At a Term of the Supreme Court of the State of New York held for the County of Schenectady, New York at Chambers in the Village of Cooperstown, New York on the 13 day of March, 2015

PRESENT:

HON. MICHAEL V. COCCOMA

SUPREME COURT JUSTICE

STATE OF NEW YORK

SUPREME COURT: COUNTY OF SCHENECTADY

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THE PEOPLE OF THE STATE OF NEW YORK

-against-

**DECISION AND ORDER** 

Indictment No. A-812-29

JOHN WAKEFIELD

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Notwithstanding the fact that the Court has already ruled on the Defendant's right to the Cybergenetics TrueAllele Casework's source code (see Decision and Order dated February 9, 2015 at pages 6 - 7), and ignoring the timeliness issue, the Court will address this Motion on the merits.

The Defendant argues that the TrueAllele Casework System is an expert system which interpreted DNA data in this case, drew inferences from it, and reached the conclusions directly connecting Mr. Wakefield to the crime with which he has been charged. To begin with, such an argument ignores the human element, to wit: the analyst. Secondly, the DNA results from Cybergenetics TrueAllele Casework is not a hearsay statement by an individual against the

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<u>Defendant</u> - it is a scientific report generated from the source code. Thirdly, and more importantly, the Defendant has not forfeited his right to confrontation since he will have an opportunity to cross-examine not only the analyst, but the scientist who developed the software.

Simply put, the Defendant's <u>Crawford</u> argument is misplaced. The source code is <u>not</u> a witnesses, it is <u>not</u> testimonial in nature, and it is <u>not</u> "a surrogate for accusatory in-court testimony." It is only the software that drives a computer program that analyzes DNA with the input and assistance of an analyst. And the Cybergenetics TrueAllele Casework report does not accuse anyone, it simply computes a match likelihood ratio using a probabilistic model.

Accordingly, the Motion to allow the Defendant's expert access to the Cybergenetics TrueAllele Casework source code is DENIED once again.

THIS SHALL CONSTITUTE THE DECISION AND ORDER OF THE COURT.

Dated: March 13, 2015

at Cooperstown, New York

**ENTER** 

Hon. Michael V. Coccoma Supreme Court Justice

To: John Wakefield

Frederick Rench, Esq.

Catherine Bonventre, Esq.

Peter H. Willis, ADA, Schenectady County District Attorney's Office

Clerk of the Court

The documents upon which this Decision and Order is based have been filed in the Office of the Schenectady County Clerk:

- 1. Memorandum of Law dated March 10, 2015
- 2. Letter from Peter H. Willis, Assistant District Attorney, dated March 13, 2015 showing copy to Defendant.



## COUNTY OF SCHENECTADY OFFICE OF THE DISTRICT ATTORNEY

JUDICIAL BUILDING SCHENECTADY, NEW YORK 12305 Phone (518) 388-4364 Fax (518) 388-4569

March 13, 2015

Hon. Michael V. Coccoma Justice of Supreme Court 612 State St. Schenectady, NY 12305

Re:

People v. John Wakefield

Ind# A-812-29

Dear Judge Coccoma,

Please accept this letter as the People's formal response to defendant's motion in limine submitted March 10, 2015. Defendant's motion seeks to compel the People's expert, Dr. Mark Perlin, to disclose the computer source code for the TrueAllele Casework System in connection with his testimony as a witness in the defendant's ongoing trial. The defendant's motion is based on a completely novel argument that the source code itself "is the declarant, and thus the witness against Mr. Wakefield."

The defendant's argument is based on the legal standards set forth by the New York Court of Appeals in People v.Rawlins, 10 N.Y.3d 136 (2008) and People v. Meekins (decided within Rawlins) within which the Court described how to evaluate differing types of scientific reports. The crux of the decision in Rawlins was that some laboratory reports required the live testimony of the author, while others did not. The Court distinguished between the two by identifying those requiring live testimony as ones that were, on their face, testimonial in nature and ones that did not as non-testimonial. The Court of Appeals "identified two factors that are "especially important" in resolving whether to designate a statement as testimonial — "first, whether the statement was prepared in a manner resembling ex parte examination and second, whether the statement accuses defendant of criminal wrongdoing" (People v Rawlins, 10 NY3d 136, 156, 884 NE2d 1019, 855 NYS2d 20 [2008], cert denied sub nom. Meekins v New York, 557 US 934, 129 S Ct 2856, 174 L Ed 2d 601 [2009]). Furthermore, the "purpose of making or generating the statement, and the declarant's motive for doing so," also "inform these two interrelated touchstones" (People v Rawlins, 10 NY3d at 156)." People v. Peeler, 20 N.Y.3d 447, 449 (2013).

The People do not dispute that the report authored by Dr. Perlin is itself testimonial in nature and therefore requires his presence as a live witness. However the source code that supports and runs the TrueAllele Casework System is entirely different from the report. First and foremost the source code is quite obviously not a live witness and cannot therefore be deemed a declarant. The People cannot call the code itself as witness any more than the defense could cross-examine. While the People do not intend to belittle the defendant's argument, the actual result of the defendant's position would result in the absurd notion that code itself edde be called as a witness to provide testimony. There is no support for this argument in Rawlins or any of the other cases cited by the defendant.

Second, the source code is a static, unchanging entity that remains the same in each and every criminal case in which TACS is used. A report like the fingerprint analyses in <u>Rawlins</u> is case specific and changes depending on the nature of the evidence. It is the application of TACS to the evidence in this case by Dr. Perlin that generated his report and conclusions. Dr. Perlin can, and will be, cross-examined regarding his conclusions and opinions. The source code itself doesn't even report a single solitary fact. It is in essence a completely non-evidentiary entity, wholly unlike the fingerprint report in <u>Rawlins</u> or the controlled substances report in <u>Melendez-Diaz</u>.

Even if the source code could be construed as a type of evidentiary document it is certainly the type of document that would not be considered testimonial under any circumstances. In <u>Peeler</u> the Court held that certified DMV records attesting to the routine calibration and testing of a breathalyzer were non-testimonial because "testing certificates do not directly inculpate defendant or prove an essential element of the charges against him. All three records simply reflected objective facts that were observed at the time of their recording" As Dr. Perlin testified at the Frye hearing the source code has been developed at Cybergenetics over the last 25 years and has been essentially unchanged since 2009. There is not even the remotest possibility that anything within the source code is relevant to the evidence in this case or any other case. In each and every case cited in the defendant's memoranda, the Court faulted incidents in which testimonial evidence in the form of simple paper documents was admitted in order to prove essential elemental facts without a live witness. If the People were offering the TrueAllele report as a certified document without the benefit of Dr. Perlin's testimony then the defendant's argument would be appropriate, since the People are not doing so it must necessarily fail.

In addition to the points raised thus far that directly address defense counsel's confrontation clause argument the People ask that the Court to adhere to the decisions already made in this case. In the defendant's March 28, motion requesting an order granting a *Frye* hearing in this case he requested the disclosure of the source code. In the Court's order granting the *Frye* hearing this court did not address the issue and therefore denied the request.

The People also reassert and ask that the Court take into account the People's responses in paragraphs 65-80. These arguments address previous court decisions denying the disclosure of TrueAllele source codes and the public policy disfavoring a mandate of disclosure. They also address the fact that Dr. Perlin has authored numerous published articles in which he describes the mathematical basis of the system. Defendant's affidavit makes no claim this information is somehow inadequate to cross-examine Dr. Perlin. Defendant's affidavit also ignores the practical reality that the source code for TACS is over 170,000 lines long and written in a computer language called MATLAB. Defense counsel's affidavit makes no claim that he, or any expert retained by the defendant, is familiar with MATLAB, possesses the necessary software to run it or would even be able to read it. Thus even if the defendant were provided with a copy of the source code it is literally impossible that he would be able to make any practical use of it during cross-examination.

For all of these reasons the People ask that the Court deny the defendant's motion in limine to preclude Dr. Perlin's testimony or to compel the disclosure of the source code.

Peter H. Willis

Assistant District Attorney

Cc:

Frederick Rench, Esq. 646 Planck Rd, Suite 204 Clifton Park, NY 12065

STATE OF NEW YORK
COUNTY OF SCHENECTADY SUPREME COURT

THE PEOPLE OF THE STATE OF NEW YORK.

MEMORANDUM OF LAW

-against-

Ind. No.: A-812-29

JOHN W. WAKEFIELD, III,

Defendant.

### **Argument Summary**

The TrueAllele Casework System is an expert system which interpreted DNA data in this case, drew inferences from it, and reached the conclusion directly connecting Mr. Wakefield to the crime with which he has been charged. As such, the report is a testimonial statement and the TrueAllele source code that operates the system is the declarant, and thus the witness against Mr. Wakefield. The only way for Mr. Wakefield to meaningfully exercise his constitutional right to confront his accusers is to allow his expert to review the source code.

#### Legal Standard

The Sixth Amendment to the U.S. Constitution provides in relevant part, that "In all criminal prosecutions, the accused shall enjoy the right... to be confronted with the witnesses against him" (U.S. Const., Sixth Amend). The right to confront adverse witnesses has been made applicable to the States through the Fourteenth Amendment (Pointer v. Texas, 380 U.S. 400 [1965]). Under Article I, Section 6 of the Constitution of the State of New York, citizens accused of crimes in this state enjoy a similar right. In

Crawford v. Washington, 541 U.S. 36 (2004), the U.S. Supreme Court held that, under the Sixth Amendment, a witness's testimony is inadmissible against a defendant at trial unless the witness is unavailable and the defendant had a prior opportunity to cross-examine the witness. The Crawford court defined testimony as "a solemn declaration or affirmation made for the purpose of establishing or proving some fact" (Crawford v. Washington, 541 U.S. 36, 51 [2004]). Whether an individual is a "witness" with whom the defendant has a right to be confronted, turns on whether the individual's statements are "testimonial." Although the Court did not define "testimonial statements," it identified a "core class" of statements subject to confrontation including, "ex parte in-court testimony or its functional equivalent--that is, material such as affidavits, custodial examinations, prior testimony that the defendant was unable to cross-examine, or similar pretrial statements that declarants would reasonably expect to be used prosecutorially; extrajudicial statements ... contained in formalized testimonial materials, such as affidavits, depositions, prior testimony, or confessions; statements that were made under circumstances which would lead an objective witness reasonably to believe that the statement would be available for use at a later trial" (Crawford v. Washington, 541 U.S. 36, 51-52 [2004]). Further explicating its holding in Crawford, the Supreme Court held in Davis v. Washington (547 U.S. 813 [2006]), that "[s]tatements are nontestimonial when made in the course of police interrogation under circumstances objectively indicating that the primary purpose of the interrogation is to enable police assistance to meet an ongoing emergency. They are testimonial when the circumstances objectively indicate that there is no such ongoing emergency, and that the primary purpose of the interrogation is to establish or prove past events potentially relevant to later criminal prosecution" (Id. at 822). It is important to

note here that the Court referred to interrogations because that is the context in which the challenged statements arose in <u>Davis</u>. As the Court stated, "This is not to imply, however, that statements made in the absence of any interrogation are necessarily nontestimonial" (Id.)

In Melendez-Diaz v. Massachusetts (557 U.S. 305 [2009]), the Supreme Court applied its holding in Crawford to forensic laboratory certificates of analysis. In Melendez-Diaz, a report certifying that a substance seized from the defendant was cocaine was introduced at trial without the testimony of the analyst who certified the report. The Court held that admitting the report absent live testimony violated the defendant's Sixth Amendment Confrontation right. The Court considered the signed and notarized laboratory reports to be "declaration[s] of facts written down and sworn to by the declarant before an officer authorized to administer oaths," and as such, the certificates fell within the core class of testimonial statements identified by the Court in Crawford. That is, the certificates were affirmations made to establish at trial the identity and weight of the illegal substance that the defendant possessed. As the Court explained, "The fact in question is that the substance found in the possession of Melendez–Diaz and his codefendants was, as the prosecution claimed, cocaine—the precise testimony the analysts would be expected to provide if called at trial. The 'certificates' are functionally identical to live, in-court testimony, doing 'precisely what a witness does on direct examination.'" Id. at 310-311.

In a line of cases—including one interpreting <u>Melendez-Diaz</u>—the New York

Court of Appeals set forth the test for determining whether a forensic laboratory report is

testimonial for confrontation purposes in New York courts. Prior to the Supreme Court's

decision in <u>Melendez-Diaz</u>, the Court of Appeals decided two companion cases that

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involved forensic reports. In <u>People v. Rawlins</u> (10 N.Y.3d 136 [2008]), latent fingerprint comparison reports prepared by police officers investigating a string of burglaries were admitted at trial as business records, without the testimony of the examiner who actually prepared the reports. In <u>People v. Meekins</u> (<u>Id.</u>), a laboratory report of the results of a rape kit analysis prepared by a private DNA testing laboratory was introduced through the testimony of two analysts who did not participate in the testing. Both cases presented an issue of first impression in which the Court of Appeals had to decide whether the forensic reports were testimonial under the Supreme Court's decisions in <u>Crawford</u> and <u>Davis</u>.

Following its review of Crawford and Davis, the Court of Appeals stated that its task was to "evaluate whether a statement is properly viewed as a surrogate for accusatory in-court testimony" (People v. Rawlins/Meekins, 10 N.Y.3d 136, 151 [2008]). Of importance, the court highlighted the Supreme Court's primary purpose test in Davis, stating that "Davis's primary purpose test thus reflects the important distinction between a statement (generated through police interrogation or otherwise) that accuses a perpetrator of a crime—i.e., to do precisely what a witness does on direct examination—versus one that serves some other nontestimonial purpose (i.e., to meet an ongoing emergency): the former is accusatory since its purpose ... [is] to nail down the truth about past criminal events, while the latter is not... The lodestar, then, that emerges from Davis is the purpose that the statement was intended to serve" (Id. at 148, internal quotation marks and citations omitted, emphasis in the original). Noting that "facts and context are essential" in determining the testimoniality of a statement, the court stated that it was impossible to "provide an exhaustive list of factors" (Id. at 156). The court then identified two particularly important factors in the determination: "first, whether the statement was

prepared in a manner resembling ex parte examination and second, whether the statement accuses defendant of criminal wrongdoing" (Id. at 156).

Applying its analysis to the latent fingerprint reports in <u>Rawlins</u>, the court held that the reports were testimonial because they were "inherently accusatory and offered to prove an essential element of the crimes charged [and thus] could be nothing but testimonial" (<u>Id</u>. at 157). Moreover, the latent fingerprints were collected for "the purpose of gathering evidence of a past crime" apprehending the perpetrator (<u>Id</u>.). Indeed, the court further declared that because latent print reports "compare unknown latent prints from the crime with fingerprints from a known individual [they] fit the classic definition of a weaker substitute for live testimony at trial" (<u>Id</u>.). By contrast, the court deemed the DNA reports at issue in <u>Meekins</u> to be nontestimonial under the circumstances of that case.

In Meekins, a rape kit collected from a sexual assault victim was sent by the New York City Police Department to an independent private laboratory, Gene Screen, for DNA analysis. Analysts at Gene Screen developed a male DNA profile from the sperm fraction of a swab from the rape kit and sent the report to the New York Office of the Chief Medical Examiner (OCME). A DNA analyst at the OCME reviewed and interpreted the raw data developed at Gene Screen. In her review, the OCME analyst testified at trial that she "edit[ed] ... the data—or, interpreted the graphical data by wean[ing] out what peaks might not be DNA, because there are times that peaks will show up in the data that are not actually ... DNA alleles or DNA peaks, distinguished complainant's DNA profile from the semen donor's DNA profile and then up-loaded [the male DNA profile] into [a] database of existing profiles for a possible match" (Id. at 145, internal quotation removed). The OCME analyst compared the DNA profile developed in the Gene Screen report to the

defendant's DNA profile and testified that the profiles matched. Both the Gene Screen report and the OCME report were admitted as business records.

The Court of Appeals reasoned that the Gene Screen report was nontestimonial because it simply contained raw graphical data with no identifying information. Moreover, the Gene Screen analysts made no comparisons between the DNA profile developed from the rape kit and the defendant. As the court explained, "[t]he graphical DNA test results, standing alone, shed no light on the guilt of the accused in the absence of an expert's opinion that the results genetically match a known sample" (Id. at 159). The court further noted that the procedures used to produce the Gene Screen report were not based on discretion or opinion. It was also of no consequence that Gene Screen technicians were aware they were working on a rape kit, as it was not possible for law enforcement to influence the outcome of their testing. Likewise, the OCME documents were not testimonial because they did "not directly link defendant to the crime"—it was the inference drawn by the testifying OCME analyst based on her analysis that the defendant's DNA profile and the profile developed from the rape kit were a match (Id. at 10).

Rawlins/Meekins was decided in the year preceding the Supreme Court's decision in Melendez-Diaz. In 2009 (after Melendez-Diaz was decided), the Court of Appeals again considered whether the introduction of a private laboratory's forensic DNA report violated the defendant's Sixth Amendment right to confront the witnesses against him. In People v. Brown (13 N.Y.3d 332[2009]), the OCME sent a rape kit collected from a sexual assault victim to Bode Technology, a private subcontractor, for DNA analysis. Analysts at Bode developed a male DNA profile from the rape kit and "produced a DNA report containing machine-generated raw data, graphs and charts of the male specimen's DNA

characteristics" (Id. at 336). A search of the DNA profile against the FBI's Combined DNA Index System (CODIS), linked the DNA profile to the defendant's profile in CODIS. A sample collected from the defendant was subjected to DNA analysis at the OCME and compared to the DNA profile from the rape kit. Over the defendant's confrontation objection, the Bode report was entered as a business record although no one from Bode testified. Instead, the OCME analyst who reviewed the Bode report and the report of the defendant's DNA analysis conducted at OCME testified to her conclusions regarding her comparison of the Bode report and the defendant's DNA.

As it did in Meekins, the Court of Appeals in Brown held that the private laboratory's report was nontestimonial because "it consisted of merely machine-generated graphs, charts and numerical data. There were no conclusions, interpretations or comparisons apparent in the report since the technicians' use of the typing machine would not have entailed any such subjective analysis" (Id. at 340). The court distinguished Melendez-Diaz on the ground that "the critical determination linking the defendant to the crime" was made by the OCME analyst who "interpreted the profile of the [Bode] data represented in the machine-generated graphs" (Id.). Whereas, in Melendez-Diaz, the laboratory report itself linked the defendant to possession of an illegal substance.

In summary, the Court of Appeals' confrontation jurisprudence makes it clear that "to determine whether [documents] are the functional equivalent of in-court testimony, it is necessary to identify the primary purpose by evaluating the following factors: (1) whether the agency that produced the record is independent of law enforcement; (2) whether it reflects objective facts at the time of their recording; (3) whether the report has been biased in favor of law enforcement; and (4) whether the report accuses the defendant by directly

FREDERICK RENCH, ESQ., PLLC 646 Plank Road, Ste. 204, Clifton Park, New York 12065 Tel: 518.373.8400; Fax: 518.383.6898 linking him or her to the crime" (People v. Pealer, 20 N.Y.3d 447 [2013]). Moreover, the court's cases make clear that the extent to which a laboratory report connects the defendant to the crime bears significantly on whether the report is testimonial.

# The TrueAllele Casework Report is a Testimonial Statement Subject to Confrontation under New York Law

Under the Court of Appeals' decisions outlined above, the Cybergenetics

TrueAllele Casework report is the functional equivalent of in-court testimony and is
therefore a testimonial statement subject to Mr. Wakefield's right to confront his accusers.

However, as explained in the next section, the TrueAllele Casework source code is the
"witness" with whom Mr. Wakefield has a right to be confronted under the Sixth

Amendment.

The New York Court of Appeals held that the forensic DNA reports in Meekins and Brown were nontestimonial because they merely contained raw, machine-generated data that did not link the defendants to any criminal activity. Moreover, in each case the report did not identify the defendant—it simply identified a male DNA profile. By contrast, the TrueAllele Casework report issued on April 19, 2013 identifies Mr. Wakefield as the suspect and Mr. Wentworth as the victim and directly links Mr. Wakefield to the crime. The TrueAllele Casework is "accusatory since its primary purpose is to nail down the truth about past criminal events" (People v. Rawlins, 10 N.Y.3d 136, 148 [2008, quoting Davis]), to wit, the People's accusation that Mr. Wakefield did kill Mr. Wentworth. The TrueAllele Casework report links Mr. Wakefield did kill Mr. Wentworth. The TrueAllele Casework report links Mr. Wakefield's DNA to several items of evidence. For example, the report states that, "A match between the outside front of the [victim's] shirt collar (Item 045C) and John Wakefield (Items 188 and 189) is 199 billion times more probable than a coincidental match to an unrelated Black person..."

(Cybergenetics Supplemental Report, Apr. 19, 2013). The statements contained in the report are thus the functional equivalent of in-court testimony and Mr. Wakefield has the right under the Sixth Amendment and the Constitution of the State of New York to confront the statements' declarant.

# The TrueAllele Casework Source Code is the "Witness" For Purposes of Confrontation

The FBI Quality Assurance Standards for United States laboratories that conduct DNA testing and participate in the FBI's Combined DNA Index System (CODIS) define a DNA analyst as an individual who "conducts and/or directs the analysis of forensic samples, interprets data and reaches conclusions" (FBI Quality Assurance Standards for Forensic DNA Testing Laboratories 2, 2009, emphasis added). Dr. John Butler, Special Assistant to the Director for Forensic Science, at the National Institute of Standards and Technology's Office of Special Programs, is a well-known expert on forensic DNA analysis. Butler identifies six points in the DNA data analysis process at which a DNA analyst must make decisions regarding data interpretation that are relevant here (John M. Butler, Advanced Topics in Forensic DNA Typing: Interpretation 6 [2015]). First, the analyst uses analytical thresholds to distinguish DNA peaks from instrument noise. Stutter thresholds are used to distinguish alleles from artifacts. The analyst then uses peak heights, peak height ratios, and stochastic thresholds to determine whether alleles are heterozygous, homozygous, or if an allele is missing. Next, the analyst determines the genotype at each locus, the full DNA profile, and based on the number of peaks per locus, decides whether the profile represents a single source or a mixture of multiple contributors. If a mixture is determined to be present, the analyst must decide whether the mixture can be deconvoluted into its major and minor contributors using a major/minor mixture ratio.

In addition, if there is low-level DNA present, the analyst must decide whether or not to interpret the results based on an uncertainty threshold. (Id.)

Dr. Mark W. Perlin, the chief executive officer of Cybergenetics and the principal developer of the TrueAllele Casework System, testified during the <u>Frye</u> hearing in this matter on October 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup>, 2014. In light of the FBI definition of a DNA Analyst and the DNA interpretation process outlined by Dr. Butler, Dr. Perlin's testimony shows why the TrueAllele Casework System source code itself, and not Dr. Perlin, is the declarant with whom Mr. Wakefield has a right to be confronted.

### The TrueAllele Casework System Software is the Functional Equivalent of a DNA Analyst

As noted above, a DNA analyst interprets data and reaches conclusions regarding forensic DNA evidence (FBI QAS, 2009). Throughout his October 6<sup>th</sup> testimony during the <u>Frye</u> hearing, Dr. Perlin likened TrueAllele Casework System analysis to human analysis with regard to the interpretation of raw DNA data files. For example, Dr. Perlin testified, "The key thing that TrueAllele does or any interpretation mechanism does or what's described here as interpretation is done by people and computers. Instead of there being only one possibility out of a hundred possible allele pairs in the population, there is a list of possibilities. There are several allele pairs, and therefore in science in order to understand that data one has to put a probability to each of those possibilities. And so what's shown here is that for one of the genotypes of the two contributors that would be present at this locus for one of the two contributors it's suggesting that there are three possible genotypes having values 10,12, 11,12 and 12,12, together with probabilities that add up to 100%, or one, and that's the inference process that a person or a computer would

go through for each contributor at each locus if they were trying to separate out the genotypes" (October 6, 2014 transcript, page 32).

Dr. Perlin himself animates the TrueAllele software through metaphors such as:

"And then when the computer is done the answers are -- each of these other processors

living on different machines are done, the answers are written back to the computers [sic]

database" (October 6, 2014 Transcript, page 159, emphasis added). Indeed, during crossexamination Dr. Perlin made clear that TrueAllele Casework System is a system that
copies human judgment:

[Question by Mr. Rench]. Okay. Why don't we digress for a moment and let's avoid the sloganeering of the market and try to describe it perhaps more scientifically or analytically. What would you consider to be an expert system, how would you define it?

[Answer by Dr. Perlin]. An expert system is any computer system that replicates human expertise. That's the standard artificial intelligence definition I was teaching 25 years ago at Carnegie Mellon. I mean that's what it is.

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- Q. You would agree with me that the expert system involving artificial intelligence is quite a bit more complex than the Pop Stat system, which simply crunches numbers for the match statistics, agreed?
- A. Yes. Making an inference beyond -- I would agree.
- Q. So that in the expert system the system itself is making inferences, correct?
- A. Yes.
- Q. And if I'm wrong let me know, I'm trying to understand this as best I can. The TrueAllele system is an expert system within the definition you've just given us, correct?
- A. Yes. It's a probabilistic Bayesian system. Expert systems evolved over the last 30 years, so it's in the space of modern expert systems that use the statistics and probability theory.
- Q. To draw inferences, agreed?
- A. Correct. (October 7, 2014 Transcript, pages 326-328, emphasis added)

Thus, unlike the forensic DNA reports produced by the private laboratories in Meekins and Brown, TrueAllele Casework System does not produce raw, machine-generated data. It analyzes raw DNA data files and makes "the critical determination

linking the defendant to the crime" like the OCME analyst who "interpreted the profile of the [Bode] data represented in the machine-generated graphs" (People v. Brown, 13 N.Y.3d 332, 340[2009]). Likewise, the TrueAllele Casework System's analysis is akin to the OCME DNA analyst's testimony in Meekins regarding her comparison of the private laboratory DNA profile data and the defendant's DNA profile and the resulting inference she drew as to the match between the two. As the Court of Appeals observed, there were no confrontation violations in these cases, because the analysts who drew these critical conclusions testified at trial. On the other hand, the TrueAllele Casework report is like the latent fingerprint reports that were held to be testimonial statements in Rawlins—the DNA data files were sent at Mr. Willis's request to compare evidence from the crime scene to a known individual, Mr. Wakefield. As such, the TrueAllele report fits the "classic definition of a weaker substitute for live testimony at trial" (People v. Rawlins, 10 N.Y.3d 136, 157). Finally, it is important to note that Dr. Perlin's testimony regarding the TrueAllele report, absent disclosure of the source code, would be surrogate testimony that will not suffice (see, Bullcoming v. New Mexico, 131 S.Ct. 2705 [2011]).

#### Conclusion

As this court noted in its Decision and Order finding that TrueAllele Casework is generally accepted under the <u>Frye</u> standard; computer interpretation of forensic DNA data offers three main advantages: increased productivity, enhanced information, and objectivity (January 30, 2015 Decision and Order, page 3). As more forensic crime laboratories move toward adopting probabilistic genotyping software, it is crucial that defendants be permitted to exercise their constitutional right to confront their adverse witnesses. As technology advances, this right can only be vindicated by disclosing the

source codes of probabilistic genotyping software programs which are quickly becoming

witnesses against the accused. To be sure, the proprietary interests of software developers

must also be safeguarded; however, this can be achieved by this court imposing

appropriate safeguards to ensure that propriety information is kept confidential. As

technology advances, artificial intelligence will intrude further into the lives of everyone.

TrueAllele represents a quantum advance in technology which will intrude deeply into Mr.

Wakefield's life at trial. The law must keep pace with the challenges presented by

technology in order to safeguard those fundamental rights enshrined in the U.S.

Constitution and the Constitution of the State of New York.

FREDERICK RENCH, ESQ., PLLC 646 Plank Road, Ste. 204, Clifton Park, New York 12065 Tel: 518.373.8400; Fax: 518.383.6898 Dated: March 10, 2015

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