NON-PRECEDENTIAL DECISION - SEE SUPERIOR COURT O.P. 65.37

COMMONWEALTH OF PENNSYLVANIA	:	IN THE SUPERIOR COURT OF PENNSYLVANIA
v.	:	
RALPH SKUNDRICH	:	
Appellant	:	No. 1246 WDA 2023

Appeal from the PCRA Order Entered September 22, 2023
In the Court of Common Pleas of Allegheny County Criminal Division at No(s): CP-02-CR-0012621-2010

BEFORE: PANELLA, P.J.E., LANE, J., and BENDER, P.J.E.

MEMORANDUM BY BENDER, P.J.E.: **FILED: October 22, 2024**

Appellant, Ralph Skundrich, appeals from the order denying his petition filed under the Post Conviction Relief Act (PCRA), 42 Pa.C.S. §§ 9541-9546, without a hearing. After careful review, we reverse and remand for an evidentiary hearing.

The underlying facts of this case were set forth in Appellant's direct appeal as follows:

> At approximately 2:30 a.m. on July 25, 2002, D.W. awoke on her living room couch to find an intruder standing above her. D.W. described him as a Caucasian male with salt and pepper hair, between five foot six and five foot eight inches tall, with a medium to stocky muscular build. Further, she indicated that the intruder wore a mask during the entire incident. Once the intruder noted D.W. was awake, he pointed a gun at her, demanded she give him money, and threatened to kill her if she screamed. He ordered D.W. into her bedroom. When she attempted to scream, he punched her in the face and stomach and removed her clothing.
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> The intruder proceeded to perform oral sex on D.W., penetrate D.W. anally with his penis, and forced her to perform oral sex on him. He led D.W. into the bathroom and forced her to

> urinate while he watched. While in the bathroom, he again forced D.W. to perform oral sex on him and [he] ejaculated onto her face and chest. The intruder used a towel to clean D.W. off before anally penetrating her for the second time. He led D.W. back into her bedroom, demanded to know the location of her money, and instructed D.W. to wait five minutes before leaving the room. Upon leaving D.W.'s residence, the intruder disconnected her phone and removed her phone handset.
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> After ten minutes, D.W. contacted the police and was transported to a hospital where DNA evidence was collected. In 2010, police obtained a search warrant to collect DNA evidence from [Appellant] to test against the DNA evidence taken in relation to D.W.'s assault. Subsequent testing confirmed a match and [Appellant] was arrested and charged with D.W.'s sexual assault.

Commonwealth v. Skundrich, No. 1433 WDA 2014, unpublished memorandum at *1-2 (Pa. Super. filed Sept. 9, 2016).

At trial, the Commonwealth presented testimony from DNA experts regarding the identity of the victim's assailant. First, Thomas Meyers, a retired scientist and DNA technical leader in the Allegheny County Medical Examiner's Office, testified as to his office's attempts to find the victim's attacker through the DNA left behind. N.T., 1/9-13/14, at 104-54. Two primary areas of the victim's clothing were tested, a spot from the victim's T-shirt and one from her pants. ***Id.*** at 125. In 2002, when the crime occurred, the Allegheny County Medical Examiner's Office was able to determine that the samples contained DNA from the victim and one other person, still unknown; thus, the lab sent samples of the non-victim DNA to a national database for comparison. ***Id.*** at 127. A "hit" on the database occurred in 2010, indicating that Appellant may be the source of the non-victim DNA. ***Id.*** at 128. Based upon this new information, police obtained a search warrant for Appellant's DNA. Meyers

testified that, after comparing Appellant's DNA to the spot on the victim's pants, he concluded that the probability of the DNA coming from a Caucasian male other than Appellant was 1 in 280,000. ***Id.*** at 133. As for the spot on the victim's shirt, Meyers testified that the probability statistic for the DNA coming from a Caucasian man other than Appellant was 1 in 630,000. ***Id.***

Appellant's case became linked with a similar incident in Butler County after the 2010 DNA database hit. At Appellant's trial, the Commonwealth provided testimony from Jeffrey Fumea, a forensic DNA scientist supervisor with the Pennsylvania State Police, who analyzed the Butler County sample.[1] ***Id.*** at 190. Fumea testified that the Butler County sexual assault had similar factual details to the case at bar. In the Butler County case, the DNA was also a mixture from two profiles - those of the victim and one other. ***Id.*** at 200. Fumea further noted that, after testing a DNA reference sample from Appellant against the evidence from the Butler County victim, the statistical probability that the DNA came from someone other than Appellant was 1 in 5 million randomly selected Caucasian individuals, one in 120 million African-American individuals, and 1 in 18 million Hispanic individuals. ***Id.*** at 205-06.

At the suggestion of the Butler County prosecutor, the DNA evidence in this case was sent to Dr. Mark Perlin and his firm, Cybergenetics, for further DNA analysis. ***Id.*** at 135, 176. Meyers testified that he sent the evidence to

[1] The Commonwealth had been granted permission to introduce evidence, including the DNA statistical probability evidence, related to the Butler County case; the pretrial notice of the Commonwealth's intent to submit this evidence pursuant to Pa.R.E. 404(b) was filed on May 20, 2011.

Dr. Perlin because Dr. Perlin's lab operates under different restrictions than the county lab did. ***Id.*** at 147-48. Dr. Perlin then testified, explaining how his TrueAllele software performs a statistical analysis of DNA data. Basically, when a sample of DNA comes from multiple sources, TrueAllele uniquely multiplies and separates certain allelles[2] in the material to identify each source of DNA separately. Dr. Perlin briefly explained: "TrueAllele is based on genetics and probability…. It is based on the idea that if you have data, you can interpret that data and you can find out what the answers are even if there is uncertainty by assigning probability." ***Id.*** at 254-55. Appellant defines TrueAllele as "a probabilistic genotyping software program which purports to apply an intricate algorithm and analytical process to de-convolute and interpret complex DNA mixtures." Appellant's Brief at 5.

Dr. Perlin testified to his results in this case: as for the stain found on the victim's T-shirt, the match to Appellant was 4.4 quadrillion times more likely than a match to an unrelated Caucasian person. N.T. at 272. With respect to the stained area from the victim's pants, the match to Appellant was 2.1 quadrillion more probable than a coincidental match to an unrelated Caucasian person. ***Id.***

A jury convicted Appellant of burglary, five counts of involuntary deviate sexual intercourse, two counts of sexual assault, and single counts of indecent

[2] An allele can be defined as "any of the alternative forms of a gene that may occur at a given locus[.]" *Allele* (1), MERRIAM-WEBSTER'S DICTIONARY, https://www.merriam-webster.com/dictionary/allele, (last visited Sept. 5, 2024).

assault, terroristic threats, simple assault, and false imprisonment.[3] Appellant was found not guilty of robbery, and additional counts of rape and indecent assault were withdrawn. The trial court sentenced Appellant to an aggregate term of 65½ to 131 years of incarceration.

Appellant filed a timely post-sentence motion, which was denied on August 5, 2014. This Court thereafter affirmed Appellant's judgment of sentence in an unreported memorandum opinion. ***Skundrich***, No. 1433 WDA 2014, ***supra***. On January 31, 2017, Appellant's petition for allowance of appeal was denied by the Pennsylvania Supreme Court. ***Commonwealth v. Skundrich***, 165 A.3d 896 (Pa. 2017).

Appellant had until May 1, 2018, to file a timely PCRA petition. ***See*** 42 Pa.C.S. §§ 9545(b)(1), (3) (providing that a timely PCRA petition shall be filed within one year of a defendant's judgment of sentence becoming final, and that a judgment becomes final for purposes of filing a timely PCRA petition at the expiration of time for seeking review in the U.S. Supreme Court); ***see also*** U.S.Sup.Ct.R. 13(1) ("A petition for a writ of certiorari seeking review of a judgment of a lower state court that is subject to discretionary review by the state court of last resort is timely when it is filed with the Clerk within 90 days after entry of the order denying discretionary review."). Appellant filed a timely, *pro se* PCRA petition on February 1, 2018. Counsel was appointed

[3] 18 Pa.C.S. §§ 3502(c)(1), 3123, 3124.1, 3126(a)(1), 2706, 2701(a)(1), and 2903(a), respectively.

and, after several extensions of time, filed a ***Turner/Finley*** no-merit letter.[4] The PCRA court granted counsel's request to withdraw, but Appellant filed *pro se* objections to the dismissal of his PCRA claims. Appellant subsequently retained private counsel.

After various continuances, counsel for Appellant filed an amended PCRA petition on October 15, 2021, which included a motion for discovery. In the amended petition, Appellant claimed that trial counsel was ineffective for failing to obtain the TrueAllele source code,[5] supporting validation and documentary studies, and other materials necessary for the purpose of examining the accuracy and reliability of the TrueAllele program. He also claimed that trial counsel was ineffective for failing to cross-examine Dr. Perlin about whether TrueAllele failed to adhere to well-established software engineering standards. In the motion for discovery, Appellant asserted that this case involved exceptional circumstances, and specifically requested 15 categories of documentation related to TrueAllele, including validation studies, corrective action reports, operating manuals, and, of course, the source code.

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[4] ***See Commonwealth v. Turner***, 544 A.2d 927 (Pa. 1988); ***Commonwealth v. Finley***, 550 A.2d 213 (Pa. Super. 1988) (*en banc*).

[5] Appellant represents that source code "is the human readable form of a programming language and contains the complete set of instructions for how a computer processes input data. In the absence of source code, the inner workings of a program cannot be examined, adapted, or modified." Appellant's Brief at 6 n.1 (citation omitted). ***See also*** Commonwealth's Brief at 18-19 (stating that source code "is a list of instructions in the form of a computer program that is translated into computer-readable software. The source code gives the computer step-by-step instructions on how to handle the data that is fed to the computer").

Amended PCRA petition, 10/15/21, at 64-65. The Commonwealth filed an answer to the petition on February 10, 2022.

Prior to disposition, and following the retirement of the PCRA court judge, the case was reassigned to the current PCRA court, which denied Appellant's motion for discovery on June 7, 2023. The PCRA court later explained that it could not find any binding authority to support Appellant's claim that he was entitled to the source code.[6] The court also filed a Pa.R.Crim.P. 907 notice of its intent to dismiss the PCRA petition without a hearing that same day. After Appellant requested clarification of the purported reasons for dismissal, the PCRA court filed a second notice of its intent to dismiss the petition, stating that the ineffectiveness claims were without merit because the DNA expert[7] who authored a report critical of TrueAllele attached to the Amended petition was not available at the time of

[6] Order Dismissing PCRA petition, 9/21/23, at 1 (single page).

[7] Appellant had obtained a declaration from Nathaniel Adams, a Systems Engineer at Forensic Bioinformatic Services, Inc., a company that reviews cases involving forensic DNA testing, and appended it to Appellant's Amended PCRA petition as Exhibit B. The conclusion of his report states:

> Public materials describing the TrueAllele software development process are not sufficient for determining that TrueAllele has been developed in accordance with common software engineering practices or standards or that it could be or has been verified and validated against software engineering standards. Provision of materials supporting the TrueAllele software development and [verification and validation] processes would allow me to evaluate whether public claims of the reliable operation of TrueAllele are supported by non-public materials.

Amended Petition, Exhibit B, at 14-15.

trial, and because Appellant could not establish prejudice. Notice of Intent to Dismiss, 8/10/23, at 1 (single page). Appellant filed a reply, and the PCRA court thereafter dismissed the petition without a hearing. Appellant now timely appeals.[8]

Appellant raises the following questions on appeal, which we repeat verbatim:

> I. In the lower court proceedings, Mr. Skundrich contended that trial counsel rendered ineffective assistance of counsel under the Sixth Amendment to the United States Constitution and Article I, Section 9 of the Pennsylvania Constitution by failing to move for unfettered access by a defense expert to an executable version of TrueAllele and the disclosure of TrueAllele's source code and supporting software development documentation materials for the purpose of examining the accuracy and reliability of the program. Such a request must have been made on the grounds that non-disclosure and continued secrecy would violate Mr. Skundrich's due process right to a fundamentally fair trial and his right of confrontation under both the United States and Pennsylvania Constitutions.
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> Did the PCRA Court err by ruling that the underlying claim lacked arguable merit; that the trial counsel had a reasonable strategic basis for not pursuing the underlying claim; that Mr. Skundrich was not prejudiced by trial counsel's failure to pursue the underlying claim; and by dismissing this claim without an evidentiary hearing?
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> II. In the lower court proceedings, Mr. Skundrich contended that trial counsel rendered ineffective assistance of counsel under the Sixth Amendment to the United States and Article I, Section 9 of the Pennsylvania Constitution by failing to cross-examine Perlin about the fact that TrueAllele failed to adhere to well established software engineering standards and practices and/or by failing to call an expert witness, Nathaniel Adams, to testify as to those matters.

[8] Both Appellant and the PCRA court have complied with Pa.R.A.P. 1925.

> Did the PCRA Court err by ruling that trial counsel had a reasonable strategic basis for not pursuing the underlying claim; that Mr. Skundrich was not prejudiced by trial counsel's failure to pursue the underlying claim; and by dismissing this claim without an evidentiary hearing?
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> III. Did the PCRA Court err by denying Mr. Skundrich's Motion for Discovery?

Appellant's Brief at 3.

In evaluating the denial of a claim filed under the PCRA, this Court's standard of review is "limited to examining whether the PCRA court's determination is supported by the evidence of record and whether it is free of legal error." ***Commonwealth v. Sandusky***, 203 A.3d 1033, 1043 (Pa. Super. 2019) (citation omitted). A PCRA court's credibility determinations are binding on the reviewing court if they are supported by the record. ***Commonwealth v. Paddy***, 15 A.3d 431, 442 (Pa. 2011). However, "this Court applies a *de novo* standard of review to the PCRA court's legal conclusions." ***Id.*** A court's decision to deny a PCRA claim without a hearing may only be reversed upon a finding of an abuse of discretion. ***Commonwealth v. Keaton***, 45 A.3d 1050, 1094 (Pa. 2012). Further,

> the right to an evidentiary hearing on a post-conviction petition is not absolute. It is within the PCRA court's discretion to decline to hold a hearing if the petitioner's claim is patently frivolous and has no support either in the record or other evidence. It is the responsibility of the reviewing court on appeal to examine each issue raised in the PCRA petition in light of the record certified before it in order to determine if the PCRA court erred in its determination that there were no genuine issues of material fact in controversy and in denying relief without conducting an evidentiary hearing.

Commonwealth v. Miller, 102 A.3d 988, 992 (Pa. Super. 2014).

We note at the outset that the Fourteenth Amendment of the United States Constitution and Article I, Section 9 of the Pennsylvania Constitution each mandate that all interactions between the government and an individual defendant be conducted in accordance with the protections of due process. ***See Commonwealth v. Sims***, 919 A.2d 931, 941 n.6 (Pa. 2007) (noting that the federal and state constitutional guarantees, in general, operate co-extensively); ***Commonwealth v. Tillia***, 518 A.2d 1246 (Pa. Super. 1986) (same). "Due process is a universal concept, permeating all aspects of the criminal justice system." ***Commonwealth v. Cosby***, 252 A.3d 1092, 1135 (Pa. 2021).

The required elements in a procedural due process claim include having adequate notice and an opportunity to be heard on the charges, and a chance to defend one-self before a fair and impartial tribunal having jurisdiction over the case. ***Commonwealth v. Devlin***, 333 A.2d 888, 891 (Pa. 1975). The U.S. Constitution "guarantees criminal defendants a meaningful opportunity to present a complete defense[,]" whether under the due process clause of the Fourteenth Amendment or pursuant to the Sixth Amendment guarantees for compulsory process and the confrontation of witnesses.[9] ***Holmes v. South Carolina***, 547 U.S. 319, 324 (2006). "Neither man nor child can be allowed to stand condemned by methods which flout constitutional requirements of due process of law." ***Commonwealth v. Thompson***, 281

[9] Appellant argues that relief is warranted under both principles of due process and the Confrontation Clause in this case.

A.2d 856, 858 (Pa. 1971) (citation and quotation marks omitted). Moreover, "a fair trial is one in which evidence subject to adversarial testing is presented to an impartial tribunal for resolution of issues defined in advance of the proceeding." ***Strickland v. Washington***, 466 U.S. 668, 685 (1984).

Where, as here, an appellant asserts that they received ineffective assistance of counsel, the following standards apply:

> A PCRA petitioner will be granted relief only when he proves, by a preponderance of the evidence, that his conviction or sentence resulted from the ineffective assistance of counsel which in the circumstances of the particular case, so undermined the truth-determining process that no reliable adjudication of guilt or innocence could have taken place. Counsel is presumed effective, and to rebut that presumption, the PCRA petitioner must demonstrate that counsel's performance was deficient and that such deficiency prejudiced him. In Pennsylvania, we have refined the ***Strickland*** performance and prejudice test into a three-part inquiry. Thus, to prove counsel ineffective, the petitioner must show that: (1) his underlying claim is of arguable merit; (2) counsel had no reasonable basis for his action or inaction; and (3) the petitioner suffered actual prejudice as a result.

Commonwealth v. Spotz, 84 A.3d 294, 311-12 (Pa. 2014) (internal citations omitted). If an appellant fails to satisfy any prong of the ineffectiveness standard, the claim will fail. ***Commonwealth v. Fitzgerald***, 979 A.2d 908, 911 (Pa. Super. 2009).

First Issue

In Appellant's first issue, he maintains that trial counsel provided ineffective assistance when she failed to seek access to an executable version of the TrueAllele program, as well as the source code for the program and supporting software validation and documentation materials, prior to

Appellant's trial. Appellant argues that the requested information was necessary to his receiving a fundamentally fair trial in accord with due process. It is worth repeating that this had been a cold case for a number of years. Further, while the Allegheny County crime lab had concluded that Appellant was the likely attacker, its probability statistic was either 1 in 280,000 or 1 in 630,000 that a Caucasian man other than Appellant was the source of the DNA. After TrueAllele tested the DNA samples, the probability statistic that the DNA was Appellant's had improved to 1 in 4.4 quadrillion. Appellant argues that his due process rights, as well as his right to effective cross-examination, were violated and his trial was therefore fundamentally unfair, because a challenge to the reliability and/or accuracy of the comparisons made by TrueAllele between his DNA and the samples retrieved from the victim's clothing was essentially impossible without these materials, and the incredible probability statistics regarding TrueAllele's "match" of the samples to Appellant's DNA thus went effectively unchallenged. Appellant insists that counsel was ineffective for failing to seek the source code for the TrueAllele program and supporting software validation and documentation materials, which would have provided Appellant the opportunity to challenge the reliability of the DNA matches.

In response, the Commonwealth directs our attention to ***Commonwealth v. Foley***, 38 A.3d 882 (Pa. Super. 2012). ***Foley*** also involved Dr. Perlin and the TrueAllele program, and the Commonwealth asserts that the case stands for the proposition that the source code and

internal workings of the program are not only undiscoverable, but they are also unnecessary to test TrueAllele's reliability. Commonwealth's Brief at 21. ***Foley*** involved a first-degree murder conviction where Foley challenged the admissibility of DNA testimony given by Dr. Perlin. ***Foley***, 38 A.3d at 887. A sample containing a mixture of DNA was obtained from the fingernails of the murder victim. ***Id.*** The sample was tested in an FBI laboratory, and three experts, including Dr. Perlin, used the raw FBI data in developing their testimony. ***Id.***

> Each of the experts determined that Foley's DNA profile was consistent with DNA found in the sample. The experts differed in their estimates of the probability that someone other than Foley would possess DNA matching the DNA found in the sample -- [expert 1] testified that the probability that another Caucasian could be the contributor was 1 in 13,000; [expert 2] testified that the probability was 1 in 23 million; and Dr. Perlin testified that it was 1 in 189 billion.

Id.

Foley had challenged the admissibility of Dr. Perlin's testimony, claiming it did not pass the ***Frye***[10] test for the admissibility of scientific evidence. ***Id.*** at 888. Pennsylvania courts apply this test when a litigant wishes to present novel scientific evidence; the new scientific evidence is only admissible if the methodology that underlies the evidence has general acceptance in the scientific community. ***Id.*** The application of the Frye test is a two-step process:

> First, the party opposing the evidence must show that the scientific evidence is 'novel' by demonstrating that there is a

[10] ***Frye v. United States***, 293 F. 1013 (D.C. Cir. 1923).

> legitimate dispute regarding the reliability of the expert's conclusions. If the moving party has identified novel scientific evidence, then the proponent of the scientific evidence must show that the expert's methodology has a general acceptance in the relevant scientific community despite the legitimate dispute.

Id. (internal citations and quotation marks omitted).

Analyzing the TrueAllele evidence in ***Foley***, the ***Foley*** Court first found that Dr. Perlin's testimony was not "novel" as defined in the pertinent law. ***Id.*** Specifically, the ***Foley*** Court stated that, because Foley had failed to establish a dispute over Dr. Perlin's methodology, he did not show that this was novel scientific evidence. ***Id.*** at 888-89. This conclusively ended the ***Frye*** challenge. The ***Foley*** Court concluded that there was no abuse of discretion in admitting Dr. Perlin's testimony and the TrueAllele evidence.[11] ***Id.***

We agree with the Commonwealth that ***Foley*** establishes that the evidence provided by Dr. Perlin and the TrueAllele algorithms is ***admissible*** and not novel scientific evidence. However, that does not address the claim raised by Appellant herein. The only issue in ***Foley*** was whether the DNA results from TrueAllele was admissible; the case did not hold that TrueAllele was ***reliable***, that it produced accurate results, or, in other words, that it did what Dr. Perlin said it did. Appellant herein maintains that his trial counsel

[11] We note that in ***State v. Pickett***, 246 A.3d 279 (N.J. Super. Ct. App. Div. 2021), the Superior Court of New Jersey discussed ***Foley***, TrueAllele, and Dr. Perlin, cautioning that most of the validation studies proffered in support of TrueAllele have been conducted by Dr. Perlin and his associates, and not by independent scientists. The New Jersey Court accordingly warned against creating an authority "house of cards" by avoiding further scrutiny of TrueAllele. ***Id.*** at 306.

provided ineffective assistance of counsel, and denied him his due process right to a fair trial, by failing to seek information about TrueAllele, including the source code and validation studies, which were necessary to assess, and potentially challenge, the reliability of the TrueAllele results. According to Appellant, without these materials, counsel could not understand the inner workings of the program and undertake proper confrontation of Dr. Perlin with specific, effective cross-examination about the evidence incriminating Appellant. Appellant's Brief at 32.

The crux of Appellant's argument is that, without the necessary information from Dr. Perlin and Cybergenetics, a criminal defendant in a DNA case where a mixture of DNA is found and evaluated by TrueAllele is precluded from challenging whether Dr. Perlin's testimony was produced from valid scientific principles. In essence, his argument continues, defendants are told to "take [Dr.] Perlin's word for it" and accept the validity of the statistical analysis of probabilistic genotyping software without knowing exactly how the software reached the conclusions testified to at trial. ***Id.*** at 51. Clearly, the results from Dr. Perlin's testing produces statistics which significantly vary from the results obtained by other experts.[12] Appellant argues that he was deprived of a fundamentally fair trial because counsel's deficient stewardship

[12] For example, in the ***Foley*** case, one expert testified to a probability coefficient of 1 in 13,000; a second expert indicated that the probability was one in 23 million; and Dr. Perlin testified that the probability was one in 189 ***billion***. ***Foley***, 38 A.3d at 887.

of the evidence prevented the jury from being able to evaluate the accuracy and validity of Dr. Perlin's conclusions.

Arguable Merit

We repeat, to prevail on his ineffective-assistance-of-counsel claim, Appellant must first demonstrate arguable merit to the claim that counsel's failure to seek the materials to challenge the TrueAllele evidence rendered counsel's stewardship of the trial professionally deficient. ***Spotz, supra***. As in any ineffectiveness argument,

> the ultimate focus of inquiry must be on the fundamental fairness of the proceeding whose result is being challenged. In every case the court should be concerned with whether, despite the strong presumption of reliability, the result of the particular proceeding is unreliable because of a breakdown in the adversarial process that our system counts on to produce just results.

Strickland, 466 U.S. at 696. Further, a claim has arguable merit if the facts upon which the claim is based, if taken as true, could establish cause for relief. ***Commonwealth v. Stewart***, 84 A.3d 701, 707 (Pa. Super. 2013) (*en banc*). Stated another way, a claim of ineffective assistance of counsel may have arguable merit if counsel's act or omission conflicts with a constitutional guarantee.

Here, Appellant asserts that he was prosecuted and convicted based largely upon Dr. Perlin's testimony. He notes that, before the DNA evidence arrived at Cybergenetics, it was evaluated by local experts from county forensic offices, and this evaluation showed that odds were either 1 in 280,000 (pants sample) or 1 in 630,000 (shirt sample) that Appellant was a contributor

to the DNA mixture. After Dr. Perlin's testing, however, the Commonwealth proposed that a match between the DNA profile on the victim's shirt and Appellant's DNA profile was *4.4 quadrillion* times more probable than a coincidental match to an unrelated Caucasian person. Amended PCRA petition, 10/15/2021, at 5. The probability quotient for Appellant to be the source of the DNA in the victim's pants was 1 in *2.1 quadrillion*. ***Id***. A quadrillion is 1 followed by 15 zeros. Clearly, the testimony from Dr. Perlin and the TrueAllele probabilistic genotyping evidence was essential to the Commonwealth's case.

The PCRA court's opinion references that ample other evidence, besides Dr. Perlin's testimony, implicated Appellant in this crime. PCRA Court Opinion (PCO), 12/12/23, at 6-8. For example, the jury heard evidence of the Butler County sexual assault that had been linked to Appellant through DNA evidence. N.T. at 202, 204. The Butler County lab concluded that there was a 1 in 5 million chance that a Caucasian man other than Appellant was the contributor of the DNA. However, the PCRA court's observation about other evidence misses the point; with only the "other" evidence at hand, the Allegheny County lab's DNA evidence showed a relatively weak probability that Appellant was a contributor when compared to the probability quotient of one in 4.4 quadrillion reached by TrueAllele. The TrueAllele DNA match was evidence of a completely different magnitude. Even the probability statistic in the Butler County case, a 1 in 5 million match, while compelling, is not as conclusive as a match in the quadrillions. Indeed, the Commonwealth

presumably questioned the strength of the DNA evidence and the Allegheny County lab results given that it chose to send the DNA to Dr. Perlin for further testing. Thus, Dr. Perlin's testimony was critical to this prosecution.

Review of a due process challenge to a conviction entails an assessment of whether the challenged conduct offends some principle of justice so rooted in the traditions and conscience of our people as to be ranked as fundamental and that defines the community's sense of fair play and decency. ***Patterson v. New York***, 432 U.S. 197, 202 (1977); ***Commonwealth v. Wright***, 961 A.2d 119, 132 (Pa. 2008). The United States Supreme Court has held that due process requires that criminal defendants be provided access to certain evidence prior to trial in order that they may "be afforded a meaningful opportunity to present a complete defense." ***California v. Trombetta***, 467 U.S. 479, 485 (1984). The High Court has also stated that a criminal trial is "fundamentally unfair" where the defendant does not have access to the raw materials integral to the building of an effective defense; defendants must have an adequate opportunity to present their claims fairly within the adversarial system. ***Ake v. Oklahoma***, 470 U.S. 68, 77 (1985) (citations omitted). ***Ake*** suggests that there is arguable merit to Appellant's claim that access to the TrueAllele source code and supporting materials would be essential to an effective defense. ***See also Commonwealth v. Chamberlain***, 30 A.3d 381, 402 (Pa. 2011) (holding that the due process clause of the Fourteenth Amendment requires that defendants be provided access to certain kinds of evidence prior to trial, so that they may be afforded

a "meaningful opportunity to present a complete defense"); ***Tillia***, 518 A.2d at 1252 (noting that "due process requires that the Commonwealth provide to a defendant the result of the test and the opportunity to question the reliability or accuracy of the test result").

Appellant also asserts that part of the due process right to present a complete defense includes the right to confront the witnesses against him. Appellant's Brief at 49. The right to confrontation is basically a trial right, and includes both the opportunity for cross-examination of the witnesses and the occasion for the jury to consider the demeanor of the witnesses. ***Barber v. Page,*** 390 U.S. 719 (1968). "The central concern of the Confrontation Clause is to ensure the reliability of the evidence against a criminal defendant by subjecting it to rigorous testing in the context of an adversary proceeding before the trier of fact." ***Maryland v. Craig***, 497 U.S. 836, 845 (1990). The purpose of the Confrontation Clause is to promote the accuracy of the truth-determining process and assure that the fact-finder has a satisfactory basis for evaluating the truth of the evidence presented. ***Id.***

After review, we conclude that Appellant's ineffectiveness claim has arguable merit. Successful cross-examination of a witness requires a full and complete understanding of why the witness came to the conclusions that he or she reached, what factors were implicated in the analysis, and how these factors relate to the facts of the case at hand. ***Ake***, ***supra***. Successful evaluation of demonstrative evidence requires full knowledge and understanding of how the demonstrative evidence was created and evaluated

by the expert testifying. Neither of these were possible at Appellant's trial because counsel failed to seek the information and materials that could have been used to understand, and potentially challenge, Dr. Perlin's results.

Moreover, we find unconvincing any claim that trade secrets would foreclose testing of the reliability of the TrueAllele software, a critical component of the evidence against Appellant.[13] As the United States Supreme Court expressed:

> [T]he twofold aim (of criminal justice) is that guilt shall not escape or innocence suffer. We have elected to employ an adversary system of criminal justice in which the parties contest all issues before a court of law. The need to develop all relevant facts in the adversary system is both fundamental and comprehensive. The ends of criminal justice would be defeated if judgments were to be founded on a partial or speculative presentation of the facts. The very integrity of the judicial system and public confidence in the system depend on full disclosure of all the facts, within the framework of the rules of evidence.

United States v. Nixon, 418 U.S. 683, 709 (1974) (citation omitted).

Accordingly, there is arguable merit to Appellant's claim that his counsel should have sought, and received, full disclosure of the data behind the TrueAllele program, including having the ability to conduct independent evaluation and testing of the reliability of the program. We again state that

[13] To the extent that said concerns still exist, we note that a proper protective order can be issued to protect the financial interests of Cybergenetics. ***See George v. Schirra***, 814 A.2d 202, 204 (Pa. 2002) (noting that there is no absolute privilege that absolutely bars the disclosure of trade secrets, and that the trial court may grant a protective order to shield the secrets in an appropriate case); ***see also United States v. Ellis***, 2020 WL 7074622 (W.D. Pa. filed Dec. 3, 2020) (finding that source code review of TrueAllele and Cybergenetics should proceed and noting a protective order will be implemented to protect Cybergenetic's trade secrets).

we do not determine that TrueAllele is inadmissible under the ***Frye*** standard; clearly, admissibility has been established. ***Foley***, ***supra***. Rather, once admissible, criminal defendants like Appellant must be given the opportunity to evaluate the reliability of the results that TrueAllele provides. Our High Court succinctly stated the concern many years ago: "[W]here governmental action seriously injures an individual, and the reasonableness of the action depends on fact[ual] findings, the evidence used to prove the Government's case must be disclosed to the individual so that he has an opportunity to show that it is untrue." ***Green v. McElroy***, 360 U.S. 474, 496 (1959). In other words, the right to present a defense encompasses the right to fully evaluate the scientific evidence used against the defendant.[14, 15] Thus, Appellant's claim that counsel acted ineffectively for failing to seek these materials has arguable merit, as they should have been turned over had counsel requested them.

Reasonable Basis

[14] We note that the PCRA court's opinion in this case seemingly admits that the claim herein has arguable merit; the opinion states that an ineffectiveness claim may be denied if any of the three prongs of the test are not met and asserts that Appellant did not establish that counsel had no reasonable basis for her actions or inactions, or prejudice. PCO at 12.

[15] Defense counsel did have an independent expert at trial, Dr. Arthur Young. This does not obviate the need for detailed information about the inner workings of TrueAllele, as Dr. Young - like the expert put forth in the Amended PCRA petition explained - did not have the ability to adequately assess the program without materials related to the source code and validation studies.

As for whether counsel had a reasonable basis for failing to seek these materials and ensure an independent evaluation of them, the PCRA court found that counsel had such a reasonable basis — that the other evidence against Appellant was overwhelming. The PCRA court took issue with Appellant's claim that the TrueAllele evidence was the "only" evidence supporting his conviction. The PCRA court referred to the other evidence in the case; for example, Allegheny County forensic scientists testified that the likelihood that someone other than Appellant was the source of the stain on the victim's pants as 1 in 280,000; and for the stain on the victim's shirt, it was 1 in 630,000. N.T. at 133-34. The court also noted that the state police's crime lab found that Appellant's DNA "matched" a Butler County case, which was admissible at Appellant's trial. PCO at 6-7. In the factually similar Butler County incident, the state police lab found it likely that Appellant had left the DNA, with a statistical probability of 1 in 5 million. The PCRA court correctly noted that the connection between Appellant and both the Allegheny County and Butler County cases arose before Dr. Perlin got involved in any investigation. ***Id.*** at 7.

Yet this analysis does not account for the fact that Dr. Perlin's testimony was a critical part of the evidence supporting Appellant's conviction. Other evidence certainly was used to convict Appellant, but it was not of the same magnitude. After Dr. Perlin's testimony that the statistical probability of Appellant being the source of the DNA on the victim's shirt was 4.4 quadrillion times more likely than a coincidental match, a conviction was assured. Due

to the importance of the DNA evidence, the need to evaluate the reliability of this evidence should have been apparent, if not paramount, to trial counsel.

Nonetheless, we recognize that the Pennsylvania Supreme Court has held that "[a] chosen strategy will not be found to have lacked a reasonable basis unless it is proven that an alternative not chosen offered a potential for success substantially greater than the course actually pursued." ***Commonwealth v. Williams***, 899 A.2d 1060, 1064 (Pa. 2006). Thus, knowing why trial counsel chose not to seek the source code and supporting documentation for the TrueAllele program is necessary to determining whether counsel had a reasonable basis for her decision. Without this testimony, we cannot know whether counsel simply overlooked this issue or made a strategic choice to not seek the materials in question. We note again that, to obtain a new trial, Appellant must establish that counsel had no reasonable basis designed to effectuate Appellant's interests for failing to take the actions discussed here. An evidentiary hearing will permit Appellant to establish the reasons for counsel's inaction. ***Id.*** (our Supreme Court's noting, in assessing an ineffectiveness claim based upon counsel's failure to obtain DNA testing, the two-edged sword of DNA evidence because a DNA test can cement a conviction after a match or be wholly exculpatory; concluding that, because of this dichotomy, the attorney's rationale must be explored in an evidentiary hearing). ***See also Commonwealth v. Bolden***, 534 A.2d 456, 459 (Pa. 1987) (holding that when counsel is claimed to be ineffective due to "oversight" of a claim rather than a legitimate strategic choice, the no-

reasonable-basis prong of the ineffectiveness test is met). Thus, we must remand for an evidentiary hearing to determine whether counsel had a reasonable basis for her actions in this case.

The PCRA court also notes that the expert opinion attached to Appellant's Amended PCRA petition, and much of the caselaw cited in the petition, post-dates Appellant's trial. PCO at 8. The PCRA court maintains that Appellant had to prove that the information contained in the Amended PCRA petition was available in 2014, when he went to trial. ***Id.*** The PCRA court writes that it "does not conduct a hindsight analysis in comparing trial counsel's actions with other efforts [counsel] may have taken." ***Id.*** But this observation misses the point. Failing to reveal TrueAllele's source code and documentation materials for use prior to trial has potentially been a violation of due process since the program began to be used in the criminal justice system. Further, as noted by Appellant, at the time of his trial, the use of TrueAllele software was in its infancy, and far less was known about probabilistic genotyping software programs. The fact that this evidence had not been previously evaluated in the courts would seem to heighten the need for such materials to be sought by counsel in advance of Appellant's trial, but we cannot make that ultimate determination without hearing from trial counsel.

Prejudice

Finally, an ineffectiveness claim must establish that counsel's failure to act caused prejudice to Appellant. Appellant's argument on this point follows:

> First, it cannot be overstated that *any* hidden errors, biases, erroneous assumptions, defects or other deficiencies in TrueAllele's source code, design, development, implementation or reporting was of critical importance to the defense. If adversarial review and testing revealed any problem at all - no matter how miniscule it may seem - such a revelation properly could have prompted one or more jurors to reject [Dr.] Perlin's testimony as incredible and thus reject TrueAllele's reported likelihood ratio. Any revelation in this regard is at least reasonably likely to have affected the outcome because any latent imperfection or shortcoming revealed could properly create reasonable doubt. This is so even if the effect of the identified shortcoming is not completely exculpatory in the sense that it would definitively exclude [Appellant] as a possible contributor.

Appellant's Brief at 68-69 (emphasis in original).

We agree with this analysis. This case was all about the ***identity*** of the perpetrator. As a cold case for several years,[16] with the TrueAllele evidence at such a variance from the previous, county-lab materials, and with the DNA evidence being so central to conviction, it appears to be quite important for counsel to seek the at-issue materials, including the source code and validation studies related to the TrueAllele software, in order to properly present a defense and for effective cross-examination. Given the potency of DNA evidence in general, and the persuasiveness of such evidence in the eyes of the jury, the chance that Appellant suffered prejudice by the lack of these materials is certainly possible, especially if the materials are provided to Appellant, evaluated, and shown to have reliability issues that could have supported a challenge to the TrueAllele DNA results. ***See Commonwealth***

[16] Again, the assault occurred in 2002. In 2010, authorities obtained a saliva sample from Appellant, which was tested by the county lab. The material was sent to Dr. Perlin in 2011, and Appellant was convicted in January of 2014.

v. Pruitt, 162 A.2d 394, 401 (Pa. 2017) (our Supreme Court's observing, in a sexual assault case where counsel admitted to not understanding the DNA evidence and was thus alleged to be ineffective, that: "were this a case in which identity was in controversy, [which it was not,] we would likely find prejudice to be manifest").

Accordingly, we conclude that Appellant has established arguable merit to the claim that his counsel's failure to obtain the source code, validation studies, and other materials prior to trial was a violation of his right to due process of law. Without the testimony from trial counsel, however, we lack trial counsel's rationale for failing to obtain these. We must therefore remand for an evidentiary hearing to obtain counsel's testimony. We stress that the disputed materials remain critical to determining the accuracy and reliability of the results obtained by the software. Prejudice, however, cannot be fully evaluated and determined without the materials in question. Therefore, a hearing on the prejudice issue is warranted as well.

Consequently, at the evidentiary hearing, the PCRA court should first consider the testimony of trial counsel to determine whether a reasonable basis for her actions is present. If the court finds counsel had no reasonable basis for not seeking the at-issue materials, the court should then assess if Appellant can establish that he suffered prejudice by his trial counsel's failure in this regard. If both the reasonable basis and prejudice prongs are proven at this hearing, Appellant would be entitled to a new trial.

Remaining Issues

Due to the disposition above, we need not address Appellant's second claim related to trial counsel's ineffective cross-examination of Dr. Perlin. However, because we remand for an evidentiary hearing, we briefly address Appellant's third issue, the request for discovery.

In PCRA proceedings, discovery is only permitted upon leave of court after a showing of exceptional circumstances. Pa.R.Crim.P. 902(E); ***Commonwealth v. Frey***, 14 A.3d 605, 611 (Pa. Super. 2012). The phrase 'exceptional circumstances' is not defined by either the PCRA statute or our Rules of Criminal Procedure; it is up to the PCRA court's discretion to determine whether exceptional circumstances exist. ***Commonwealth v. Wharton***, 263 A,3d 561, 572-73 (Pa. 2021). We reverse a denial of a PCRA discovery request only after finding that the PCRA court abused its discretion. ***Id***.

In the Amended PCRA petition, Appellant listed 15 categories of information, with many subparts, asking for materials underlying the software versions used in cases docketed at CP-02-CR-0012621-2010 (the instant case from Allegheny County) and CP-10-CR-0002199-2011 (the Butler County case) specific to Appellant, and any version(s) used to support claims of validation, including the following:

> A. Published or internal standards or guidance documents against which TrueAllele is claimed to be verified and/or validated.
>
> B. Software development and operating materials, including but not limited to:
>
> 1. Requirements specifications

2. Design descriptions

3. Source code, including dependency and build instructions and scripts

4. The server-side database and executable computing components

5. All version control system history (e.g. git or SVN)

6. Formal software testing plans, records, and reports

7. Issue and bug tracking, including issue reports and change requests

8. Internal and external communications regarding development plans, processes, or requests

9. Change logs

10. All Operating manuals, plans, and procedures

11. Proficiency tests, including responses, used by personnel involved in validation processes or the instant case

12. Verification and validation plans and reports and all materials referenced therein

13. Qualification and user testing plans and reports

14. Internal software development, quality assurance, and quality control processes, plans, and reports

C. Records and electronic data used or generated by TrueAllele during validation study efforts, and any extant summaries thereof

D. Products of validation study efforts, including proposals, notes, memos, reports, graphics, tables, summaries, conclusions, and any resulting publications, presentations, and reports have been partially provided, mostly by way of complied reports and articles

E. Biological testing case file

F. Chain of custody and current disposition of evidence

G. Data files created in the course of performing DNA testing and analyzing data

H. Unexpected results and corrective actions reports

> I. Job descriptions of Cybergenetics personnel and proficiency test results
>
> J. Verification results
>
> K. Summary of bases relied upon by TrueAllele
>
> L. Written reports relied upon by TrueAllele and persons operating TrueAllele
>
> M. Features and limitations of probabilistic genotyping program (TrueAllele) and the impact that those items will have on the validation process
>
> N. All validation studies documented by the lab in accordance with the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories
>
> O. Proof of appropriate security protection to ensure only authorized users can access the software and data and list of names who accessed the data.

Amended PCRA Petition at 64-66. We have found in this case that due process concerns require that evidence related to Cybergenetics and TrueAllele be permitted to be evaluated by the defense. While this may be considered a close case, out of an abundance of caution, Appellant should be permitted to access the information about the TrueAllele DNA match so that he has an opportunity to establish prejudice caused by his trial counsel's failure to obtain such information prior to trial.

Accordingly, at the evidentiary hearing on remand, if the PCRA court finds that counsel had no reasonable basis for not seeking the at-issue materials, the court shall then determine, prior to an assessment of the prejudice-prong of Appellant's ineffectiveness claim, the extent of documentary and other evidence that must be turned over to Appellant, as well as the necessity of any protective orders in connection with turning over

such evidence. Thereafter, the court may determine whether Appellant has suffered prejudice and would be entitled to a new trial.

Order reversed. Case remanded for further proceedings consistent with this memorandum. Jurisdiction relinquished.

Judgment Entered.

Benjamin D. Kohler

Benjamin D. Kohler, Esq.
Prothonotary

10/22/2024