The methods used in validation studies are described in the text.

Contamination and Environmental Insult Analysis

The contaminant study was grouped into three groups: contaminants—wet; contaminants—dry; and environmental. Bloodstains were prepared using freshly drawn blood without any preservatives or anticoagulants. Air-dried semen stains were prepared from previously pooled ejaculates. The cotton cloth (100%) was used to prepare the stains after laundering, rinsing, and drying. Fifty μ L bloodstains and 25 μ L semen stains were made for the environmental study. This was done in duplicate and the entire stain for each duplicate was extracted separately. One of the extracted samples was used for various PCR-based validations. The DNA was quantified, and 5 ng of DNA based on slot blot analysis was amplified for each sample. The PCR reaction was run for 28 cycles. The control samples in all studies were stored at -20°C .

Contaminants (Wet)—Cotton cloth pieces were saturated with the contaminants (soil solution, liquid hand soap, unleaded gasoline, 10% bleach, and *Escherichia coli* bacteria strain HB101) and allowed to air-dry overnight at room temperature. Replicate semen (25 μ L) and whole blood (50 μ L) stains were made on each cloth and allowed to dry overnight at room temperature. These samples were stored at room temperature in the dark until processed. The blood and semen stains were processed at intervals of 1, 4, 8, 14, and 28 days. An organic extraction method was used to extract and purify the DNA (22). Stains from Day 1 and Day 28 were used for this study except for the bleach/blood mixture, in which Day 14 was used because the stain from Day 28 was not available.

Contaminants (Dried Stains)—Liquid whole blood (50 μ L) and semen (25 μ L) were applied to the cotton cloth and allowed to air-dry overnight. The cloth pieces were then saturated with either a soil suspension or unleaded gas and allowed to air-dry overnight. These samples were stored at room temperature in the dark until processed. Blood and semen stains were processed at intervals of 1, 4, 8, 14, and 28 days. DNA was organically extracted (22). Stains from Day 1 and Day 28 were used for this study.

Environmental—Liquid whole blood (50 μ L) and semen (25 μ L) samples were applied to cotton cloth and allowed to air-dry overnight. The stains were placed outdoors in direct sunlight or in the dark and were exposed to daily temperatures that ranged from

Statistical Analyses

Allele frequencies for each marker were determined by the gene-count method (23).

Results and Discussion

For construction of the Y-PLEX™6 multiplex system, six loci—DYS393, DYS19, DYS389II, DYS390, DYS391, and DYS385—were selected. Of these loci, the DYS385 locus demonstrates variation at two loci due to gene duplication (24). These six loci contained within the Y-PLEX™6 system are part of the international research haplotype group (7,16). Thus, this multiplex system will be useful for particular forensic analyses. In order for the Y multiplex system to be applicable to forensic analyses, various criteria were addressed including primer design, sensitivity, obtaining allele peak height balance, percentage of stutter peaks, and cross-reactivity with DNA from females. In addition, mixture, environmental insult, and population studies were performed. A minimum value of 75 RFU was used for interpretation of the data.

Development of Multiplex System

The GenBank accession numbers, repeat motifs, and size of PCR products for these six Y-STR loci are summarized in Table 1. The Y-PLEX™6 primer mix was prepared as a mixture of locus specific fluorescent labeled and unlabeled primers in a 1:4 X GeneAmp® PCR Gold buffer (Applied Biosystems, Foster City, CA) containing 8 mM dNTPs and salts. Primers for DYS393, DYS19, and DYS389II were labeled with FAM, and the primers for DYS390, DYS391, and DYS385 were labeled with TAMRA.

The performance of the Y-PLEX™6 kit was investigated by first individually amplifying each locus utilizing 15 different male DNA samples. The primer pair titration was tested at 0.5X, 1X, 1.5X, and 2X (1X primer mix provides 0.075 to 0.227 μ M concentration of primers in the final reaction mixture). Results showed that at a higher primer concentration (>1X), the loci DYS393 and DYS390 were amplified preferentially, whereas at a lower primer concentration (<1X) the longer fragments from DYS389II and DYS385 were amplified preferentially (data not shown). Although the amount of amplification product varied, as determined by peak area between the loci, no allele dropout at the studied primer pair concentrations was observed. The final concentration (1X) of primers in the Y-PLEX™6 primer mix was selected so that the best locus-to-locus balance could be obtained.

The concentration of MgCl₂ in the PCR was varied from 0.5 to 2 mM. At 2 mM MgCl₂, allele dropout at the DYS389II and DYS385 loci was observed (data not shown). At 0.5 mM MgCl₂, as expected, amplification was poor for all six loci. The 5X primer mix provided with the amplification kit contains optimal concen-

tration of MgCl₂ as well as buffer, and further addition of MgCl₂ is not required.

The amount of AmpliTaq Gold® was varied, at regular intervals, from 0.1 to 1.0 μ L (5 units/ μ L) in the PCR reaction using a known DNA sample (2 ng). The optimum results were obtained at 0.5 μ L of AmpliTaq Gold®. When less than 0.5 μ L were used, the RFU of amplified alleles for DYS389II and DYS385 loci were less than 75. Incorporation of more than 0.5 μ L of AmpliTaq Gold® in the reaction mixture did not increase the RFU of the amplified product significantly. Hence, 0.5 μ L of AmpliTaq Gold® is recommended as the cost effective concentration. However, when highly degraded DNA samples are being amplified, higher amounts of the enzyme up to 1.0 μ L were required (data not shown).

Annealing Temperature

The T_m for the primers for six loci amplified using Y-PLEX™6 was calculated to be between 47 and 54°C. Empirically, the annealing temperature for the amplification was determined using a known male DNA sample (2 ng) and performing the PCR for 28 cycles at different annealing temperatures ranging from 55 to 65°C using a PTC200 thermal cycler (MJ Research). The well temperature was recorded. The amplified products were analyzed on a 310 Genetic Analyzer. The best peak height balance among all six loci was achieved at an annealing temperature of 59°C (Fig. 1). At 61°C, allele dropout was observed at the DYS19 locus. At higher temperatures, allele dropout at the loci DYS19, DYS389II, DYS390, and DYS391 was observed.

Number of Cycles

DNA from four different male samples and one female sample was amplified at various cycle numbers to determine the number of amplification cycles necessary to optimize results for the Y-PLEX™6 kit. Each sample (2 ng of template) was amplified using 26, 28, 30, and 32 cycles and an annealing temperature of 59°C. At 26 cycles, allele dropout was observed at one or more of the following loci: DYS385, DYS389II, and DYS19. The amplification of alleles at all loci in the male samples was obtained at 28 cycles or higher. Amplification for 30 cycles was selected since the peak height of alleles was higher than that after 28 cycles (Fig. 2). The quantity of amplification product did not increase when the PCR was run for 32 cycles, as revealed by peak height. The female DNA sample did not exhibit any products when amplified for 26, 28, 30, or 32 cycles.

PCR Volume

Three reaction volumes were tested to determine the range of PCR volume that can be tolerated using the Y-PLEX™6 kit. Four male samples (2 ng of template), which had previously been typed using the Y- PLEX™6 kit, were amplified using 12.5, 25, and 50 μ L reaction volumes in a 9700 thermal cycler. The amplified products were analyzed on a 310 Genetic Analyzer. The correct haplotype was obtained for all the samples at all reaction volumes (data not shown). Thus, any of these volumes can be used.

Thermal Cycler

Amplification using the Y-PLEX™6 kit was performed in the GeneAmp® PCR Systems 9600 and 9700 (Applied Biosystems, Foster City, CA) and the PTC-200 Peltier Thermal Cycler (M J Research, Waltham, MA). All six loci amplified well using any of the

TABLE 1—General criteria of loci in the Y-PLEX™6 kit.

STR Marker	Dye	Color Window	PCR Product Size, bp	Repeat Motif	GenBank Accession No.
DYS 393	FAM	Blue	112–136	AGAT	G09601
DYS 19	FAM	Blue	181–205	TAGA	X77751
DYS 389II	FAM	Blue	286–320	TCTG/TCTA	G09600
DYS 390	TAMRA	Yellow	179–207	TCTA/TCTG	G09611
DYS 391	TAMRA	Yellow	241–257	TCTA	G09613

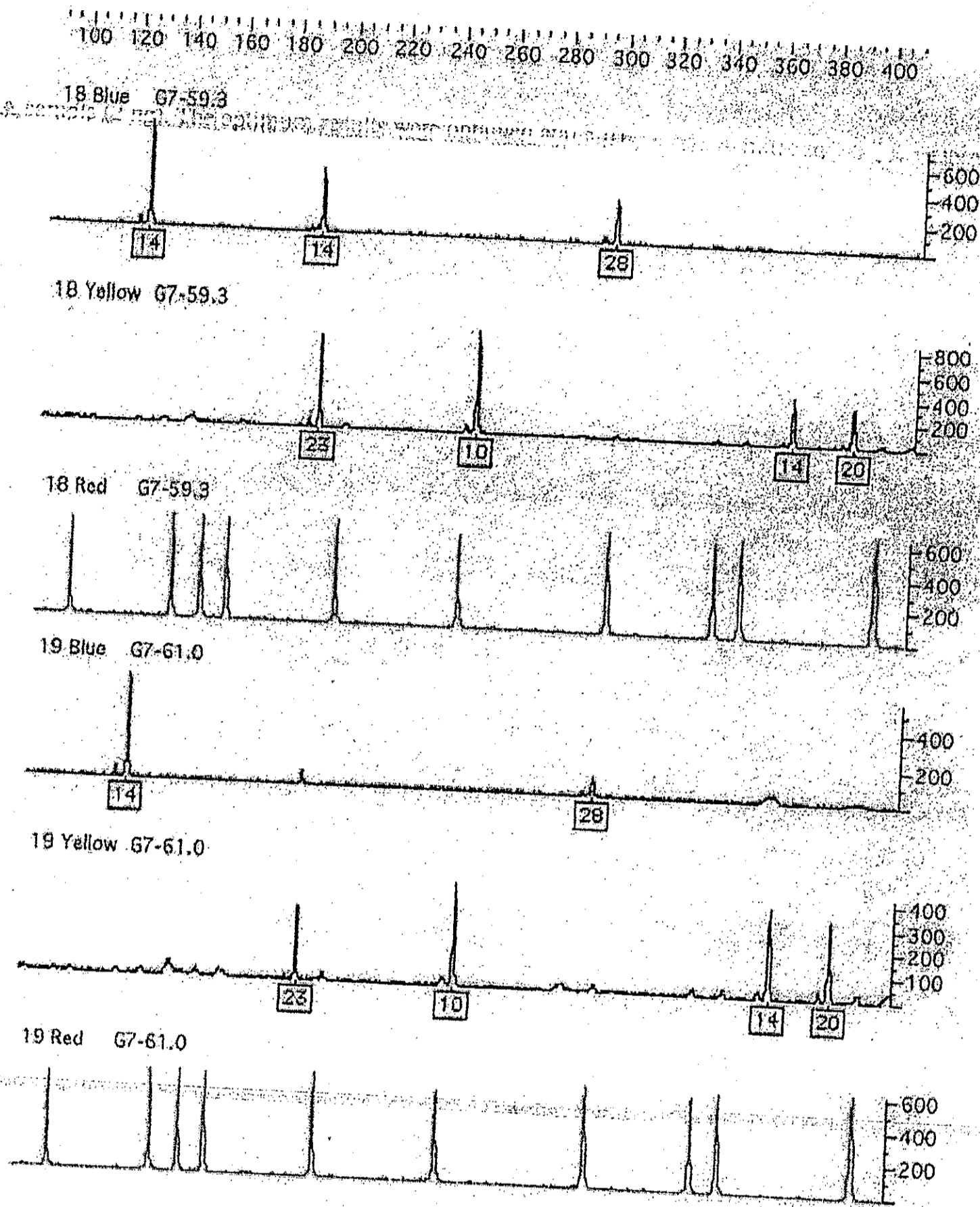


FIG. 1—Profiles from amplification at 59.3°C (top) and 61.0°C (bottom) using the Y-PLEX™ 6 kit.

yield was highest when using the PTC-200, followed by the 9600 and the 9700 using PCR conditions as described in Materials and Methods.

Generation of Allelic Ladder

Anonymous DNA samples from 200 individuals were amplified for each locus, and allele designations were made. Subsequently, DNA samples were chosen and combined so that the desired combination of alleles was obtained for a generation of an allelic ladder. The DNA templates were amplified for each locus individually. Then the locus-specific amplified product was analyzed on a 310 Genetic Analyzer. Based on the results, the amplified products were pooled so that the ladder alleles at all loci provided peaks generally from each locus were sequenced and the correct

Electrophoresis

The electrophoresis conditions using POP-4 polymer and a 310 Genetic Analyzer and that of Long Ranger® gel and a 377 DNA Sequencer are not identical; thus, the estimated size of the alleles will likely differ with each system. Size differences of up to three base pairs have been observed for some alleles for Y-PLEX™6. The sizes of alleles when analyzed on a 310 Genetic Analyzer and a 377 DNA Sequencer are summarized in Table 2. This observation demonstrates the importance of using an allelic ladder for normalizing allele calls.

Precision of Allele Sizing during Repeated Analysis

The Y-PLEX™6 allelic ladder was injected 25 times onto a 310 Genetic Analyzer, and the precision of estimating each allele size

ation for each allele in the allelic ladder are summarized in Table 3. The standard deviation values were less than 0.1 except for alleles at the DYS389II and DYS385 loci. Maximum values for standard deviation at the DYS389II and DYS385 loci were 0.255 and 0.160, respectively.

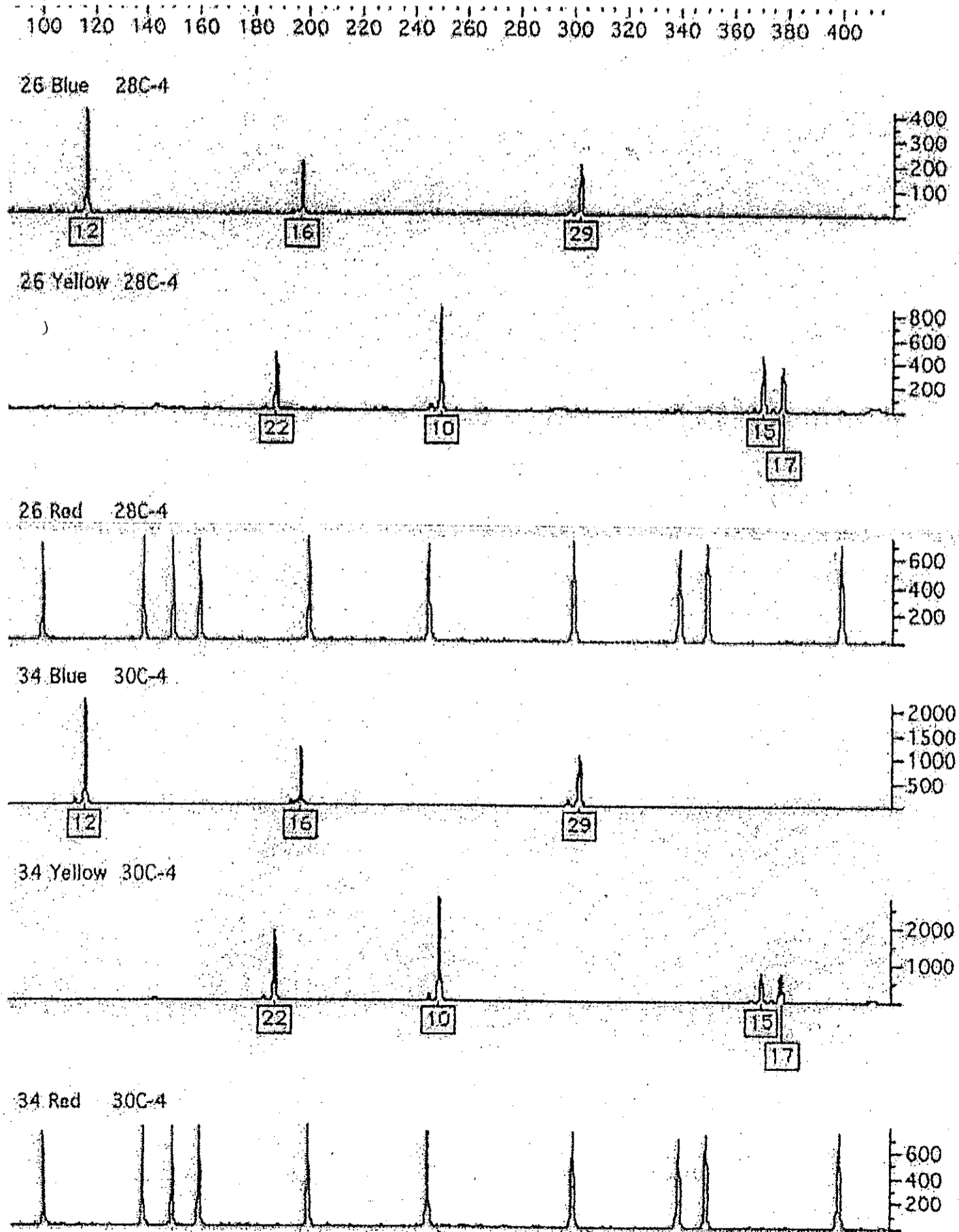
Minimum Sensitivity

The minimum amount of input DNA required to obtain a complete profile was investigated. Serial dilutions were prepared of a known DNA sample. The amount of template DNA in the reactions was: 10.0, 8.0, 5.0, 2.0, 1.0, 0.5, 0.4, 0.3, 0.2, 0.1, and 0.05 ng. Allele dropout at the loci DYS390, DYS391, and DYS385 was observed when 0.05 and 0.1 ng of DNA was used for amplification. When 0.2 ng of template DNA was used, the allele peaks at all six loci were readily detectable; the alleles had peak height between

400 to 600 RFU (Fig. 4). Thus, 0.2 ng of DNA was determined to be the minimum amount of DNA for the Y-PLEX™6 to obtain a complete profile (based solely on the quantities tested). At template levels of 5 ng or greater, off-scale data and excessive stutter peaks were observed.

Stutter Studies

Measurement of stutter for the alleles at all six loci was performed for 50 male samples. The height of the stutter peak was compared with the corresponding allele at each locus (Table 4). The values for standard deviation and upper range stutter percent for the loci DYS393, DYS19, DYS389II, DYS390, DYS391, and DYS385 were comparable to the autosomal loci amplified with AmpF ℓ STR® Profiler Plus and AmpF ℓ STR® COfiler as reported by Moretti et.al. (25). At Locus DYS19, an N-2 stutter peak was observed.



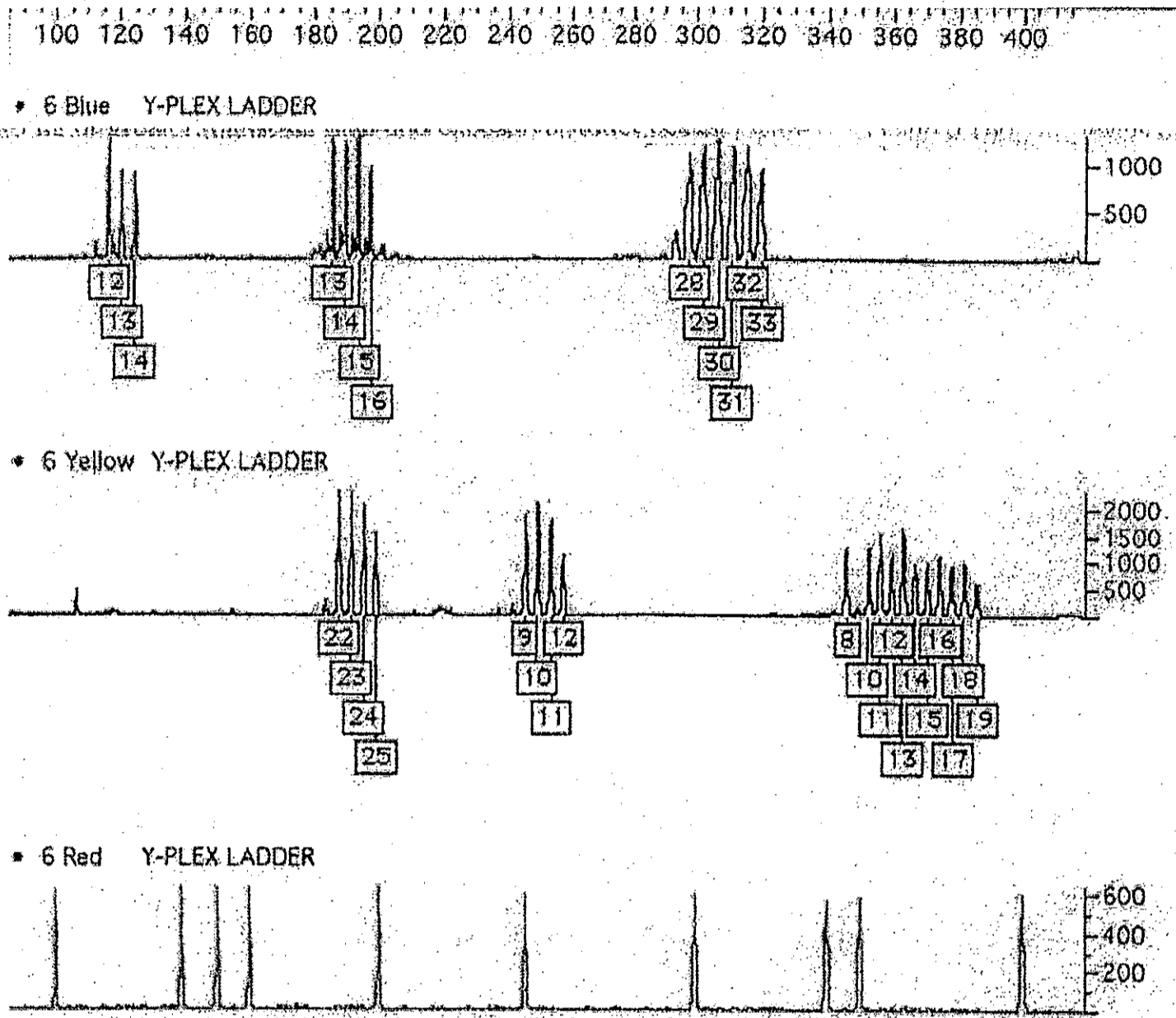


FIG. 3—Y-PLEX™ 6 Allelic ladder used for the genotyping.

TABLE 2—Operational size of alleles in the Y-PLEX™ 6 ladder.

Color Window	STR Locus	Alleles in Ladder	Size on 310, bp	Size on 377, bp	Other Observed Alleles		
Blue	DYS 393	12	116.00	119.00	11, 15, 16, 17		
		13	120.00	123.00			
		14	124.00	127.00			
		DYS 19	13	185.00		187.50	12, 14.3, 17, 18
			14	189.00		191.50	
			15	193.00		195.50	
	DYS 389II	16	197.00	199.50	25, 26, 27		
		28	298.00	298.00			
		29	302.00	302.00			
		30	306.50	306.00			
		31	311.00	310.00			
		32	315.00	314.00			
Yellow	DYS 390	22	187.00	186.00	20, 21, 25.2, 26, 27		
		23	191.00	190.00			
		24	195.00	194.00			
		25	199.00	198.00			
	DYS 391	9	245.00	247.00	8		
		10	249.00	251.00			
		11	253.00	255.00			
		12	257.00	259.00			
	DYS 385	8	345.50	344.00	9, 13.2, 14.2, 15.3, 17.1, 17.2, 20, 21		
		10	352.50	352.00			
		11	356.50	356.00			
		12	360.00	360.00			
		13	363.50	364.00			
		14	367.50	367.50			
		15	371.00	371.00			
		16	375.00	375.00			

TABLE 3—Precision of migration of alleles in allelic ladder on 310 Genetic Analyzer.

Loci	Allele	Seq. Size	Observed Range	Mean	S.D.
DYS393	12	116	116.08–116.37	116.23	0.075
	13	120	120.13–120.36	120.24	0.063
	14	124	124.19–124.35	124.28	0.048
DYS19	13	185	185.11–185.42	185.29	0.083
	14	189	189.02–189.31	189.21	0.075
	15	193	192.98–193.21	193.12	0.057
DYS389II	16	197	196.94–197.13	197.02	0.051
	28	298	297.29–297.64	297.44	0.102
	29	302	301.42–301.84	301.64	0.126
	30	306	305.26–306.29	306.02	0.255
	31	310	310.25–310.69	310.47	0.146
DYS390	32	314	314.05–315.06	314.8	0.215
	33	318	318.82–319.38	319.08	0.177
	22	186	186.98–187.33	187.17	0.099
	23	190	190.91–191.22	191.07	0.08
	24	194	194.81–195.11	194.95	0.078
DYS391	25	198	198.71–198.87	198.8	0.063
	9	245	245.21–245.48	245.35	0.064
	10	249	249.27–249.51	249.39	0.054
DYS385	11	253	253.33–253.51	253.41	0.049
	12	257	257.31–257.54	257.39	0.064
	8	345	345.57–345.78	345.71	0.059
	10	352	352.73–352.90	352.79	0.037
	11	356	356.34–356.71	356.45	0.07
	12	359	359.97–360.18	360.08	0.061
	13	363	363.66–363.89	363.75	0.068
	14	367	367.30–367.62	367.45	0.077
15	370	371.09–371.34	371.23	0.077	
16	374	374.92–375.13	375	0.067	
17	378	378.08–378.96	378.75	0.16	
18	382	382.42–382.75	382.55	0.087	

Mixture Studies

Two sets of mixtures of DNA samples, male-female and male-male, were prepared. The male-female mixtures were prepared in the proportions 1:0, 1:1, 1:2, 1:5, 1:10, 1:20, 1:30, 1:40, 1:50, 1:125, 1:250, 1:312, and 1:500. The male-male mixtures were prepared in the proportions 1:0, 1:1, 1:2, 1:5, 1:10, 1:20, 1:30, 1:40,

1:50, 0:1, 2:1, 5:1, 10:1, 20:1, 30:1, 40:1, and 50:1. The samples were amplified and analyzed under standard conditions. The quantities of DNA used in preparing mixtures and results of mixture studies are summarized in Table 5 and Table 6.

TABLE 4—Stutter values for each locus amplified using the Y-PLEX™ 6 kit.

Locus	n	Stutter Range, %	Mean Stutter, %	S.D.	Upper Range Stutter %
DYS393	48	5.4–9.1	7.10	0.80	9.50
DYS19	45	4.8–7.9	6.30	1.00	9.30
DYS389II	46	9.4–14.8	11.90	1.07	15.11
DYS390	47	4.2–10.4	6.40	1.50	10.90
DYS391	45	4.8–7.0	5.54	0.60	7.34
DYS385	49	4.5–11.3	7.00	1.50	11.50

S.D. = Standard Deviation.
Upper Range Stutter % = Mean + 3S.D.

Male-Female Mixtures—A complete male profile was detected in the male-female mixture samples down to the 1:125 ratio, which contained 0.2 ng of male DNA and 25 ng of female DNA (see Table 5). The mixtures generated at proportions of 1:250 and greater exhibited the loss of some of the male alleles. When the template quantity of female DNA was 10 ng or greater, two TAMRA-labeled amplified products of sizes 255 bp and 448 bp were observed, which was the result of nonspecific amplification.

Male-Male Mixtures—Allelic profile of male-1 for Loci *DYS393*, *DYS19*, *DYS389II*, *DYS390*, *DYS391*, and *DYS385* was 14, 15, 31, 23, 10, and 14.2 and 15, respectively. The allelic profile of male-2 for these loci was 15, 15, 29, 21, 10, and 17, respectively. The interpretation of the results of mixture studies was based on uncommon or distinct alleles at Loci *DYS389II*, *DYS390*, and *DYS385*. The allele calls for male-1 and male-2 at loci *DYS19*

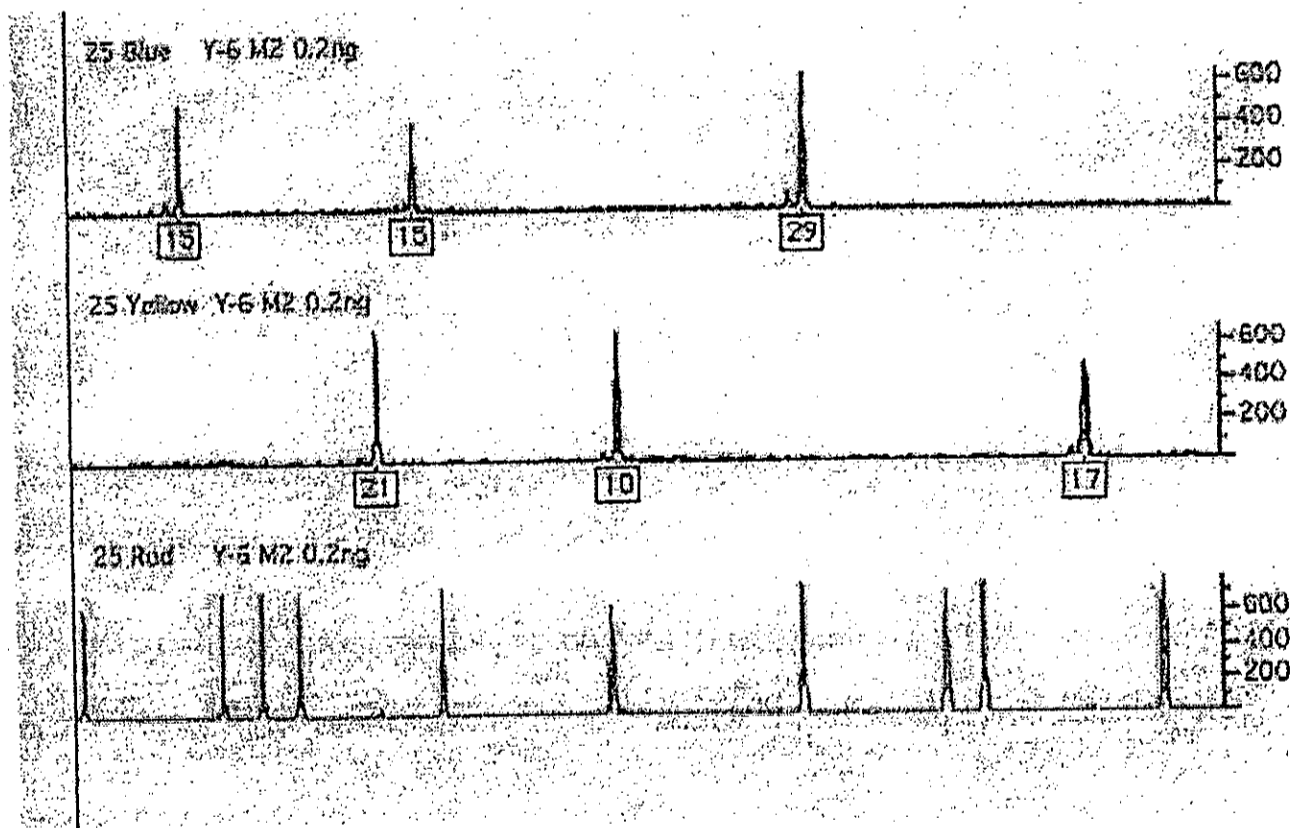


FIG. 4—Profile of the positive control sample from 0.2 ng of template DNA using the Y-PLEX™ 6 kit.

TABLE 5—Results from mixtures of male and female DNA amplified using the Y-PLEX™ 6 kit.

Male:Female DNA Ratio	Male DNA, ng	Female DNA, ng	Peak Height (rfu) of the Alleles in Male Profile in a Mixture Sample						
			<i>DYS 393</i> Allele 14	<i>DYS19</i> Allele 15	<i>DYS 389II</i> Allele 31	<i>DYS 390</i> Allele 23	<i>DYS 391</i> Allele 10	<i>DYS 385-1</i> Allele 14.2	<i>DYS 385-2</i> Allele 15
1:0	0.5	0	2677	2026	500	1289	1891	287	276
1:1	0.5	0.5	2921	3067	1046	1942	1964	516	455
1:2	0.5	1	3087	2280	969	1716	2173	494	451
1:5	0.5	2.5	2281	2253	893	1726	1949	461	531
1:10	0.5	5	3107	2563	848	1752	1710	399	531
1:20	0.5	10	4294	3584	1024	2053	2199	409	453
1:30	0.5	15	4050	3419	906	2054	2483	403	425
1:40	0.5	20	4216	2811	1185	2072	2279	502	469
1:50	0.5	25	3634	2410	1019	1760	1970	545	431
1:125	0.2	25	593	365	94	1069	970	245	203
1:250	0.1	25	244	181	<50	223	347	<50	<50
1:312	0.08	25	176	95	<50	228	199	80	<50
1:500	0.05	25	326	228	<50	78	158	<50	<50

and DYS391 were identical. Further, the results for the locus DYS393 were not used for interpretation since the allele from male-1 was at the stutter position for the allele from male-2. The results for distinct alleles at DYS389II, DYS390, and DYS385 are summarized in Table 6. The results indicated that the quantities of amplified products are only generally proportional to the DNA present in the mixture. The complete DNA profile of male-1 was detected in mixtures up to a ratio of 1:5 (male-1:male-2), whereas the complete DNA profile of male-2 was detected up to a ratio of 30:1 (male-1:male-2). The loss of some alleles was observed at greater proportions (Table 6).

Nonhuman Studies

Male DNA from the following nonhuman species was amplified using 2 to 4 ng of template DNA and Y-PLEX™ 6 reagents: Xavier monkey, chimpanzee, mandrill (baboon), gorilla, dog, and cat. No amplification products were observed with any of the nonhuman samples (data not shown). Two ng of DNA from each of these non-

human species was co-amplified subsequently with 2 ng of the human male positive control DNA sample. The positive control profile was typable in all samples, supporting the contention that DNA extracts from the nonhuman samples did not contain PCR inhibitors affecting the amplification. Thus, the data indicated that the primers present in the Y-PLEX™ 6 were specific for human DNA (although it may be possible that other primates not tested may yield amplification products).

Contamination and Environmental Insult Analysis

The male DNA samples exposed to the different environmental insults gave the same haplotype as the known blood of the donor except for the blood and semen samples treated with soil suspension (both wet and dry) (data not shown). These samples were treated with Chelex® for additional cleanup. An aliquot of extract containing about 10 ng of DNA was mixed with 200 µL of 5% Chelex®, incubated at 56°C for 2 h, heated at 100°C for 8 min, and subjected to centrifugation. The supernatant was washed using a 100-µm filter (Am-

TABLE 6—Results from mixtures of two male DNA samples amplified using the Y-PLEX™ 6 kit.

Male-1:Male-2 DNA Ratio	Male-1 DNA, ng	Male-2 DNA, ng	Peak Height (rfu) of the Distinct Alleles							
			DYS 389II		DYS 390		DYS 385 -1		DYS 385 -2	
			Male-1	Male-2	Male-1	Male-2	Male-1	Male-2	Male-1	Male-2
1:0	0.5	0	1129	0	2329	0	520	0	469	NA*
1:1	0.5	0.5	807	1175	1650	2289	422	1419	287	NA
1:2	0.5	1	491	2100	1221	3749	392	2599	396	NA
1:5	0.5	2.5	460	3930	905	6802	274	4999	318	NA
1:10	0.5	5	304	5855	<50	6041	180	5780	195	NA
1:20	0.5	10	193	5097	<50	6644	85	4922	121	NA
1:30	0.5	15	89	4810	<50	6848	84	6067	112	NA
1:40	0.5	20	82	4695	<50	6278	<50	6781	88	NA
1:50	0.5	25	75	5346	<50	6887	<50	7110	109	NA
0:1	0	0.5	0	1222	0	2396	0	1359	0	NA
2:1	1	0.5	1079	1109	2263	1815	705	1312	621	NA
5:1	2.5	0.5	2910	1167	5854	1963	1402	1111	1537	NA
10:1	5	0.5	3889	875	5954	1608	1778	753	1799	NA
20:1	10	0.5	4494	435	5467	1014	2578	472	2641	NA
30:1	15	0.5	4498	226	6271	691	3438	366	3344	NA
40:1	20	0.5	3681	<50	6608	380	3402	234	3314	NA
50:1	25	0.5	6310	<50	5339	335	3605	181	3486	NA

*NA = No Allele; Male-2 sample exhibited only one allele at DYS385.

TABLE 7—Analysis of the non-probative samples using the Y-PLEX™ 6 kit.

Sample Information	Sample Description	DYS393	DYS19	DYS389II	DYS390	DYS391	DYS385	
CASE 1-Q1	Vaginal swab—female fraction	13, (14*)	14	27	24	10	12*	13*
CASE 1-Q2	Vaginal swab—male fraction	13, (14)	14	27, (29)	24	10	12*	13*
CASE 1-K1	Suspect	13	14	27	24	10	12	13
CASE 2-Q1	Semen on sock—female fraction	13	0	0	0	0	0	0
CASE 2-K1	Suspect	13	14	29	24	11	11	14
CASE 3-Q1	Saliva on perineal swab	0	0	0	0	0	0	0
CASE 3-K1	Suspect	12	14	29	24	10	11	14
CASE 4-Q1	Semen on underwear—female fraction	0	0	0	0	0	0	0
CASE 4-K1	Suspect	0	0	0	0	0	0	0
CASE 5-Q1	Semen on perineal swab—male fraction	15	15	31	23	10	15*	16*
CASE 5-K1	Suspect	15	15	31	23	10	15	16
CASE 6-Q1	Semen on sheet—female fraction	0	0	0	0	0	0	0
CASE 6-Q2	Semen on sheet—female fraction	12	0	0	0	0	0	0
CASE 6-K1	Suspect	12	14	29	24	11	11	14

icon). In addition, eight µg of bovine serum albumin (BSA, stabilizing agent) and an additional 0.5 µL of TaqGold™ polymerase were added to the PCR mix to overcome PCR inhibition. All the samples treated with soil suspension could be amplified correctly after the cleanup procedure except for the blood and semen samples stored for 28 days after the wet treatment with soil suspension.

TABLE 8—Allele frequencies among the African American, Caucasian, and Native American population groups.

Locus	Allele	Frequency			
		African American (n = 543)	Caucasian (n = 581)	Native American (n = 49)	
DYS393	8	0.002	N.D.	N.D.	
	9	0.024	0.024	0.245	
	10	0.707	0.492	0.367	
	11	0.252	0.454	0.388	
	12	0.015	0.029	N.D.	
DYS19	12	0.002	0.002	N.D.	
	13	0.031	0.060	0.184	
	14	0.241	0.651	0.510	
	14.3	N.D.	0.002	N.D.	
	15	0.403	0.198	0.224	
	16	0.182	0.072	0.082	
	17	0.138	0.012	N.D.	
	18	0.002	0.003	N.D.	
	DYS389II	25	0.002	N.D.	N.D.
		26	0.002	N.D.	N.D.
27		0.009	0.015	N.D.	
28		0.125	0.177	0.163	
29		0.203	0.477	0.469	
30		0.344	0.251	0.306	
31		0.250	0.062	0.061	
32		0.055	0.012	N.D.	
33		0.009	0.005	N.D.	
DYS390		20	0.017	0.002	N.D.
	21	0.517	0.014	0.020	
	22	0.116	0.124	N.D.	
	23	0.103	0.255	0.571	
	24	0.162	0.444	0.286	
	25	0.077	0.150	0.122	
	25.2	N.D.	0.002	N.D.	
	26	0.007	0.009	N.D.	
	27	N.D.	0.002	N.D.	
	DYS391	8	0.002	N.D.	N.D.
9		0.024	0.024	0.245	
10		0.707	0.492	0.367	
11		0.252	0.454	0.388	
12		0.015	0.029	N.D.	
DYS385	8	0.001	N.D.	N.D.	
	9	0.001	N.D.	N.D.	
	10	0.007	0.013	N.D.	
	11	0.079	0.309	0.224	
	12	0.020	0.050	0.020	
	13	0.047	0.105	0.051	
	13.2	0.001	N.D.	N.D.	
	14	0.153	0.316	0.173	
	14.2	N.D.	0.001	N.D.	
	15	0.133	0.115	0.306	
	15.3	N.D.	0.002	N.D.	
	16	0.177	0.049	0.082	
	17	0.194	0.020	0.082	
	17.1	0.001	N.D.	N.D.	
	17.2	N.D.	0.001	N.D.	
18	0.124	0.014	0.041		
19	0.050	0.005	0.020		
20	0.011	0.001	N.D.		
21	0.001	N.D.	N.D.		

Nonprobative Samples

Six nonprobative cases containing various DNA sources, which were previously analyzed with the AmpFℓSTR® Profiler Plus and AmpFℓSTR® COfiler kits (Applied Biosystems), were reanalyzed using the Y-PLEX™ 6 kit. The samples included female and male DNA fractions of semen identified on vaginal swabs. The interpretation of the results obtained from Y-PLEX™ 6, AmpFℓSTR® Profiler Plus, and AmpFℓSTR® COfiler kits were consistent. The results obtained for Y-PLEX™ 6 are summarized in Table 7. The weak secondary contributor in samples Case 1-Q1 and Case 1-Q2 indicates a minor contribution from a second male. These results are consistent with the results obtained from AmpFℓSTR® Profiler Plus and AmpFℓSTR® COfiler. In addition, the consensual sex partner of the victim in this case refused to give a known sample for elimination purpose.

Interlaboratory Comparison

Four known and five unknown male DNA samples kindly provided by Dr. Lutz Roewer (Institute for Rechtsmedizin, Berlin, Germany) were analyzed using the Y-PLEX™ 6 kit. The results for all samples at all six loci were typed correctly and in accordance with the published nomenclature and the ISFG guidelines for STR analysis (data not shown) (26). Since the allele designation was in 100% concordance, the European database can be used for comparison of the results typed by the Y-PLEX™ 6 kit.

Population Studies

Three population groups, African American (n = 543), Caucasian (n = 581) and Native American Indian (n = 49), were profiled for the six Y-STR loci using the Y-PLEX™ 6 kit. About 95% of the samples were buccal swabs and the other 5% were whole blood. The reinjection rate was about 10%. Table 8 shows the allele frequency distributions for each Y-chromosome marker in Caucasian and African-American sample populations, respectively. Polymorphic diversity was maximal for Locus DYS385 followed by DYS390, DYS389II, DYS19, DYS393, and DYS391. In general, these allele frequencies were consistent with data published for the same loci in populations of similar anthropological affinity (17,27,28). A few alleles were observed that did not exist in the allelic ladder. These alleles are listed in Table 2. Microvariant alleles were confirmed by two independent amplifications (and thus two typings). The genetic diversity and random match probability for the three population groups studied is summarized in Table 9. Results showed a lower genetic diversity for Native Americans, possibly due to a smaller sample size. The random match probability for the Y-PLEX™ 6 system was 0.0096 and 0.0039 for Caucasian and African American population groups, respectively. Though the Y-PLEX™ 6 system is not as discriminative as autosomal STR systems (AmpFℓSTR® Profiler Plus, AmpFℓSTR® COfiler, AmpFℓSTR® Identifiler, or PowerPlex® 16), it offers certain advantages when

TABLE 9—Genetic diversity and random match probability for Y-PLEX™ 6 kit.

Population	Genetic Diversity, h	Random Match Probability
Caucasian	0.9921	0.0096
African American	0.9979	0.0039
Native American	0.0047	0.0251

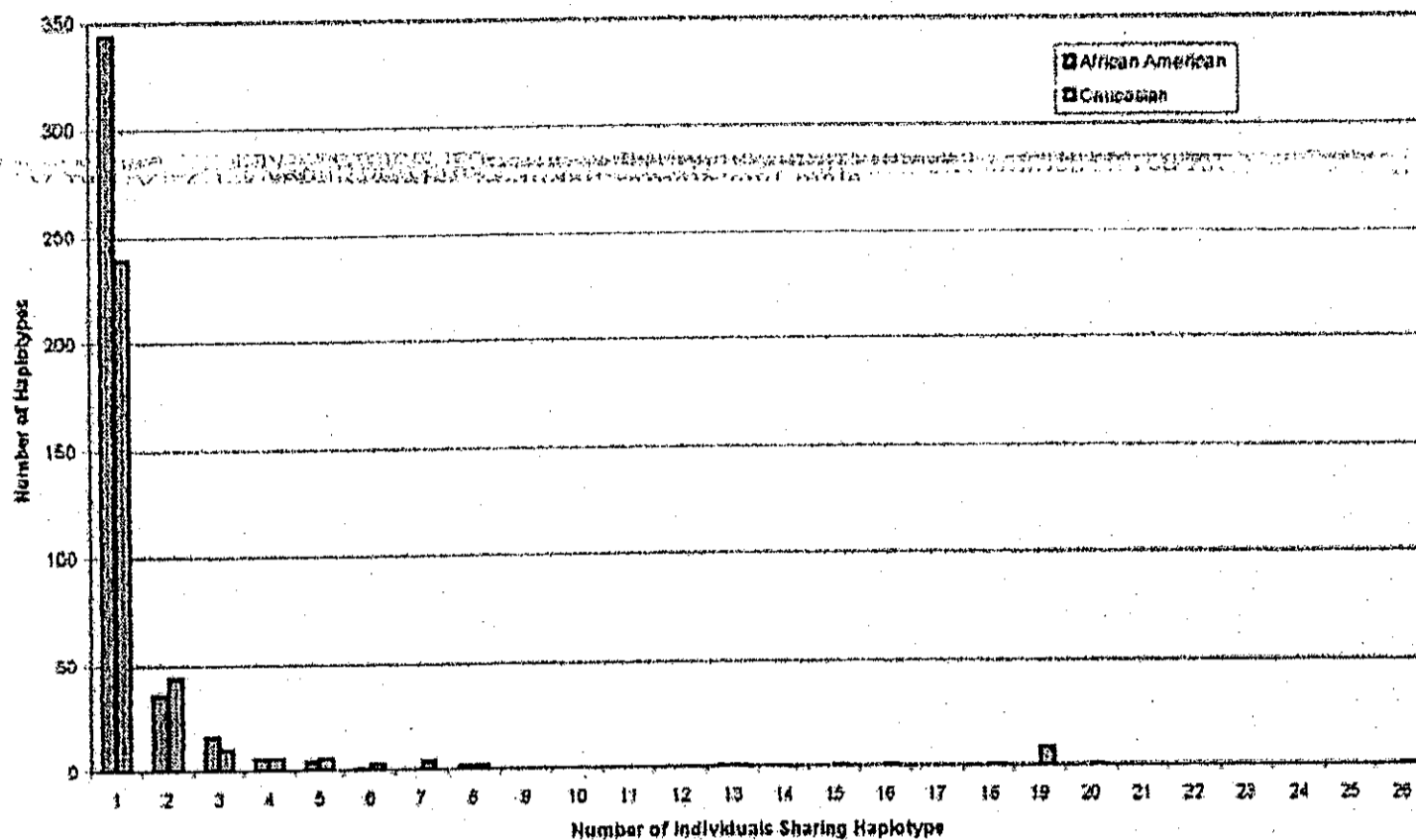


FIG. 5—Haplotype frequency distribution in the Caucasian Population (red) (n = 581) and the African American population (blue) (n = 543).

TABLE 10—Observed frequency of distribution of most frequent haplotypes analyzed by using Y-PLEX™ 6 kit.

African American Population (n = 543)		Caucasian Population (n = 581)	
Y Haplotype (DYS393, DYS19, DYS389II, DYS390, DYS391, DYS385)	n	Y Haplotype (DYS393, DYS19, DYS389II, DYS390, DYS391, DYS385)	n
13-15-31-21-10-16,17	13	13-14-29-24-11-11,14	26
13-14-29-24-11-11,14	8	13-14-30-24-11-11,14	20
13-15-31-21-10-16,16	8	13-14-29-24-10-11,14	18
13-14-28-25-10-14,14	6	13-14-29-23-11-11,14	16
13-15-30-21-10-15,16	5	13-14-29-24-11-11,15	15
13-15-32-21-10-16,17	5	13-14-30-24-10-11,14	13
13-17-30-21-10-17,18	5	13-14-29-25-11-11,14	8
14-16-30-21-10-17,18	5	13-14-29-24-10-11,15	8
13-14-29-23-11-11,13	4	13-14-29-23-10-11,14	7
13-14-30-24-11-11,14	4	13-15-29-24-11-11,14	7
13-15-30-21-10-16,17	4	13-14-30-23-11-11,14	7
13-17-30-21-10-18,18	4	13-14-29-25-11-11,13	7
14-15-30-21-10-15,18	4	13-14-28-24-11-11,14	6
15-16-30-21-10-17,18	4	13-14-29-25-10-11,14	6
13-14-28-24-11-11,14	3	13-14-29-25-11-11,15	6
13-14-29-24-10-11,14	3	13-14-28-22-10-13,14	5
13-14-30-24-11-11,15	3	13-14-28-22-10-13,13	5
13-15-30-21-10-17,17	3	13-14-28-22-10-14,14	5
13-15-31-21-10-15,18	3	13-14-30-23-10-11,14	5
13-15-31-21-10-18,19	3	13-14-30-25-11-11,14	5
13-15-31-21-11-16,17	3	14-14-29-24-11-11,14	5
13-15-31-22-11-15,17	3	13-14-28-23-10-13,14	4
14-15-30-21-10-15,16	3	13-14-28-23-10-14,14	4
14-15-30-21-10-16,17	3	13-14-28-23-11-11,14	4
14-15-31-21-10-17,18	3	13-14-31-24-10-11,14	4
14-17-30-21-10-17,18	3	13-15-29-24-10-11,14	4
15-16-30-20-10-17,18	3	13-14-29-24-11-11,13	4
15-16-30-21-10-16,17	3	13-14-29-25-11-11,12	3
15-16-30-21-10-17,19	3	12-14-29-24-11-11,14	3
		13-13-30-24-10-16,18	3
		13-14-28-23-10-11,14	3
		13-14-29-24-10-12,14	3
		13-14-30-24-10-11,15	3
		13-15-28-22-10-13,14	3
		13-15-29-25-11-11,14	3

dealing with mixtures of male and female DNA; only the male profile is typed and a single peak at each marker (except for DYS385) enables determining the number of male contributors, e.g., multiple assault cases. Thus, the Y-PLEX™ 6 system is very useful in DNA analysis of certain forensic casework samples such as fingernail scrapings, P30 positive but sperm negative samples as well as sample mixtures of male and female. Prinz et al. (29) have achieved a higher success rate in detecting the semen donor's alleles for the Y-STR as compared to autosomal loci; the study involved analysis of 56 nonprobative semen stains and swabs by using multiplexes for Y-STR and autosomal loci.

The haplotype frequencies for Caucasians and African Americans provide some interesting information (Fig. 5 and Table 10). Strikingly, 239 of the 581 Caucasians and 344 of the 543 African Americans profiled were observed only once in each database (Fig. 5). The 37 and 29 most frequent haplotypes and their frequency distribution in Caucasian and African American population, respectively, are presented in Table 10. Roewer et al. (17) profiled 4688 individuals, which is the largest European database for the minimal Y STR haplotypes. In this database, 139 individuals share one profile and 14 or more individuals share the 30 most frequent haplotypes. Nevertheless, analysis for additional loci should increase the power of discrimination afforded by using the Y-PLEX™ 6 kit.

Conclusions

The Y-PLEX™ 6 multiplex system enables analysis of the six Y-STR Loci DYS393, DYS19, DYS389II, DYS390, DYS391, and DYS385. The primers present in this system were specific for human DNA. The Y-PLEX™ 6 system was robust, valid, and reliable for forensic casework. Population data are available that can be used for human identity testing cases. In addition to the six loci multiplexed in the Y-PLEX™ 6 kit, the Loci DYS389I and DYS392 are part of a larger haplotype group in which substantial population data are available (7,17). A second Y-STR multiplex system that incorporates these additional Y STR loci is being developed.

Acknowledgments

interlaboratory comparison and evaluation of the results. We thank Elaine Schneida for technical assistance. We also thank Dr. Allison Eastman from New York State Police Forensic Investigation Center, Albany, New York, for providing semen samples from primates.

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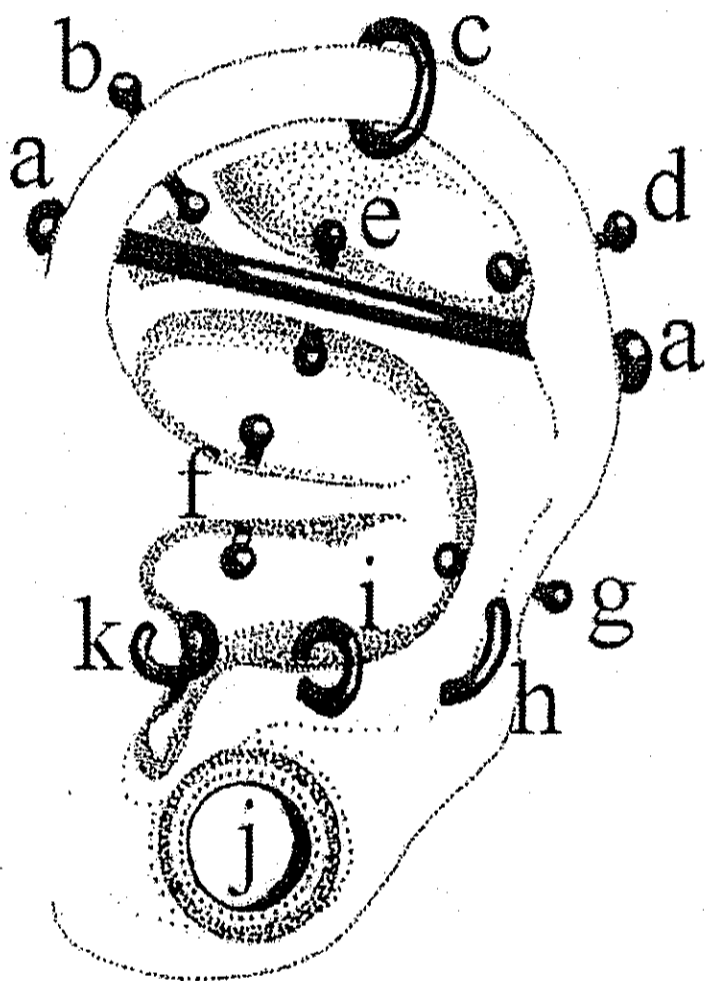
ERRATA

Erratum/Correction of Swift B and Ratty GN: The Human Ear: Its Role in Forensic Practice. *J Forensic Sci* 2003 Jan.;48(1):153–160.

It has come to the attention of the Journal the fact that the hand-drawn image (Fig. 3) of the ear with piercings isn't labeled with regards to the figure legend. Below is the new/correct Fig. 3.

~~The Journal regrets this error. Note: Any and all future citations~~

of the above-referenced paper should read Swift B and Ratty GN. The Human Ear: Its Role in Forensic Practice. [published erratum appears in *J Forensic Sci* 2003 May;48(3)] *J Forensic Sci* 2003 Jan;48(1): 153–160.



Erratum/Correction of Sinha SK, Budowle B, et al. Development and Validation of a Multiplexed Y-Chromosome STR Genotyping System, Y-PLEX™6 for Forensic Casework. *J Forensic Sci*. 2003 Jan.;48(1):93–103.

On page 99, the legend reads as:

FIG. 4—Profile of the positive control sample from 0.2 ng of template DNA using the Y-PLEX™6 kit.

should read:

FIG. 4—Profile from 0.2 ng of template DNA using the Y-PLEX™6 kit.

The Journal regrets this error. Note: Any and all future citations of the above-referenced paper should read: Sinha SK, Budowle B, et al. Development and Validation of a Multiplexed Y-Chromosome STR Genotyping System, Y-PLEX™6, for Forensic Casework. [published erratum appears in *J Forensic Sci* 2003 May;48(3)] *J Forensic Sci* 2003, 48(1):93–103.

**SENATE BILL 262 (DNA TESTING)
TESTIMONY OF PROFESSOR MARK GODSEY
PROFESSOR OF LAW, UNIVERSITY OF CINCINNATI COLLEGE OF LAW
DIRECTOR, OHIO INNOCENCE PROJECT**

March 1, 2006

In 2003, following the lead of many other states that have enacted post-conviction DNA testing bills, Ohio enacted its own DNA testing bill, commonly referred to as "Senate Bill 11" or "SB11."

The Ohio Innocence Project ("OIP") formed at the University of Cincinnati College of Law in the summer of 2003. The OIP is operated by professors and attorneys who have extensive experience in the areas of wrongful convictions and post-conviction DNA testing. During 2004 and 2005, the OIP filed numerous SB11 requests for DNA testing on behalf of inmates across the state; many of these requests are still pending. In addition, the OIP screened many more requests for DNA testing from Ohio inmates, but did not file on their behalf either because they did not meet the criteria, or because while their cases were appropriate for post-conviction DNA testing, SB11 was too limited to provide them the type of strategic testing that was necessary in their particular cases. Indeed, the most common scenario faced by the OIP when screening potential SB11 applicants was the situation where the inmate in question might be innocent, and might be able to prove his innocence through a properly designed DNA testing plan, but could not obtain relief under SB11 because of its severe and unrealistic limitations.

SB11 expired on October 29, 2005. Senator Goodman has now introduced a new DNA Bill, SB262, which is designed to replace SB11 and make SB11 permanent. The OIP supports making DNA testing a permanent avenue for inmates in post-conviction,

but respectfully requests that with SB262 the legislature correct several of the glaring deficiencies apparent in SB11. These requested amendments are as follows:

- (1) **Change the definition of “outcome determinative” to reflect the proper standard for considering the impact of new evidence in the State of Ohio, which has been set forth for decades in Ohio Criminal Rule 33, and to reflect the standard deemed appropriate by Ohio’s sister states**

Under the original SB11, an Ohio inmate could not obtain post-conviction DNA testing unless a court found that the results of the testing would be “outcome determinative,” i.e. that *no* reasonable jury could convict once it considered the DNA evidence alone. This stringent standard is highly problematic for at least two reasons: (1) it is inconsistent with provisions for new trials based on non-scientific evidence under Ohio’s Rule 33, thus illogically giving *less* weight to new DNA evidence than to other, less reliable forms of new evidence such as witness recantation; and (2) it is more stringent than *every other jurisdiction in the United States* that has enacted provisions for post-conviction DNA testing, demonstrating that it is completely out of touch with the national trend on this very important issue.

Ohio Criminal Rule 33(A)(6) allows a defendant to seek a new trial upon a showing that new evidence exists. Cases interpreting this rule have upheld new trials in post-conviction, after the deadline has elapsed, upon a showing of a “strong probability” that the new evidence would change the outcome of the trial. *State v. Petro*, 148 Ohio St. 505 (1947). Under this standard a defendant is not required to demonstrate that the new evidence alone would definitively and absolutely prevent a jury from convicting, as SB11 required, but rather, that the evidence presented in the context of the case creates a “strong probability” that the jury would acquit.

Such a standard is appropriate as it allows a defendant to present evidence not previously available at trial, such as evidence “discovered” as a result of new technology, in the context of other evidence used in the case or discovered during the investigation of the case. It recognizes that convictions, like exonerations, do not occur in a vacuum, but rather are the result of an ongoing interplay and evaluation of all available evidence. To create a higher standard for DNA evidence under a post-conviction bill places a disproportionately high burden on a defendant who seeks to utilize scientific evidence as opposed to other types of new evidence contemplated under Rule 33. Ironically this would mean that an inmate relying on a witness’s subjective recantation would have a lower standard than an inmate seeking to rely on objective DNA evidence. If a key witness recants years later, this “new evidence” is subjected to the standards in rule 33; yet DNA evidence—the most reliable evidence possible—is illogically subject to a higher standard.

The fact that Ohio’s post-conviction DNA testing standard sets an inappropriately high standard for inmates to meet is further demonstrated by comparing Ohio’s standard to that of her sister states. Reflecting a national consensus that the standard for DNA testing should not be higher than the standard for obtaining new trials with non-DNA evidence, nearly all other states with post-conviction DNA testing apply a standard similar to *or lower than* that established by Ohio’s Rule 33. Eighteen of the thirty-eight states with post-conviction DNA statutes only impose standards such as a “reasonable probability”¹, “reasonable possibility”² or “reasonable likelihood”³ that the results of the

¹ (Arizona) ARIZ. REV. STAT. ANN. § 13-4240(B)(1); (California) CAL. PENAL CODE § 1405(f)(5); (Connecticut) 2003 Conn. Acts 03-242 § 7(b)(1) (Reg. Sess.); (District of Columbia) D.C. CODE ANN. § 22-4133(d); (Florida) FLA. STAT. ANN. § 325.11(2)(f)(3); (Georgia) GA. CODE ANN. § 5-5-41(c)(3)(D); (Indiana) IND. CODE ANN. § 35-38-7-8(4); (Kentucky) KY. REV. STAT. ANN. §

inmate's trial would have been different with the existence of exculpatory DNA evidence (standards which are lower than both SB11 and Ohio's Rule 33). Five states allow testing when the court finds by a "preponderance of the evidence" or that it is "more probable than not" that exculpatory results could be gained.⁴ Two other states require only that the inmate show that the test "*may* produce exculpatory evidence,"⁵ and three more states allow testing on a showing that there is a "scientific potential" that testing would exclude the inmate.⁶ Montana and Pennsylvania will permit DNA testing as soon as a "prima facie case" of possible innocence has been presented.⁷

Only Ohio's SB11 required testing to be "outcome determinative," and required that DNA testing petitions be rejected unless the inmate could demonstrate--by using only outdated testing techniques not geared for innocence cases and without the use other strategic tools available to inmates in other states as mentioned above—that no reasonable jury would convict based solely on the DNA evidence. No wonder that only a tiny fraction of the DNA testing applications filed by Ohio inmates under SB11 were actually granted by Ohio courts.⁸ No wonder that the judge in the recent high-profile

422.285(2)(a) and (3)(a); (Missouri) MO. REV. STAT. § 547.035.2(5) (2003); (New Jersey) N.J. STAT. ANN. § 2A:84A-32a(d)(5); (New York) N.Y. CRIM. PROC. LAW § 440.30(1)(a) (2004); (North Carolina) N.C. GEN. STAT. § 15A-269(b)(2); (Rhode Island) R.I. GEN. LAWS § 10-9-1-12(a)(1) and (b)(1); (Tennessee) TENN. CODE ANN. § 40-30-304(1).

² (Nevada) NEV. REV. STAT. § 176.0918(6)(a) (2003); (Oregon) OR. REV. STAT. § 14.138.2(2)(d).

³ (Louisiana) LA. REV. STAT. ANN. § 926.1(C)(1); (Wisconsin) WIS. STAT. ANN. § 974.07(7)(a)(2) and (7)(b)(1).

⁴ (Colorado) COLO. REV. STAT. ANN. § 18-1-413(1); (New Mexico) N.M. STAT. ANN. § 31-1A-2(C); (Texas) TEX. CRIM. P. CODE ANN. § 64.03(a)(2); (Utah) UTAH CODE ANN. § 78-35a-301(6)(b); WASH. REV. CODE ANN. § 10.73.170(2).

⁵ (Kansas) KAN. STAT. ANN. § 21-2512(c); (Nebraska) NEB. REV. STAT. § 29-4120(5) (2004).

⁶ (Idaho) IDAHO CODE § 19-4902(d)(1); (Illinois) 725 ILL. COMP. STAT. ANN. 5/116-3(c)(1); (Minnesota) MINN. STAT. ANN. § 590.01(1a)(c)(2).

⁷ (Montana) MONT. CODE ANN. § 46-21-110(1)(b); (Pennsylvania) 42 PA. CONS. STAT. ANN. § 9543.1(3).

⁸ The ultra-strict standard of SB11 signaled to trial courts that DNA testing applications should be granted very rarely. Indeed, the Ohio Innocence Project, on information and belief, asserts that less than 15 of the more than 300 requests for DNA testing under SB11 have been granted. The Ohio Innocence Project

case of Clarence Elkins ruled that he would not be entitled to testing under SB11 if that ultra-restrictive law had been in effect when he requested the DNA testing in his case. If Mr. Elkins had made his request a year or so later, after SB11 was enacted, he might still be in prison with the true perpetrator of the murder and rapes still at large.⁹

The national consensus regarding standards for DNA testing is founded upon a fundamental axiom of criminal law and procedure that when an inmate discovers new evidence—DNA evidence or otherwise—that might reasonably have changed the outcome had it been available at the time of his original trial, he is entitled to a new trial. This bedrock principle is reflected in the law of every state in this country, including in Ohio within Rule 33. *See State v. Elliott*, 2002 Ohio 4454, 2002 WL 1988509 (Ohio App. 1 Dist.) (“The proper vehicle for asserting a claim of actual innocence based on newly discovered [DNA] evidence is a Rule 33 motion for a new trial.”); *State v. Broady*, 1975 WL 181275, *4 (Ohio App. 10 Dist.) (same). There is absolutely no logical reason why Ohio should treat DNA evidence—the most reliable evidence available—as the one type of evidence that is excepted from this fundamental principle.

DNA evidence is the one type of evidence that defendants cannot gain access to or collect on their own. While their lawyers or private investigators can interview witnesses or collect other types of evidence, crime scene DNA evidence remains in the hands of the authorities at all times. By making the standard for inmates to *get access to and test DNA higher* than the standard for affirmative *use* of such evidence to obtain a

currently represents several inmates on appeal whose SB11 applications were denied by the trial court but clearly should have been granted. The extent to which the trial courts seemed to go out of their way to deny most DNA testing applications under SB11 demonstrates that the severity of the “outcome determinative” standard set by the legislature apparently signaled to the trial courts that they should adopt a highly restrictive approach to DNA testing under the statute.

⁹ Indeed, Judge Hunter, who presided over Mr. Elkins’ case, held in her July 14, 2005 decision that Mr. Elkins’ case would not have fallen within the limited parameters of SB11.

new trial, SB11 essentially abrogated Rule 33, Ohio law and basic principles of criminal law.

Ironically, if Ohio residents were wrongly convicted of crimes in neighboring states their innocence would be more adamantly guarded. According to Barry Scheck,

The danger of using an outcome determinative test can be demonstrated by considering the case of Ray Krone from Arizona. Prosecutors vehemently opposed post-conviction testing on crime scene saliva evidence-the same evidence used to convict Krone of rape and murder and send him to Arizona's death row. They argued that saliva could have been deposited by others at the scene, and, therefore, test results would not be 'outcome determinative.' Once testing was finally obtained under a less restrictive standard, the results were entered into a DNA database and linked to another Arizona sex offender whom prosecutors now concede was the real perpetrator in Krone's case. If Arizona had used an 'outcome determinative' test, as Ohio does now, Mr. Krone would still be in prison." (Scheck Aff. Ex. A at ¶ 9) (attached).¹⁰

Furthermore, addressing the possibility of imposing as stringent a standard as Ohio's, an Illinois court held that "[a]lthough forensic testing is a powerful evidentiary resource, it will not always permit an absolute determination as to the defendant's guilt or innocence. To permit additional scientific testing only in those instances where the testing would result in the defendant's absolute and total vindication would unnecessarily preclude the production of new evidence directly relevant to the defendant's assertion of innocence." People v. Hockenberry, 737 N.E.2d 1088, 1093-1094 (111 . App. 2d Dist . 2000).

The passage of SB11 actually hurt the cause of inmates in Ohio who desired DNA testing in their cases. (Scheck Aff. Ex. A at ¶ 5-6). Before SB11, no clear standards existed, so prosecutors would use their common sense and often agree to turn over DNA for testing based on a "reasonableness" or "materiality" standard or a standard

¹⁰ The attached affidavit of Barry Scheck was created in connection with an earlier attempt by the OIP to amend and extend the deadline of SB11. The substance of the affidavit is still relevant, however, to current issues.

similar to Rule 33. (Scheck Aff. Ex. A at ¶ 5-6). That is how the DNA evidence was obtained, for example, in the Clarence Elkins and Chris Bennett cases prior to the enactment of SB11. Once SB11's restrictive language became the law, however, prosecutors used the restrictive "outcome determinative" language as an excuse to deny access to DNA. SB11 gave local prosecutors—who already have a conflict of interest in that they had prosecuted the cases in question—grounds to point to the new, restrictive standard and refuse to turn over the DNA. It came as no surprise to those familiar with post-conviction DNA cases that after SB11 passed, the same prosecutors who would often provide DNA to defense counsel by consent prior to SB11, began litigating *against* testing in nearly every single instance because SB11 now told them they did not have to give access to the DNA except in extremely limited circumstances (circumstances which the prosecutors virtually never admitted were actually present in any given case).

Ohio should not be an "outlier state" on an issue that is so central to fairness and justice. The new DNA bill should, at a minimum, reflect the standard set forth in Rule 33, so that DNA evidence is given the same weight as other, less-reliable evidence. The new DNA bill should state that inmates are entitled to post-conviction DNA testing if a "strong probability" or "reasonable probability" exists that the outcome of the trial would be different if the new DNA evidence (and other new evidence) were to be considered by the jury. If this change were to take place, Ohio would still have one of the most restrictive standards in the country, but would no longer stand alone in denying DNA testing to the vast majority of potentially innocent inmates.¹¹

¹¹ To bring Ohio more in line with the majority of other states, and to recognize the unique power and reliability of DNA technology, DNA testing should be allowed if there is a "reasonable probability" or "reasonable likelihood" that the result of the new trial would be different once the jury considers the new DNA evidence.

(2) Allow inmates to employ newer, more sensitive types of DNA testing, such as YSTR DNA testing and mitochondrial DNA testing, and to take advantage of other technological advances in the future when they become accepted by the courts.

DNA testing and other forensic technologies are constantly evolving fields. As DNA testing advances, opportunities will continue to expand for inmates and law enforcement to make definitive determinations of guilt or innocence based on information previously beyond their reach. The original SB11, perhaps unintentionally, limited the scope of possible DNA testing by indirectly requiring that all testing be done by a state crime lab. The state crime labs in Ohio, however, are not equipped to perform the latest and most sensitive types of DNA testing necessary for most innocence cases: YSTR and mitochondrial testing. Since the type of DNA used by labs in Ohio—nuclear DNA testing—has been around for many years, it was available to most Ohio inmates at the time of their trials in the late 1980s or 1990s. If nuclear DNA testing was not used at the time of their trials, it was typically because that type of DNA testing was not sensitive enough to obtain a definitive result in their cases. And indeed, if nuclear DNA testing was not sensitive enough to obtain a definitive result at the time of the inmate's trial, it will not be sensitive enough now.

YSTR and mitochondrial testing, on the other hand, are newer and more sensitive types of testing *that are responsible for most of the recent exonerations by Innocence Projects across the country.*¹² Such exonerations would not be possible if these inmates

¹² Recent exonerations using such advance testing not available in Ohio include that of A.B. Butler, exonerated in 2000, after serving 17 years in Texas for aggravating kidnapping; William Gregory, exonerated in 2000, after serving seven years in Kentucky for rape, attempted rape and kidnapping; Richard Danziger and Christopher Ochoa, exonerated in 2001 after serving thirteen years in prison for rape and murder in Texas; and Charles Fain, exonerated in 2001, after serving eighteen years on Idaho's death row

had been offered only nuclear DNA testing, the only type performed by labs in Ohio.

Ironically, SB11 purported to offer DNA testing to Ohio's inmates, but by limiting testing to that provided in the state lab, it tied the hands of all parties by denying access to the tools through which innocence can best be determined.

In order to achieve its core purpose of allowing the truth to be pursued through DNA technology, the new DNA testing bill should include language allowing inmates to utilize the most current testing techniques, *including those beyond the current abilities of the state crime lab*. Under such a legislative scheme, the new bill would allow inmates to utilize any testing technology deemed appropriate by experts in the field and accepted by the courts. Any differences in cost between more advanced tests and those which could be performed at the State's lab could remain the responsibility of the inmate, thereby reducing the state's financial liability while not limiting an inmate's ability to prove innocence through current technology. Or, preferably, the discretion could lie with the trial court to determine whether the inmate or the state should pay for the advanced testing on a case-by-case basis.

Under the original SB11, the OIP received requests from many inmates in Ohio who desired DNA testing to be performed under SB11, but the OIP in some cases did not

for murder, rape and kidnapping; Richard Alexander, exonerated in 2001, after serving three years in Indiana for attempted rape and burglary; Richard Danziger, exonerated in 2001, after serving thirteen years in Texas for aggravated sexual assault; Yusef Salaam, Antron McCray, Kharey Wise, Kevin Richardson and Raymond Santana exonerated in 2002, after serving 10 years in New York for rape and assault; Wilton Dedge, exonerated in 2004, after serving twenty-two years in Florida for aggravated battery and burglary; George Rodriguez, exonerated in 2005, after serving eighteen years in Texas for aggravated sexual assault of a child; Anthony Woods, exonerated in 2005, after serving 18 years in Missouri for rape; Closer to home, Clarence Elkins was exonerated on December 15, 2005, after YSTR testing excluded him as the man who murdered and raped his mother-in-law and raped and attempted to murder his niece. Mr. Elkins was able to obtain advanced YSTR and mitochondrial testing because he gained access to the DNA in question prior to the enactment of SB11. In each of these cases these men were convicted on the testimony of witnesses, including an expert witness who concluded that they were guilty. Without the advanced technology of YSTR and mitochondrial DNA testing they would likely remain in prison, or in the case of Charles Fain, might well have been executed. For additional examples of inmates exonerated through YSTR or mitochondrial DNA testing, please see <http://www.innocenceproject.org/case>.

file on their behalf because it appeared that only YSTR testing or mitochondrial testing could achieve a definitive result in their case. If such cases had been submitted for testing under SB11, the inmate risked the possibility of having a scarce sample consumed by a state lab that was technologically incapable of providing any useful information. In other cases, inmates filed applications under SB11 requesting YSTR or mitochondrial testing, but their applications were denied because the court believed it had no authority to order a type of testing that is not performed by the state labs in Ohio.¹³

The recent case of Clarence Elkins from Stark County illustrates this point. Mr. Elkins was able to obtain his exoneration, and identify the true killer, using a combination of YSTR and mitochondrial DNA testing. Nuclear DNA testing performed by the state was available at the time of his trial in 1999, but was not sensitive enough to be used on the biological material in his case. Only the newer forms of testing were appropriate in Mr. Elkins' case. Mr. Elkins, fortunately, was able to obtain DNA testing in his case prior to the enactment of SB11; otherwise SB11 might have blocked his ability to obtain testing.¹⁴

By way of further example, the OIP currently has a case out of Cuyahoga County where only two sperm cells from the attacker remain on the evidence slide. Even YSTR is likely not able to obtain a definitive result in that case with such a scarce sample. In a few years, however, a new type of testing will be available, currently referred to as "laser dissection." With this process, technicians will use lasers to dissect a single sperm cell

¹³ A few courts, however, followed the "spirit" of SB11, rather than its letter, and agreed to send the DNA samples out of state for advanced testing. These cases include Avril Davenport in Hamilton County, and John Anderson in Cuyahoga County. These two cases, however, represent the exception rather than the rule. Any new DNA bill should explicitly state that courts have the authority to allow inmates to avail themselves of the appropriate technology, not offered by the State of Ohio, when necessary.

¹⁴ Indeed, Judge Hunter, who presided over Mr. Elkins' case, indicated in her July 2005 decision that Mr. Elkins' case would not have fallen within the limited parameters of SB11.

and obtain the DNA profile from within. The new DNA bill needs to be drafted to allow the use of such future advances when they become available and accepted by the courts, so that this Cuyahoga County case, for example, can be conclusively resolved once and for all.

Thus, any future drafting of the bill must acknowledge both the constantly changing nature of the technology and the benefit reaped by embracing the most recent advancements. As Dr. Sudhir K. Sinha, the laboratory director of ReliaGene Technologies, an internationally recognized DNA testing laboratory, has commented:

The present limitation on DNA testing technology will eventually be overcome. There is much research and development being done in the field. ReliaGene recently received a Phase II grant from the National Institutes of Health as part of Small Business Innovation Research Program to develop the Dimorphic Alu repeats genotyping technology. Furthermore, the President's DNA Initiative proposed spending \$10 million in FY 2004 to support the development of new DNA technology and \$9.8 million in FY 2004 to support FBI research and development. Such research programs along with privately funded and university research will lead to better, more advanced, and more sensitive DNA testing." (Sinha Aff. Ex. B at ¶ 4) (attached).¹⁵

There is no way of knowing who, including already convicted prisoners and those yet to be sentenced, this constantly evolving science will be capable of proclaiming innocent in the future. What is certain is that the legislation designed to provide relief through such testing must include provisions that allow all parties to take advantage of the science as it advances in order to permit a clearer view of the evidence.

In sum, any new DNA bill must explicitly grant discretion to the judge to order testing based on the most appropriate method for the case, including YSTR and

¹⁵ The attached affidavit of Dr. Sudhir K. Sinha was created in connection with an earlier attempt by the OIP to amend and extend the deadline of SB11. The substance of the affidavit is still relevant, however, to current issues.

mitochondrial DNA testing that are not yet available in the state crime lab. Any new DNA bill must also state that as new, currently unknown breakthroughs in DNA testing are made and accepted by the courts, inmates may request these new testing methods in their own cases when appropriate.

The Ohio Attorney General's Office has stated that it would support an amendment of this nature, provided that the decision on whether advanced testing is necessary is left up to the DNA technicians at BCI. If, in their expert opinion, the case would be better suited for a new DNA technology not available in the state of Ohio, then the judge could order that the DNA be tested at an out-of-state lab using that new technology. The OIP would also support an amendment of this nature.¹⁶

(3) Allow inmates to meet the requisite "outcome determinative" standard by having the DNA from the crime scene compared to profiles in the CODIS database, or compared to the DNA of alternative suspects where that DNA has been legally obtained by the defense team

The need to allow inmates to use the CODIS database to meet the "outcome determinative" standard (or whatever standard is used in the new DNA testing bill) can best be illustrated by providing an example. Imagine an inmate in prison for murder and rape, where the evidence from the trial indicates that the victim struggled at close range with her attacker. No DNA was found in the rape kit. The inmate requests that the

¹⁶ The new DNA testing bill will also need to make clear that as new technologies appear, inmates are not prohibited from requesting DNA testing simply because they had previously made a request that could not be granted because the technology at the time was not adequate. For example, inmates whose trials took place before YSTR or mitochondrial DNA testing were in common use in Ohio could request testing under the new bill even if they failed to file an application under SB11 (or even if they filed but were denied). This is because the new DNA bill would be the first to make clear that the type of testing required for their case is now feasible. By way of example, some applicants under SB11 had their applications denied because a definitive result could not be obtained given the condition of the biological sample. It is likely, however, that in many of those cases, technology will eventually catch up and be able to render a definitive result. In addition, some inmates did not file for DNA testing under SB11 because the OIP advised them that only YSTR testing, for example, could obtain a result in their case, and having their DNA sent to the local crime lab for nuclear testing could result in permanent destruction of the sample with no result being obtained.

victim's fingernail scrapings be tested, however, on the theory that if male DNA is found under her fingernails, it most likely came from the attacker. If the inmate is excluded as the source of this male DNA, he has established his probable innocence.

If a defendant in Ohio asks for DNA testing on these grounds, the prosecution would certainly respond that even if the inmate is excluded as the source of the DNA under the victim's fingernails, it would not be "outcome determinative," as it is conceivable that the male DNA came from the victim's boyfriend, for example, with whom she may have had intimate contact several hours before her murder. The prosecution would argue that during the attack, the perpetrator might have worn long sleeves, etc., and the victim might not have obtained the attacker's DNA under her fingernails. An argument of this nature by the prosecution, even if based upon speculation, would be sufficient for many judges to deny the application for DNA testing.

The requested amendment, however, would allow the inmate to rebut such an argument by asserting that if the DNA from the victim's fingernails were put in the national CODIS database and matched to a known felon, this would affirmatively disprove the prosecution's theory and prove him innocent. There is little or no reason to oppose such an amendment. It would not be costly and, where successful, would result not only in proving innocence where it exists, but also would implicate the true perpetrator. Indeed, numerous cases across the country have resulted in exonerations of the innocent and arrests of the true perpetrators based on provisions of this nature.¹⁷

¹⁷ Examples of cases around the country in which the true perpetrator has been located in the course of post conviction DNA testing include: Kirk Bloodsworth, Maryland, exonerated in 1993 after post conviction DNA testing excluded him as the true murderer and rapist, but matched a known felon; Robert Clark, Georgia, exonerated in 2005 after post conviction DNA testing of evidence from his 1982 rape case matched a convicted sodomist; Ronald Cotton, North Carolina, exonerated in 1995 after post conviction DNA testing matched that of a convict who later confessed to the two counts of rape and burglary for which Cotton was convicted; Kevin Green, California, exonerated in 1996 after DNA testing entered into a

The new DNA bill should also give judges the discretion to order testing in cases where the defense team has legally obtained the DNA of an alternative suspect, so that the DNA from the crime scene can be compared to that of the alternative suspect. This is exactly what occurred in the recent Summit County, Ohio case of Clarence Elkins. The defense team obtained the DNA of several alternative suspects. The defense team then compared the DNA from the crime scene to each possible suspect, ultimately resulting in a match to one of the suspects: Earl Mann. Mr. Elkins has now been exonerated and Earl Mann is in prison awaiting indictment for murder and rape. There is simply no downside to an amendment of this nature, because if this strategy of DNA testing is successful, it results in the exoneration of an innocent inmate and simultaneously identifies the true perpetrator.

(4) Clarify that the DNA testing bill is not the exclusive way that an inmate can gain access to post-conviction DNA testing

In its original form, SB11 was silent on the question of whether it was the exclusive means by which an inmate could gain access to post-conviction DNA testing. As a result of this silence, some lower courts, including the trial court's original decision in the Elkins case, held that SB11 was the exclusive means by which an inmate could obtain post-conviction DNA testing, and declined to review results obtained through other means. Future incarnations of the bill should include language clearly establishing

DNA database matched another felon; Darryl Hunt, North Carolina, exonerated in 2004 after DNA evidence entered into a database revealed another man had committed the murder; David Jones, California, exonerated in 2004 after post conviction DNA testing revealed another man had committed the rapes for which Jones was convicted; Entre Nax Karage, Texas, exonerated in 2005 after entry of DNA evidence into a database revealed that another man had committed the murder; Ray Krone, Arizona, 2002, exonerated after post conviction DNA testing excluded Krone, but matched another man incarcerated; Larry Youngblood, exonerated in 2000 after post conviction DNA testing entered into a national sex offender database revealed the true perpetrator; Phillip Leon Thurman, Virginia, exonerated in 2004 after entry of DNA evidence into the state's database matched another person; David Brian Sutherlin, exonerated in 2001 after entry of DNA test results into the state's database provided a match to the actual rapist.

that inmates *may* obtain post-conviction DNA testing through other avenues, such as by agreement with the state or through other appropriate methods.

Such a revision is supported by the Attorney General's Office in a formal, written opinion issued from his office on March 1, 2005. It is also consistent with established Ohio case law, which allows inmates to file a motion or petition in state or federal court seeking post conviction relief based on DNA testing. *See Cowans v. Bagley*, 236 F. Supp. 2d 841, 855 (S.D. Ohio 2002) (holding that a defendant "has more than one method of challenging [a] conviction" which neither the legislature nor the courts can preclude). Indeed, both federal and state rules allow multiple forums and means through which the convicted can seek post-conviction relief, including relief predicated on the results of DNA testing. *See generally* R.C. 2901.04(B)(stating that "[r]ules of criminal procedure and sections of the Revised Code...shall be construed as to effect the fair, impartial, speedy, and sure administration of justice"); 28 U.S.C. § 2242 (authorizing filing of an application for habeas corpus); R.C. 2953.21 (A)(1), Ohio R. Crim. P. 35 (authorizing the filing of post-conviction petitions for relief); R.C. 2945.80, Ohio R. Crim. P. 33 (allowing for the filing of motions for a new trial). By the same token, it could be argued that SB11 cannot preclude an inmate who, once having obtained testing under the statute, elects to seek post-conviction relief outside of the statute through the filing of a habeas petition in federal court, for example. Such a conclusion is both consistent with the language of the statute itself and the court's ruling in *State v. McGuire*, CA 2000-10-011, 2001 Ohio App. LEXIS 1826, at 17-18 (Preble County April 23, 2001) (holding that once the state creates a right to post conviction relief, it may not deprive an inmate of the ability to utilize that right).

If the goal of the statute is to allow for testing in the hopes of discerning the existence of credible evidence of innocence through technology that was either unavailable or under utilized at the time of the petitioner's original trial, allowing multiple avenues to this testing makes sense. In his March 1, 2005 letter, Attorney General Petro notes that post-conviction testing has been found to assist the court in ruling on post-conviction motion or petitions, including at least two cases in which the inmate was not eligible for such testing under SB 11. *See Petro Letter*, at 11-12, citing *State v. Luckett*, 144 Ohio App. 3d 648, 761 N.E. 2d 105 (Cuyahoga County 2001); *State v. Pierce*, 64 Ohio St. 3d 490, 597 N.E. 2d 107 (1992). Since issuing this letter, Attorney General Petro has indicated he would support language in a new bill which explicitly indicated that it was **not** the sole means through which an inmate could obtain DNA testing.

In conclusion, while there is no specific language in SB11 establishing it as an exclusive means to obtain post-conviction DNA testing, given the inmate's right to file post-conviction motions and petitions under various statutes and rules, and the court's obligation to ascertain the facts supporting these motions and petitions, an inmate cannot be prevented from obtaining DNA testing through other properly filed motions and petitions for post-conviction relief. *See generally Hale v. State*, 55 Ohio St. 210, 213, 45 N.E. 199 (1896) (stating "powers as are necessary to the orderly and efficient exercise of jurisdiction ... must be regarded as inherent. They do not depend upon express constitutional grant, nor in any sense upon the legislative will."); *State ex rel. Nagy v. City of Elyria*, 54 Ohio App. 3d 101, 102, 561 N.E. 2d 551 (Lorain County 1998) (holding "[j]udges have the inherent power to do those things necessary to carry out the

due administration of justice"). The statute itself should recognize that state-funded post-conviction DNA testing is not the exclusive method of obtaining new DNA testing and presenting that information to the courts.

(5) Allow the standard for testing to be met with other new evidence in addition to DNA evidence

The new DNA testing bill should also explicitly recognize that the standard for DNA testing can be met by a combination of DNA test results and other "new evidence" such as new witnesses, etc. The recent Stark County case of Chris Bennett illustrates the need for this amendment.

Mr. Bennett was convicted of aggravated vehicular homicide and DUI based on one witness who claimed that when he heard the van in question drive off the road and crash, he ran down to the scene and found Mr. Bennett sitting in the van's driver's seat with the van's other occupant lying dead on the floor of the van between the two seats. Mr. Bennett suffered from a head injury and amnesia from the crash, and was unable to defend himself and, as a result, pleaded guilty. After going to prison and having his memory of the crash partially return, Mr. Bennett was able to obtain DNA testing of the van prior to the enactment of SB11. All the blood and hair on the *passenger side* of the vehicle proved to belong to Mr. Bennett. In addition, the Ohio Innocence Project found a new witness—the undisputed first witness on the scene. This witness stated that when he arrived, Mr. Bennett was in the passenger seat unconscious, but subsequently regained consciousness and stumbled over to the driver's seat, at which time the State's sole witness arrived and found him there. An expert witness in the form of an accident reconstruction engineer also provided new evidence establishing conclusively that Mr. Bennett had not been the driver of the van when the accident and death occurred.

Based on this evidence, Ohio's Fifth Appellate District recently held that a "manifest injustice" occurred and overturned Mr. Bennett's conviction. *See Ohio v. Christopher Lee Bennett*, 2003CA00369 (5th App. Dist. Jan. 23, 2006). Proof of Mr. Bennett's innocence, however, came from a *combination* of DNA evidence, expert testimony and new lay witness testimony. If SB11 had been in effect when Mr. Bennett sought his exoneration, the "manifest injustice" found by the Fifth District would still exist today as Mr. Bennett may not have been able to obtain relief. The new DNA testing bill needs to make clear that individuals in Mr. Bennett's position are not limited to meeting the standard solely through DNA evidence, but can combine DNA evidence with other new evidence to meet the requisite standard.

(6) Allow inmates who pleaded guilty to obtain DNA testing on equal footing with those who were convicted by juries after trial

SB11 effectively denied DNA testing to any inmate who pleaded guilty.

Although SB11 stated that inmates who pleaded guilty could obtain DNA testing if the local prosecutor who prosecuted the case consented to the testing, the OIP is aware of no case in Ohio where the prosecutor in question actually consented to testing. Thus, for all intents and purposes, SB11 denied DNA testing to any inmate who pleaded guilty.

Denying DNA testing to inmates who pleaded guilty ignores two important points. First, that a reasonable person who believes he will be convicted on the existing evidence, because DNA technology was not sophisticated enough to be helpful at the time of his trial, might rationally and logically plead guilty to receive a fraction of the prison time that he might otherwise receive. Second, that DNA has proven innocent many inmates across the country who originally pleaded guilty—including a recent case here in Ohio. Indeed, the General Assembly needs no better example than that of Chris

Bennett, a Stark County, Ohio man whose conviction was overturned on January 23, 2006 based on DNA and other evidence (the Bennett case is discussed more above at point 4 above). Mr. Bennett had initially pleaded guilty, but the Fifth District held that a "manifest injustice" had occurred and overturned his conviction. If Mr. Bennett had not obtained the DNA in his case prior to the enactment of SB11, his wrongful conviction would probably still be in place today.¹⁸

(7) Make the Ohio Attorney General a party to all applications for DNA testing, due to the inherent conflict of interest by local prosecutors who prosecuted the cases in question

Under the original SB11, Ohio's local prosecutors fought against testing in nearly every single case in which an inmate filed a DNA testing application.¹⁹ This includes cases in which the court ultimately ruled that the rigid standards had been met and testing should go forward under the statute. Because of the uniform level of zeal demonstrated by prosecutors across the state in fighting such petitions, many petitions filed by the OIP, for example, were ultimately denied by trial courts in cases where testing clearly should have been authorized.

The purpose of this observation is not to unduly criticize prosecutors. Rather, prosecutors (and sometimes the trial judges) suffer from a natural and understandable conflict of interest in these matters due to the simple fact that they prosecuted the cases in

¹⁸ SB11 also did not make a distinction with respect to those inmates who pleaded guilty under an "Alford plea." Those rendering an Alford plea plead guilty without actually admitting guilt; they merely agree that they would be convicted by a jury based on the existing evidence. At a minimum, Ohio inmates who entered Alford pleas should be on equal footing for DNA testing as inmates who were convicted by a jury after trial. The problem with limiting DNA testing to those who used the Alford plea option, however, is that in many cases defense attorneys fail to inform their clients of this option. Chris Bennett, for example, believed he was probably innocent when he pleaded guilty, but his defense attorney at the time did not inform him that he had the option to take an Alford plea. Thus, the new DNA testing bill would more just were it to treat equally those who pleaded guilty and those who were convicted by juries.

¹⁹ Anecdotally, the OIP is aware of one case, out of Hamilton County, out of the more than 300 applications statewide, where the prosecutors actually agreed to testing.

question. To prosecute a defendant, one must be convinced of guilt beyond a reasonable doubt. Indeed, for a prosecutor to prosecute a citizen without such conviction would be highly unethical. This same belief, however, which is necessary for prosecution, makes the same prosecutors, not surprisingly, often incapable of being fair arbiters of whether the individuals they were responsible for sending to prison should obtain post-conviction DNA testing. By definition, prosecutors have an inherent conflict of interest. This phenomenon is set forth in detail in the scholarly article by Utah law professor Daniel Medwed in *The Zeal Deal: Prosecutorial Resistance to Post-Conviction Claims of Innocence*, 84 B.U. L. REV. 125 (2004) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=833624).

This "tunnel vision" or conflict of interest was publicly visible in the recent high-profile case of Clarence Elkins in Summit County, Ohio. Elkins fortunately was able to obtain the DNA in his case prior to the enactment of SB11, because given the conduct of the local prosecutors and the trial judge once the DNA test results came back, he never would have been able to gain access to that crucial evidence for testing had he been required to file under SB11 (Indeed, the judge initially stated that he would not have qualified for testing under SB11).²⁰

²⁰ Mr. Elkins obtained access to the DNA in his case before SB11 was enacted, and did not file a SB11 application until *after* DNA testing in his case was complete. As the Ohio Attorney General recognized, Mr. Elkins' SB11 application was more of an "artifice" to obtain relief after everyone—including local prosecutors—finally agreed that he was innocent. This occurred, however, only after Jim Petro, the Ohio Attorney General, intervened on his behalf, and only after DNA testing obtained prior to SB11 proved conclusively that another person committed the crimes in question. In addition, the true perpetrator of the crimes for which Mr. Elkins was imprisoned had made several incriminating statements by that time, and had placed himself at the scene of the crime. By the time Mr. Elkins' SB11 petition for relief was granted, therefore, everyone was in agreement—including the initially reluctant trial judge and local prosecutors—that Mr. Elkins was innocent. The eventual granting of Mr. Elkins' SB11 petition, after the same judge had initially held that he did not qualify for relief under SB11, is not representative of how SB11 actually worked in practice, but rather, represents the simple fact that the local prosecutors eventually gave up the fight and folded up their tent. When the adversarial process was still intact in the Elkins case, both the local prosecutors and the trial judge took the position that Mr. Elkins did not qualify for relief under SB11.

In Elkins, the DNA evidence came back not only showing that Elkins was innocent of the murder and rapes for which he spent 7.5 years in prison, but it pointed decisively to a violent child rapist as the true perpetrator. Yet despite mounting public pressure to release Elkins, the prosecutors refused to acknowledge the DNA test results. See Admit Mistake and Set Inmate Free, CLEVELAND PLAIN DEALER, December 14, 2005. It was not until Ohio Attorney General Jim Petro stepped in and backed Elkins that justice was finally realized. See Wrong Man Convicted, Petro Says, But Summit Official Rejects Release, CLEVELAND PLAIN DEALER, December 10, 2005.

The OIP witnessed the same sort of unreasonable zeal, brought on by a natural and understandable conflict of interest, in nearly every case in which it filed a SB11 application on behalf of a client. Because of this inherent conflict, it would be helpful to both the trial courts charged with deciding the DNA applications, and to the administration of justice, to have *neutral prosecutors*, who have not been invested in the case for years, to render an opinion on the merits of whether DNA testing should move forward. Thus, the new DNA bill should explicitly state that the Attorney General of the State of Ohio is a party to every application for DNA testing, and that the Attorney General is authorized to file its own brief with the court on the merits of whether DNA testing should move forward in each case.

The Ohio Attorney General's Office concurs with this recommendation.

If Mr. Elkins had filed for SB11 testing to initially get access to the DNA in question *before* having the results of such testing in hand proving that someone else committed the crime in question, there is no possibility that the local prosecutors or the local trial judge would have allowed the testing to go forward. Both the trial judge and the local prosecutors made numerous statements to this effect, and the trial judge so held in her July 2005 decision. In addition, since Mr. Elkins' case required advanced YSTR testing, his application did not technically fall within the parameters of SB11 during the time that SB11 was in effect. Furthermore, Mr. Elkins obtained his eventual exoneration by showing a DNA match to a known felon, and such "third party" testing was not permitted under SB11. In sum, no case could more clearly show the deficiencies in the original SB11 than the recent case of Clarence Elkins.



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*** ARCHIVE DATA ***

*** CURRENT THROUGH LEGISLATION PASSED BY THE 128TH OHIO GENERAL ASSEMBLY AND
 FILED WITH THE SECRETARY OF STATE THROUGH MARCH 16, 2010 ***
 *** ANNOTATIONS CURRENT THROUGH JANUARY 1, 2010 ***
 *** OPINIONS OF ATTORNEY GENERAL CURRENT THROUGH FEBRUARY 22, 2010 ***

TITLE 29. CRIMES -- PROCEDURE
 CHAPTER 2953. APPEALS; OTHER POSTCONVICTION REMEDIES
 POSTCONVICTION DNA TESTING FOR ELIGIBLE INMATES

ORC Ann. 2953.71 (2010)

§ 2953.71. Definitions

As used in *sections 2953.71 to 2953.83 of the Revised Code*:

(A) "Application" or "application for DNA testing" means a request through postconviction relief for the state to do DNA testing on biological material from whichever of the following is applicable:

(1) The case in which the inmate was convicted of the offense for which the inmate is an eligible inmate and is requesting the DNA testing under *sections 2953.71 to 2953.81 of the Revised Code*;

(2) The case in which the inmate pleaded guilty or no contest to the offense for which the inmate is requesting the DNA testing under *section 2953.82 of the Revised Code*.

(B) "Biological material" means any product of a human body containing DNA.

(C) "Chain of custody" means a record or other evidence that tracks a subject sample of biological material from the time the biological material was first obtained until the time it currently exists in its place of storage and, in relation to a DNA sample, a record or other evidence that tracks the DNA sample from the time it was first obtained until it currently exists in its place of storage. For purposes of this division, examples of when biological material or a DNA sample is first obtained include, but are not limited to, obtaining the material or sample at the scene of a crime, from a victim, from an inmate, or in any other manner or time as is appropriate in the facts and circumstances present.

(D) "Custodial agency" means the group or entity that has the responsibility to maintain biological material in question.

(E) "Custodian" means the person who is the primary representative of a custodial agency.

(F) "Eligible inmate" means an inmate who is eligible under division (C) of *section 2953.72 of the Revised Code* to request DNA testing to be conducted under *sections 2953.71 to 2953.81 of the Revised Code*.

(G) "Exclusion" or "exclusion result" means a result of DNA testing that scientifically precludes or forecloses the subject inmate as a contributor of biological material recovered from the crime scene or victim in question, in relation to the offense for which the inmate is an eligible inmate and for which the sentence of death or prison term was imposed

upon the inmate or, regarding a request for DNA testing made under *section 2953.82 of the Revised Code*, in relation to the offense for which the inmate made the request and for which the sentence of death or prison term was imposed upon the inmate.

(H) "Extracting personnel" means medically approved personnel who are employed to physically obtain an inmate DNA specimen for purposes of DNA testing under *sections 2953.71 to 2953.81 or section 2953.82 of the Revised Code*.

(I) "Inclusion" or "inclusion result" means a result of DNA testing that scientifically cannot exclude, or that holds accountable, the subject inmate as a contributor of biological material recovered from the crime scene or victim in question, in relation to the offense for which the inmate is an eligible inmate and for which the sentence of death or prison term was imposed upon the inmate or, regarding a request for DNA testing made under *section 2953.82 of the Revised Code*, in relation to the offense for which the inmate made the request and for which the sentence of death or prison term was imposed upon the inmate.

(J) "Inconclusive" or "inconclusive result" means a result of DNA testing that is rendered when a scientifically appropriate and definitive DNA analysis or result, or both, cannot be determined.

(K) "Inmate" means an inmate in a prison who was sentenced by a court, or by a jury and a court, of this state.

(L) "Outcome determinative" means that had the results of DNA testing of the subject inmate been presented at the trial of the subject inmate requesting DNA testing and been found relevant and admissible with respect to the felony offense for which the inmate is an eligible inmate and is requesting the DNA testing or for which the inmate is requesting the DNA testing under *section 2953.82 of the Revised Code*, and had those results been analyzed in the context of and upon consideration of all available admissible evidence related to the inmate's case as described in division (D) of *section 2953.74 of the Revised Code*, there is a strong probability that no reasonable factfinder would have found the inmate guilty of that offense or, if the inmate was sentenced to death relative to that offense, would have found the inmate guilty of the aggravating circumstance or circumstances the inmate was found guilty of committing and that is or are the basis of that sentence of death.

(M) "Parent sample" means the biological material first obtained from a crime scene or a victim of an offense for which an inmate is an eligible inmate or for which the inmate is requesting the DNA testing under *section 2953.82 of the Revised Code*, and from which a sample will be presently taken to do a DNA comparison to the DNA of the subject inmate under *sections 2953.71 to 2953.81 or section 2953.82 of the Revised Code*.

(N) "Prison" has the same meaning as in *section 2929.01 of the Revised Code*.

(O) "Prosecuting attorney" means the prosecuting attorney who, or whose office, prosecuted the case in which the subject inmate was convicted of the offense for which the inmate is an eligible inmate and is requesting the DNA testing or for which the inmate is requesting the DNA testing under *section 2953.82 of the Revised Code*.

(P) "Prosecuting authority" means the prosecuting attorney or the attorney general.

(Q) "Reasonable diligence" means a degree of diligence that is comparable to the diligence a reasonable person would employ in searching for information regarding an important matter in the person's own life.

(R) "Testing authority" means a laboratory at which DNA testing will be conducted under *sections 2953.71 to 2953.81 or section 2953.82 of the Revised Code*.

HISTORY:

150 v S 11, § 1, Eff 10-29-03; 151 v S 262, § 1, eff. 7-11-06.

NOTES:

Section Notes

See provisions of § 4 of 151 v S 262 following *RC § 2901.07*.

EFFECT OF AMENDMENTS

151 v S 262, effective July 11, 2006, in (L), inserted "of the subject inmate" and "and had those results ... strong probability that".

Case Notes & OAGs

ANALYSIS Generally DNA testing Evidence Outcome determinative

GENERALLY.

Where postconviction DNA test results excluding the applicant as the source of the biological material would be outcome determinative, the trial court abused its discretion by rejecting the application. Y-STR DNA analysis was not available at the time of the applicant's prosecution: *State v. Emerick*, 170 Ohio App. 3d 647, 868 N.E.2d 742, 2007 Ohio App. LEXIS 1216, 2007 Ohio 1334, (2007).

Inmate was not entitled to DNA testing, pursuant to an application under RC § 2953.73, where it would not be outcome determinative. Little forensic evidence connected the offender to the crime, but the conviction was reasonably based on circumstantial evidence, the offender's confession, and the testimony of other witnesses: *State v. Combs*, 162 Ohio App. 3d 706, 834 N.E.2d 869, 2005 Ohio App. LEXIS 3809, 2005 Ohio 4211, (2005).

After the expiration of the period of time prescribed in R.C. 2953.73(A) or R.C. 2953.82(B) for the filing of applications for DNA testing, a court of common pleas or law enforcement agency having supervisory control over the disposition of property that is evidence from which biological material was obtained for DNA testing under R.C. 2953.71-.81 or R.C. 2953.82 must maintain and preserve the property until the court or agency determines that the property is no longer needed as evidence. Pursuant to R.C. 2953.81(A) and R.C. 2953.82(C)(2), the parent and inmate samples of the biological material used for DNA testing under R.C. 2953.71-.81 or R.C. 2953.82 must be maintained and preserved until after the expiration of the period of time established by the court of common pleas that decided the application for DNA testing. The period of time established by a court of common pleas shall not be less than 24 months after the prison term relative to the testing expires or the inmate who applied for the testing is executed. R.C. 2953.71-.81 and R.C. 2953.82 are not the exclusive means by which an inmate may obtain post-conviction DNA testing. Opinion No. 2005-009 (2005).

DNA TESTING.

As defendant maintained during a criminal trial that he had an alibi defense because he was at work at the time that a rape and aggravated burglary were committed against the victim, the trial court erred in denying his post-conviction application for deoxyribonucleic acid testing of rape-kit swabs pursuant to Ohio Rev. Code Ann. § 2953.71 et seq., as an exclusion result would have been outcome-determinative pursuant to the criteria under Ohio Rev. Code Ann. § 2953.74(B) and (C). It was noted that based on the circumstances of the crime, only one perpetrator had committed the crimes, such that exclusion of defendant as the rapist would have also been outcome-determinative as to the burglary charges. *State v. Elliott*, 2006 Ohio App. LEXIS 4455, 2006 Ohio 4508, (Sept. 1, 2006).

Defendant's application for postconviction DNA testing was properly denied as: (1) defendant had already been excluded as the source of the pubic hairs and the testing would not have been outcome determinative, (2) the victim could have been the source of the hairs, and (3) the victim lived with defendant and the only issue at trial was whether she consented to the sex. *State v. Hayden*, 2005 Ohio App. LEXIS 3675, 2005 Ohio 4025, (Aug. 5, 2005).

EVIDENCE.

State's response in an application for DNA testing, which included an affidavit from an investigator stating that he tried to find biological evidence in three places, but was unsuccessful, was insufficient to show that reasonable diligence was used in trying to locate the evidence and was insufficient for trial court to determine if the reasonable diligence standard was met. If the prosecutor did a thorough search, there were no supporting materials to substantiate this other than the affidavit of the investigator, and it was not known if the prosecuting attorney had or used a protocol for the search. *State v. Ustaszewski*, 2006 Ohio App. LEXIS 294, 2006 Ohio 329, (2006).

OUTCOME DETERMINATIVE.

ORC Ann. 2953.71

When deciding whether an inmate's application for post-conviction deoxyribonucleic acid testing, under RC §§ 2953.71 to 2953.83 is barred because the results of any testing would not be "outcome determinative," "outcome determinative" is defined to mean, under RC § 2953.71(L), that had the results of DNA testing been presented at the trial of the subject inmate requesting DNA testing and been found relevant and admissible with respect to the felony offense for which the inmate is an eligible inmate and is requesting the DNA testing, no reasonable factfinder would have found the inmate guilty of that offense. *State v. Nalls*, 2007 Ohio App. LEXIS 1515, 2007 Ohio 1676, (Apr. 6, 2007).

Defendant's application for DNA testing was properly denied because, while defendant was an inmate eligible for DNA testing, he failed to show, pursuant to *Ohio Rev. Code Ann. § 2953.71(L)*, that a DNA exclusion would have been outcome determinative in his trial since, even if DNA testing excluded defendant, a reasonable jury could still find him guilty of aggravated murder based solely on circumstantial evidence as well as on witness testimony. Further, pursuant to *Ohio Rev. Code Ann. § 2953.74*, the trial court properly denied defendant's application by determining that a prior inconclusive DNA test was conducted regarding the same biological evidence. *State v. Schlee*, 2006 Ohio App. LEXIS 2253, 2006 Ohio 2391, (May 12, 2006).

There was no error in denying the inmate's application for DNA testing, under *Ohio Rev. Code Ann. § 2953.71*, because it would not have been outcome determinative since a reasonable fact finder could have found him guilty even if the DNA found on the clothing was not his DNA. The conviction was based primarily upon eyewitness testimony by witnesses who claimed they saw the inmate (one even claimed to be a friend of his), not the clothes allegedly worn by him. *State v. McCall*, 2006 Ohio App. LEXIS 191, 2006 Ohio 225, (Jan. 10, 2006).



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*** CURRENT THROUGH LEGISLATION PASSED BY THE 128TH OHIO GENERAL ASSEMBLY AND FILED
WITH THE SECRETARY OF STATE THROUGH FILE 54 ***
*** ANNOTATIONS CURRENT THROUGH JULY 1, 2010 ***
*** OPINIONS OF ATTORNEY GENERAL CURRENT THROUGH JULY 1, 2010 ***

TITLE 29. CRIMES -- PROCEDURE
CHAPTER 2953. APPEALS; OTHER POSTCONVICTION REMEDIES
POSTCONVICTION DNA TESTING FOR ELIGIBLE OFFENDERS

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ORC Ann. 2953.71 (2010)

§ 2953.71. Definitions

As used in *sections 2953.71 to 2953.83 of the Revised Code*:

(A) "Application" or "application for DNA testing" means a request through postconviction relief for the state to do DNA testing on biological material from the case in which the offender was convicted of the offense for which the offender is an eligible offender and is requesting the DNA testing under *sections 2953.71 to 2953.81 of the Revised Code*.

(B) "Biological material" means any product of a human body containing DNA.

(C) "Chain of custody" means a record or other evidence that tracks a subject sample of biological material from the time the biological material was first obtained until the time it currently exists in its place of storage and, in relation to a DNA sample, a record or other evidence that tracks the DNA sample from the time it was first obtained until it currently exists in its place of storage. For purposes of this division, examples of when biological material or a DNA sample is first obtained include, but are not limited to, obtaining the material or sample at the scene of a crime, from a victim, from an offender, or in any other manner or time as is appropriate in the facts and circumstances present.

(D) "Custodial agency" means the group or entity that has the responsibility to maintain biological material in question.

(E) "Custodian" means the person who is the primary representative of a custodial agency.

(F) "Eligible offender" means an offender who is eligible under division (C) of *section 2953.72 of the Revised Code* to request DNA testing to be conducted under *sections 2953.71 to 2953.81 of the Revised Code*.

(G) "Exclusion" or "exclusion result" means a result of DNA testing that scientifically precludes or forecloses the subject offender as a contributor of biological material recovered from the crime scene or victim in question, in relation to the offense for which the offender is an eligible offender and for which the sentence of death or prison term was imposed upon the offender.

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(H) "Extracting personnel" means medically approved personnel who are employed to physically obtain an offender's DNA specimen for purposes of DNA testing under *sections 2953.71 to 2953.81 of the Revised Code*.

(I) "Inclusion" or "inclusion result" means a result of DNA testing that scientifically cannot exclude, or that holds accountable, the subject offender as a contributor of biological material recovered from the crime scene or victim in question, in relation to the offense for which the offender is an eligible offender and for which the sentence of death or prison term was imposed upon the offender.

(J) "Inconclusive" or "inconclusive result" means a result of DNA testing that is rendered when a scientifically appropriate and definitive DNA analysis or result, or both, cannot be determined.

(K) "Offender" means a criminal offender who was sentenced by a court, or by a jury and a court, of this state.

(L) "Outcome determinative" means that had the results of DNA testing of the subject offender been presented at the trial of the subject offender requesting DNA testing and been found relevant and admissible with respect to the felony offense for which the offender is an eligible offender and is requesting the DNA testing, and had those results been analyzed in the context of and upon consideration of all available admissible evidence related to the offender's case as described in division (D) of *section 2953.74 of the Revised Code*, there is a strong probability that no reasonable factfinder would have found the offender guilty of that offense or, if the offender was sentenced to death relative to that offense, would have found the offender guilty of the aggravating circumstance or circumstances the offender was found guilty of committing and that is or are the basis of that sentence of death.

(M) "Parent sample" means the biological material first obtained from a crime scene or a victim of an offense for which an offender is an eligible offender, and from which a sample will be presently taken to do a DNA comparison to the DNA of the subject offender under *sections 2953.71 to 2953.81 of the Revised Code*.

(N) "Prison" and "community control sanction" have the same meanings as in *section 2929.01 of the Revised Code*.

(O) "Prosecuting attorney" means the prosecuting attorney who, or whose office, prosecuted the case in which the subject offender was convicted of the offense for which the offender is an eligible offender and is requesting the DNA testing.

(P) "Prosecuting authority" means the prosecuting attorney or the attorney general.

(Q) "Reasonable diligence" means a degree of diligence that is comparable to the diligence a reasonable person would employ in searching for information regarding an important matter in the person's own life.

(R) "Testing authority" means a laboratory at which DNA testing will be conducted under *sections 2953.71 to 2953.81 of the Revised Code*.

(S) "Parole" and "post-release control" have the same meanings as in *section 2967.01 of the Revised Code*.

(T) "Sexually oriented offense" and "child-victim oriented offense" have the same meanings as in *section 2950.01 of the Revised Code*.

(U) "Definitive DNA test" means a DNA test that clearly establishes that biological material from the perpetrator of the crime was recovered from the crime scene and also clearly establishes whether or not the biological material is that of the eligible offender. A prior DNA test is not definitive if the eligible offender proves by a preponderance of the evidence that because of advances in DNA technology there is a possibility of discovering new biological material from the perpetrator that the prior DNA test may have failed to discover. Prior testing may have been a prior "definitive DNA test" as to some biological evidence but may not have been a prior "definitive DNA test" as to other biological evidence.

HISTORY:

150 v S 11, § 1, Eff 10-29-03; 151 v S 262, § 1, eff. 7-11-06; 153 v S 77, § 1, eff. 7-6-10.

NOTES:

Section Notes

See provisions of § 4 of 151 v S 262 following *RC § 2901.07*.

EFFECT OF AMENDMENTS

153 v S 77, effective July 6, 2010, rewrote the section.

151 v S 262, effective July 11, 2006, in (L), inserted "of the subject inmate" and "and had those results ... strong probability that".

Case Notes & OAGs

ANALYSIS Generally DNA testing Evidence Outcome determinative Reasonable diligence

GENERALLY.

Courts must consider motions for post-conviction DNA testing on a case-by-case basis, and those motions must make a threshold showing that such testing could be outcome determinative. If that showing is made, res judicata will not bar testing even though an earlier application for testing was denied. 2006 amendments to the DNA testing statutes recognized the inherent difficulties in trying to prove one's innocence after a conviction; the statutes are less restrictive now and do more than simply allow an eligible inmate to petition for DNA testing in order to obtain an exclusion result: *State v. Ayers*, 185 Ohio App. 3d 168, 923 N.E.2d 654, 2009 Ohio App. LEXIS 5111, 2009 Ohio 6096, (2009).

Where postconviction DNA test results excluding the applicant as the source of the biological material would be outcome determinative, the trial court abused its discretion by rejecting the application. Y-STR DNA analysis was not available at the time of the applicant's prosecution: *State v. Emerick*, 170 Ohio App. 3d 647, 868 N.E.2d 742, 2007 Ohio App. LEXIS 1216, 2007 Ohio 1334, (2007).

Inmate was not entitled to DNA testing, pursuant to an application under RC § 2953.73, where it would not be outcome determinative. Little forensic evidence connected the offender to the crime, but the conviction was reasonably based on circumstantial evidence, the offender's confession, and the testimony of other witnesses: *State v. Combs*, 162 Ohio App. 3d 706, 834 N.E.2d 869, 2005 Ohio App. LEXIS 3809, 2005 Ohio 4211, (2005).

After the expiration of the period of time prescribed in R.C. 2953.73(A) or R.C. 2953.82(B) for the filing of applications for DNA testing, a court of common pleas or law enforcement agency having supervisory control over the disposition of property that is evidence from which biological material was obtained for DNA testing under R.C. 2953.71-.81 or R.C. 2953.82 must maintain and preserve the property until the court or agency determines that the property is no longer needed as evidence. Pursuant to R.C. 2953.81(A) and R.C. 2953.82(C)(2), the parent and inmate samples of the biological material used for DNA testing under R.C. 2953.71-.81 or R.C. 2953.82 must be maintained and preserved until after the expiration of the period of time established by the court of common pleas that decided the application for DNA testing. The period of time established by a court of common pleas shall not be less than 24 months after the prison term relative to the testing expires or the inmate who applied for the testing is executed. R.C. 2953.71-.81 and R.C. 2953.82 are not the exclusive means by which an inmate may obtain post-conviction DNA testing. Opinion No. 2005-009 (2005).

DNA TESTING.

As defendant maintained during a criminal trial that he had an alibi defense because he was at work at the time that a rape and aggravated burglary were committed against the victim, the trial court erred in denying his post-conviction application for deoxyribonucleic acid testing of rape-kit swabs pursuant to *Ohio Rev. Code Ann. § 2953.71 et seq.*, as an exclusion result would have been outcome-determinative pursuant to the criteria under *Ohio Rev. Code Ann. § 2953.74(B)* and (C). It was noted that based on the circumstances of the crime, only one perpetrator had committed the crimes, such that exclusion of defendant as the rapist would have also been outcome-determinative as to the burglary charges. *State v. Elliott*, 2006 Ohio App. LEXIS 4455, 2006 Ohio 4508, (Sept. 1, 2006).

Defendant's application for postconviction DNA testing was properly denied as: (1) defendant had already been excluded as the source of the pubic hairs and the testing would not have been outcome determinative, (2) the victim could have been the source of the hairs, and (3) the victim lived with defendant and the only issue at trial was whether she consented to the sex. *State v. Hayden*, 2005 Ohio App. LEXIS 3675, 2005 Ohio 4025, (Aug. 5, 2005).

EVIDENCE.

State's response in an application for DNA testing, which included an affidavit from an investigator stating that he tried to find biological evidence in three places, but was unsuccessful, was insufficient to show that reasonable diligence was used in trying to locate the evidence and was insufficient for trial court to determine if the reasonable diligence standard was met. If the prosecutor did a thorough search, there were no supporting materials to substantiate this other than the affidavit of the investigator, and it was not known if the prosecuting attorney had or used a protocol for the search. *State v. Ustaszewski*, 2006 Ohio App. LEXIS 294, 2006 Ohio 329, (2006).

OUTCOME DETERMINATIVE.

When deciding whether an inmate's application for post-conviction deoxyribonucleic acid testing, under RC §§ 2953.71 to 2953.83 is barred because the results of any testing would not be "outcome determinative," "outcome determinative" is defined to mean, under RC § 2953.71(L), that had the results of DNA testing been presented at the trial of the subject inmate requesting DNA testing and been found relevant and admissible with respect to the felony offense for which the inmate is an eligible inmate and is requesting the DNA testing, no reasonable factfinder would have found the inmate guilty of that offense. *State v. Nalls*, 2007 Ohio App. LEXIS 1515, 2007 Ohio 1676, (Apr. 6, 2007).

Defendant's application for DNA testing was properly denied because, while defendant was an inmate eligible for DNA testing, he failed to show, pursuant to *Ohio Rev. Code Ann. § 2953.71(L)*, that a DNA exclusion would have been outcome determinative in his trial since, even if DNA testing excluded defendant, a reasonable jury could still find him guilty of aggravated murder based solely on circumstantial evidence as well as on witness testimony. Further, pursuant to *Ohio Rev. Code Ann. § 2953.74*, the trial court properly denied defendant's application by determining that a prior inconclusive DNA test was conducted regarding the same biological evidence. *State v. Schlee*, 2006 Ohio App. LEXIS 2253, 2006 Ohio 2391, (May 12, 2006).

There was no error in denying the inmate's application for DNA testing, under *Ohio Rev. Code Ann. § 2953.71*, because it would not have been outcome determinative since a reasonable fact finder could have found him guilty even if the DNA found on the clothing was not his DNA. The conviction was based primarily upon eyewitness testimony by witnesses who claimed they saw the inmate (one even claimed to be a friend of his), not the clothes allegedly worn by him. *State v. McCall*, 2006 Ohio App. LEXIS 191, 2006 Ohio 225, (Jan. 10, 2006).

REASONABLE DILIGENCE.

Upon defendant's postconviction application for DNA testing, affidavits submitted regarding the possible presence of biological materials to defendant's case in the police lab, police property room, and county prosecutor's property room established reasonable diligence on the part of the prosecutor in searching for materials in those locations. A laboratory manager testified that the lab's policy was to return physical items to the prosecutor for trial of the case, and that the affiant had personally searched the laboratory without discovering property related to the present case. *State v. Mayrides*, 2008 Ohio App. LEXIS 1903 (May 6, 2008).

IN THE COURT OF COMMON PLEAS
OF PORTAGE COUNTY, OHIO

STATE OF OHIO,

Plaintiff-Respondent,

v.

TYRONE LEE NOLING,

Defendant-Petitioner.

CASE NO. 95-CR-220

DEATH PENALTY CASE

JUDGE JOHN A. ENLOW

AFFIDAVIT OF GARY ST. CLAIR

STATE OF OHIO)

COUNTY OF PICKAWAY)

ss:

I, Gary St. Clair, being first duly cautioned and sworn, state the following:

I testified on January 12, 1996 at the trial of Tyrone Noling;

I was called as a witness by Assistant Prosecuting Attorney Eugene Muldowney;

3. I testified truthfully at the trial of Tyrone Noling on January 12, 1996;

4. I testified truthfully that I was involved in the robbery of the Hugheses in Alliance on April 4, 1990;

5. In June, 1990 I pleaded guilty to aggravated robbery and aggravated burglary and received a sentence of five to twenty-five years in that case;

I testified truthfully that I was not involved in the robbery of the Murphys in Alliance on April 5, 1990;

7. At the trial on January 12, 1996 I testified truthfully that on April 5, 1996 I did not go to Atwater with Joey Dalesandro, Butch Wolcott, and Tyrone Noling;

8. On March 19, 1993 I entered a plea of guilty to aggravated murder with a gun specification in the Hartig murders;

9. I did not plead guilty because I was guilty but because my lawyers, John Mackey and Kathleen Tartarsky, told me that I had no alibi and no defense and that I would get life in prison or the electric chair if I did not plead guilty;

10. At all times I told my lawyers that I was not involved in the Hartig murders and I did not see anyone murder the Hartigs and I did not know who murdered the Hartigs;

11. Even though I always told my lawyers that I did not know anything about the Hartig murders, my lawyers, John Mackey and Kathleen Tartarsky, urged me to plead guilty;

12. I told my lawyers, John Mackey and Kathleen Tartarsky, that on the date and time of the Hartig murders I and Tyrone Noling and Butch Wolcott and Joey Dalesandro were involved in a purse snatching in Alliance;

13. I do not believe that my lawyers, or the investigator who worked for my lawyers, Michael Durkin, investigated the purse snatching to show that I and Tyrone Noling and Butch Wolcott and Joey Dalesandro were involved in the purse snatching at the time of the Hartig murders;

14. My parents, Robert St. Clair and Beverly Rupp, were present when my lawyers told me I should plead guilty;

15. I always told my parents that I was not involved in the Hartig murders;

16. My mother and father wanted me to do what my lawyers wanted me to do and plead guilty to avoid the electric chair and my parents pleaded with me to plead guilty;

17. I pleaded guilty only because my lawyers and my parents told me that I would get life in prison or the electric chair if I did not plead guilty;

18. After I entered a plea of guilty on March 19, 1993 I gave a statement to Ron Craig, the investigator for the Portage County Prosecuting Attorney;

19. At the trial on January 12, 1996 I testified that I gave a statement to Ron Craig on March 19, 1993;

20. At the trial of Tyrone Noling I admitted that I said things in my statement to Ron Craig about Atwater and the Hartigs' house and the murder of the Hartigs;

21. At the trial of Tyrone Noling I testified that what I said to Ron Craig on March 19, 1993 about Atwater and about the Hartigs was not true and did not happen;

22. I testified truthfully that I was not involved in the murders of the Hartigs and I did not witness Tyrone Noling or anyone else participate in the Hartig murders;

23. Before I gave a statement to Ron Craig on March 19, 1993 I was shown the videotape and pictures of the scene of the crime at the Hartigs and statements and reports about the crime;

24. The things I told Ron Craig in my statement of March 19, 1993 about the Hartig murders were not based on my personal knowledge;

25. The things I told Ron Craig on March 19, 1993 were based on videotape and pictures and papers that I had been shown and things that Ron Craig told me about the murders;

26. As part of my plea bargain I agreed to cooperate with the Prosecuting Attorney in the investigation of the Hartig murders;

27. In my statement to Ron Craig I told him what I thought he wanted me to say based on the pictures and statements I had been shown and things he told me about the crime;

28. On April 15, 1993 I talked to Vicky Buckwalter and Darla Cogan and told them that I was not involved in the Hartig murders, that I pleaded guilty because my lawyers told me if I did not plead guilty I would get the electric chair, and that what I told Ron Craig about the Hartig murders was based on information I got from the videotape and pictures and statements and what Ron Craig told me;

29. What I told Vicky Buckwalter and Darla Cogan on April 15, 1993 is in the

"Statement of Gary St. Clair Orient Correctional Institute" which is attached to my affidavit;


30. I was not involved in the Hartig murders and I do not know who did it;

31. Any statement that I made to the Prosecuting Attorney or Investigator Ron Craig that I was involved in the Hartig murders and knew about the Hartig murders was untrue and made as part of the plea bargain to avoid the electric chair and to cooperate with the investigation;

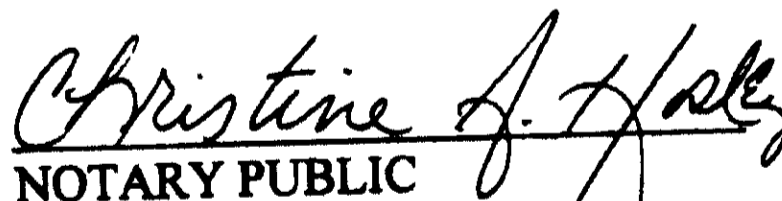
32. On the date and time that they say the Hartigs were murdered I was involved in a purse snatching in Alliance.

33. All of the foregoing is true to the best of my knowledge, information, and belief.

FURTHER AFFIANT SAYETH NAUGHT.


GARY ST. CLAIR
Affiant

SWORN to before me and in my presence this 15 day of July, 1997.


NOTARY PUBLIC

CHRISTINE A. HOSLEY
Notary Public, State of Ohio
My Commission Expires 7-28-1999

IN THE COURT OF COMMON PLEAS
OF PORTAGE COUNTY, OHIO

STATE OF OHIO,

- Plaintiff-Respondent,

v.

TYRONE LEE NOLING,

Defendant-Petitioner.

CASE NO. 95-CR-220

DEATH PENALTY CASE

JUDGE JOHN A. ENLOW

AFFIDAVIT OF JOSEPH DALESANDRO

STATE OF OHIO)
) ss:
COUNTY OF ALLEN)

I, Joseph Dalesandro, being first duly cautioned and sworn, state the following:

1. I was not involved in the murders of Bearnhardt and Cora Hartig;
2. I never went to Atwater and I never went to the home of the Hartigs in April of 1990;
3. In April of 1990 I did not even have a driver's license and I did not drive out of Alliance;
4. I repeatedly told my lawyer John Noble that I was not involved in the Hartig murders;
5. My lawyer John Noble told me I should agree to a plea bargain to avoid the

electric chair;

6. I believed that my lawyer John Noble knew what he was doing and I did what he said I should do;
7. I agreed to the plea bargain and I agreed to cooperate with the Prosecutor's investigation;
- 8.- On July 29, 1992 I pleaded guilty to conspiracy to aggravated robbery and agreed to a sentence of 5 to 15 years;
9. I did not plead guilty because I was guilty but because my lawyer John Noble told me I should accept the plea bargain to avoid the electric chair and because my father begged me to accept the plea bargain and my mother said she would never visit me in prison if I did not accept the plea bargain;
10. On June 12, 1992 I was questioned by Prosecutor's Investigator Ron Craig and I gave a tape-recorded statement;
11. During the interview on June 12, 1992 I stated to Ron Craig I was not involved in the murder of the Hartigs and did not know anything about the murders;
12. What I told Ron Craig on June 12, 1992 was the truth;
13. On July 29, 1992, after my guilty plea, I was again questioned by Investigator Ron Craig. My lawyer John Noble was there; Ron Craig showed me things and told me things about the Hartig murders;
14. On July 29, 1992 I gave Ron Craig a tape-recorded statement;
15. The things I told Ron Craig on July 29, 1992 in the tape-recorded statement were based on things Ron Craig showed me and told me about the Hartig murders and were not based on my own personal knowledge;
16. During the questioning on July 29, 1992 Ron Craig yelled and screamed at me when I told him the truth that I didn't know things about the murders of the Hartigs;
17. In September, 1992 my attorney, John Noble, was suspended from practicing law and was replaced by Mark Heisa;

18. On June 8, 1995 the Prosecutor requested that Judge Martin raise my sentence from 5 to 15 years concurrent to my previous sentence to 8 to 15 years consecutive to my previous sentence because I wouldn't say what the Prosecutor wanted me to say;

19. At the hearing on June 8, 1995 Mark Heisa told Judge Martin that I wanted him dismissed as my attorney and that I wanted a new attorney; I told Judge Martin that I did not want lawyer Mark Heisa to represent me and I wanted a new lawyer; Judge Martin would not let me have a new lawyer;

20. I told Judge Martin that the Prosecutor was putting words in my mouth and making me say things that weren't true and that I was not involved in the Hartig murders;

21. I was not involved in the Hartig murders and I do not know who was;

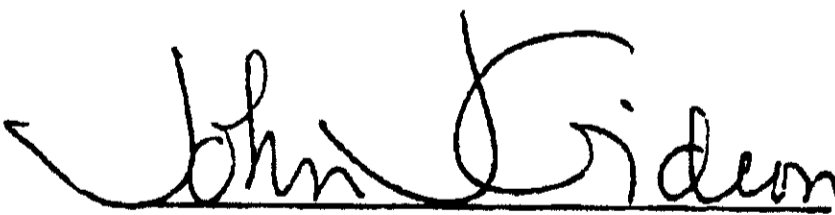
22. On the date and time that they say the Hartigs were murdered I was with Tyrone Noling, Gary St. Clair, and Butch Wolcott in Alliance.

23. All of the foregoing statements are true to the best of my own personal knowledge, information, and belief.

FURTHER AFFLIANT SAYETH NAUGHT.


JOSEPH DALESANDRO
Affiant

SWORN to before me and in my presence this 22nd day of August, 1997.


NOTARY PUBLIC
JOHN J. GIDEON
ATTORNEY AT LAW
NOTARY PUBLIC - STATE OF OHIO
MY COMMISSION HAS NO EXPIRATION DATE
SECTION 142.03 R. C.

nolingjd.aff

IN THE COURT OF COMMON PLEAS
OF PORTAGE COUNTY, OHIO

STATE OF OHIO,

Plaintiff-Respondent,

v.

TYRONE LEE NOLING

Defendant-Petitioner

CASE NO. 95-CR-220

DEATH PENALTY CASE

JUDGE JOHN A. ENLOW

AFFIDAVIT OF BUTCH WOLCOTT, JR.

STATE OF OHIO)
) ss:
COUNTY OF SUMMIT)

I, Butch Wolcott, Jr., being first duly cautioned and sworn, state the following:

1. I was born on July 13, 1975;
2. In April 1990 I was fourteen years old;
3. In early April 1990 I was staying at Johnny Trandafir's house at 421 Bonnieview in Alliance, Ohio, along with Tyrone Noling, Gary St. Clair, and Joey Dalesandro;
4. I did not participate in the robbery of the Hugheses on April 4, 1990 or in the robbery of the Murphys on April 5, 1990; however, I was at 421 Bonnieview when the robberies were discussed and after they were committed;
5. I stayed overnight at the apartment of my friend, Jill Hall, on Thursday April 5, Friday April 6, and Saturday April 7, 1990;
6. When I stayed at the apartment of my friend Jill Hall, I talked to her and her friend Julie Mellon about what had been going on at 421 Bonnieview, including the robberies of the Hugheses and the Murphys;

7. I never told Jill Hall or Julie Mellon that I or Tyrone Noling or anyone else had been involved in the killing of old people in Atwater; all I Told Jill Hall and Jullie Mellon is that I was upset about something: What I was upset about is the robberies;
8. At a party at 421 Bonnieview on Saturday April 7, 1990 I heard Tyrone ask Robyn Elliot whether she had heard about some robberies on the police scanner; he did not ask her whether she had heard about two old people being killed in Atwater; he never mentioned anything about murders; Tyrone only referred to the robberies of the Hughses and the Murphys;
9. On Monday, April 9, 1990 I was arrested, along with Tyrone Noling, Gary St. Clair, and Joey Dalesandro, and held at the Alliance Police Department;
10. While I and Tyrone Noling were being booked at the Alliance Police Department on April 9, 1990, Tyrone Noling said to me that the police were questioning him about some murders; that was the first time that I had ever heard anyone mention anything about any murders;
11. I was released from jail within a couple of weeks and I was not charged in the robberies of the Hugheses or the Murphys;
12. About a week after my release from jail in April 1990 Portage County Deputy Sheriff Duane Kaley came to see me and asked me whether Tyrone Noling was involved in the murders in Atwater; I told him that Tyrone had nothing to do with the murders in Atwater and that he was not capable of doing anything like that;
13. The next time I was asked about the murders is a year or two later when Portage County Prosecutor's Investigator Ron Craig called and spoke with my father on the telephone and asked that I come to his office;
14. I went with my father to the office of Prosecutor Robert Durst and Ron Craig was there with him;
15. I asked that my father remain with me during the questioning. My father also asked several times to be present during the questioning but Robert Durst and Ron Craig would not allow him to remain;
16. Ron Craig and Robert Durst questioned me alone for over two hours;
17. My father continued to ask to be present during questioning and wanted to know what was going on;
18. At one point, during the initial questioning, Ron Craig told me that my father was starting to become a problem and I was going to have to deal with him.

19. During this questioning I told Ron Craig and Robert Durst that I did not know anything about the murders in Atwater; I told Ron Craig and Robert Durst over and over again about what I did and what Tyrone Noling, Gary St Clair, Joey Dalesandro, and Johnny Trandafir, Jr., did on April 4, 5, 6, 7, and 8, 1990;

20. I kept telling Ron Craig and Robert Durst the truth, that I knew nothing about the murders in Atwater, but Ron Craig kept asking me questions about the murders and he told me that I had blocked the murders out of my memory;

21. Ron Craig told me that I was involved in the murders in Atwater, that he had a witness, a cable or telephone man who had been up on a utility pole near the home of Bearnhardt and Cora Hartig on the day of the murders, who had seen the whole thing, and that I could be charged with the murders and could go to jail for the rest of my life; I now know that it was a lie that a cable or telephone man up on a pole witnessed the Hartig murders;

22. Ron Craig and Robert Durst told me that I would be given immunity if I cooperated with them;

23. Ron Craig told me I had to take a polygraph examination; he told me that if I did not take a polygraph examination I would not get immunity;

24. Ron Craig took my father, Harold "Butch" Wolcott, and me to Richfield for the polygraph examination;

25. Ron Craig said that my father could not remain with me during the polygraph examination;

26. Robert Durst told me that I did not pass the polygraph examination but he did not show me or my father anything in writing about the results of the examination; I told the truth during the polygraph examination; I did not know anything about the murders in Atwater except for what Ron Craig told me about the murders;

27. After the polygraph examination Ron Craig told me I needed an attorney;

28. Ron Craig took me to the Public Defender's Office and to Public Defender William Carrell;

29. William Carrell asked me whether I could remember anything about the murders in Atwater and I told him no; he was fully apprised of the prosecution's version of the murders before he ever talked to me; he seemed to just take Ron Craig's word that there was something wrong with my memory since I could not provide details of the murders;

30. Within a short period of time after I met William Carrell and he was assigned as my lawyer I was told that I would get immunity if I cooperated with the Prosecutor in the investigation of the Hartig murders;

31. When I was questioned by Ron Craig and Robert Durst I was scared because I had been told by Ron Craig that a man up on a utility pole saw me and the others commit the Hartig murders, I was told that my DNA matched the DNA on the cigarette butt found at the Hartigs, I was told that the polygraph examination indicated that I was involved in the Hartig murders, and I was told that I was involved in the murders but had repressed the memory of the murders;

32. In August 1992 and again in December 1995 Ron Craig sent me to be examined by Psychologist Alfred Grzegorek because Ron Craig did not believe that I was telling the truth when I told him I could not remember anything about Atwater; Dr. Grzegorek told me that I had post-traumatic stress disorder and was repressing my memory of the events; I asked to see the results from Dr. Grzegorek's testing and Ron Craig told me that I was not allowed to see them; he stated that Portage County was requesting the tests, therefore, I had no right to them; every time I questioned something, Ron Craig told me to remember that he could tear up my immunity at any time; Ron Craig kept holding my immunity over my head and I was scared to death that I would go to jail for life if I did not do what they wanted;

33. Ron Craig drove me to Atwater together with William Carrell and Psychologist Alfred Grzegorek; before that I had never been to Atwater or to the home of the Hartigs; Ron Craig drove to Moff Road and asked me if I recognized the road and I told him I did not; and when we went by a house he slowed down, looked over at the house, looked at me in the rear view mirror, and asked me if I recognized the house, trying to get me to say that I recognized the house, and to go along with him, I told him I did, even though I really didn't;

34. During questioning by Ron Craig, when I could not tell him things he wanted to know about Atwater, he showed me calendars and suggested to me when things happened; he suggested the answers to questions about the route to Atwater, about guns and who had guns and who loaded guns and how; about the woman and the man at the house; about hearing shots and about smelling gun smoke; about how Tyrone Noling and Gary St. Clair acted; and about the color of the house; I did not have any personal knowledge about any of these things;

35. I was questioned many times by Ron Craig and Robert Durst, and many times the questioning was not recorded; during this questioning I could not answer their questions; Ron Craig and Robert Durst tried to get me to say things by telling me that something may have happened this way or that way, and if I said what they wanted me to say they would signal me with facial expressions that they were satisfied, but if I said something they didn't want to hear they would suggest another answer until I agreed

with their version; sometimes the questioning would go on for 6 hours with the first couple of hours unrecorded; when they felt that my answers were consistent with their theory, only then would they turn the tape recorder on;

36. Ron Craig and Robert Durst repeatedly threatened to withhold immunity and to prosecute me for the murders and to put me in jail for life if I did not cooperate with them;

37. Ron Craig constantly used my dislike and fear of Tyrone Noling to scare me; he told me that Tyrone murdered the Hartigs in cold blood. He kept saying that Tyrone Noling was a cold-blooded killer. He told me that Tyrone put a gun to my head and threatened me about the Hartig murders; but Tyrone never threatened me to keep quiet about the Hartig murders; he did threaten me and warn me to keep quiet about the Hughes and Murphy robberies;

38. Ron Craig convinced me that I was involved in the Hartig murders because he told me my DNA matched the DNA on the cigarette butt, he told me that there was a man on a utility pole who saw the murders, he told me I lied on the polygraph examination when I said I did not know anything about the murders, and he and the psychologist told me I had post-traumatic stress disorder and was repressing my memory of the events;

39. The reason I could not remember Atwater and the Hartig murders is that I was not involved in them;

40. Ron Craig convinced me that I knew about the Hartig murders and I tried to fill in my memory with all the things that he told me and suggested to me about the murders;

41. I know now that I did not have post-traumatic stress disorder and that I did not try to repress my memory about the Hartig murders; I remember other events during this same period of time but I have no memory about Atwater and the Hartigs; I experienced very traumatic events as a young child but I never repressed my memories of those events; my memory is exceptionally good; the reason I did not remember Atwater and the Hartig murders is because I never went to Atwater until Ron Craig drove me there and I was never involved in the Hartig murders despite what Ron Craig tried to plant in my mind;

42. What I testified to at the trial of Tyrone Noling about the murders of the Hartigs was not based on my own personal knowledge but was suggested to me and told to me by Ron Craig and Robert Durst; I testified to these things because Ron Craig lied to me and convinced me that I was involved in the murders and that Tyrone Noling and Gary St. Clair and Joey Dalesandro were also involved, and he and the psychologist persuaded me that I had repressed my memory of all these things;

43. What I testified to at trial about the Hartig murders and about myself and Tyrone Noling and the others being involved in the Hartig murders was what I had

learned about events through the prompting and suggestion of Prosecutor's Investigator Ron Craig;

44. When I was being questioned by Ron Craig in 1992 I told him that in the afternoon of the day that Johnny Trandafir's relatives picked him up, the day I testified about at Tyrone Noling's trial, I remembered being in Alliance and driving around with Tyrone Noling and Gary St. Clair and Joey Dalesandro; and I remembered that Tyrone Noling planned to snatch a purse; and we followed a woman in our car from a grocery store to her home; and that Tyrone Noling got out of the car and snatched her purse; the purse snatching was what happened on the afternoon I described in my testimony rather than a trip to Atwater and the Hartig murders;

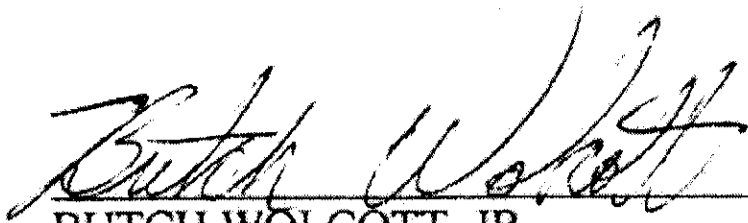
45. Immediately prior to my testifying at the trial of Tyrone Noling on January 12, 1996 Ron Craig and the prosecutors told me to read the statements I had given with their prompting and suggestion; I had no personal knowledge or recollection of the events in the statements and I could not remember all of the things that Ron Craig and the prosecutors had told me about what was supposed to have happened; Ron Craig and the prosecutors were worried that I wouldn't remember what I was supposed to say;

46. When I was questioned during trial by the attorney for Tyrone Noling, I was waiting for him to ask me questions that would have allowed me to say what I thought had really happened; if I had been given the opportunity I would have testified that I had been told by Ron Craig that there was an eyewitness to the murders on a utility pole, that I had been told by Ron Craig that my DNA matched that on the cigarette butt, that I had been told by Ron Craig that the polygraph examination indicated I was involved in the Hartig murders, that I had been convinced that I and the others had done the Hartig murders but that I had repressed my memory of events by Ron Craig and Psychologist Alfred Grzegorek, and that Ron Craig had brainwashed me into thinking that all the things I had said in my statements to him and the prosecutors were true; and that I had no personal knowledge or recollection of Atwater and the Hartig murders;

47. When charges were dropped against Tyrone, I didn't hear from the prosecutor's office until Tyrone was re-indicted; at that time David Norris was no longer in office because of drug charges that were brought against him; from that time on, I did not hear from Robert Durst whenever I was questioned, it was always by Ron Craig and Eugene Muldowney; the line of questioning and the constant threat of immunity continued as before they seemed very nervous about my testimony because they knew how confused I was; they continually had me rehearse my testimony before I actually went on the stand;

48. All of the foregoing is true to the best of my knowledge, information, and belief.

FURTHER AFFIANT SAYETH NAUGHT.


BUTCH WOLCOTT, JR.
Affiant

SWORN to before me and in my presence this 21st day of July, 1997.

VICTORIA M. BUCKWALTER, Notary Public,
Residence - Summit County
State Wide Jurisdiction, Ohio
My Commission Expires July 28, 1997


NOTARY PUBLIC

nolingbw.afd



Attorney General
Lee Fisher

Hartig
DO
File

BCI-30 (Rev. 3-91)

Bureau of Criminal Identification and Investigation

Laboratory Report

To: Sheriff P.K. Howe
Portage County Sheriff's Office
213 W. Main Street
Ravenna, Ohio 44266
ATTN: Det. John Ristity

BCI Lab Number: 90-31768

Analysis Date: June 19, 1991

Re: Double Homicide
Victims: Bearnhardt Hartig
Cora Hartig

Agency No: 90-2674

FINDINGS:

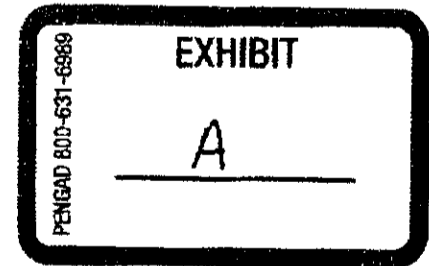
Analysis of an extract made from the cigarette butt in item #1 revealed elevated levels of amylase which is indicative of the presence of saliva. Typing of the extract failed to reveal detectable levels of secreted blood group substances. The cigarette may have been smoked by a non-secretor.

Typing of the blood from Daniel E. Wilson, BCI & I case number 91-31692-D, revealed him to be a type A non-secretor.

Dale L. Laux

Dale L. Laux
Forensic Scientist

DLL/cn
T061991



000517

Please address inquiries to the office indicated, using the BCI lab number.

BCI & I - Fremont Office
405 Pine Street
Fremont, Ohio 43420
Phone: (419) 334-3851

BCI & I - London Office
P.O. Box 365
London, Ohio 43140
Phone: (614) 466-8204

BCI & I - Richfield Office
P.O. Box 336
3333 Brecksville Road
Richfield, Ohio 44286
Phone: (216) 659-4600

BCI & I - Cambridge Office
60788 Southgate Road
Byesville, Ohio 43723
Phone: (614) 439-3655

NATHAN CHESLEY

~~DOB 11-3-78~~ - 19 YRS

4-24-90
2:00 PM

SHIRLEY SPINNEY 7236 CLARK Rd.

WORKS FOR COLLEGE MEDICINE

7236 CLARK Rd.

ATWATER, OHIO

PHONE 947-3535

NATHAN MADE THE STATEMENT HE THOUGHT
IT WAS POOL WHAT HAPPENED TO THE HARTES.

NATHAN MADE THE STATEMENT HIS BROTHER
DID IT.

SHIRLEY SPINNEY - FOSTER PARENTS - 3 CHILDREN
CANTON TINKER SCHOOL

ATTENDS MAPLE WOOD SCHOOL. 14 FEB-90

WORKED ARBY'S RESTAURANT.

CRUSHED RUBBER.

GETS ALONG FAIR IN SCHOOL, MISSED DAYS LAST
TWO WKS.

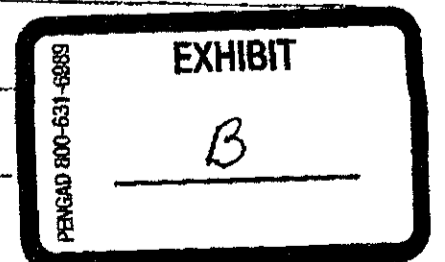
KIDS WALK THE DOGS OUT IN THE COUNTRY.

NATHAN MADE THE STATEMENT TO MR COOPER THAT
HE OWED SOME MONEY.

NATHAN IS OUT OF PATH WY OUT OF CANTON, OH
REFERRED FROM PATH WY CANTON, OH

NATHAN WAS INVOLVED PATH WY APPROX 2-YRS
STEVE CASE WHEN 54-1358

000593



In the Court of Common Pleas
Portage County, Ohio

State of Ohio,

Case No. 95-CR-220

Plaintiff-Respondent,

vs.

Tyrone Noling,

Defendant-Petitioner.

Affidavit of Nathan Chesley

County of Summit

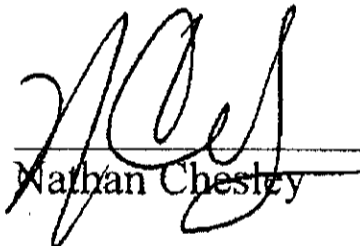
State of Ohio

I, Nathan Chesley, being duly sworn state the following:

1. I do not know Tyrone Noling. I do not recall hearing about the Hartig murders in 1990.
2. In 1990, I was a foster child living at Shirley Spinney's home in Atwater, Ohio. I was in high school at the time.
3. Dan Wilson was just moving out of Ms. Spinney's home when I moved in. Wilson continued to visit the home after he moved out.
4. Wilson was a heavy drinker. Wilson was the type of guy who turned into a different person when he was drinking. *WILSON OFTEN DIDN'T HAVE MEMORIES OF WHAT HAPPENED AFTER A NIGHT OF DRINKING. NC*
5. Wilson scared the other boys who lived with Ms. Spinney, including me. Wilson got drunk and beat up people. Wilson was always saying he was going to kill people.
6. I recall Wilson waking me up in the middle of the night and saying "let's go" when I was around sixteen years old. Wilson would tell me how he had just gotten into a fight at a bar and how I needed to go back with him to the bar to clear the place out.
7. Wilson was violent in Ms. Spinney's house and once tried to stab Ms. Spinney.

8. Ms. Spinney's foster home was not a good setting for me, or for Wilson. Ms. Spinney would hand pick the boys she wanted from Pathways in Canton, Ohio. I believe she did this because she was having sex with some of the boys she fostered.
9. I am sure Wilson was breaking into places, including private homes, and stealing money in 1990.
10. I also believe Wilson could have committed the Hartig murders; it sounds like something Wilson would do. In fact, I think it's likely that he did it.
11. I believe that Wilson had guns in 1990.
12. I recall Wilson driving a blue Dodge Omni for a long time before the engine blew up.
13. I have reviewed what is attached to this affidavit as Exhibit A. Exhibit A is a handwritten document bearing the number 000593 at the bottom. This document appears to be a set of notes that relate to me and, in particular, a statement I made on or about April 1990 indicating that I thought that what happened to the Hartigs was cool and that my brother committed the murders. While I do not have a specific recollection of making this statement, I do not deny that I made it and am sure that the "brother" that I referred to was my foster-brother, Dan Wilson. As I stated above, I believe that the Hartig murders were crimes that Wilson was capable of and likely committed. *AFTER REVIEWING THIS EXHIBIT I HAVE MORE RECOLLECTION NOW OF MAKING THIS STATEMENT. NC*

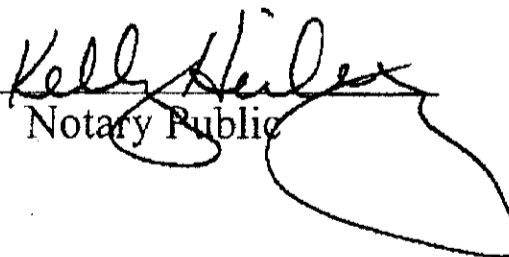
Further Affiant sayeth naught.


 Nathan Chesley

Sworn to and subscribed before me this 13th day of January, 2010.



KELLY HEIBY
 NOTARY PUBLIC, STATE OF OHIO
 MY COMMISSION EXPIRES 11-5-2013


 Notary Public

NATHAN CHESLEY

4-24-90

~~DOB 11-3-79~~ - 19 YRS

2:00 PM

SHIRLEY SPINNEY 7236 CLARK RD.

WORKS FOR COLLEGE MEDICINE

7236 CLARK RD.

ATWATER, OHIO

PHONE 947-3535

NATHAN MADE THE STATEMENT HE THOUGHT
IT WAS COOL WHAT HAPPEND TO THE HARTIGS.
NATHAN MADE THE STATEMENT HIS BROTHER
DID IT.

SHIRLEY SPINNEY - FOSTER PARENTS - 3 CHILDREN
CANTON TEMPLER SCHOOL

ATTENDS MAPLE WOOD SCHOOL. 14 FEB-90

WORKED ARBYS RESTAURANT.

CRUSHED RUBBER.

GETS ALONG FAIR IN SCHOOL, MISSED DAYS LAST
TWO WKS.

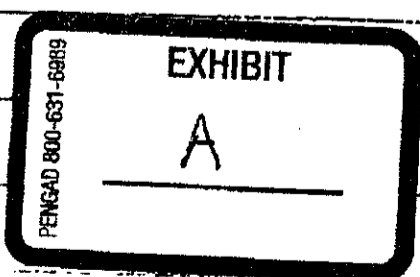
KIDS WALK THE DOGS OUT IN THE COUNTRY.

NATHAN MADE THE STATEMENT TO MR COOPER THAT
HE OWED SOME MONEY.

NATHAN IS OUT OF PATH WALKING OUT OF CANTON, OH
REFERRED FROM PATH WALK CANTON, OHIO

NATHAN WAS INVOLVED PATH WALK APPROX 2-YRS

STEVE CASE NUMBER 54-1358



000593

In the Court of Common Pleas
Portage County, Ohio

State of Ohio,

Case No. 95-CR-220

Plaintiff-Respondent,

vs.

Tyrone Noling,

Defendant-Petitioner.

Affidavit of Kenneth Amick

County of RICHLAND

State of Ohio

I, Kenneth Amick, being duly sworn state the following:

1. I do not know Tyrone Noling. I do not recall hearing about the Hartig murders in 1990.
2. I was a foster child at Shirley Spinney's house from 1989 to July 1990. There were two other foster children at Spinney's house while I was there, Nathan Chesley was one. I do not remember the other child's name.
3. Dan Wilson, who had been one of Ms. Spinney's foster children, visited often, but didn't live at Ms. Spinney's home while I was there. I recall Dan spending the night in the basement on a few occasions.
4. Wilson drove a blue car that may have been 2-door hatchback. It was a nice car for that time. It could have been a Camaro because I remember a hatchback.

Further Affiant sayeth naught.

Kenneth Amick
Kenneth Amick

Sworn to and subscribed before me this 13th day of January, 2010.



KELLY HEIBY
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 11-5-2013

Kelly Heiby

Notary Public

90-2674

VOLUNTARY STATEMENT
(NOT UNDER ARREST)

90-2674

PC-0847

I, Marlene M. Van Steenberg, am not under arrest for, nor am I being detained for any criminal offenses concerning the events I am about to make known to Det. John Ristity.
DOB, 02-07-46 SSN, [REDACTED]
Without being accused of or questioned about any criminal offenses regarding the facts I am about to state, I volunteer the following information of my own free will, for whatever purposes it may serve. 358-2288

I am 45 years of age, and I live at 9492 Minyoning Rd., Raleigh, N.C. 44266

On April 8, 1990 I was at work when I got home. Richard L. Van Steenberg told me that his brother Raymond Van Steenberg was at the house and got the gun, we only have one pistol. Raymond wanted to show the gun to somebody. My husband took the clip out because Raymond had just been charged for domestic violence on Friday, April 6th, 1990.

On April 8, 1990 at about 5:00 pm when I got home from work, Raymond called on the phone. He was calling from the Sheriff's Dept. and said the ~~det~~ detective's wanted him to turn in a gun. Raymond didn't say why. He told me he turned in our gun, and I'm to tell the detective that he had our gun for at least 3-4 months. I told him I would not do that and asked where his gun was at. He told me he threw it away. I asked why he threw the gun away and he said he just had to do it. He was upset that I wouldn't lie for him.

On April 9, 1990 while I was on my way to work, I heard on the radio about the double murder. When I got to work (Pittsburg County Mini Court) I contacted a detective at the Sheriff's Dept. and talked to Detective Dan Cook. I told him everything about Raymond getting the gun from my husband and turning it in to the Sheriff's office.

I have read each page of this statement consisting of 2 page(s), each page of which bears my signature, and corrections, if any, bear my initials, and I certify that the facts contained herein are true and correct. **000141**

Dated at Pittsburg County Sheriff's Dept. Durham this 01 day of April 19 91.

WITNESS: [Signature] Marlene Van Steenberg

WITNESS: [Signature]

PENGAD 800-631-6989
EXHIBIT
C

90-2674

VOLUNTARY STATEMENT
(NOT UNDER ARREST)

90-2674

PC-0847

Page

Marlene M. Van Steenberg, am not under arrest for, nor am I being detained for any criminal

offenses concerning the events I am about to make known to D. John Ristity
Without being accused of or questioned about any criminal offenses regarding the facts I am about to state, I volunteer the following information of my own free will, for whatever purposes it may serve.

I am 45 years of age, and I live at 9492 Minnowing Rd., Ravenna, OH. 44266

Sunday, April 8, 1990 was the last day he was at my house, he used to come at least once a week, for the last 2-3 years. He doesn't call on the phone.

Within a month after April 8, 1990 I heard from Sharon Morris (my husband's boss) that he had told from a guy that was in the truck (I think it was Jeff Smith Dennis Van Steenberg who is Raymond's son) when they stopped a guy slid out from under the seat Dennis threw the gun out the window near the skating rink which is located at S.R. 224 and Alliance Rd - Deerfield, Ohio. I do not know why Dennis threw the gun out.

On today's date - April 1, 1991 I, John Ristity released a Raven 25-Cal. Semi Auto pistol Model #MP25, Serial # 1446154 - no clip and one Uncle Mike's holster to me. It was signed by me on a TF form 4473 dated 12-11-88 for the return of gun. I received it from because I filled it out for my husband and my husband signed it.

MVS / On Sunday March 24 1990 my husband's sister, Clay called and asked my husband to call Raymond because he was threatening her. He did call him and talked for a short time. MVS

I have read each page of this statement consisting of 2 page(s), each page of which bears my signature, and corrections, if any, bear my initials, and I certify that the facts contained herein are true and correct.

Dated at PCSO, Detective Bureau this 01 day of April 19 91.

WITNESS: [Signature]

Marlene Van Steenberg
Signature of person giving voluntary statement.

WITNESS: [Signature]

000142

! TRANSCRIPT OF MARLENE M. VAN STEENBERG
Voluntary Statement 04-01-91
J.R.

Age: 45
Address: 9492 Minyoung Road
Ravenna, Ohio 44266

Sunday, April 8, 1990 was the last day he was at my house. He used to come at least once a week for the last two or three years. He doesn't call on the phone.

Within a month after April 8, 1990 I heard from Shelton Morris (My husband's boss) that he was told from a guy that was in the truck (I think it was Jeff) with Dennis Van Steenberg (who is Raymond's son) when they stopped a gun slid out from under the seat. Dennis threw the gun out the window near the skating rink which is located at S.R. 224 and Alliance Road, Deerfield, Ohio. I do not know why Dennis threw the gun out.

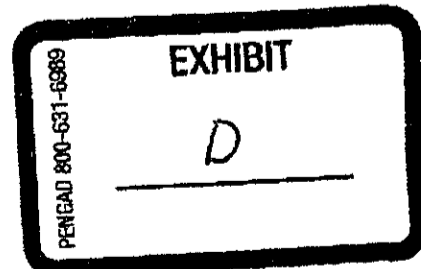
On today's date, April 1, 1991 Lt. John Ristity released a Raven 25 cal. Semi Auto pistol, Model #MP25, Serial #1446154, no clip, and one Uncle Mike's holster to me. Lt. Ristity showed me an ATF form 4473 dated 12-11-88 for the mentioned gun. I remember this form because I filled it out for my husband and my husband signed it.

On Sunday, March 24, 1990 my husband's sister Clar called and asked my husband to call Raymond because he was threatening suicide. He did call him and talked a short time.

On April 8, 1990 I was at work, when I got home Richard L. Van Steenberg told me that his brother Raymond Van Steenberg was at the house and got the gun. We only have one pistol. Raymond wanted to show the gun to somebody. My husband took the clip out because Raymond had just been charged for domestic violence on Friday, April 6th, 1990.

On April 8, 1990 at about 5:00 p.m. when I got home from work, Raymond called on the phone. He was calling from the Sheriff's Department and said the detectives wanted him to turn in a gun. Raymond didn't say why. He told me he turned in our gun, and I'm to tell the detectives that he had our gun for at least three or four months. I told him I would not do that and asked where his gun was at. He told me he threw it away. I asked why he threw the gun away and he said he just had to do it. He was upset that I wouldn't lie for him.

On April 9, 1990 while I was on my way to work I heard on the radio about the double murder. When I got to work (Portage County Muni Court) I contacted a detective at the Sheriff's Department and talked to Detective Don Doak. I told him everything about Raymond getting the gun from my husband and turning it into the Sheriff's Office.



000143



February 19, 1993

Portage County Sheriff's Department
203 W. Main Street
Ravenna, OH 44266
ATTN: Lt. John Ristity

SERI Case No: M'3449'93

BCI Lab No: 90-31768

Agency No: 90-2674

Victims: Bearnhardt Hartig
Cora Hartig

Suspects: Butch Wolcott
Tyrone Noling
Gary E. St. Clair
Joseph Dalesandro

PROSECUTOR'S COPY
PORTAGE COUNTY SHERIFF DEPARTMENT

ANALYTICAL REPORT

On February 10, 1993, five (5) items of evidence were received and on February 17, 1993, one (1) item of evidence was received at the Serological Research Institute from Lt. John Ristity, via Federal Express (6593403946 and 6507769321). A forensic serological comparison of these items was requested on a rush basis.

ITEM 1 BLOOD SAMPLE FROM JOSEPH DALESANDRO

This item consists of a single tube of liquid blood in fair condition. A portion of the blood was sampled and tested for ABO and for secretor status by the Lewis genetic marker. DNA was extracted from this sample, amplified by the Polymerase Chain Reaction (PCR), and grouped for the HLA DQ α genetic marker. The results are in the table.

ITEM 2 BLOOD SAMPLE FROM GARY E. ST. CLAIR

This item consists of a single tube of liquid blood in good condition. A portion of the blood was sampled and tested for ABO and for secretor status by the Lewis genetic marker. DNA was extracted from this sample, amplified by the Polymerase Chain Reaction (PCR), and grouped for the HLA DQ α genetic marker. The results are in the table.

Lt. John Ristity
SERI Case No: M'3449'93
February 19, 1992
Page 2

PROSECUTOR'S COPY
PORTAGE COUNTY SHERIFF DEPARTMENT

ITEM 3 BLOOD SAMPLE FROM BUTCH WOLCOTT

This item consists of a single tube of liquid blood in good condition. A portion of the blood was sampled and tested for ABO and for secretor status by the Lewis genetic marker. DNA was extracted from this sample, amplified by the Polymerase Chain Reaction (PCR), and grouped for the HLA DQ α genetic marker. The results are in the table.

ITEM 4 BLOOD SAMPLE FROM TYRONE NOLING

This item consists of a single tube of liquid blood in good condition. A portion of the blood was sampled and tested for ABO and for secretor status by the Lewis genetic marker. DNA was extracted from this sample, amplified by the Polymerase Chain Reaction (PCR), and grouped for the HLA DQ α genetic marker. The results are in the table.

ITEM 5 CIGARETTE BUTT

This item consists of a flattened, smoked, white filtered cigarette butt. No logo is visible on the burnt end. A trimmed portion of the smoked end had been removed and placed in a separate container (Item 5A). A portion of this paper was sampled and tested. The remaining filter (Item 5B) was also examined and three (3) areas were sampled. One next to the trimmed filter paper over wrap (Item 5B-2), a portion of the filter element at the smoked end (Item 5B-1) and an area near the burnt end for a blank control. The pieces were extracted and a small portion of the debris pellet from each of the extracts was examined microscopically for nucleated epithelial cells (oral cavity cells). Nucleated epithelial cells were identified in the debris pellets from the smoked areas. The liquid extract was tested for the enzyme amylase, ABO, and secretor status. The remaining cellular pellets and control were digested for their DNA content. The DNA solutions were subjected to the PCR test and grouped for the HLA DQ α genetic marker. The genetic marker results are in the table.

ITEM 6 SALIVA FROM TYRONE NOLING

This item consists of a dried saliva sample on gauze. A portion was extracted and tested for ABO and secretor status. The results are in the table.

Lt. John Ristity
 SERI Case No: M'3449'93
 February 19, 1992
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PROSECUTOR'S COPY
 PORTAGE COUNTY SHERIFF DEPARTMENT

TABLE OF RESULTS

ITEM NO.	DESCRIPTION	ABO	LEWIS	SECRETOR STATUS	HLA DQ α
1	Blood from J. Dalesandro	O	a-b+	Secretor	2,4
2	Blood from G. St. Clair	O	a-b+	Secretor	2,4
3	Blood from B. Wolcott	O	a+b-	Nonsecretor	1.1,3
4 and 6	Blood and Saliva from T. Noling	O	a-b-	Secretor	1.2,1.2
5A	Trimmed Filter Paper	NA	a+b-	Nonsecretor	NA
5B-1	Filter Element	NA	a+b-	Nonsecretor	3,4 (wk)
5B-2	Filter Paper Over Wrap	NA	a+b-	Nonsecretor	3,4
5 Control	Control Area from Burnt End	NA	NA		NA

KEY: NA = No activity (wk) = Weak activity

EXPLANATION

The enzyme amylase is found in many body fluids including saliva, urine, blood serum, perspiration and vaginal secretion. The highest concentration of amylase is found in saliva followed by perspiration, urine and vaginal secretion. Amylase can be separated into two types: Amy 1 and Amy 2. Amy 1 is found in saliva and perspiration. Amy 2 is found in urine and vaginal secretion. Vaginal secretion can also contain Amy 1. A small amount of amylase activity was detected in Items 5B-1 and 5B-2, but none in Item 5A or the blank control.

A secretor is a person who secretes his ABO blood group substances together with H substance into his body fluids (e.g. semen, saliva, vaginal secretion, etc.). Therefore, an A secretor will secrete A plus H, a B secretor B plus H and an O secretor just H. The method for detecting the blood group substances in body fluids is known as absorption inhibition. Body fluids from ABO nonsecretors give test results of no activity by the inhibition test. The more sensitive absorption elution test is used for detecting the small amount of ABO blood group substances which are found in nonsecretors and also in dilute stains from secretors.

Lt. John Ristity
SERI Case No: M'3449'93
February 19, 1992
Page 4

PROSECUTOR'S COPY
PORTAGE COUNTY SHERIFF DEPARTMENT

The four (4) samples from the Cigarette Butt (Item 5) had no activity for the ABO absorption inhibition and absorption elution tests.

The Lewis inhibition test can indicate ABO secretor status. A Lewis a-b+ is an ABO secretor, an a+b- is an ABO nonsecretor and a type a-b- can be either an ABO secretor or nonsecretor.

The Cigarette Butt (Item 5A, 5B-1 and 5B-2) extracts all had Lewis inhibition results of a+b-. Therefore, the smoker of the cigarette butt is a nonsecretor of unknown ABO type.

Deoxyribonucleic acid or DNA is found in nucleated cells, e.g. white blood cells, spermatozoa, salivary, vaginal and tissue epithelial cells. The DNA can be extracted and the amount obtained is proportional to the number of cells present.

Two types of DNA testing are presently available. One detects the presence of Restriction Fragment Length Polymorphisms (RFLPs) in the DNA. This is commonly known as "DNA Profiling" or "DNA Fingerprinting" and in most cases results in either a positive identification or exclusion of an individual as a donor. This analysis requires approximately 100 ngs of high quality DNA for a successful determination.

The second method relies on identifying a small specific section of DNA known as the HLA DQ α locus wherein there are twenty-one (21) different phenotypes. Although there may be an elimination of a person using this system clearly an identification to the exclusion of all others is not possible. The advantage of this method is that it requires substantially less DNA as the recovered DNA can be amplified (increased in amount) in order to obtain successful typing. The amplification uses the Polymerase Chain Reaction (PCR) method.

The Human Leukocyte Antigen Class II (HLA-D) genes are located on chromosome 6. The HLA-D genes are organized into three regions: HLA-DR, -DQ, -DP, each of which encodes an alpha and beta glycopeptide. The sequence of DNA found in the HLA DQ alleles is known.

The typing is performed by hybridizing the amplified DNA to nylon strips containing specific probes which will recognize the six common DQ α alleles detected (DQ α 1.1, 1.2, 1.3, 2, 3 and 4). These alleles will give rise to 21 possible types. The end result is the visualization of an enzymatically detected dye giving rise to a series of colored dots. The number and position of the dots determines the type.

Because DQ α is a genetic marker following the normal rules of genetics, a maximum of two alleles only are expressed in any one individual. Therefore, the detection of more than two alleles indicates a mixture of body fluids from more than one individual.

The Cigarette Butt (Item 5B-1 and 5B-2) had HLA DQ α results of 3,4.

Lt. John Ristity
SERI Case No: M'3449'93
February 19, 1992
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PROSECUTOR'S COPY
PORTAGE COUNTY SHERIFF DEPARTMENT

CONCLUSIONS

1. Joseph Dalesandro and Gary E. St. Clair are both ABO type O secretors and HLA DQ α type 2,4. Butch Wolcott is an ABO type O, a nonsecretor, and an HLA DQ α type 1.1,3. Tyrone Noling is an ABO type O secretor and an HLA DQ α type 1.2,1.2.
2. The smoker of the Cigarette Butt (Item 5) is a nonsecretor of unknown ABO type and an HLA DQ α type 3,4. The combination of groups present in Item 5B occurs in approximately 2.3% (or 2 in 86 persons) of the Caucasian population, in approximately 1.9% (or 1 in 53 persons) of the African-American population, and in approximately 2.8% (1 in 36 persons) of the Mexican-American population.
3. Joseph Dalesandro, Gary E. St. Clair, Butch Wolcott, and Tyrone Noling could not be the person who smoked the Cigarette (Item 5).

SEROLOGICAL RESEARCH INSTITUTE



Gary C. Harmor
Senior Forensic Serologist

GCH/par

cc: Robert Durst, Chief Criminal Prosecutor

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FILED
COURT OF COMMON PLEAS

IN THE COURT OF COMMON PLEAS
MONTGOMERY COUNTY, OHIO
CRIMINAL DIVISION

FILED 8 PM 12:47
DAN FOLEY
CLERK OF COURTS
MONTGOMERY CO., OHIO

STATE OF OHIO,

Plaintiff,

v.

EDMUND EMERICK, III,

Defendant.

Case No. 94-CR-1548

Judge Gorman

**OHIO ATTORNEY GENERAL'S RESPONSE TO
DEFENDANT'S APPLICATION FOR A DNA TEST**

The sole purpose of this response is to advise the Court that the Attorney General believes that the current version of the DNA statutes, R.C. 2953.71 through 2953.83, revised by SB 262 in 2006, does not bar consideration of a DNA application on the basis that a previous application, filed pursuant SB11, was denied based on a finding that the test would not be "outcome determinative" under the former statutes. In other words, it is the Attorney General's opinion that, if all other elements necessary for consideration of an application filed pursuant to R.C. 2953.71 et seq. are met, a prior application filed pursuant to SB11 does not bar consideration of a new application seeking review under the new standard.

Under the former version of R.C. 2953.71(L), "outcome determinative" meant that

had the results of DNA testing been presented at the trial of the subject inmate requesting DNA testing and been found relevant and admissible with respect to the felony offense for which the inmate is an eligible inmate and is requesting the DNA testing or for which the inmate is requesting the DNA testing under section 2953.82 of the Revised Code, no reasonable factfinder would have found the inmate guilty of that offense. . .

Under the new version of R.C. 2953.71(L), enacted by SB 262 in 2006, "outcome determinative" means that

had the results of DNA testing of the subject inmate been presented at the trial of the subject inmate requesting DNA testing and been found relevant and admissible with respect to the felony offense for which the inmate is an eligible inmate and is requesting the DNA testing or for which the inmate is requesting the DNA testing under section 2953.82 of the Revised Code, and had those results been analyzed in the contest of and upon consideration of all available admissible evidence related to the inmate's case as described in division (D) of section 2953.74 of the Revised Code, there is a strong probability that no reasonable factfinder would have found the inmate guilty of that offense. . .

The former "outcome determinative" standard required a court to find that no reasonable factfinder would have found the inmate guilty of the offense in order to grant the DNA application. Under the new "outcome determinative" standard, a court need only find a strong probability that no reasonable factfinder would have found the inmate guilty. Further, in determining whether the new "outcome determinative" criterion has been satisfied, the court is to consider all available

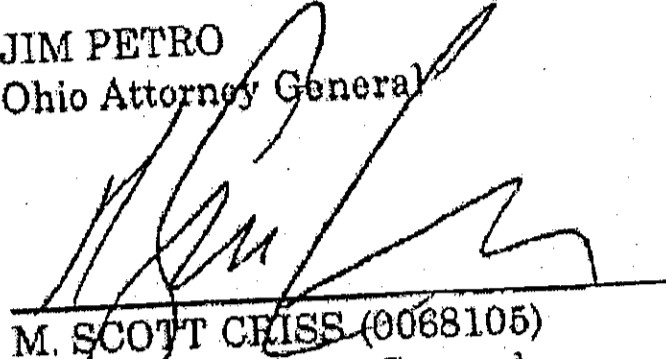
admissible evidence related to the inmate's case.¹ Because the legislature has changed the standard to be used for the "outcome determinative" finding, the Attorney General does not believe that a DNA application filed under the revised statutes is barred from consideration on the basis that a previous DNA application was denied because it did not meet the "outcome determinative" standard under the former statutes.

For the forgoing reasons, the Attorney General submits that Mr. Emericks' new application, seeking review under the new standard contained in SB 262, should not be barred merely because he filed a previous application that was denied under the SB 11 standard.

¹ If an inmate's application for a DNA test is granted and if the test provides results that establish, by clear and convincing evidence, his or her actual innocence, the inmate can file a post-conviction petition pursuant to R.C. 2953.21. Although the legislature made changes to the definition of "outcome determinative" in SB 262, the legislature did not incorporate all of those same changes into its new definition of "actual innocence." "Actual innocence" as defined in SB 262, revised R.C. §2953.21(A)(1)(b), means that "had the results of the DNA testing conducted under sections 2953.71 to 2953.81 of the Revised Code or under section 2953.82 of the Revised Code been presented at trial, and had those results been analyzed in the context of and upon consideration of all available admissible evidence related to the inmate's case as described in division (D) of section 2953.74 of the Revised Code, no reasonable factfinder would have found the petitioner guilty of the offense. . ."

Respectfully submitted,

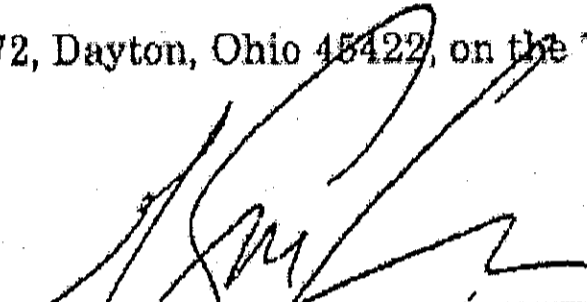
JIM PETRO
Ohio Attorney General



M. SCOTT CRISS (0068105)
Assistant Attorney General
Corrections Litigation Section
150 E. Gay Street, 16th Floor
Columbus, Ohio 43215
(614) 644-7233
(614) 728-9327 Facsimile
scriss@ag.state.oh.us

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *Ohio Attorney General's Response to Defendant's Application For A DNA Test* was mailed by regular, first-class mail to Mark Godsey, Ohio Innocence Project, College of Law, University of Cincinnati, P.O. Box 210040, Cincinnati, Ohio 45221, and to James Levinson, Assistant Prosecuting Attorney, 301 West Third Street, P.O. Box 972, Dayton, Ohio 45422, on the 7th day of November, 2006.


M. SCOTT CHISS
Assistant Attorney General



THE PLAIN DEALER

Lies put man on death row, three claim
Portage investigator used coaching, threats to get confessions, men say

Sunday, August 13, 2006

Andrea Simakis
Plain Dealer Reporter

Ten years ago, Butch Wolcott told a packed courtroom a gripping story. Wolcott was one of a group of young punks led by a hellion named Tyrone Noling. One day as Wolcott waited outside, Noling forced his way into the home of an elderly couple in Atwater Township, then shot them dead. Wolcott even described for the jury the smoking gun Noling carried as he fled the house.

Today, Wolcott lives on the Hawaiian island of Oahu; Noling is on death row in the Ohio State Penitentiary in Youngstown.

But Wolcott can't find peace in paradise. Noling is innocent, Wolcott says, condemned to die because of the lies Wolcott told a decade ago. Two other men who pleaded guilty to taking part in the slayings also say Noling is innocent. All have claimed in affidavits that their testimony was coerced and coached by an overzealous investigator for the Portage County prosecutor's office.

But prosecutors, who once built a case on the men's damning confessions, now dismiss what they have to say as self-serving fiction.

A Plain Dealer examination of the investigation into the murders of Bearnhardt and Cora Hartig raises serious doubts about the testimony the government used to sentence Noling to death.

The case against Noling is shot through with inconsistencies. A psychologist hired by prosecutors to assess Wolcott and who helped him try to remember details of the murders says he's not sure those memories are true.

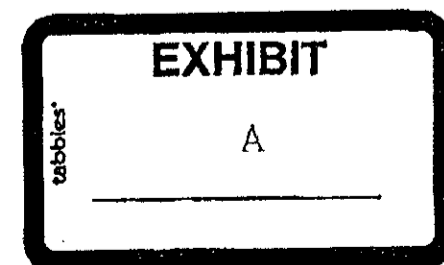
Though Noling was an incorrigible thief, the slain couple wasn't robbed. Noling's guns weren't used to kill the Hartigs. A cigarette butt found in the driveway yielded DNA that didn't belong to Noling or members of his gang. Except for the flawed and conflicting statements of Wolcott and others, no evidence points to Noling as the killer.

It wasn't like Bearnhardt Hartig to leave his garage door open and the riding mower outside. He and his wife, Cora, both in their 80s, kept their house and lawn tidy. So after seeing the orange tractor in the drive for several days, neighbors called the sheriff on April 7, 1990.

The Hartigs' living room was littered with papers when deputies arrived, like a filing cabinet had exploded. A few feet away in the kitchen, Cora lay on her side, her pink sweatshirt stained rusty red. She'd been shot five times.

On the floor in front of her was her husband. Like his wife, it looked as if he'd been sitting in a chair when someone fired three bullets into him.

Cora's wedding band was on her finger, Bearnhardt's wallet in his pocket, filled with cash. Watches and other jewelry sat untouched. Deputies found \$160 in a vanity beneath the bathroom sink. The killer had opened the doors, but left the money behind.



Deputies found no witnesses or fingerprints and struggled to pin anything down -- even the date of the murders. They guessed the Hartigs had been at the kitchen table, perhaps talking with someone they knew, when they were shot. There was no sign of a break-in or scuffle.

The same week the Hartigs were killed, Noling was robbing old people in nearby Alliance. He left his fingerprints everywhere, his victims terrified but alive. He stole jewelry, cash and VCRs. During one home invasion, he accidentally fired a bullet into the floor. He asked the 74-year-old woman who lived there if she was OK. She told detectives the gunshot scared him more than it did her.

A natural suspect

but no murder weapon

Police quickly homed in on the 18-year-old with a thick file in juvenile court. Noling was living in a house with Gary St. Clair, a 21-year-old high school dropout; Joey Dalesandro, 18, who drove a baby blue Olds; and Wolcott, a 14-year-old runaway from Akron.

Noling was the alpha dog and butted heads with Wolcott from the day they met. Skinny and small for his age, Wolcott talked his way out of trouble. But he couldn't charm Noling. Once, Noling hogtied him and left him bound for hours; another time, he put a gun to Wolcott's head.

Police raided the house and found a diamond-studded Rolex and other booty from the Alliance heists strewn about. They dragged Noling out of an attic crawl space. He confessed to the robberies within hours.

News of the Hartig killings had broken the night before. Given his history, Noling was a natural suspect.

Noling led deputies to the guns he'd used in the robberies -- a sawed-off shotgun and a Browning .25-caliber handgun he'd taken from one of the homes. The Hartigs had been shot with a .25, and authorities thought they had their killer, but a ballistics test proved Noling's gun wasn't the murder weapon.

DNA tests showed a cigarette butt police plucked from the Hartigs' driveway didn't match Noling or any of his cronies. With no evidence linking Noling or the others to the crime scene, the murder investigation stalled.

Noling pleaded guilty to the Alliance robberies and was sentenced to five to 25 years.

In 1992, Ron Craig, an investigator for the Portage County prosecutor, picked up the Hartig file. He zeroed in on Noling's old cohorts.

Craig went after Wolcott first. He told the 16-year-old that a witness had seen Dalesandro's blue Olds on the Hartigs' street the day of the murders and that they'd found a cigarette butt in the driveway they could link to Wolcott, according to Wolcott and a lawyer and family friend who sat in on some meetings.

Neither was true. There was no witness and the butt didn't have Wolcott's DNA, but police are allowed to lie to suspects during investigations. Prosecutors gave him a choice: Testify against Noling and go free. Refuse and be charged in the killings. Wolcott took the deal.

"I sold my soul that day," he says now. And, Wolcott says, Craig helped him do it.

But Wolcott couldn't provide the details prosecutors needed to make the case. He couldn't remember the date of the drive to the Hartigs. He couldn't describe the exterior of their neat ranch though he claimed to have waited in the couple's driveway while Noling and St. Clair forced their way past Cora.

The Portage County prosecutor's office hired Alfred Grzegorek, a Stow psychologist, in 1992 to help. Grzegorek's charge was to conduct a psychological assessment of Wolcott and determine why the 16-year-old couldn't remember much about the killings.

In his report, Grzegorek wrote that Wolcott "was quite clear with me that he is extremely frightened that he will not be able to recall enough to win the immunity recommendation premised on his cooperation in the

investigation "

Wolcott, he wrote, had begun to think he was "going crazy," not certain if his recollections of the murders were real or imagined.

Recently, the psychologist said he isn't sure, either.

It's true, Grzegorek said, that people sometimes recall a traumatic event slowly because remembering it all at once would be overwhelming. But the psychologist said he was never sure if Wolcott's memory problems were the result of trauma or if he was simply unable to remember the crime because he wasn't there.

"I could never figure that out, to be honest with you," Grzegorek said in an interview with The Plain Dealer.

The psychologist warned prosecutors in 1992 not to press Wolcott too hard or he might fill the gaps in his story with information gleaned from suggestions and hints made by investigators or Grzegorek himself.

"One of the worst things you can do is create a memory that in fact really isn't there," Grzegorek says today.

The sessions with Wolcott reached a point, he said, where he didn't think he could elicit any more information without contaminating Wolcott's recollections with memories that weren't his own.

"There is a point beyond which you shouldn't do much more," Grzegorek said.

The psychologist's reservations don't give Prosecutor Victor Viglucci pause. "This case does not trouble me in the least," he said. "There was overwhelming evidence of Noling's guilt. I'm not interested in helping these people rewrite history."

Men say they were

coached, threatened

Wolcott now says he reacted as Grzegorek feared he might and pieced together his statement using cues from investigators.

In 1992, he repeatedly asked investigator Craig if he could take a trip to the Hartigs' house to jog his memory. Grzegorek went along.

The visit was anticlimactic -- no long-buried memories came flooding back.

But Wolcott had gotten what he'd needed. He now says he asked to visit the house so he could tell a more convincing story and keep his immunity deal.

With Wolcott's confession as leverage, Craig went after Dalesandro and St. Clair.

The three men now tell similar stories of their interrogations by Craig. They said he threatened them with the death penalty or life in prison, twisted their words and, when they eventually agreed to testify against Noling, provided them with details of the killings.

St. Clair said Craig showed him a videotape of the crime scene and photos of the victims, and drew a diagram of the house showing where the bodies were found. Wolcott was taken to the Hartigs' home and said he was also left alone with evidence files. Dalesandro said Craig told him facts about the crime and coached him on what to say.

Prosecutor Viglucci would not allow Craig to be interviewed for this story, but defended his veteran investigator.

Craig did nothing underhanded, the prosecutor said. There are transcripts of the interrogations, which prove Craig had nothing to hide, Viglucci said.

But there were off-the-record meetings between the suspects and the investigator as well. And it was during those sessions, the men say, that Craig supplied them with information about the case and helped them build their statements.

Undocumented chats happen, Viglucci admitted; sometimes people feel more comfortable with the tape recorder off. But such tactics are ripe for abuse, say experts who study false confessions. It's the time when witnesses can be bullied, their recollections contaminated with facts they couldn't come up with themselves.

That's what Wolcott and the others say happened.

It's not what witnesses get right that determines whether their confessions are reliable, but what they get wrong, experts say. Wolcott couldn't describe the Hartigs' place until Craig drove him there. He couldn't provide directions, either.

Wolcott told them Noling had ripped the telephone cord out of the wall and trussed up the Hartigs with it. But the phone was intact and the Hartigs hadn't been tied.

All the confessions should be classified as "untrustworthy" and "unreliable," said social psychologist Richard Ofshe, an expert in false confessions hired by Noling's appellate lawyers to review the men's statements.

"Coercive interrogation tactics" were used to elicit all their declarations, he wrote in a report that has been filed with the court. Their recollections were deliberately contaminated during extensive sessions with Craig, Ofshe wrote.

Ofshe also concluded that any memories Wolcott had about the crime weren't his own, but were created from suggestions and coaching provided by his interrogators.

In September 1995, four months before Noling's murder trial, prosecutors sent Wolcott to the psychologist one last time. According to Grzegorek's report, while Wolcott's "memory . . . is more complete than it was in 1992," Wolcott admitted that "there are still a lot of things about [the day of the murders] that are a puzzle" and "it's still very hard to realize it's true." Later, Wolcott began to cry and told Grzegorek that he just wanted the ordeal to end.

Prosecutors put Wolcott on the stand in January. Jurors never heard from the psychologist.

Authorities fail

to find the gun

In 1996, with three confessions in hand, prosecutors offered to take the death penalty off the table if Noling admitted to pulling the trigger. He refused and told his lawyers he was innocent.

They didn't call a single witness in his defense or suggest another possible suspect, even though police had questioned one. (See sidebar) Instead, his lawyers argued the government hadn't proved its case. Prosecutors had no murder weapon, no hairs or fibers - nothing, attorney George Keith told the jury.

The defense pounded on prosecution witnesses Dalesandro, St. Clair and Wolcott.

St. Clair was key. Prosecutors expected him to say that he'd watched Noling execute the Hartigs. They'd warned St. Clair that he would face "the maximum" sentence if he didn't tell what he knew. But he recanted on the stand, saying Noling was innocent - they all were. "Gary St. Clair is your reasonable doubt," attorney Keith argued.

Defense lawyers also pointed out that police never found the murder weapon. During the investigation, Wolcott, St. Clair and Dalesandro had told investigators that Noling carried only two guns - the sawed-off shotgun and a stolen .25 that was not the gun that killed the Hartigs.

But at trial, Dalesandro and Wolcott testified that Noling had a second .25 he'd used on the couple. After the

shooting, they said, he stashed it in the glove compartment of Dalesandro's car. Noling called him days later from jail and told him to get rid of it, Dalesandro said

Dalesandro claimed he sold it to a fence, but the fence, who'd turned over Noling's two guns earlier, was unable to lead police to the weapon.

"The government needs a second gun," Keith told jurors. "Joey Dalesandro . . . tailors his testimony, whatever they need. If they needed a pink elephant they could interview him about an hour and he could remember a pink elephant "

Dalesandro now says he lied about the second gun at investigator Craig's prodding.

What jurors didn't hear was that, according to the account Alliance police Detective William Mucklo recently gave The Plain Dealer, officers searched Dalesandro's car the day of Noling's arrest and didn't find a gun.

Today, Prosecutor Vigluicci dismisses evidence of the fruitless search. Maybe, he says, the detective has a faulty memory

After a day of deliberation, the jury found Noling guilty. "I didn't do it," he told the judge before he was sentenced to death. "Someday, maybe someday, the truth will come out."

In 1997, a year after the conviction, St. Clair and Dalesandro, who pleaded guilty to lesser crimes involving the murders, signed affidavits stating Noling was innocent. So did Wolcott. St. Clair is serving 20 to life for the Hartig murders while Dalesandro is in prison on unrelated drug charges.

Vigluicci dismisses their recantations. The three are lying, he says, to save themselves and a friend. If Noling is exonerated, then St. Clair and Dalesandro might be able to clear their names too.

That's not true of Wolcott, who, because of his immunity deal, didn't spend a day in prison

"I don't know about Wolcott," Vigluicci said when asked why Wolcott would swear Noling is innocent. "Friendship? Fear? Who knows? There's a myriad of possible reasons. For me to say that I'd lose sleep over that? Nope, I wouldn't."

The prosecutor expressed surprise that anyone would believe Wolcott, but his testimony was key to the government's case.

Wolcott, now a 31-year-old artisan who builds wooden floors for a living, says he has a moral obligation to tell the truth. "I did the most evil thing imaginable. I have to go to sleep each night knowing that."

It's long past time, he says, to get some rest.

Courts so far reject

the recantations

Court after court has rejected Noling's appeals. Judges say the recantations aren't credible, even though they've refused to let Wolcott and the others tell their stories in a courtroom.

In March, U.S. District Judge Donald Nugent denied Noling's request for an evidentiary hearing that would have allowed them to testify.

Nugent has yet to rule on the case, but wrote that the court was not concerned with Noling's guilt or innocence, but "solely the question whether his constitutional rights have been preserved." If Noling loses there, he can appeal the decision. As a last resort, he can ask the U.S. Supreme Court to hear the case. If it refuses, the state will set an execution date.

Because the courts have rejected the recantations, Noling worries that without proof someone else pulled

the trigger, he's a dead man.

Noling has had nothing but time to think about his case and imagine Wolcott in his tropical paradise. He said he blames Craig and prosecutors, not Wolcott.

Four thousand miles away, Wolcott said he wishes he could travel back in time, to the moment he agreed to take the deal and testify against Noling.

He would whisper into the ear of the boy and tell him to think hard about what he was about to do. Don't think about survival, he would tell the boy. Think about what's right.

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From clevescene.com
Originally published by *Cleveland Scene* 2003-09-10
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The Unlikely Triggerman

Nothing about the double homicide seemed to finger Tyrone Noling. Even the former sheriff doesn't believe he should be on death row.
By Martin Kuz

A light snow was falling as Jim Davis eased into the driveway of his mother's house in Atwater Township. He noticed an orange garden tractor parked on the lawn of her neighbors, Bearnhardt and Cora Hartig. That's odd, Davis thought. He'd grown up next door to the couple and knew their fastidious ways, how Bearnhardt fussed over his equipment and yard, how Cora kept the ranch home neat as a church.

A short time later, Davis's mother arrived and mentioned that the tractor had sat out for two days. So he offered to check on the Hartigs, both 81.

No one answered when Davis knocked. Peering through the front-door window, he saw why -- Cora and Bearnhardt lay side by side on the kitchen floor.

The smell of death met police as they entered the house. Ten .25-caliber shell casings formed a crude outline of the couple's bodies. Five slugs had torn open Cora; three had pierced her husband.

The home bore signs of a search. Business papers pulled from a desk were strewn across the living room, while kitchen cabinets and dresser drawers stood open. But nothing appeared stolen. Whoever shot the Hartigs ignored the rings they wore and the wallet in Bearnhardt's pants. Watches and jewelry, cash, TVs and assorted electronics -- all remained.

The only things the killer failed to leave behind, it seemed, were fingerprints and forensic clues.

Authorities pegged the time of death as late afternoon on April 5, 1990. Around noon that day, Tyrone Noling rapped on the door of Suzanne and Fred Murphy's home in Alliance. His car had broken down, and he wondered if he could call a friend.

Dressed in a denim jacket and jeans, his sandy blond hair trimmed short, the young man looked "kind of cute," Suzanne recalls. As he spoke on the phone, she returned to washing dishes. Her husband, planning to give the visitor a lift to a mechanic down the street, went to fetch his coat.

Moments later, curious about why she heard no voices coming from the living room, Suzanne walked back out of the kitchen. Noling was holding a .25 on Fred.

"You sit down in that fucking chair or I'll shoot you!" he yelled, snapping open the barrel and catching a bullet as it popped out. "I want you to know that this is real!"

Noling stuffed Fred's wallet and Suzanne's purse into a pillowcase he pulled from his

Photo by Walter Novak

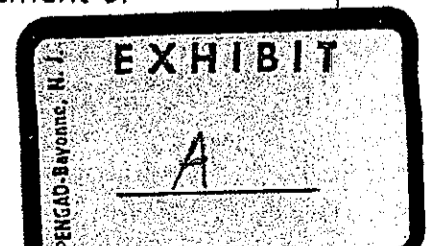


Ohio Department of Corrections



Noling is on death row.

Ohio Department of Corrections



pocket. Then he ordered Fred into the bathroom and told Suzanne to show him her jewelry. She remembers moving down a hallway to the couple's bedroom, the gun grazing her back.

Noling had stolen the piece a day before, when he and a friend robbed another elderly couple who lived a few blocks away. "It seemed so easy," he says. "You got a couple hundred dollars and got away. You think, 'Why not do it again?'"

Yet his nerve would prove as weak as his method. In the Murphys' bedroom, after grabbing rings worth \$1,500, he began digging through a dresser -- until his trigger finger slipped, sending a round into the hardwood floor. The gunshot so startled him that he "ran like a scared rabbit," says Suzanne, who at 87 can recount the robbery as if it occurred an hour ago.

Clutching the pillowcase, Noling grabbed the couple's VCR before escaping through nearby woods to a friend's house -- one street over from the Murphys. He was, Suzanne says, "just a stupid kid."

Noling, weeks past his 18th birthday, had helped himself to five-finger discounts since his preteen years, stealing from cars, homes, and corner stores, juvenile records indicate. In the span of four hours on April 5, however, he attended criminal finishing school -- graduating from petty theft to double homicide.

That's the scenario Portage County prosecutors laid out at his murder trial. They claimed that around 4 p.m., on the heels of the Murphy robbery, Noling cajoled three friends -- Gary St. Clair, Joey Dalesandro, and Butch Wolcott -- to drive from Alliance to Atwater, where they spotted Bearnhardt on his tractor. He'd gone inside by the time the foursome circled back, according to authorities, prompting Noling and St. Clair to jump out of the car.

After the pair allegedly pushed past Cora at the door, St. Clair rummaged through the house as Noling held the couple at gunpoint. When Bearnhardt stepped toward him, prosecutors asserted, Noling plugged the old man, reloaded the .25, and shot Cora before fleeing.

The county's case pivoted on the testimony of Noling's alleged accomplices. St. Clair and Dalesandro struck plea deals in exchange for ratting out their friend, while Wolcott received immunity.

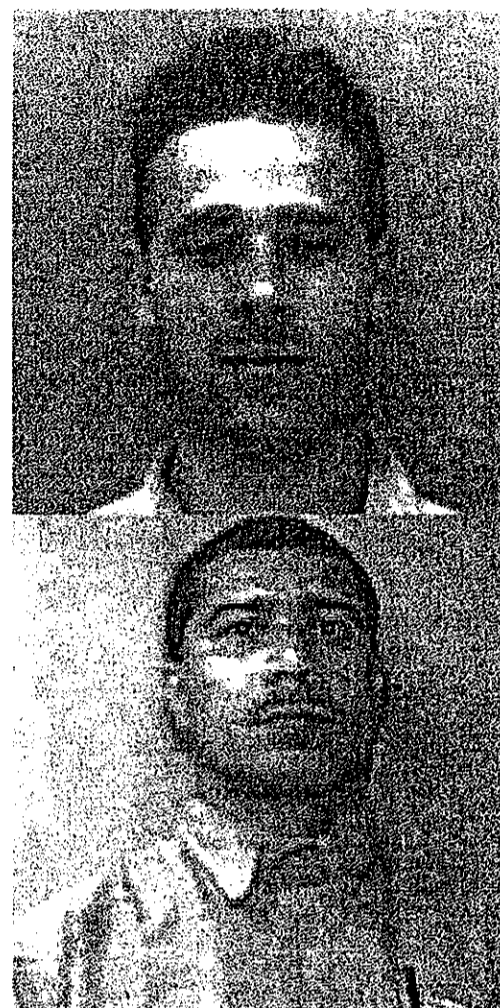
But St. Clair recanted in court, denying that he and his pals were involved. Dalesandro and Wolcott, meanwhile, provided accounts that clashed with their pretrial statements. One of Noling's lawyers contended that they would have testified to seeing a pink elephant at the scene if prosecutors wanted.

None of which bothered jurors. They convicted Noling and a judge upheld their call for the death penalty.

In hindsight, the verdict makes sense -- given that they were deprived of a sizable chunk of evidence. Evidence, in fact, that suggests county investigators bullied witnesses, buried reports, and smudged timelines. Evidence that Noling's lawyers inexplicably disregarded.

Attorneys Peter Cahoon and George Kelth kept mum about the vast differences between Noling's two robberies and the Hartig slayings. They failed to reveal details that shredded the prosecution's murder-weapon theory. They also sat on an apparent alibi, neglecting to disclose that Noling committed a purse snatching in Alliance at about the same time as the shootings.

Perhaps most baffling, the lawyers aired nothing about possible clues linking the Hartigs' insurance agent to the killings.



St. Clair (top) and Dalesandro allege they were coerced into pleading guilty to a crime they now deny committing.

Walter Novak



"It's hard to keep a story straight when it never happened," says Vicky Buckwalter, an investigator hired by Noling's trial lawyers.

Vicky Buckwalter

"I was never confident with these boys being the suspects," says P. Ken Howe, the Portage County sheriff when the murders took place. "It just didn't fit."

Noling, 31, resides at Mansfield Correctional Institution. He realizes that his behavior in the 74 hours before the Hartig murders throws a shadow across his death-row cell.

"I'm no angel," he admits. "But I've only been a petty thief."

When Ritalin and detention centers couldn't tame young Tyrone, his mother ceded custody to her ex-husband. Noling dropped out of school in ninth grade and bolted from home, staying with friends and deciding that crime offered better hours than work. In early 1990, he and Joey Dalesandro, a childhood pal, split time between Delta and Alliance, mooching off relatives, acquaintances, and anyone else they could.

The two hung out with Gary St. Clair, 21, whose age made him their designated beer buyer. In April of that year, St. Clair was crashing at the Alliance home of his young half-brother, looking after him while his father was in the hospital. The guest list also included Butch Wolcott, a 14-year-old runaway St. Clair had befriended at a homeless shelter weeks earlier.

The house served as a rec center for punks, with the group devoting long hours to smoking blunts, drinking beer, and playing Nintendo. They spent their nights "car shopping," breaking into vehicles to filch cash, credit cards, and stereos. But their ambitions -- or at least Noling's -- flared higher the day he and Dalesandro bought a sawed-off shotgun.

Holding the .12-gauge in his hands, Noling recalls thinking, "People will give you money if you point this thing at them."

On April 4, he pointed it at James and Rose Hughes in their living room. Noling and St. Clair had duped the elderly couple with the broken-car ruse, apparently surprising themselves in the process. Police files show that Noling jabbered with the Hugheses for several minutes, even allowing James to call his son, a tow-truck driver. Only when there was no answer did Noling draw the shotgun from beneath his trench coat.

"I'll blow your fucking brains out!" he screeched.

He handled most of the robbery while St. Clair sat on the couple's couch and watched *Oprah*. They escaped with \$375, a VCR, and fistfuls of jewelry -- though Noling relented when James begged to keep his wedding band. Noling also nabbed the .25 he would brandish at the Murphys the next afternoon.

But two robberies in as many days turned the neighborhood into a cop magnet. Acting on a tip, officers raided the party house on April 9. St. Clair confessed almost as soon as he arrived at the police station, records reveal. When a detective informed Noling that his pal had blabbed, he replied, "I might as well tell you too, turn on the tape . . ."

Then the questions switched to the topic of a double homicide.

"I was freaking," he says. "I knew I was going to jail -- I knew I was in trouble. But murder? What?"

The robberies shared enough obvious parallels with the Hartig killings -- the timing, the elderly victims, the use of a .25 -- to make him a plausible suspect. Detectives reasoned that his threats of harm against the first two couples might have escalated into violence against the Hartigs.

Still, the premise would seem to require that, in four hours, Noling's bravado and IQ swelled as rapidly as his lust for loot shrank.

In that span, the "scared rabbit" who fled the Murphys would need to gain the brutal poise to pump eight shots into



"If it's not politics driving this," says John Gideon, Noling's appellate lawyer, "we're all blind, deaf, and dumb."

the Hartigs -- while coolly pausing to reload. He would need to acquire a hitman's aptitude for covering forensic tracks. Finally, he would need to forgo the cash, jewelry, and electronics of two corpses -- swag he so eagerly took off his living victims.

"It doesn't add up," says Columbus attorney John Gideon, who's representing Noling in his appeals. In court documents, Gideon portrays the shootings as "professional hit style murders" carried out by a person searching for a specific item. "If it was Tyrone and his pals trying to get valuables, why would they go all that way and then leave behind all this stuff?"

Sheriff's investigators reached a similar conclusion. Duane Kaley, now the Portage County sheriff, served as lead detective on the Hartig case. He visited Wolcott and his father a month after the slayings. Wolcott claims the conversation ended with Kaley telling them, "I don't think these boys had anything to do with it."

Kaley did not return calls for comment. But ex-sheriff Howe, his former boss, confirms that detectives discarded Noling and the others as suspects early on. In April 1991, one year after the murders, *The Record-Courier* quoted him as saying leads in the probe had iced over.

The next month, a man named Daniel Wilson confessed to shoving a woman into the trunk of her car and lighting it on fire in Elyria. Police checking his potential ties to other recent murders learned that he lived a mile from the Hartigs at the time of the shootings.

Though authorities rejected Wilson as a suspect within days, the episode tweaked the ego of David Norris, then the Portage County prosecutor. A high-profile murder -- one still snagging headlines -- languished unsolved on his turf. He directed one of his investigators, Ron Craig, to crack open the Hartig file.

Precisely what convinced Craig to stalk Noling after detectives ruled him out remains unknown. He did not respond to *Scene's* interview requests.

Regardless, Gideon argues in court papers that Craig acted as a heavy-handed tailor, stitching together a case out of unrelated events, coincidences, and naked lies. The attorney charges that Craig and prosecutors decided who was guilty, then worked backward to "prove" their thesis through a "systematic campaign of witness intimidation."

Vicky Buckwalter, an investigator hired by Noling's trial lawyers, prefers more lyrical phrasing.

"This case is fiction," she says, "and Ron Craig wrote the story."

Butch Wolcott remembers the drive to the Hartig residence. He rode with three men: his court-appointed attorney, a psychologist, and Craig. He was unable to provide the route of travel ostensibly taken the day of the murders. Yet as the car slowed, Wolcott says, Craig looked over at the home, then locked eyes with him in the rearview mirror.

"This the one you wanted to see?" Craig asked, according to a transcript of the taped interview. "Do you know this house?"

Wolcott felt the investigator's stare burn into him. He swallowed. "It looks like it."

Some weeks before that trip in the fall of 1991, Craig had summoned Wolcott, then 15, to the prosecutor's office. Craig and assistant prosecutor Robert Durst refused to let his father sit in during a two-hour interrogation.

"When he walked out of there," Harold Wolcott says, "you could see he'd had the shit scared out of him."

In a sworn affidavit submitted as part of Noling's appeals, Butch Wolcott charges that Craig and Durst threatened to "put me in jail for life." He alleges they lied that a worker up on a utility pole spotted him and the others at the Hartigs, and that a cigarette found outside the home matched Wolcott's DNA.

If the teen agreed to cooperate with them, however, he'd receive immunity.

"I was terrified," Wolcott says. "I did what they wanted me to do."

In separate affidavits, Dalesandro and St. Clair accuse Craig of similar tactics in coercing them to plead guilty to a crime they deny committing. The deals they and Wolcott cut enabled Craig to tighten a net around Noling -- whom the investigator fingered as the brains of the group -- without ever interviewing him.

"We want the triggerman," Dalesandro recalls Craig saying. "We know he did it."

Wolcott likens Craig, a onetime Kent police detective, to *NYPD Blue's* Andy Sipowicz -- in body shape and interrogation style. In his affidavit, Wolcott claims the badgering began after he insisted he knew nothing about the murders. Craig replied that he'd repressed memories of the tragedy, Wolcott alleges, and arranged for him to visit a psychologist. The shrink duly seconded the opinion, diagnosing him with post-traumatic stress disorder.

The interview transcript shows that Dr. Alfred Grzegorek rode along on the trip to the Hartig house in late 1991. His comments to Wolcott evoke images of a sculptor molding clay.

"People remember in different ways, Butch . . .," the doctor said. "That is one of the reasons for coming out here and trying to help your memory a bit. We were a little concerned when we were talking [earlier] that you weren't remembering everything you needed to remember."

Such apparently induced recall would bear fruit in later interviews -- sort of. By June 1992, when Craig asked whether April 5 was the correct date of the murders, Wolcott stammered, "Like I said, I'm not totally certain, but the way the facts are pointing now . . . that's what it is. As far as you helped my memory."

He contends Craig further greased his recollection -- and his fear -- with perpetual reminders that his immunity would vanish unless he played along. " . . . Other times that we have talked, I've been pretty scared, to be honest with you," Wolcott said in a 1992 statement to prosecutors.

Craig prepped him for as long as two hours before flipping on a tape recorder, Wolcott asserts in his affidavit, and forced him to study written responses to questions. That may explain his comment to Craig about the alleged murder weapon: "Tyrone didn't have a gun until he got the .25. I think that's the way it read in the question, the way the question was."

Likewise, Dalesandro and St. Clair charge in their affidavits that Craig fed them answers. But St. Clair -- who alleges that the investigator gave him photos and drew a diagram of the crime scene -- evidently struggled with his lines. An exchange in a March 1993 interview, during which Craig presses him on what he supposedly heard in the Hartig home, resembles a director prompting an actor at rehearsal.

"Were Mr. and Mrs. Hartig screaming in the house?" Craig asked.

"I think they might have been," St. Clair replied.

"They were pleading for their life, weren't they?"

"I think."

"They were pretty scared people, weren't they? They were pleading to live, weren't they?"

"I think they were."

The interviews and statements lay bare how Noling's three alleged cohorts changed their stories as often as they told them. Hundreds of discrepancies litter their accounts. Each man contradicts himself and the other two on points both trivial and critical, whether discussing who sat where in the car or what happened to the purported murder weapon.

Dalesandro, the alleged driver, first denied ever traveling to Atwater. Weeks later, he recalled that Noling and St. Clair spent 10 minutes inside the Hartig home. In a third interview, his estimate ballooned to 40 minutes. St. Clair recounted that Noling shot Cora Hartig first -- until Craig repeated the question minutes later.

"I think it was Mr. Hartig," St. Clair replied.

In his first interview, Wolcott said Noling stayed silent when he returned to the car. In his second, he remembered Noling saying, "I didn't want to do this." A week later, he claimed that Noling lamented, "I didn't want to tie them with the phone cord."

A coroner's report and evidence photos give no indication that the Hartigs were tied up.

That their accounts shifted like winds off Lake Erie mattered little -- prosecutors withheld such nagging details from the grand jury that indicted Noling in 1992. The panel's members were unaware, for example, that Wolcott said he was too drunk to remember anything, much less specifics.

"The way I was dozing off," he told officials, "they could have driven from here to Cleveland and then back to the house [in Alliance] and I wouldn't have known."

Now 28, he provides another reason for the lapses. "Because we were never there."

Noling insists time has drained him of the bitterness he once felt toward Wolcott, Dalesandro, and St. Clair. But mention their deals with prosecutors, and his response belies a residue of bile.

"I don't think I would ever admit to something I didn't do . . .," he says. "I guess they were all worried about their own hides."

Wolcott's witness statement in June 1992 handed prosecutors a crowbar to split open Dalesandro and St. Clair. Dalesandro copped within a month. He received 5 to 15 years, adding to the 3- to 15-year term he'd already started for an unrelated drug conviction. He contends that his public defender leaned on him as hard as prosecutors did.

"He told me if I didn't take the deal, they'd go to Gary and I'd go down with Tyrone," Dalesandro says. "I didn't want to be doing a life sentence for something I didn't do."

St. Clair, described by his father as "always a little slow," pleaded out hours after a judge declared him competent to stand trial in March 1993. Bob St. Clair and his son's attorneys urged him to accept a life sentence that carried the chance of parole in 23 years. The term was tacked on to the 5- to 25-year hitch he received for the Murphy robbery.

"I just wanted to save his life at the time," Bob St. Clair says. "I didn't believe he was guilty -- ever."

Prosecutors also offered a deal to Noling, who'd netted 5 to 25 years for the Hughes and Murphy robberies. It would spare him the death penalty. Peter Cahoon, one of his trial lawyers, recalls his client's retort: "Tell the prosecutor to put on his best trial suit. We're going to trial."

Cahoon and co-counsel George Keith hired Vicky Buckwalter to investigate the case. She detected a recurring theme amid the tangled narratives of Noling's alleged accomplices. Their statements matched up until investigators asked them about going to the Hartig home -- at which point the accounts splintered as though jammed into a wood chipper.

"It's hard to keep a story straight when it never happened," she says.

The disparities led Buckwalter and another investigator to visit St. Clair in prison days after he pleaded guilty. He denied any role in the killings and accused Ron Craig of coercion. He charged that his own lawyers showed him Wolcott's statement and a video of the crime scene to "help" his memory. Midway through their taped conversation, Buckwalter asked if he wanted to testify against Noling.

"Not really," St. Clair replied.

The interview acted as a rubber bullet. It stunned Norris, the Portage County prosecutor who had sicced Craig on the murder probe, but didn't stop the case.

Norris scotched Noling's indictment as his trial opened in June 1993, concerned that St. Clair's testimony would be tainted. Vowing to refile charges, Norris instead wound up forced from office the next year, after the feds busted him for cocaine possession. So his successor, Victor Viglucci, resumed the chase.

First, authorities impressed on St. Clair that he would lose his plea deal unless he testified; he soon caved. Next, investigators scrounged up three jail snitches who claimed that Noling bragged about the killings to them. Their statements about Noling's boasts -- that he herded the Hartigs into the bedroom before shooting them -- contradicted the murder scene. An undaunted Viglucci deemed his witness cupboard restocked, and prosecutors coaxed a grand jury to indict Noling again in 1995.

As a result of Buckwalter's spadework, however, his lawyers stood hip-deep in evidence and witnesses of their own. Her work unearthed three crucial findings:

- Noling maintained that, after the Murphy robbery on April 5, he, St. Clair, Dalesandro, and Wolcott went cruising around Alliance -- not Atwater -- later that afternoon. Spotting an elderly woman walking alone, Noling and the others recalled, he hopped out and sprinted off with her purse, scoring a single credit card and \$8.

While Noling sketched a map of where the theft occurred for his lawyers, police claimed that no report of the incident existed. But in scouring court documents, Buckwalter noticed that Craig seemed fully aware of the crime, inquiring about it during his interview with St. Clair in March 1993.

"Did you rob another woman at a parking lot prior to going on your ride out in the country . . . steal a purse or something?" Craig asked.

St. Clair confirmed the theft, adding that they set out from his half-brother's house after 5 p.m.

It's a vital time hook: The Hartigs -- who lived 15 miles away -- were killed between 4 p.m. and 5 p.m. that day.

- Investigators alleged that, when Noling shot the Hartigs in the kitchen, St. Clair stopped ransacking the bedroom, then ran from the house with his friend moments later.

Buckwalter's review of the evidence exposed a crack in that scenario. Detectives found a spent shell casing under a pile of papers dumped in the living room -- a fact that suggests the killer searched the residence *after* the slayings.

- Police interviewed Dr. Daniel Cannone, the Hartigs' physician and longtime friend, as part of their probe. The doctor described how, during a phone call the night before the shootings, Bearnhardt divulged that his insurance agent owed him \$10,000.

According to Cannone, Bearnhardt said he lent the money to Lewis Lehman to boost his insurance business, much as he once aided the doctor with his practice. But Lehman had defaulted, and before hanging up that Wednesday evening, Bearnhardt vowed to confront the agent by the weekend.

"This whole thing is starting to smell," he told Cannone.

Survivors of the Depression, the Hartigs had stashed their life savings in a heating duct in their basement until early 1990, when Cannone persuaded them to rent a safety deposit box. They always did business in cash -- whether buying a car or extending loans to friends -- and kept tidy financial records. Yet a police search turned up no paperwork regarding a transaction with Lehman.

"Bearnhardt would have had written documentation," Cannone says. "That's always kind of bothered me."

Something else troubled Buckwalter. Lehman admitted to police in 1992 that he used to own a .25-caliber handgun but had sold it "to [an] unknown individual." The Alliance resident explained that he'd carried it on the job because "sometimes people would act funny."

The single-page report is the lone document in the case file that pertains to Lehman, despite its reference to an

earlier visit police paid him. It contains no details on whether detectives tried to track down his gun or learn about the debt he may have owed the Hartigs. Similarly, county investigators disclosed little when Buckwalter asked about him, vaguely replying that "he doesn't fit the profile."

Buckwalter and ex-sheriff Howe counter that Lehman, who died in 1998, makes a near-perfect fit. (Lehman's widow, since remarried, declined comment to *Scene*.)

Evidence suggests that the killer sat across from the Hartigs at the kitchen table when he shot them -- a sign that the couple may have known their attacker.

Buckwalter and Howe also regard the condition of the couple's home -- from which no valuables appeared missing -- as proof that the assailant executed a careful search rather than a frenzied plundering. A careful search, they speculate, for a cache of money or a promissory note on a \$10,000 loan.

Their theory rests more on circumstantial clues and guesswork than on hard evidence. Still, Buckwalter says, hearing about Lehman might have stirred reasonable doubt in jurors.

That is, if Noling's lawyers had mentioned him.

A judge granted the prosecution's request to declare St. Clair a hostile witness when he recanted his admission of guilt at Noling's trial in January 1996. It marked the closest that public defenders Cahoon and Keith came to calling a witness on his behalf.

Seven years later, neither attorney cares to share the logic behind that passive strategy. Keith declines to talk on the record. Cahoon favors a mantra that he repeats a half-dozen times: "All defense claims were fully investigated."

But if Buckwalter supplied pieces of the puzzle, Cahoon and Keith failed to assemble them in front of jurors.

The lawyers passed on putting Cannone and detectives on the stand to discuss Lehman. Nor did they bring up the purse snatching, which occurred around the time of the murders, or call Ron Craig to testify about how he knew of the incident despite the lack of a police report. They also neglected to describe how the Hughes and Murphy robberies differed enough from the Hartig killings for sheriff's investigators to jettison Noling as a suspect.

Noling believes their approach had its roots in the parched soil of apathy, claiming they prodded him to plead out prior to trial. "They were talking about how I'm guilty as sin."

In response, Cahoon says, "I'm not going to rehash the case." But with respect to Noling's alleged cohorts, he contends, "These guys would have been crazy not to turn state's evidence."

The comment may hint at why, in Noling's latest appeal, attorney Gideon argues that Cahoon and Keith choked their client's odds of acquittal at least as much as prosecutors. Besides ignoring what Buckwalter uncovered, Gideon asserts, the trial lawyers botched chance after chance to fillet the county's case.

Ballistics tests proved that the handgun Noling stole from the Hugheses was not used in the Hartig killings, as investigators first surmised. So prosecutors trotted out Dalesandro to testify that Noling possessed a second .25 -- one authorities never recovered. Released after police cleared him in the Hughes and Murphy robberies, Dalesandro recalled, he obeyed Noling's orders to ditch the purported murder weapon.

Dalesandro took the gun to a fence named Chico Garcia, who in turn sold it to another man. But records show that the gun tracked down through Garcia was, in fact, the .25 pinched from the Hughes household. Cahoon and Keith, however, mounted no counterattack.

Similarly, Dalesandro and Wolcott testified that they saw and smelled gun smoke when Noling returned to the car. Cahoon and Keith's files included a report, prepared by a Tallmudge police sergeant, stating that the smoke would have dissipated by the time Noling reached the car. Yet the lawyers decided against putting the cop on the stand.

They also disregarded flaws in the prosecution's timeline. Wolcott testified that he and the others drove to Atwater

on April 5 after St. Clair's mother, Beverly Rupp, picked up his half-brother from his home in Alliance for her birthday dinner. The memory of her visit supposedly reinforced Wolcott's account of the killings.

One problem: Rupp's birthday is April 6, and both she and St. Clair's half-brother remember her stopping by the house on that day. Neither was called to testify.

Buckwalter stayed away from the courtroom because Cahoon had declared her a witness. As she received updates on the trial from people who attended, she called Cahoon almost daily to suggest how he could deflate the prosecution's case. But her advice appeared to go no farther than the lawyer's voice mail.

Repeats Cahoon: "All defense claims were fully investigated."

Considering how much he and Keith left out, Buckwalter says, she understands why jurors found Noling guilty. "If I was sitting on the jury, I may have convicted Tyrone. I don't blame them at all."

After the guilty verdict, Cahoon and Keith finally called a handful of witnesses during the sentencing phase. Noling's mother and sister talked about how his father abused him with words and fists as a youngster. A psychologist posited that his tattered youth had saddled him with "the inner controls of a 2-year-old child."

Noling spoke last, his voice cracking, his thoughts fractured. "Life don't work out sometimes like everybody thinks it's going to . . . and I just beg from the bottom of my heart that you spare my life."

Unmoved, the jury voted for the death penalty, a sentence the judge affirmed two weeks later. As bailiffs escorted Noling from the courtroom that day, he spotted Ron Craig. Noling's fury detonated. "You're a piece of shit," he snarled. "You have no right to take my life away from me."

Much as Noling's lawyers may have botched his case, he might never have faced murder charges without Craig's handiwork.

The evidence put forth in Noling's appeals shows how Craig could have manipulated the Hartig probe. Mix together Noling's robberies, the stolen .25, and his cruising around with three pals. Move their joyride from Alliance to Atwater and swap out the purse snatching for a double homicide. Browbeat Noling's alleged accomplices until they parrot that version of events.

Case closed.

Eugene Muldowney, the assistant prosecutor who tried the Noling case, sums up that theory in three words: "Grasping at straws."

Muldowney spits out tommy-gun responses to questions about the investigation. Asked if any chance exists that authorities nailed the wrong guy, he says, "In my mind, there was no doubt." He derides allegations about authorities inventing a phantom handgun as "nonsense." The purse-snatching alibi? "They're trying to come up with anything they can."

As for the affidavits of Wolcott, Dalesandro, and St. Clair accusing Craig of coercion, he snaps, "No pressure was put on these guys. None that I've seen."

For all his bluntness, Muldowney sounds downright verbose next to his boss, Prosecutor Victor Vigluicci, who refused to discuss the case with *Scene*.

"I'm not real happy with your magazine," he fumed.

Vigluicci's irritation traces back to a January article that explored a judge's decision to grant new trials to two men convicted of murder in Portage County in 1990. The ruling, which Vigluicci has appealed, stoked allegations that authorities won the cases against Robert Gondor and Randy Resh by coercing testimony and hiding reports.

The similarities between that case and Noling's cut deep, in part because two of the prime players -- Craig and disgraced ex-prosecutor David Norris -- were involved in both. (Norris, now with the Florida public defender's office, did not respond to interview requests.)

Buckwalter, now an investigator with the Stark County public defender's office, also probed the Gondor-Resh case while employed by a private firm. "I thought something like that could only happen once," she says. "I was wrong."

In June 1993, after Buckwalter's interview with Gary St. Clair led to the dropping of charges against Noling, Norris declared, "I'm not in the business of prosecuting innocent people." Yet she and Gideon, Noling's appellate lawyer, sense that both Norris and Viglucci were influenced more by politics than truth.

In 1992, the year a grand jury first indicted Noling, Norris ran for reelection. Four years later, on the day the opening of Noling's trial played on the front page, newspapers carried stories of Viglucci filing for reelection.

"If that's not politics driving this," Gideon says, "we're all blind, deaf, and dumb."

A Portage County judge will rule later this year on whether evidence raised in Noling's appeals warrants the voiding of his sentence. The pending decision weighs on his alleged accomplices as heavily as on Noling.

Wolcott now lives in Hawaii, where he works construction. Back in 1990, he and Noling shared a mutual disdain. In the few days they hung around each other, Wolcott recalls, Noling twice pressed the stolen .25 against his head and vowed to shoot him if he squealed about the robberies. He alleges that Craig pressured him to say that Noling threatened him over the murders, not the robberies -- employing what Wolcott dubs "the art of fear" to wear him down.

"This is going to make me look like shit, but when the trial ended, I felt like 'It's over. It's finally over.'"

Today, he finds himself gazing at the ocean for hours, regretting his role in putting a man he feels is innocent on the path toward execution. "I seriously believe that a demon will chase me until this is over, until Tyrone gets out," he says. "Trust me -- I'm in my own prison."

The state paroled Dalesandro, 32, last month, after he served 11 years. He plans to work in a relative's scrap yard and hopes one day to run a tow-truck service. But he figures that, if he had simply maintained Noling's innocence, his old friend might be on the outside with him.

"I feel stupid because I let [investigators] scare me," says Dalesandro, who alleges that prosecutors force-fed him the story about the existence of a second .25. "If I hadn't lied, none of this would have happened."

St. Clair, 34, faces at least 10 more years behind bars. Norris punished him by pushing for a longer sentence when he refused to testify against Noling. He's unrepentant: "Me, Tyrone, Butch, Joey -- we didn't do this."

Meanwhile, Noling's good behavior has landed him in the "honor pod" of death row, where he's afforded more time out of his cell and other meager privileges. Given that he seldom hears from his family, save for the cash that his father mails him, he harbors a healthy sense of gallows humor.

Recounting how St. Clair watched TV at the Hughes house during the robbery, Noling cackles at the memory. "Why not get a bowl of cereal and have himself a good ol' time?"

If some interpret such a remark as cold-hearted, consider it from another angle: On death row, whether guilty or innocent, a man adapts to his fate any way he can. Noling says he's already weathered depression. Now he simply tries to balance his desire for freedom against a fatalistic view that the best he can hope for is to have his sentence commuted to life.

"All I have is my soul," he says. "That's the only thing they can't take away from me."