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IN THE COURT OF COMMON PLEAS OF CAMBRIA COUNTY CRIMINAL DIVISION

KEVIN SIEHL Petitioner, vs. COMMONWEALTH OF PENNSYLVANIA Respondent	Case No. 1058-1991 MEMORANDUM OF LAW IN SUPPORT OF MOTION FOR POST CONVICTION DNA TESTING PURSUANT TO 42 Pa. C.S.A. § 9543.1

Petitioner, Kevin Siehl, hereby submits his motion for post-conviction DNA testing pursuant to 42 Pa. C.S.A. § 9543.1. The motion is presented in good faith and premised on the following facts and points of authority.

Respectfully submitted this ___ day of January 2008.

/s/ Craig M. Cooley
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I. Introduction

On July 13, 1991 someone brutally murdered Christine Siehl by stabbing her more than twenty times in the bathroom of her residence; the assailant left her body in the bathtub, and turned on the shower; the murder scene was covered with blood and in complete disarray. The Commonwealth charged, prosecuted, and convicted Ms. Sielh's husband–Kevin Siehl–with her murder. Although convicted, legitimate questions persist regarding the evidence used to convict him. Mr. Siehl claimed (and still claims) he did not murder his wife; at trial, he presented several alibi witnesses which placed him somewhere besides the Ms. Siehl's residence when the murder allegedly occurred. His alibi is supported by the fact the Commonwealth failed to produce a single eyewitness who placed him at the murder scene when the murder allegedly occurred. Instead, the Commonwealth premised its case on weak circumstantial evidence and misleading and false blood and fingerprint evidence.[1]

Given the brutal nature of the murder and the bathroom's disarray, it was obvious Ms. Siehl struggled with her assailant–likely creating a transfer of evidence between her and her assailant; defense wounds on her arms support this conclusion. The medical examiner collected a wealth of physical evidence from Ms. Siehl's autopsy, including her fingernail clippings; hair from underneath a left hand fingernail; combed and pulled public hairs; vaginal swabs; anal swabs; and her clothing. Investigators also collected more than eighty items of evidence from the murder scene, including several blood samples from bloodstains located on the bathroom wall, a cigarette butt, and several bloodstained items. Despite the fact DNA testing was still in its infancy in 1991-1992, the Commonwealth could have possibly pursued RFLP DNA testing–and conclusively determined Mr. Siehl's guilt or innocence–if not for a misunderstanding or miscommunication between the Commonwealth and its blood expert.

Prior to trial, the Commonwealth's blood expert–Scott Ermlick of the Pennsylvania State

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[1]In one recent study, researchers estimated that erroneous forensic science factored in 63% of 86 DNA exoneration. See Michael J. Saks & Jonathan J. Koehler, *The Coming Paradigm Shift in Forensic Identification Science*, 309 Sci. 892 (Aug. 2005). With respect to forensic fraud, the same researchers concluded that "forensic scientists [were] the witnesses most likely to present false or misleading testimony," and that nearly 1/3 of the 86 exonerations involved false or misleading testimony by a forensic scientist. Saks & Koehler, *supra*, at 893.

Police (PSP) Crime Laboratory, informed Johnstown detectives DNA testing could be performed on certain items of evidence, but that Cellmark Laboratories had to perform the testing because the PSP crime labs did not have RFLP DNA technology at the time. The Cambria County District Attorney's Office initially refused to pay for the testing; shortly thereafter, however, the Johnstown Police Department, Cambria County District Attorney's Office, and the Cambria County Coroner's Office discussed splitting the testing cost amongst the three agencies. When the Cambria County Coroner's Office contacted Mr. Ermlick to discuss DNA testing, Mr. Ermlick said he consumed the blood samples (which he suggested DNA testing for) when he performed his serological examinations; Mr. Ermlick performed the serological tests because he did not think the Commonwealth would pay for the testing.[2] Consequently, with too little biological material for RFLP DNA testing, the Commonwealth premised much of its case on rudimentary serology.

As evidenced by the DNA exonerations, serology's limited probativeness has played a significant role in numerous wrongful convictions.[3] To make matters worse, Mr. Ermlick greatly exaggerated serology's discriminatory potential; he claimed he could–with only six blood markers–individualize a bloodstain (from the bloody bathroom) to Mr. Siehl. Furthermore, he exaggerated the discriminatory potential of a presumptive blood test used to test for the **possible** presence of blood on Mr. Siehl's shoes; he claimed the presumptive test definitively established the presence of human blood on his shoes. Both claims are specious and prejudiced Mr. Siehl; the Commonwealth misled the jury to believe investigators recovered his blood from a bloody murder scene and that his shoes had human blood on them.

The Commonwealth's fingerprint evidence is equally disturbing and problematic. The Commonwealth presented PSP Trooper Merrill Brant as its fingerprint expert. Trooper Brant made three critical conclusions: (1) he identified a latent print lifted from the bathroom shower head as Mr.

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[2]As noted *infra*, Mr. Ermlick failed to inform the jury he accidentally consumed certain critical blood samples; instead, he said the Commonwealth did not pursue DNA testing because the sample sizes were too small for RFLP DNA testing and because the PSP crime labs were not equipped with RFLP DNA technology.

[3]E.g., Brandon L. Garrett, *Judging Innocence*, 108 COLUMBIA L. REV. (forthcoming 2008) (noting that conventional serology testimony supported nearly 40% of the first 200 convictions which DNA exposed as erroneous).

Siehl's fingerprint; (2) he opined that Mr. Siehl must have made the print as he stood outside the bathtub; and (3) he said Mr. Siehl must have deposited the latent print near the time of Ms. Siehl's murder (i.e., he time-dated the latent print). Each of his claims are incorrect or specious. First, Mr. Siehl developed newly-discovered evidence which proves Trooper Brant mistakenly linked the latent print to him.[4] Second, fingerprints cannot be time-dated; numerous forensic science journals and textbooks have repeatedly acknowledged this fact. See *infra* (citing scientific literature). Trooper Brant's specious testimony prejudiced Mr. Siehl; it placed him at the murder scene during the time the Commonwealth argued he committed the murder; and it suggested he murdered Ms. Siehl in the bathroom, placed (or left) her body in the bathtub, and adjusted the shower head (from outside the bathtub) to aim it at Ms. Siehl's bloody body.[5]

The rudimentary (and misleading) serology evidence and the false (and mistaken) fingerprint testimony, raise serious questions about Mr. Siehl's first-degree conviction. These questions can be conclusively answered with today's DNA technology. As noted, Ms. Siehl's homicide represents a very personalized and intimate killing involving a great struggle; in such murders, it is likely the assailant transferred biological evidence to the victim. Likewise, because the assailant repeatedly stabbed Ms. Siehl, it is reasonable to assume the assailant may have cut himself during the attack; a cut would leave blood on certain items at the scene depending on the assailant's actions during and after the attack (e.g., the bathroom walls, the sinks, or towels). Investigators collected several items of evidence which can be subjected to DNA testing, the results of which can do both–i.e., identify the assailant's DNA on Ms. Siehl and/or in her bathroom. Accordingly, Mr. Siehl seeks to test this evidence pursuant to 42 Pa. C.S.A. § 9543.1 so he may prove his actual innocence.

Pursuant to § 9543.1, a petitioner may seek DNA testing–in order to prove his or her innocence–if he or she satisfies the statutory requirements. Mr. Siehl satisfies these requirements.

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[4]The new evidence is an affidavit from Herb MacDonell–one of the country's foremost fingerprint experts–which unequivocally states that Trooper Brant's identification is incorrect. Ex. 2. As the wrongful conviction cases have demonstrated, misidentifications are more common than once expected. E.g., Simon A. Cole, *More Than Zero: Accounting For Error in Latent Fingerprint Identification,* 95 J. CRIM. L. & CRIMINOLOGY 985 (2005).

[5]The Commonwealth argued Mr. Siehl moved the body from behind the bathroom door into the bathtub. NT, Trial–Dennis Kwiatkowski, 5/11/92, at 148.

First, he can specify which items of evidence he wants tested. Second, he consents to provide bodily fluid samples and acknowledges that law enforcement may use these samples "in the investigation of other crimes and may be used as evidence against the [him] in others cases." § 9543.1 (1)(iii). Third, he asserts he is actually innocent of the crime for which the jury convicted him of–i.e., first-degree murder. Fourth, the perpetrator's identity "was at issue in the proceedings that resulted in [his] conviction and [life] sentence." § 9543.1 (3)(i). Fifth, his trial occurred before January 1, 1995, and the DNA technology he seeks to employ was not available when the Commonwealth prosecuted him in May 1992. See § 9543.1(a)(2). And sixth, exculpatory DNA results would prove his "actual innocence of the offense for which [he] was convicted. § 9543.1 (3)(ii)(A). Mr. Siehl is entitled to DNA testing to prove his actual innocence.

II. Statement of Facts

A. The Crime and Crime Scene

During the early evening of July 14, 1991, James Griffin, Christine Siehl's landlord, stopped by her residence to investigate why water was flowing out of her residence.[6] When no one answered, Mr. Griffin entered Ms. Siehl's residence and walked to the bathroom where he found the showing running and Ms. Siehl's lifeless body sitting in the bathtub; she was dressed in shorts, a halter top, and a bra.[7]

Although investigators found no signs of forced entry, the bedroom phone and living room phone and T.V. lines had been pulled from their sockets.[8] Likewise, the bathroom exhibited signs of a bloody struggle; the bathroom door was kicked in, the mirror broken, and a radiator top and kitty litter box overturned.[9] Investigators identified blood around the bathroom door frame; they found more concentrated and profuse stains on the bathroom side of the door and the walls against which the door opened. Investigators concluded that the primary attack occurred in the bathroom corner

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[6]NT, Trial, 5/11/92, at 25-28. NT = Note of Testimony.

[7]Id. at 26-28, 75.

[8]Id. at 63-64.

[9]Id. at 75, 79.

behind the door.[10]

B. The Autopsy and Evidence Collected from the Autopsy

Chief Coroner, Dr. John Floyd Yerger, conducted the autopsy at approximately 9 p.m. on July 14, 1991. Dr. Yerger identified twenty knife wounds on Ms. Siehl's body. Of these twenty, three presumably lead to her death: one to her face; one to her elbow; and one to her back. The face and elbow wounds severed critical arteries, while the back wound punctured her left lung.[11]

Based on the potassium levels in Ms. Siehl's eyes, Dr. Yerger opined she died between thirty-six and forty hours before he performed the autopsy; this would place the time of death between 5 a.m. and 9 a.m. on July 13, 1991[12]–at time period for which Mr. Siehl had an alibi. Likewise, he opined that, given the nature and extent of Ms. Siehl's wounds, she could have only survived between five and ten minutes after they were inflicted; this placed the time of the attack within the same period as her death.[13]

Dr. Yerger recovered the following items of evidence from Ms. Siehl's body: fingernail clippings; hair from underneath a left hand fingernail; combed and pulled public hairs; vaginal swabs; anal swabs; and her clothing. Except for the vaginal and anal swabs, Dr. Yerger turned over these items along with the clippers used to clip Ms. Siehl's fingernails to Pennsylvania State Police Trooper Merrill Brant, who submitted them to the Pennsylvania State Police Southwest Crime Laboratory for testing.[14] Dr. Yerger chose not to submit the vaginal and anal swabs because his initial examination of them failed to detect semen or sperm.[15]

Scott F. Ermlick, a forensic chemist with the Pennsylvania State Police Southwest Crime

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[10]Id. at 79-80.

[11]Id. at 123-24, 127.

[12]Id. at 133-34.

[13]NT, Trial, 5/11/92, at 126.

[14]NT, Discovery & Inspection Hrg., 01/29/92, at 4; NT, Trial, 5/11/92, at 163 (Trooper Brant: "I collected pubic hairs, head hairs, fingernail scrapings and fingernail cuttings. I collected various hairs that were on the body. I collected her clothing and two vials of blood"); NT, Trial, 5/12/92, at 16; PSP General Investigation Rpt., 7/17/91, by Tpr. Merrill Brant; Ex. 1.

[15]NT, Trial, 5/11/92, at 118, 130.

Laboratory, examined the hairs lifted from Ms. Siehl's leg and beneath her fingernail, and excluded Mr. Siehl as a possible donor.[16]

Items significant to Mr. Siehl's instant motion for DNA testing include:

- the fingernail clippings (item nos. 2-3);[17]
- the hair from underneath a left hand fingernail (item no. 8);
- the combed and pulled public hairs (items nos. 5-6);
- the vaginal swabs (no item no. because not submitted);
- anal swabs (no item no. because not submitted);
- the fingernail clippers (item no. 3); and
- Ms. Siehl's clothing (item nos. 15-17).

C. Physical Evidence Collected From the Crime Scene

Investigators recovered an abundance of physical evidence which can be subjected to today's DNA technology (e.g., STR, Y-STR, and mitochondrial DNA testing). For instance, investigators collected twelve blood samples from bloodstains located throughout Ms. Siehl's residence (item nos. 21-32).[18] They also collected a cigarette butt (item no. 79) with apparent blood on it; bloodstained clothing; a bloodstained green bag (item no. 20) and bloodstained towels from the bathroom.[19] Similarly, investigators collected several knives, including one which appeared bloodstained (item no. 11); a bloodstained knife; hair; and household goods–all of which investigators submitted to the Southwest Crime Laboratory for testing.[20]

Trooper Merrill Brant collected fingerprints from Ms. Siehl's residence; he lifted two

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[16]NT, Trial, 5/12/92, at at 23.

[17]The item numbers refer to the Pennsylvania State Police Laboratory Report identifying the items of evidence submitted to the Pennsylvania State Police Report; the laboratory report is attached hereto as exhibit 1.

[18]NT, Trial, 5/12/92, at 4.

[19]Id. at 14-15, 195.

[20]NT, Trial, 5/11/92, at 74, 165; Ex. 1.

complete and one partial print from her living room.[21] He also lifted a partial and three complete prints from the bathroom; he lifted the three complete prints from the showerhead, bathtub, and the ledge behind the bathtub.[22] Trooper Brant linked the showerhead print to Mr. Siehl.

Nearly a month after Ms. Siehl's death, police located her car.[23] Trooper Brant collected fibers and three partial fingerprints from the car and submitted the fibers to the Southwest Crime Laboratory for testing.[24] Trooper Brant examined the fingerprints and excluded Mr. Siehl.[25] Similarly, Mr. Ermlick examined the hairs and excluded Mr. Siehl as a possible donor.[26] Mr. Ermlick also examined a hair recovered very near the bathroom door (item no. 9) and excluded Mr. Siehl as a possible donor.

Eager to identify the assailant, investigators collected and submitted more than eighty items of evidence to the Southwest Crime Laboratory.[27] Items significant to Mr. Siehl's instant motion for DNA testing include:

- the twelve bloodstains (item nos. 21-32);
- the bloodstained green rag (item no. 20);
- the bloodstained knife from the kitchen (item no. 11);
- the cigarette butt (item no. 79); and
- the telephone and cable cords.

D. Trial

The critical issue at trial was the perpetrator's "identity." For instance, during opening statements, the Commonwealth stated:

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[21]NT, Trial, 5/11/92, at 170-71.

[22]Id. at 174-75.

[23]NT, Trial, 5/14/92, at 120.

[24]NT, Trial, 5/12/92, at 5.

[25]Id. at 39.

[26]Id. at 10.

[27]Id. at 13-17.

> We ask you to keep focused really on three things. Did a murder occur; was there a death? **Who committed the murder? And is there evidence that Mr. Siehl is the person that committed that murder and killed his wife**? And why was the murder committed?[28]

Trial counsel's opening statements also highlight the "identity" issue:

> You won't hear the District Attorney emphasize these three pieces of evidence because these [three] blood stains did not come from the defendant, Kevin Siehl. And you won't hear the District Attorney emphasize these three pieces of evidence because these blood stains did not come from the other two suspects whose blood was collected for comparison.
>
> Ladies and gentlemen, the police don't know who this blood belongs to. All they can tell you is that those three pieces of evidence most likely came from the same person.[29]

Prosecutors argued Mr. Siehl killed his ex-wife because they had material problems and because she dated other men.[30] Mr. Siehl, on the other hand, argued the police failed to thoroughly investigate two other plausible suspects–Frank Willis and Robert Prebehalla.[31]

1. The Prosecution's Case

Because no one witnessed Ms. Siehl's murder, this forced the Commonwealth to prove the assailant's identity by relying on weak circumstantial evidence and specious or exaggerated forensic fingerprint evidence. Specifically, the Commonwealth relied on false fingerprint testimony, questionable and exaggerated serological testimony, and testimony from an alternate suspect who police assaulted before he finally told them Mr. Siehl allegedly made incriminating comments to him.

a. The Serology Testimony

The Commonwealth presented Mr. Ermlick as its serological expert. Mr. Ermlick was well-credentialed; he had a bachelor's degree in chemistry, a master's degree in forensic chemistry, and

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[28]NT, Trial, 5/11/92, at 17 (emphasis added).

[29]Id. at 19.

[30]Id. at 10.

[31]Id. at 20-21.

FBI and other law enforcement training in genetics and DNA analysis.[32] The Commonwealth used Mr. Ermlick's testimony to establish three critical points: (1) a bloodstain from the bathroom (item no. 22) could have only come from Mr. Siehl; (2) Mr. Siehl's shoes (item no. 67) had human blood on them; and (3) a kitchen knife (item no. 11) had human blood on it. The Commonwealth used Mr. Ermlick's testimony to argue that the blood evidence not only identified the murder weapon (i.e., the knife), it implicated Mr. Siehl in his ex-wife's murder. Thus, the blood evidence played a critical role in Mr. Siehl's conviction.

Mr. Ermlick, however, presented misleading and incomplete testimony. Notably, he repeatedly claimed blood grouping tests can individualize bloodstains. Likewise, he opined Mr. Siehl had human blood on his shoes–despite the fact he failed to conduct confirmatory blood tests. Finally, his reports and testimony failed to inform trial counsel and the jury that blood samples recovered from the crime scene could have originated from the two alternative suspects–Robert Prebehalla and Frank Wills. As a result, there are many questions left unanswered by Mr. Ermlick's serological testing–answers which can be conclusively answered with today's DNA technology.

(1) Bathroom Bloodstains

Johnstown and Pennsylvania State Police submitted over eighty items of evidence; of these, twenty tested positive for human blood; these included item numbers 15 (Ms. Siehl's bra), 16 (Ms. Siehl's shorts), 17 (Ms. Siehl's pink halter top), 18 (bath towel), 19 (bath towel), 21-32 (twelve blood samples from bathroom), 44 (white panties), 45 (white dress), 79 (cigarette butt).[33] Of these twenty items, twelve included bloodstains from Ms. Siehl's bathroom and bathroom door (items no. 21-32).[34] Of these bloodstains, Mr. Ermlick testified he tried to **individualize** each bloodstain: "As I have mentioned already, what we are trying to do is individualize a blood stain."[35]

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[32]Id. at 5.

[33]Ex. 1.

[34]NT, Trial, 5/12/92, at 40.

[35]Id. at 29; see also id. at 25 ("We will start out, first of all, doing the enzymes and then we will apply the ABO blood grouping and then we will generate profiles based upon this information and compare these profiles to the known profiles from the victim and the suspects to try

Of the twelve bloodstains (items no. 21-32), Mr. Ermlick said items 21, 23, 24, 25, 26, 27, 28, 29, 30, and 31 came from Ms. Siehl,[36] while item 22 came from Mr. Siehl.[37] The following exchange between Mr. Ermlick and the Commonwealth captures this point:

> Commonwealth: Now, Mr. Ermlick, of the item numbers that appear on page five of your report starting with 15 and ending with 79 how many different individuals were responsible for those blood groups?
>
> Mr. Ermlick: It would appear that based on what I see I can only see two different blood groups there. I only have evidence of two different blood groups.
>
> Commonwealth: So how many different individuals were responsible for depositing blood at the crime scene?
>
> Mr. Ermlick: Based upon the information that I have... I would say that there were two people.
>
> Commonwealth: And who were those two individuals.
>
> Mr. Ermlick: ... I would say the individuals would be the victim which would be Christine Siehl, and the suspect which would be Mr. Siehl.[38]

With respect to item 22, Mr. Ermlick premised his opinion on the fact six enzymes present in Mr. Siehl's blood were also identified in item 22:

Item 22 and Mr. Siehl's Blood Characteristics

	ABO	PGM	EST	EAP	AK	ADA
Item No. 22	A	1+	1	B	1	2-1
Item No. 46 (Mr. Siehl)	A	1+	1	B	1	2-1[39]

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and determine **who or from where certain spots of blood came from.**") (emphasis added); id. at 39 ("was not enough stain there to determine the species of origin or to individualize those stains."). An "item is individualized when it can be described in such a way that no other item in the universe is like it, even items identified as being similar." Inman & Rudin, *supra*, at 4.

[36]NT, Trial, 5/12/92, at 40, 43.

[37]Id. at 43

[38]Id.. Mr. Ermlick provided similar testimony later during re-direct examination. Id. at 75.

[39]Ex. 1.

Mr. Ermlick's testimony was significant; it placed Mr. Siehl's blood at a bloody murder scene; a murder which the Commonwealth claimed he committed.

Mr. Ermlick's testimony, however, exceeded conventional serology's parameters; serology cannot individualize a bloodstain to an individual:

> True individualization of a specimen of blood would mean that a sufficiently large number of factors could be typed so that nobody else in the world would have the particular combination of blood types found. At the present time, this is impossible, and it will probably be impossible for the foreseeable future. Individualization can be **approached**, however, by typing as many factors as possible. The more factors that can be typed, the smaller the number of people whose blood could have the combination of types found.[40]

On cross-examination, Mr. Ermlick refused to conceded this point:

> Trial Counsel: ... You said that from your experience and from this profile that the blood you found belonged to two people, Christine Siehl and Kevin Siehl; isn't that what you said?
>
> Mr. Ermlick: Yes, I did.
>
> Trial Counsel: Now, that's not true, Mr. Ermlick; is it? You can't make that statement.
>
> Mr. Ermlick: I think I can.
>
> Trial Counsel: Oh, you think you can?
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> Mr. Ermlick: Yes, sir, I do because what I have to do is I look at all of the profiles, I look at all of the blood groupings. The only difference that I find is in the ADA on the one particular item which is consistent with Mr. Siehl. I find no other foreign blood groups there. Now, granted there are areas where I was unable to detect stains. But the fact of the matter is that which was detectable was certainly consistent with the both of them and would not indicate a third party.[41]

Mr. Ermlick reinforced his opinion during another colloquy with trial counsel:

> Trial Counsel: You were unable to individualize these stains specifically to either the victim or the defendant; isn't that true?

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[40]PETER DE FOREST ET AL., FORENSIC SCIENCE: AN INTRODUCTION TO CRIMINALISTICS 231 (1983) (emphasis in original).

[41]NT 5/12/92, at 45-46.

Mr. Ermlick: No, that's not true at all.[42]

Contradictorily, after supposedly individualizing item 22 to Mr. Siehl, Mr. Ermlick testified that one in two hundred people would have his blood types.[43] Thus, in a city the size of New York (8, 214,426 people),[44] 40,000 people may share Mr. Siehl's genetic markers. Moreover, in a county the size of Cambria County (152,598),[45] 763 people could possibly share Mr. Siehl's genetic markers.

Moreover, Mr. Ermlick testified it was possible to identify at least eight additional enzymes (i.e., CA, GLO, GD, HP, GC, TF, PI, and HB) to further individualize the samples. Adhering to the Pennsylvania State Police Crime Laboratory's standard protocol, however, he did not test for these enzymes.[46] Mr. Ermlick's failure to test for these enzymes raises serious questions regarding item number 22's origin, and contradicts his stated objective of individualization. As explained: "Individualization can be **approached**... [only] **by typing as many factors as possible. The more factors that can be typed**, the smaller the number of people whose blood could have the combination of types found."[47]

Mr. Ermlick also presented misleading testimony. As noted, he testified only two people–Mr. Siehl and Ms. Siehl–could have produced the bathroom bloodstains and other bloodstains identified on items recovered from the crime scene.[48] Implicit in his conclusion was that the bloodstains could not have come from two alternative suspects–Frank Wills and Robert

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[42]Id. at 46. Mr. Ermlick finally conceded another person could have produced items 22, 26, 27, 28, and 29, and that he could not individualize these items to Mr. Siehl and Ms. Siehl. Id. at 53, 55.

[43]Id. at 41.

[44]See http://www.citypopulation.de/USA-NewYork.html (last visited Oct. 16, 2007).

[45]See http://en.wikipedia.org/wiki/Cambria_County,_Pennsylvania (last visited Oct. 16, 2007).

[46]Id. at 55-56.

[47]De Forest et al., *supra*, at 231 (initial emphasis in original; later emphasis added); see also Inman & Rudin, *supra*, at 37 ("the more places you look, the greater the chance of finding a difference between two people.').

[48]Id. at 48.

Prebehalla. Mr. Ermlick's serological data, however, does not support this conclusion; Robert Prebehalla cannot be excluded as a possible donor of bloodstains on item numbers 16 (Ms. Siehl's purple shirt), 18 (a bath towel), 19 (a bath towel), 21 (bathroom bloodstain), 44 (Ms. Siehl's white panties), and 79 (a cigarette butt from the bathroom):

	ABO	PGM	EST	EAP	AK	ADA
Item No. 53 Prebehalla	A	1+	1	BA	1	1
Item No. 16 Ms. Siehl's shorts	A	1+	1	-	-	1
Item No. 18 Bath towel	A	1+	1	-	1	1
Item No. 19 Bath towel	A	-	-	-	-	-
Item No. 21 Bathroom stain	-	1+	1	-	1	1
Item No. 44 White panties	A	-	-	-	-	1
Item No. 79	A	-	-	-	-	-

The serological data regarding item numbers 26 (blood patch collected from wall behind commode), 28 (a blood patch collected from a full length bathroom mirror), and 29 (a blood patch collected from the bathroom kitty litter box) also contradict the Commonwealth and Mr. Ermlick's claim that the bloodstains could have only come from Mr. Siehl or Mrs. Siehl. Notably, items numbers 26, 28, and 29 have PGM type 1; this does not correspond with Mr. or Mrs. Siehl's PGM type, which is 1+.[49] Thus, if Mr. or Mrs. Siehl could not have produced these bloodstains, they must

[49]Ex. 1.

have come from a third party. Mr. Ermlick's misleading testimony supports Mr. Siehl's request for DNA testing because it can resolve the substantial questions it created.

(2) Bloodstain on Mr. Siehl's Shoes

Mr. Ermlick provided misleading testimony regarding stains identified on Mr. Siehl's shoes. Mr. Ermlick testified his presumptive blood tests on Mr. Siehl's shoes tested positive for the possible presence of blood. Presumptive testing only indicates whether a substances is **possibly present**; it cannot definitively state whether a substance is actually present. Consequently, because various substances share certain qualities witnessed in human blood,[50] the probative value of a presumptively positive blood test is very limited.[51] Mr. Ermlick did not conduct confirmatory blood tests because there "was not enough stain there to determine the species of origin or to individualize those stains."[52] Moreover, he failed to adequately document these alleged bloodstains when he failed to photograph Mr. Siehl's shoes.[53]

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[50]Dr. Ermlick identified several substances which can produce false positives: "There are several substance [that can produce false positives for human blood]. I can give you some ideas as to what we're dealing with, rust, oil, bleach, some apples will, beets will, beans, plant products." NT, Trial, 5/12/92, at 39.

[51]See PETER DEFOREST ET AL., FORENSIC SCIENCE: AN INTRODUCTION TO CRIMINALISTICS 248 (1983) ("Most authorities agree that positive presumptive tests **alone** should not be taken to mean that blood is definitely present. A positive tests suggests that the sample could be blood... .") (emphasis in original); id. at 249 ("Once a specimen has been identified as blood, it is necessary to find out whether it is human or not.").

[52]Id. at 39.

[53]Acceptable "ways to document the basis for conclusions derived from evidence examinations, include, but are not limited to: a narrative description of the examination process and observations made, photographs, photocopies, diagrams, drawings, worksheets which provide spaces or sections for the insertion of data or other observations made during various steps of the examination process, or a combination of two or more of these approaches." AMERICAN SOCIETY OF CRIME LABORATORY DIRECTORS, LABORATORY ACCREDITATION BOARD MANUAL 31 (2003); see also United States v. Monteiro, 2005 U.S. Dist. LEXIS 39062, at *14 (D.Mass., Nov. 28, 2005) ("documentation to support conclusions must be such that in the absence of the examiner, another competent examiner or supervisor could evaluate what was done and interpret the data.") (quoting AMERICAN SOCIETY OF CRIME LABORATORY DIRECTORS, LABORATORY ACCREDITATION BOARD MANUAL 29 (1997)). According to one forensic examiner:

> [F]or our work to be valid, it must be verifiable to other examiners. This means that other examiners must be able to repeat the work and come to the same conclusions. Therefore, the data that we gather should provide a well-defined "roadmap" as to what experiments we performed to answer the question(s) posed, what data was gathered, and a clear demonstration of the evidence from which we supported our

Despite failing to conduct confirmatory blood tests, Mr. Ermlick testified he was certain the stains were in fact human bloodstains; Mr. Ermlick based his opinion on his experience and visual acuity: "[I]t's been my experience that whenever I combine the presumptive test with the visual examination and I have gotten a positive presumptive test along with what appears to be blood visually, it has turned out to be blood through the course of my experience[.]"[54] Mr. Ermlick reiterated his opinion on re-direct:

> Commonwealth: In... your years of experience, is there any relationship between times when you find blood presumptive for blood and there is enough left for you to determine whether or not it is blood?
>
> Mr. Ermlick: Yes. It's been my experience that when there is enough that is, in fact, blood or it has turned out to be blood.[55]

(3) Additional Questions

A thorough review of the police and crime laboratory report raises additional questions regarding the accuracy of Mr. Ermlick's blood testimony. According to one police report, Sgt. Wagner's December 30, 1991 (Johnstown) police report, Mr. Ermlick informed him that the bloodstains identified on items 18 (bath towel) and 23 (bathroom door jam) were consistent with Mr. Siehl's blood:

> This writer spoke with Scott Ermlick who is the forensic scientist who is doing all of the analysis on the evidence from the SIEHL homicide. He stated that he did find blood on the door jam which is consistent with that of KEVIN SIEHL. He stated that he also found blood on the towel which is consistent with Kevin SIEHL. ERMLICK suggested that the blood from the towel be sent to Maryland to Sel Marc [sic] for D.N.A. testing.[56]

Curiously, despite his statement to Sgt. Wagner, it is obvious from Mr. Ermlick's official serological report that items 18 and 23 could not have come from Mr. Seihl; the ADA enzymes from both

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> conclusion(s). This mechanism of communication among scientists is a substantial part of the process of verification.

Bruce Moran, *Photo Documentation of Toolmark Identifications–An Argument in Support*, 35 AFTE J. 174, 181 (2003).

[54] Id.

[55] Id. at 73-74.

[56] See Johnstown Police Dep't, Supplement Rpt., dated December 30, 1991, by Sgt. L. J. Wagner. Sgt. Wagner meant to refer to Cellmark Laboratories.

samples exhibited a "1" subtype, while Mr. Siehl's blood exhibits a "2-1" blood type.

	ABO	PGM	EST	EAP	AK	ADA
Item 18	A	1+	1	-	1	1
Item 23	A	1+	1	B	1	1
Mr. Siehl	A	1+	1	B	1	**2-1**

As Mr. Ermlick, himself, conceded: "Now, another important thing to remember is that if the bloods **differ in any of these systems they are different**. To match they have to match in all or they are not considered to be the same."[57] Again, these facts raise serious questions about Mr. Ermlick's blood work.

(4) No Pre-trial DNA Testing

According to Mr. Ermlick's trial testimony, DNA testing could not be performed for two reasons: (1) the samples were too small for RFLP DNA testing; and (2) the Pennsylvania State Police (PSP) had yet to incorporate DNA technology into its crime laboratory system; the PSP was projected to have DNA technology by August 1992–three months after Mr. Siehl's trial.[58]

Mr. Ermlick's trial testimony, however, is not entirely accurate. On August 1, 1991 Mr. Ermlick urged Sgt. Wagner (Johnstown Police Department) to perform DNA testing on several items, and he identified the likely cost of the DNA testing:

> ERMLICK suggested that the blood from the towel be sent to Maryland to Sel Marc [sic] for D.N.A. testing. He stated that the evidence would be packaged by the crime lab and then transported to Sel Mac [sic] by the investigating officers. He stated that the cost is $450.00 per sample and he suggested a total of five samples be done for a cost of $2,250.00.[59]

Sgt. Wagner sought approval for the DNA testing; on August 5, 1991 the Cambria County District Attorney's Office refused to pay for the DNA results:

> 5 Aug. 91, ... A call was received from Brad BLANKTON, who is the two year law student interning with the DA's office. He stated that he spoke with DA Tim CREANY and that CREANY said he would not authorize payment for the DNA

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[57]NT, Trial, 5/12/92, at 32.

[58]NT, Trial, 5/12/92, at 47-48.

[59]Johnstown Police Dep't, Supplement Rpt., dated December 30, 1991, by Sgt. L. J. Wagner.

> testing. It was suggested to BLACKINGTON that the costs be split in two ways with his office and with this department.[60]

Sgt. Wagner subsequently called Johnstown Police Chief, Linda Weaver, who suggested the cost could possibly be split three ways between the Cambria County District Attorney's Office, the Johnstown Police Department, and the Cambria County Coroner's Office.[61] Sgt. Wagner then called John Barron of the Cambria County Coroner's Office, who "suggested that DNA testing only be done on the blood of Kevin SIEHL as opposed to all other persons as suggested previously by the crime lab."[62] Mr. Barron told Sgt. Wagner he would contact Mr. Ermlick. When Mr. Barron spoke with Mr. Ermlick, Mr. Ermlick informed him "there will be no DNA testing done because there were no samples left to be tested."[63] When Mr. Barron relayed this information to Sgt. Wagner and Sgt. Cancelliere,

> SGT. CANCELLIERE immediately called Scott Ermlick. Ermlick stated that he was not sure if there was going to be any DNA testing done so he used up all of the samples for blood grouping and there is not sufficient samples remaining to do DNA testing.[64]

(5) Impact of Blood Testimony

In short, Mr. Ermlick's testimony misled the jury into believing: (a) item number 22 was in fact Mr. Siehl's blood; (b) of the three likely suspects–only Mr. Siehl's blood was recovered from the bloody murder scene; and (c) there was human blood on Mr. Siehl's shoes. The Commonwealth hammered home these points during its opening and closing statements:

> [T]here is a small patch of the defendant's blood on the outside of the door...
> ...

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[60] Id.

[61] Id.

[62] Id.

[63] Id.

[64] Id. A significant question which needs to be answered is why Mr. Ermlick would suggest DNA testing on August 1, 1991–clearly implying there were sufficient samples to test for certain items–and then, on August 5, 1991, inform detectives he consumed all the relevant biological samples. That Mr. Ermlick issued his official serological report on August 6, 1991, supports the notion he completed his serological testing on or before August 1, 1991 when he recommended DNA testing to Sgt. Wagner. The date of his report also raises the question of why he told Sgt. Wagner items 18 and 22 were consistent with Mr. Siehl's blood, when in fact they were not.

> Scott Ermlick... gave us a lecture on blood grouping and genetic markers. The bottom line of that lecture was there were two people's blood found in that apartment, the victim's and the defendant's.
> ...
>
> Mr. Ermlick said that there was a substance on those tennis shoes that was presumptively positive for blood; there just wasn't enough to test it... He also said in his experience when he looks at something and he does a test and it's presumptively positive for blood when he does have enough it turns out to be blood.[65]

Without question, Mr. Ermlick's misleading blood testimony inevitably affected–adversely–the jury's perception of Mr. Siehl's culpability. E.g. Little v. Streater, 452 U.S. 1, 14 (1981) ("Unlike other evidence that may be susceptible to varying interpretation or disparagement, blood test results, if obtained under proper conditions by qualified experts, are difficult to refute.").

(6) Post Conviction: Newly Discovered Evidence

Mr. Siehl developed new evidence calling into question the reliability and accuracy of Mr. Ermlick's serological results. In particular, he developed new evidence regarding item numbers 21 and 22–two bloodstains collected from the door frame of the bathroom door.[66] Mr. Ermlick testified and reported that these two bloodstains originated from **two different sources** because both bloodstains presented with different genotypes for the ADA enzyme; item number 21 presented with ADA 1, while item number 22 presented with ADA 2-1.[67]

During state post-conviction proceeding, Mr. Siehl retained renowned forensic expert Herb MacDonell to review the Commonwealth's forensic evidence. Mr. MacDonell examined item numbers 21 and 22 and concluded that they **could not** have originated from different sources due to the similarities in their patterns and directionality. Mr. MacDonell stated:

> It has been reported that the characteristics of the blood in these two bloodstains is different and, therefore, they must have come from two different individuals. While this is a very remote possibility, I find it so unlikely as to seriously question the accuracy of that determination. Both of these bloodstains struck the wall with a near parallel left to right configuration. Furthermore, the internal angle of impact to the

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[65]NT, Closing Arguments, 5/16/92, at 30, 40, 40; see also NT, Opening Statements, 5/11/92, at 13.

[66]Ex. 7.

[67]Ex. 1.