# The Untrustworthy Chemist: The Trouble with Expert Witnesses and DNA Evidence in Massachusetts

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*Advancements in DNA identification have been astronomical in the last fifty years or so. Originating as a way to identify paternity, the technique eventually made its way into the criminal justice system to identify or exonerate defendants. As its popularity in criminal trials grew, so did various oppositions to its use. Several evidentiary and constitutional protections were thus put in place to protect a defendant's right to a fair trial. The Confrontation Clause in particular requires that a defendant be able to confront witnesses against him or herself. This presents problems when the "witness" is a DNA profile generated by a standardized protocol on an instrument operated by a lab technician. The accuser then becomes the analyst in the lab handling the DNA samples. This analyst is not always available for trial, and courts have struggled with determining the requirements for an expert's opinion at trial based on the analyst's work. Commonwealth v. Tassone presented this issue to the Massachusetts Supreme Judicial Court (SJC) with a State chemist from the police lab giving an expert opinion on a DNA profile generated by a private forensic DNA laboratory (Cellmark). The SJC determined that the State chemist was too far removed from the actual testing to provide the defendant with a real opportunity for cross-examination regarding the tests performed by Cellmark. The SJC correctly denied admission of the expert testimony, but the reasoning behind the holding contains a logical gap that does not support its policy of allowing expert witnesses to testify about tests that they have not performed themselves in previous cases.*

## I. INTRODUCTION

The evolution of DNA profiling began with the need for determining paternity

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before it expanded into the criminal courts.[1] The first conviction based in the U.S. court system on DNA evidence occurred in 1987.[2] From there, state and federal courts increasingly used DNA evidence without pushback until it became the "go-to" form of evidence for prosecutors.[3] At this point, defense attorneys began to challenge the admissibility of DNA evidence on various grounds.[4] Due to the increase in challenges of DNA evidence, the processes and procedures for sample preparation and analysis came under a high level of scrutiny by the majority of courts.[5]

A "biological sample," when located at a crime scene, is typically "documented, collected, and preserved for subsequent analysis in the crime laboratory."[6] The sample is then prepared for DNA testing and subsequently analyzed, but the person who prepares the sample may be different from the one who does the actual testing.[7] If the DNA sample is then used as evidence in a trial, those who performed the testing can find themselves involved in a Confrontation Clause issue under the Sixth Amendment.[8] The Confrontation Clause of the Sixth Amendment protects the rights of defendants during a criminal prosecution, including their right to confront witnesses testifying against them.[9] The Confrontation Clause became an issue regarding a DNA profile in the recent Massachusetts case, *Commonwealth v. Tassone*.[10]

In *Tassone*, the prosecution's expert witness was a chemist in the State Police

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[1] Lisa Calandro et al., *Evolution of DNA Evidence for Crime Solving – A Judicial and Legislative History*, FORENSIC MAG. (2005), http://www.forensicmag.com/printpdf/articles/2005/01/evolution-dna-evidence-crime-solving-judicial-and-legislative-history.

[2] *Id.*

[3] *Id.*; *see* Ryan McDonald, *Juries and Crime Labs: Correcting the Weak Links in the DNA Chain*, 24 AM. J.L. & MED. 345, 346 (1998) ("DNA revolutionized the criminal justice system over the past decade.").

[4] Calandro et al., *supra* note 1.

[5] NAT'L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 5–5 (2009), http://ag.ca.gov/meetings/tf/pdf/2009_NAS_report.pdf.

[6] *Id.* at 5–2.

[7] *Id.* at 2–4; *see* Commonwealth v. Barbosa, 933 N.E.2d 93, 103–04 (Mass. 2010) (explaining that DNA testing is usually done in four phases: extraction, quantitation, copying, and typing); *see also* George Bundy Smith & Janet A. Gordon, *The Admission of DNA Evidence in State and Federal Courts*, 65 FORDHAM L. REV. 2465, 2468–72 (1997) (describing, in detail, the techniques used to analyze DNA evidence).

[8] *See generally* Williams v. Illinois, 132 S. Ct. 2221 (2012) (discussing a Confrontation Clause issue stemming from expert witness testimony on DNA evidence). "The Confrontation Clause is a procedural guarantee, but balancing its procedural nature with the practical realities of criminal trials is difficult." David A. Lowy et al., *Forensic Evidence in Massachusetts After* Melendez-Diaz, 45 NEW ENG. L. REV. 39, 62 (2011).

[9] U.S. CONST. amend. VI. *See generally* Lowy et al., *supra* note 8, at 54 ("The language and purpose of the Confrontation Clause are also central to an understanding of its reach.").

[10] Commonwealth v. Tassone, 11 N.E.3d 67, 72 (Mass. 2014).

crime laboratory who was not involved in the testing or preparation of the DNA sample at issue.[11] The testing was done at Cellmark, a DNA testing laboratory in Texas.[12] The Supreme Judicial Court (SJC) determined the expert witness chosen by the prosecution did not provide the defendant with a "meaningful opportunity to cross-examine" the witness regarding how the DNA test was performed as she had not conducted the testing herself and was not familiar with the procedures used at Cellmark.[13] The SJC made the correct decision, but its reasoning contains a logical gap that does not support its policy of allowing expert witnesses to testify about tests they have not performed themselves through previous holdings involving DNA evidence and the Confrontation Clause.[14]

This Case Comment will discuss the history of DNA evidence in courts with a specific focus on Massachusetts. Part II starts with a brief review of federal evidence rules, the Sixth Amendment, and how they differ from the evidence rules and Declaration of Rights in Massachusetts. Part III discusses the important Supreme Court case, *Williams v. Illinois*, which dealt with the Sixth Amendment and DNA expert opinion testimony.[15] The next section, Part IV, goes through a quick history of DNA technology and specifically its evolution in criminal trials. Part V details the *Commonwealth v. Tassone* decision by the Massachusetts SJC.[16] The subsequent section, Part VI, argues that the holding in *Tassone* is inconsistent with the SJC's reasoning in previous cases dealing with an expert discussing the details of DNA evidence collected by a non-testifying analyst. This Case Comment concludes with Part VII.

## II. OVERVIEW OF THE COMMON LAWS OF EVIDENCE IN MASSACHUSETTS AND HOW THEY DIFFER FROM THE SIXTH AMENDMENT PROTECTIONS AND FEDERAL RULES OF EVIDENCE

### A. The Difference Between Federal Rules of Evidence 703 and the Massachusetts Guide to Evidence § 703

The 703 rules discuss how to handle the bases of opinion testimony by experts.[17] Both sets of rules allow for the use of inadmissible facts or data by the expert to form their opinion.[18] However, they differ greatly with regard to the

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**11** *Id.* at 69.

**12** *Id.*

**13** *Id.* at 72–74.

**14** *See id.* at 73–74; *see also* Commonwealth v. Greineder, 984 N.E.2d 804, 816–17 (Mass. 2013) (holding that a laboratory director as an expert witness gave the defendant a meaningful opportunity to cross-examine about reliability of data); Commonwealth v. Barbosa, 933 N.E.2d 93, 107 (Mass. 2010) (holding that lab supervisor as an expert witness did not violate defendant's right of confrontation).

**15** *See generally* Williams v. Illinois, 132 S. Ct. 2221 (2012).

**16** *See Tassone*, 11 N.E.3d at 67.

**17** *See* FED. R. EVID. 703; MASS. GUIDE EVID. § 703.

**18** *Compare* FED. R. EVID. 703 ("An expert may base an opinion on facts or data in the case that the expert has been made aware of or personally observed. If experts in the particular field would

disclosure of the facts or data.[19] Under the Federal Rules of Evidence Rule 703, the expert witness may reveal the facts or data underlying her opinion on direct examination only in order to explain the basis of her opinion.[20] Contrarily, in Massachusetts, underlying facts and opinions can only be revealed by the expert witness on cross-examination.[21] However, this is not always the case.

Traditionally, an expert's opinion had to be grounded on facts that the expert had direct, personal knowledge of or evidence already in the record.[22] The SJC expanded the allowable bases of expert opinion testimony to include "facts or data not in evidence[,] if the facts or data are independently admissible and are a permissible basis for an expert to consider in formulating an opinion."[23] A court will determine "independent admissibility" by considering whether the underlying facts or data would otherwise be admissible.[24] Even though an expert may base her opinion on those facts or data, on direct examination, she may not put forth the particular information upon which she has relied.[25] This is forbidden since the results were obtained by someone else and therefore would be inadmissible hearsay.[26] However, "the expert may . . . be required to disclose the facts or data that formed the basis of [their] opinion on cross-examination."[27] According to the SJC, this helps prevent the offering party from sneaking in out-of-court statements that have not been legally brought in as evidence.[28] The *Commonwealth v. Greineder*[29] case discussed the Massachusetts rule in detail and was subsequently used as a guide for the *Tassone* decision.[30]

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reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted."), *with* MASS. GUIDE EVID. § 703 ("The facts or data in the particular case upon which an expert witness bases an opinion or inference may be those perceived by or made known to the witness at or before the hearing.").

**19** *Compare* FED. R. EVID. 703 ("But if the facts or data would otherwise be inadmissible, the proponent of the opinion may disclose them to the jury only if their probative value in helping the jury evaluate the opinion substantially outweighs their prejudicial effect."), *with* MASS. GUIDE EVID. § 703 ("The facts or data in the particular case upon which an expert witness bases an opinion . . . include[s] . . . (c) facts or data not in evidence if the facts or data are independently admissible in evidence and are a permissible basis for an expert to consider in formulating an opinion.").

**20** FED. R. EVID. 703; *see* Commonwealth v. Greineder, 984 N.E.2d 804, 807 (Mass. 2013).

**21** MASS. GUIDE EVID. § 703; *see Greineder*, 984 N.E.2d at 807.

**22** *Greineder*, 984 N.E.2d at 807.

**23** *Id.* (quoting Dep't of Youth Servs. v. A Juvenile, 499 N.E.2d 812, 821 (Mass. 1986)).

**24** *Id.* (citing Commonwealth v. Markvart, 771 N.E.2d 778, 783 (Mass. 2002)).

**25** *See id.*; *see also* Commonwealth v. McNickles, 753 N.E.2d 131, 145 (Mass. 2001).

**26** *See Greineder*, 984 N.E.2d at 807; *see also* Commonwealth v. Avila, 912 N.E.2d 1014, 1029 (Mass. 2009); Commonwealth v. Nardi, 893 N.E.2d 1221, 1232 (Mass. 2008); Commonwealth v. Evans, 778 N.E.2d 885, 895 (Mass. 2002); Commonwealth v. Cohen, 589 N.E.2d 289, 301 (Mass. 1992).

**27** *Greineder*, 984 N.E.2d at 807; *see* MASS. GUIDE EVID. § 705.

**28** *Greineder*, 984 N.E.2d at 807.

**29** *Id.* at 804.

**30** Commonwealth v. Tassone, 11 N.E.3d 67, 73 (Mass. 2014).

1. *Commonwealth v. Greineder*

In *Greineder*, the expert testimony at issue came from the forensic laboratory director at Cellmark, the lab that had performed the DNA testing, who had not performed the actual analysis of the DNA.[31] The expert had revealed details of the actual analyst's testing which was determined to be improper by the SJC as it constituted inadmissible hearsay.[32] The Court reiterated that "in Massachusetts, we draw a distinction between an expert's opinion . . . and the hearsay information that formed the basis of the opinion. . . ."[33] Although the Court admitted the underlying facts in error, the opinion of the expert was admissible and did not violate the defendant's right of confrontation under the Sixth Amendment.[34]

B. The Sixth Amendment and Article 12 of the Massachusetts Declaration of Rights and Their Application to Expert Opinion Testimony in Massachusetts

The Sixth Amendment of the United States Constitution gives the defendant the right, in all criminal prosecutions, to "be confronted with the witnesses against him . . . ."[35] The Sixth Amendment coincides with Article 12 of the Massachusetts Constitution, which states that a defendant has the right "to meet the witnesses against him face to face . . . ."[36] Although these laws are identical on paper, the evidentiary rules of Massachusetts, discussed above, lawfully provide more protection for a defendant than the Sixth Amendment.[37] When the issue implicates both hearsay and the right to confrontation, the protection provided by Article 12 is equivalent to that of the Sixth Amendment.[38] The *Tassone* decision avoided a Sixth Amendment analysis by arguing that defendants are afforded greater protection in Massachusetts and briefly distinguished the case from the facts in *Williams v. Illinois*.[39] In *Williams*, the issue was the constitutionality of allowing an expert witness to discuss testimonial statements made by others when those statements are not admitted as evidence.[40]

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**31** *Greineder*, 984 N.E.2d at 806.

**32** *Id.*

**33** *Id.* at 808.

**34** *Id.* at 806.

**35** U.S. CONST. amend. VI.

**36** MASS. CONST. art. XII pt. 1.

**37** *See Greineder*, 984 N.E.2d at 814. *See generally* Commonwealth v. Amirault, 677 N.E.2d 652 (Mass. 1997).

**38** Commonwealth v. Whelton, 696 N.E.2d 540, 545 (Mass. 1998).

**39** Commonwealth v. Tassone, 11 N.E.3d 67, 72 (Mass. 2014).

**40** Williams v. Illinois, 132 S. Ct. 2221, 2223 (2012).

## III. OVERVIEW OF THE SUPREME COURT'S DECISION IN *WILLIAMS V. ILLINOIS*

### A. Setting the Stage for the Tassone Decision: *Williams v. Illinois*

#### 1. Facts

In *Williams v. Illinois*, the defendant, Williams, was accused of rape, and the Prosecution produced DNA evidence from a sexual assault kit at trial.[41] Cellmark conducted the DNA testing and sent a report back to the Illinois State Police laboratory.[42] A forensic specialist at the state laboratory matched the profile from Cellmark with an entry in the state DNA database.[43] The State offered three expert forensic witnesses to testify about connecting the defendant to the crime through his DNA.[44] The third expert's testimony was the one at issue.[45] Sandra Lambatos was:

> [A]n expert witness in forensic biology and DNA analysis from the State police laboratory who "admitted she had not seen any of the calibrations or work that Cellmark had done in deducing a male DNA profile from the vaginal swabs," but trusted Cellmark to do reliable work because it was an accredited laboratory.[46]

She also testified that it was common practice in the scientific community for "one DNA expert to rely on the records of another DNA expert."[47] The report from Cellmark was not admitted into evidence and Lambatos did not quote or read from nor did she identify it as the source of her opinions.[48] On cross-examination, she reiterated that she had not done any of the testing herself.[49] The Court analyzed Lambatos' statements using a "primary purpose" test.[50]

#### 2. "Primary Purpose" Test

The plurality determined that no confrontation clause violation existed since the Sixth Amendment does not prevent the introduction of testimonial statements "unless they are offered for the truth of the matter asserted."[51] Its reasoning was based on the "primary purpose" of the Cellmark report used by the expert witness

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**41** *Id.* at 2229.

**42** *Id.*

**43** *Id.*

**44** *Id.*

**45** *See id.* at 2230.

**46** Commonwealth v. Tassone, 11 N.E.3d 67, 70 (Mass. 2014) (citing Williams v. Illinois, 132 S. Ct. 2221, 2230 (2012)).

**47** *Williams*, 132 S. Ct. at 2229–30.

**48** *Id.* at 2230.

**49** *Id.*

**50** *Id.* at 2243–44.

**51** *Tassone*, 11 N.E.3d at 70 (citing *Williams*, 132 S. Ct. 2221 at 2235, 2240).

to form the opinion.[52] The Cellmark report was not created to charge the defendant, but to identify a rapist who was not in custody at the time the report was generated.[53] According to the Supreme Court, this meant that Cellmark did not know that the profile would point to the defendant, therefore providing no "incentive to produce anything other than a scientifically sound and reliable profile."[54] Therefore, the "primary purpose" of the DNA report was not to charge a known individual, which precluded the expert's testimony from Sixth Amendment protection.[55] The SJC used this "primary purpose" analysis to distinguish *Tassone* from *Williams* because the DNA evidence was not entered into a database to find a rapist, but to accuse a known individual.[56] The use of DNA technology to accuse individuals began in the 1980s, and the rules of evidence have evolved along with the technology.[57]

## IV. EVOLUTION OF DNA TECHNOLOGY AND ITS IMPACT ON CRIMINAL TRIALS

### A. The First Cases to Use DNA Evidence to Obtain Convictions

DNA profiling first appeared in the courts in 1986 in England, where police had a molecular biologist use DNA to corroborate the confession of a seventeen-year-old boy to two rape-murders.[58] The DNA from the victims revealed that the boy was not the culprit and later identified the actual perpetrator.[59] DNA testing made its way into the U.S. Justice System the following year in a case in Florida.[60] The circuit court convicted the defendant of rape after DNA tests matched his DNA with that of DNA found in the rape victim.[61] Two years after the case in Florida, DNA evidence was first used in a state high court in West Virginia.[62]

#### 1. *Andrews v. State*

In *Andrews v. State* the defendant's conviction was based on "genetic fingerprint" evidence.[63] The circuit court had to decide the admissibility of the evidence as a new scientific technique.[64] The Florida court used a

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[52] *Williams*, 132 S. Ct. at 2243–44.
[53] *Id.* at 2243.
[54] *Id.*at 2244
[55] *Id.* at 2243–44.
[56] *Tassone*, 11 N.E.3d at 72.
[57] Calandro et al., *supra* note 1.
[58] *Id.*
[59] *Id.*
[60] *Id.*
[61] *Id.*
[62] *Id.*
[63] *See generally* Andrews v. State, 533 So. 2d 841 (Fla. Dist. Ct. App. 1988).
[64] *Id.* at 843.

relevancy/reliability analysis to determine the admissibility of the DNA evidence.[65] Many distinguished scientists in the field served as expert witnesses to testify about the general technique and reliability of DNA evidence.[66] The Court held that the prevailing scientific principles for DNA testing over the past ten years made the technique reliable.[67]

2. *State v. Woodall*

The defendant in *State v. Woodall* sought an order from the trial court for a new blood test called DNA print analysis in order to offer the results as evidence in his defense.[68] The request was originally denied but then allowed after trial.[69] The test results were inconclusive.[70] The West Virginia Supreme Court of Appeals found that DNA typing analysis was reliable since it was "generally accepted by geneticists, biochemists, and the like," but that did not lead to the conclusion that it should always be admissible.[71] The test was inconclusive due to the fact that there was insufficient DNA gained from the semen samples to perform the analysis, which was not exculpatory, making the evidence irrelevant.[72] The DNA typing analysis presented in this case was new at the time, and therefore, the court focused on the reliability of the test instead of any possible Sixth Amendment violations.[73] As DNA technology became more reliable and frequently used, the rules of evidence had to evolve in order to incorporate this new technology fairly.[74]

A. The Rise in Scrutiny of DNA Evidence as a Result of Its Increased Use by Prosecutors

1. *People v. Castro*

The case of *People v. Castro*[75] was a landmark murder case that is now commonly referred to "as the first serious challenge to the admissibility of DNA

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[65] *Id.* at 847.

[66] *Id.* at 847–48.

[67] *Id.* at 849–50.

[68] State v. Woodall, 385 S.E.2d 253, 259 (W. Va. 1989).

[69] *Id.*

[70] *Id.*

[71] *Id.* at 260.

[72] *Id.*

[73] *Id.* at 259–60.

[74] Calandro et al., *supra* note 1. "With the exception of nuclear DNA analysis, . . . no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source." Jules Epstein, *Preferring the "Wise Man" to Science: The Failure of Courts and Non-Litigation Mechanisms to Demand Validity in Forensic Matching Testimony*, 20 WIDENER L. REV. 81, 85 (2014) (quoting NAT'L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD (2009), http://ag.ca.gov/meetings/tf/pdf/2009_NAS_report.pdf).

[75] People v. Castro, 545 N.Y.S.2d 985 (N.Y. Sup. Ct. 1989).

evidence."[76] The defendant was charged with second-degree murder, and the State of New York sought to introduce DNA evidence to prove that the bloodstains on the defendant's watch contained blood from one of the victims.[77] After an extensive review of the various techniques used for DNA identification, the court held that DNA evidence was generally accepted as reliable by the scientific community, and for DNA evidence to be admissible the "testing laboratory [must have] substantially performed the scientifically accepted tests and techniques, yielding sufficiently reliable results to be admissible as a question of fact for the jury."[78]

#### 2. Development of DNA Databases and Standard Forensic Laboratory Practices

The mandate by the Federal DNA Identification Act of 1994 established the FBI's Combined DNA Index System (CODIS), and required forensic laboratories to ensure that their procedures were valid and thorough while responding to the influx of important court cases scrutinizing the reliability of DNA evidence.[79] Federally operated DNA laboratories that use CODIS are required to prove compliance with FBI standards.[80] The Violent Crime Control and Law Enforcement Act, also implemented in 1994, pushed for a set of standards for all forensic DNA testing laboratories and provided federal funding for state and local law enforcement agencies to advance their DNA testing abilities.[81]

## V. COMMONWEALTH V. TASSONE

### A. Case Summary

A superior court jury convicted the defendant, Tassone, of unarmed robbery.[82] A pair of glasses was found at the scene of the robbery and a chemist in the State Police crime laboratory used a moistened swab to collect a biological sample for analysis.[83] A witness identified the glasses as belonging to the suspect.[84] A police officer used a buccal swab to obtain a sample of saliva from the defendant which was sent to the State Police crime laboratory for analysis.[85] The swab from the

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**76** Calandro et al., *supra* note 1.

**77** *Castro*, 545 N.Y.S.2d at 985–86.

**78** *Id.* at 999; *see* Ryan McDonald, *supra* note 3 (stating that "the United States has entered an age where the scientific validity" of DNA evidence is no longer the subject of debate).

**79** Calandro et al., *supra* note 1.

**80** *Id.*

**81** *Id.*

**82** Commonwealth v. Tassone, 11 N.E.3d 67, 68 (Mass. 2014).

**83** *Id.* at 69.

**84** *Id.*

**85** *Id.*

glasses was sent to Cellmark, a private DNA testing laboratory, for analysis.[86] Concurrently another chemist in the State Police lab, Tiffany Roy, conducted an "independent review" of the two DNA profiles and concluded that there was a match.[87] Roy was the only one involved in the testing of the DNA to testify at trial.[88] On appeal, the issue was:

> [W]hether an expert witness may offer an opinion that the DNA profile generated from a known saliva sample of the defendant matched a DNA profile obtained from a swab taken from eyeglasses that were left at the scene of a robbery where the expert had no affiliation with the laboratory that conducted the DNA testing of the eyeglasses swab.[89]

The SJC began with an analysis of *Williams v. Illinois* as the appeals court had determined the facts of both cases to be indistinguishable.[90] The SJC disagreed and pointed to the fact that the DNA evidence in *Williams* was a blind analysis, while the evidence at issue in the current case was used to match to an already identified suspect.[91] The SJC did not discuss the Confrontation Clause as it determined that Roy's expert opinion was not admissible under the Massachusetts common law of evidence.[92]

Under the common law of evidence, a defendant must have a "meaningful opportunity to cross-examine the expert about her opinion and the reliability of the facts or data that underlie her opinion."[93] Since Roy was not involved in the Cellmark process, she was unable to confirm that the DNA profile she analyzed had actually come from the glasses swab.[94] She was operating under the assumption that Cellmark sent her the right profile.[95] Due to these circumstances, the SJC held that the defendant was denied a "meaningful opportunity to cross-examine Roy" in reference to the laboratory work done by Cellmark including procedures, protocols, and reliability of the data upon which her opinion was based.[96] By denying the admissibility of Roy's expert opinion, the SJC did not continue with its previous line of cases that expanded the allowable distance between the non-testifying analyst and the person giving their expert opinion at trial.[97]

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**86** *Id.*

**87** *Id.*

**88** *Id.*

**89** *Id.* at 68.

**90** *Id.* at 72.

**91** *Id.*

**92** *Id.* at 73.

**93** *Id.* at 73–74.

**94** *Id.* at 74.

**95** *Id.*

**96** *Id.* at 74–75.

**97** *See id.*; *see also* Commonwealth v. Greineder, 984 N.E.2d 804, 806 (Mass. 2013); Commonwealth v. Barbosa, 933 N.E.2d 93, 103 (Mass. 2010).

## VI. THE SJC'S DECISION IN *TASSONE* IS INCONSISTENT WITH ITS PREVIOUS HOLDINGS WHICH ALLOWED NON-ANALYST EXPERT WITNESSES TO TESTIFY

### A. *Commonwealth v. Barbosa*

The case of *Commonwealth v. Barbosa* involved the expert opinion testimony of Julie Lynch, a senior criminalist of the Boston Police Department in the DNA Unit.[98] She had not performed any of the testing herself but was the supervisor of Cheryl Delatore, the person who performed the actual analysis.[99] Lynch testified that she reviewed Delatore's work, reports, and signed Delatore's final report.[100] She noted that accreditation standards require a full technical review on all DNA reports that are issued.[101] On cross-examination, Lynch revealed that she had not watched Delatore do the testing and she had ''no idea'' whether one of the test tubes was improperly labeled or confused with another.[102] Regardless of these facts, the SJC held that the defendant's right to confront was not violated because he had adequate occasion to confront Lynch about the basis of her opinion.[103] The SJC focused on the relationship between the Confrontation Clause and expert testimony explaining that the interplay between the two is principally led by the laws of evidence.[104] The SJC went further and proclaimed that with DNA evidence "the testing techniques are so reliable and the science so sound that fraud and errors in labeling or handling may be the *only* reasons why an opinion is flawed."[105] The testimony by Lynch that she had no idea how the samples were actually handled, only how standard operating procedures say they should be handled, was considered a benefit to the defendant since it introduced uncertainty in the testing to the jury.[106] The same can be said about the DNA evidence in the *Tassone* case.

In *Tassone*, the expert witness had also not performed the DNA analysis and was able to testify that she did not know whether the profile from Cellmark had been labeled correctly.[107] According to the SJC in *Barbosa*, this gives the

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**98** *Barbosa*, 933 N.E.2d at 102.

**99** *Id.* at 103.

**100** *Id.*

**101** *Id.* at 104.

**102** *Id.*

**103** *Id.* at 107.

**104** Lowy et al., *supra* note 8; *see* Commonwealth v. Banville, 931 N.E.2d 457, 466 (Mass. 2010) (holding that the expert witness could base opinion on a DNA profile generated by an out-of-court analyst because the profile was not admitted as evidence); *see also* Commonwealth v. Durand, 931 N.E.2d 950, 960 (Mass. 2010) ("[S]ubstitute medical examiner may testify as to his or her own opinion concerning the victim's cause of death, even though the testimony is based principally on the autopsy performed by an unavailable pathologist, because the substitute medical examiner's opinion is subject to cross-examination.").

**105** *Barbosa*, 933 N.E.2d at 110.

**106** *Id.* at 103.

**107** *See* Commonwealth v. Tassone, 11 N.E.3d 67, 74 (Mass. 2014).

defendant a "meaningful opportunity" to determine the risk of the mishandling of evidence.[108] The testifying chemist in *Tassone* clearly stated that she was "not in a position" to confirm that the DNA profile she examined actually came from the defendant.[109] She relied on the information that was sent to her by Cellmark.[110]

How is this situation different from that in *Barbosa*? The SJC declared that because the chemist had no affiliation whatsoever with Cellmark, the defendant was unable to explore whether her opinion was flawed; forgetting that it previously decided that not having this knowledge was evidence in itself that the opinion was flawed.[111] When the state lab chemist in *Tassone* testified that she had no knowledge of the handling of the samples, this was enough to introduce doubt about the reliability of the analysis to the jury.[112] Previously, this introduction of doubt was enough for the SJC but for some reason here it was not.[113] It appears as if the court did not want to further promote the opportunity for prosecutors to admit DNA evidence without using the testimony of the actual analyst concerning the techniques they used to handle the evidence, as well as the procedures they followed to do the testing, even more than they had already done so in *Greineder*.[114]

### B. *Commonwealth v. Greineder*

The *Greineder* case went to the Supreme Court and the decision was vacated and remanded with instructions to reconsider the case with *Williams v. Illinois*[115] in mind.[116] The expert opinion of Cellmark's forensic laboratory director, Dr. Cotton, was at issue.[117] The testimony was separated into two parts: Dr. Cotton's opinion that the DNA found at the crime scene matched that of the defendant, and the doctor's discussion of the particulars of the non-testifying analyst's tests.[118] The opinion testimony was deemed admissible, but the testimony regarding the specifics of the testing (performed by another) were not.[119] The two types of

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**108** *Barbosa*, 933 N.E.2d at 110.

**109** *Tassone*, 11 N.E.3d at 74.

**110** *Id.*

**111** *Id.* at 74–75; *see Barbosa*, 933 N.E.2d at 103–04.

**112** *Tassone*, 11 N.E.3d at 74, 76. Recently, negative publicity surrounds state crime laboratories in Massachusetts. *See, e.g.*, Flomenbaum v. Commonwealth, 889 N.E.2d 423, 427 (Mass. 2008); Milton J. Valencia & John R. Ellement, *Annie Dookhan Pleads Guilty in Drug Lab Scandal*, BOS. GLOBE (Nov. 22, 2013), http://www.bostonglobe.com/metro/2013/11/22/annie-dookhan-former-state-chemist-who-mishandled-drug-evidence-agrees-plead-guilty/7UU3hfZUof4DFJGoNUfXGO/story.html.

**113** *Tassone*, 11 N.E.3d at 74–75; *see Barbosa*, 933 N.E.2d at 103.

**114** *See generally* Commonwealth v. Greineder, 984 N.E.2d 804 (Mass. 2013).

**115** Williams v. Illinois, 132 S. Ct. 2221 (2012); *see supra* Part III (discussing the *Williams* decision).

**116** *Greineder*, 984 N.E.2d at 806.

**117** *Id.*

**118** *Id.*

**119** *Id.*

testimony allowed the SJC to expand on Massachusetts's branched approach to expert opinions and the underlying facts of those opinions.[120] The underlying facts were elicited on direct examination, which is not allowed under the Massachusetts Rules of Evidence.[121] A "surrogate expert witness" can only be asked on cross-examination about possible errors in the DNA testing performed by another.[122] Even though the expert's opinion on the underlying data had been admitted in error, the SJC determined that it was not prejudicial since the defense counsel had used the same data compiled by the non-testifying analyst during cross-examination of Dr. Cotton.[123] The SJC also detailed how a prosecutor may use a forensic DNA expert witness:

> [T]he prosecutor . . . may first ask the expert for an opinion, given the expert's background and training and after review of the underlying data, whether the defendant, given his or her DNA profile . . . could be excluded as a possible source of DNA recovered from the crime scene . . . . If the expert opines that the defendant could not be excluded as a possible contributor, a prosecutor may then elicit an expert's opinion on the significance of the DNA evidence.[124]

In the *Greineder* case the SJC even mentioned that Cellmark uses "standardized procedures" that all analysts must follow.[125] Dr. Cotton was therefore in a unique position to discuss the testing procedures as the lab director, including how evidence should be handled according to protocols.[126] The situation of Dr. Cotton is even further removed from that presented in *Barbosa* since she was not directly in charge of the non-testifying analyst.[127] Dr. Cotton would not normally be in a position to watch the unnamed analyst perform her job or understand whether she follows protocol perfectly. Instead, that would be the job of her supervisor.[128] Therefore, the *Greineder* case further stretched the limits of the Confrontation Clause.

The *Tassone* case provided the SJC with an opportunity to further stretch the Confrontation Clause beyond the walls of the testing institution (e.g., Cellmark). Following *Greineder*, which allowed for a laboratory director to testify who had no direct knowledge of the analyst's habits, the SJC could have allowed a chemist from the State Police lab to give expert testimony, but they did not.[129] Cellmark uses standard procedures for its forensic analysis and it appears that most DNA

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**120** *See id.* at 813.

**121** MASS. GUIDE EVID. § 703; *see also Greineder*, 984 N.E.2d at 808.

**122** *Greineder*, 984 N.E.2d at 812.

**123** *Id.* at 821.

**124** *Id.* at 820.

**125** *Id.* at 817.

**126** *Id.*

**127** Commonwealth v. Barbosa, 933 N.E.2d 93, 103 (Mass. 2010).

**128** *Id.*

**129** Commonwealth v. Tassone, 11 N.E.3d 67, 68 (Mass. 2014); *Greineder*, 984 N.E.2d at 817.

samples are sent to them from various Massachusetts cases.[130] Therefore, there was nothing wrong with her testimony besides the fact that she personally did not know how the samples were actually handled at Cellmark, aside from what would be available online or via standard procedures.[131] This fact is more obvious here since Roy did not work at Cellmark in any capacity, but the same issue is present for any situation where the actual analyst does not testify.

The SJC may have sugar-coated this fact in *Greineder* and *Barbosa*, but the issue of mishandling evidence is always present and according to the SJC is sometimes the *only* issue.[132] Since this can possibly be the only issue with the evidence, why should anyone but the analyst be allowed to testify? The logistical impossibility of this scenario is likely the reason why the SJC cannot require that the actual analyst be the one to testify for every case.[133] Exceptions must be made in order to keep the criminal justice system functioning. By only allowing the underlying facts to come out during cross-examination, the SJC tried to provide more protection for defendants.[134] This sentiment is understandable, but the holdings of the SJC should be consistent. Allowing for Roy's testimony to stand would be stretching the rule for expert opinion testimony too far and would defeat the purpose of the Confrontation Clause.[135] The SJC should have based their analysis on the purpose of the Confrontation Clause instead of the idea that the defendant could not fully examine whether the expert's opinion is flawed, since, as stated earlier, this argument does not flow from previous jurisprudence.[136]

## VII. CONCLUSION

Ever since the first conviction based on DNA evidence occurred in the United States in 1987, the use of DNA evidence has risen steadily along with the reliability of the technology.[137] When a DNA sample is prepared for testing and analyzed, but the person who prepped and/or tested the sample is unavailable to

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**130** *Tassone*, 11 N.E.3d at 69; *Greineder*, 984 N.E.2d at 817; *Barbosa*, 933 N.E.2d at 103.

**131** It should be noted that however reliable Cellmark's procedures, they were not created with the confrontation rights of the accused in mind. *See* Richard D. Friedman, *Confrontation and Forensic Laboratory Reports, Round Four*, 45 TEX. TECH. L. REV. 51, 80 (2013).

**132** *Greineder*, 984 N.E.2d at 817; *Barbosa*, 933 N.E.2d at 103, 110 (emphasis added).

**133** It has been suggested that the possibility of retesting exists if the original technician is not available to testify, but this in and of itself contains logistical issues and depends on the amount of sample available for testing in the first place. *See* Friedman, *supra* note 131, at 79 ("Given modern DNA techniques, retesting is virtually always a possibility. . . . [A] technician better placed to do so could retest the sample without adding great expense.").

**134** *Greineder*, 984 N.E.2d at 807.

**135** *Tassone*, 11 N.E.3d at 74–75; *see Greinder*, 984 N.E.2d at 818 (explaining that a defendant must have a meaningful opportunity to cross examine the expert witness); *see also* Maryland v. Craig, 497 U.S. 836, 846 (1990) (stating the purpose of the Confrontation Clause is to ensure fair criminal trials are based on reliable evidence).

**136** *Greineder*, 984 N.E.2d at 817; *Barbosa*, 933 N.E.2d at 103; *see supra* Part VI.A.

**137** Calandro et al., *supra* note 1.

testify, a Confrontation Clause issue rears its ugly head.[138] The Confrontation Clause of the Sixth Amendment gives defendants the right to confront witnesses testifying against them.[139] In Massachusetts, the SJC has a long history of dealing with the Confrontation Clause, and in recent years has dealt specifically with it in reference to expert opinion testimony based on results obtained by a non-testifying analyst.[140] In *Tassone*, the expert opinion testimony in question was that of a State Police crime lab chemist who was not involved in the testing of the DNA sample which showed a match to the defendant.[141] The SJC held that the defendant was not provided with a "meaningful opportunity" to cross-examine the chemist since she had no knowledge of how the testing was performed by the analyst at the forensic laboratory, Cellmark.[142] The result went against previous cases which had been expanding the distance between analyst and expert.[143] It appears as though the SJC reached a point of no return with their reasoning, but instead of focusing on the purpose of the Confrontation Clause, they stuck with their earlier analyses, which did not fit with the facts of *Tassone*.

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**138** *See generally* Williams v. Illinois, 132 S. Ct. 2221 (2012) (discussing a confrontation clause issue stemming from expert witness testimony on DNA evidence).

**139** U.S. CONST. amend. VI.

**140** *Tassone*, 11 N.E.3d at 69–70; *Greineder*, 984 N.E.2d at 817; *Barbosa*, 933 N.E.2d at 103; Commonwealth v. Nardi, 893 N.E.2d 1221, 1232 (Mass. 2008).

**141** *Tassone*, 11 N.E.3d at 69–70.

**142** *Id.* at 74–75.

**143** *See supra* Part VI.