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## DNA Analysis and the Confrontation Clause: “Special Needs” Category for DNA Testimonial Evidence

Colleen Clark

*Golden Gate University School of Law*

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## COMMENT

DNA ANALYSIS AND THE  
CONFRONTATION CLAUSE:  
“SPECIAL NEEDS” CATEGORY FOR  
DNA TESTIMONIAL EVIDENCE

COLLEEN CLARK\*

## INTRODUCTION

In 1953, scientists James D. Watson and Francis Crick published their discovery of the structure of deoxyribonucleic acid, or “DNA.”<sup>1</sup> DNA is “called the ‘blueprint of life’ because it contains the code, or instructions for building [an] organism and ensuring that organism functions correctly.”<sup>2</sup> The discovery of the double helix, the important structure of DNA, would lead to numerous scientific advances including understanding and curing hereditary diseases, accurate paternity testing, determining ancestry, genetically modifying crops, and most importantly for this Comment, upholding justice.<sup>3</sup>

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\* Associate Editor, Golden Gate University Law Review, J.D. Highest Honors, May 2014, Golden Gate University School of Law; B.S., Biological Sciences with minors in Chemistry and Criminal Justice, and a Certificate in Forensic Science, CSU Chico, May 2008. I would like to thank my Faculty Mentor, Peter Keane, for his guidance and input throughout the writing process. I would also like to thank my family for reading countless drafts and helping to make this Comment exactly what I wanted it to be.

<sup>1</sup> Lotta Fredholm, *The Discovery of the Molecular Structure of DNA—The Double Helix*, NOBELPRIZE.ORG (Sept. 30, 2003), [www.nobelprize.org/educational/medicine/dna\\_double\\_helix/readmore.html?referer=www.clickfind.com.au](http://www.nobelprize.org/educational/medicine/dna_double_helix/readmore.html?referer=www.clickfind.com.au).

<sup>2</sup> DNA, [www.biologycorner.com/bio1/DNA.html](http://www.biologycorner.com/bio1/DNA.html) (last visited Oct. 31, 2012).

<sup>3</sup> Steve Connor, *23 Ways That DNA Changed The World*, THE INDEPENDENT, Feb. 26, 2003, [www.independent.co.uk/news/science/23-ways-that-dna-changed-the-world-598877.html](http://www.independent.co.uk/news/science/23-ways-that-dna-changed-the-world-598877.html). “As early as 1988, one judge was calling DNA evidence the ‘single greatest advance in the “search for [the] truth” . . . since the advent of cross-examination.’” ABA CRIMINAL JUSTICE STANDARDS COMM.,

It was not until 1988 that DNA was first admitted as scientific evidence in a criminal trial:

Colin Pitchfork was sentenced to life for the killing of a schoolgirl, Dawn Ashworth, after he became the first murderer to have his DNA matched to that of a tissue sample at the scene of a crime. What is less well known is that DNA fingerprinting, as it is known, was also used on another suspect who had already confessed to the same murder. The test proved that the confession was false. DNA fingerprints have revolutionised criminal investigations and have helped to protect the innocent as well as to convict the guilty.<sup>4</sup>

DNA is a powerful tool in law enforcement investigations because each person's DNA is unique, except for identical twins.<sup>5</sup> DNA can be used as inculpatory evidence, implicating a potential suspect, or as exculpatory evidence, excluding a potential suspect.<sup>6</sup> It can be taken from numerous sources, such as hair, bone, teeth, saliva, and blood,<sup>7</sup> allowing crime-scene investigators to collect a number of samples to be tested for the presence of DNA, and ideally its analysis will lead to a suspect in a case.

This Comment examines three recent U.S. Supreme Court decisions<sup>8</sup> dealing with forensic evidence and how its use is affected by the Confrontation Clause. The Confrontation Clause provides a defendant with the right to confront adverse witnesses.<sup>9</sup> Notably, in *Williams v. Illinois*, Justice Breyer pointed out that the Court has explicitly not addressed the “outer limits of the “testimonial statements” rule set forth in *Crawford v. Washington*.”<sup>10</sup> Specifically, Justice Breyer asked how “the Confrontation Clause [applies] to the panoply of crime

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ABA STANDARDS FOR CRIMINAL JUSTICE—DNA EVIDENCE 17 (3d ed. 2007), available at [www.americanbar.org/content/dam/aba/publications/criminal\\_justice\\_standards/dna\\_evidence.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/publications/criminal_justice_standards/dna_evidence.authcheckdam.pdf) (quoting *People v. Wesley*, 533 N.Y.S.2d 643, 644 (Sup. Ct. 1988)). In 1996, “a National Research Council report stated that ‘DNA analysis is one of the greatest technical achievements for criminal investigation since the discovery of fingerprints.’” *Id.*

<sup>4</sup> Connor, *supra* note 3.

<sup>5</sup> NATHAN JAMES, CONGRESSIONAL RESEARCH SERV., DNA TESTING IN CRIMINAL JUSTICE: BACKGROUND, CURRENT LAW, GRANTS, AND ISSUES 1(2012), available at [www.fas.org/sgp/crs/misc/R41800.pdf](http://www.fas.org/sgp/crs/misc/R41800.pdf).

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009); *Bullcoming v. New Mexico*, 131 S. Ct. 2705 (2011); *Williams v. Illinois*, 132 S. Ct. 2221 (2012).

<sup>9</sup> U.S. CONST. AMEND. VI.

<sup>10</sup> *Williams*, 132 S. Ct. at 2244-45 (2012) (Breyer, J., concurring) (citing *Crawford v. Washington*, 541 U.S. 36 (2004)).

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laboratory reports and underlying technical statements written by (or otherwise made by) laboratory technicians?”<sup>11</sup> This question, while left unanswered, could have major implications in future criminal cases and could affect how prosecutors prepare for and conduct their trials.

This Comment addresses an open question regarding where the “outer limits” of testimonial evidence truly are. Part I of this Comment presents a brief legal background on the Confrontation Clause. It specifically details recent Supreme Court cases involving the impact of the Confrontation Clause on the use of forensic evidence. Part II presents a scientific background on DNA, the complexity of its analysis, and specific advances that may further complicate its relationship with the Confrontation Clause and the need for in-court testimony. Part III proposes a solution that would incorporate aspects of the three recent Supreme Court opinions and provide a workable way for prosecutors to admit scientific evidence, while allowing defense attorneys the opportunity to cross-examine appropriate witnesses. In essence, the Court should adopt a “special needs” category for DNA forensic testimonial evidence. This category would allow for judicial discretion when balancing the benefits of DNA evidence to the prosecution with the defendant’s right to confront adverse witnesses. This would present a solution to Justice Breyer’s concerns about requiring the confrontation of every possible person that worked on a DNA sample,<sup>12</sup> but it would still allow a defendant to adequately cross-examine knowledgeable witnesses.

## I. BACKGROUND

The Confrontation Clause in the Sixth Amendment to the United States Constitution establishes that defendants in all criminal prosecutions, both federal and state, have the right to confront adversarial witnesses.<sup>13</sup> History records an early example of the need for such confrontation in the 1603 trial of Sir Walter Raleigh.<sup>14</sup> Raleigh’s trial is thought of as one of the “most notorious instances of civil-law examination,” leading to statutory and judicial reforms in English law.<sup>15</sup> While being investigated for treason, Raleigh’s alleged accomplice, Lord

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<sup>11</sup> *Id.* at 2244.

<sup>12</sup> “Once one abandons the traditional rule, there would seem often to be no logical stopping place between requiring the prosecution to call as a witness one of the laboratory experts who worked on the matter and requiring the prosecution to call *all* of the laboratory experts who did so. *Id.* at 2246.

<sup>13</sup> *Crawford v. Washington*, 541 U.S. 36, 42 (2004).

<sup>14</sup> *Id.* at 44.

<sup>15</sup> *Id.*

Cobham, implicated Raleigh during a pre-trial examination before the Privy Council.<sup>16</sup> During his trial, Raleigh accused Lord Cobham of lying and demanded that the judges compel Lord Cobham to appear in court to be confronted.<sup>17</sup> The judges refused and Raleigh was convicted and sentenced to death.<sup>18</sup>

The Confrontation Clause was added to the U.S. Constitution in the eighteenth century, to preserve a defendant's right to confront adversarial witnesses.<sup>19</sup> Since then, courts have struggled to establish a uniform definition and application of the Confrontation Clause. In 1980, the Supreme Court ruled in *Ohio v. Roberts* that a transcript of testimony from preliminary hearings was admissible, provided that there were indicia of reliability and trustworthiness.<sup>20</sup> Under this rule, the admission of a declarant's prior testimony would not violate the Confrontation Clause if the declarant was unavailable at trial and if the defendant had a prior opportunity to question the declarant.<sup>21</sup> Specifically, in the case before it, the Court ruled that the trustworthiness of the testimony was evident because the declarant was under oath during her preliminary testimony.<sup>22</sup>

However, in 2004, *Crawford v. Washington* overruled *Ohio v. Roberts*. *Crawford* rejected the "reliability and trustworthy" factors and required generally that anyone presenting testimonial evidence be subject to cross-examination in order to satisfy the Confrontation Clause.<sup>23</sup> However, if the declarant was unavailable for trial and the defendant had a prior opportunity to cross-examine, then testimonial evidence could be presented at trial without a second right to cross-examine.<sup>24</sup> *Crawford* therefore expressly rejected the *Roberts* rule of trustworthiness.<sup>25</sup> In his majority opinion, Justice Scalia interpreted the Confrontation Clause at length. He looked to the plain language of the Sixth Amendment, and the history leading up to its approval, carefully defining who "witnesses" were, and what exactly "testimony" looked like.<sup>26</sup> Justice Scalia

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<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.* at 49.

<sup>20</sup> *Ohio v. Roberts*, 448 U.S. 56, 66 (1980), *abrogated by Crawford*, 541 U.S. 36.

<sup>21</sup> *Id.* at 69.

<sup>22</sup> *Id.*

<sup>23</sup> *Crawford*, 541 U.S. at 58-59.

<sup>24</sup> *Id.* at 59.

<sup>25</sup> *Roberts*, 448 U.S. at 66 (finding trustworthiness through a "firmly rooted hearsay exception").

<sup>26</sup> *Crawford*, 541 U.S. at 51.

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identified witnesses as “those who bear testimony” and testimony as “a solemn declaration or affirmation made for the purpose of establishing or proving some fact.”<sup>27</sup> Today, if the *Crawford* elements are not satisfied—that is, if a witness is available for trial or if the defendant had a prior opportunity to cross-examine—the witness must be present in court and available for cross-examination by defense counsel, or else the prior testimonial evidence is inadmissible.

Ultimately, the *Crawford* decision would impact future cases by more accurately defining a defendant’s constitutional right to confront adversarial witnesses when facing criminal charges. Prior to *Crawford*, the Court understood the Confrontation Clause to allow the admission of out-of-court statements, providing they fell within a firmly rooted hearsay exception.<sup>28</sup> However, in *Crawford*’s landmark decision, the Court held that “testimonial statements of witnesses absent from the trial can be admitted *only* where the declarant is unavailable, and *only* where the defendant has had a prior opportunity to cross-examine.”<sup>29</sup> *Crawford*’s impact on forensic evidence is best seen in *Melendez-Diaz v. Massachusetts*, *Bullcoming v. New Mexico*, and *Williams v. Illinois*.<sup>30</sup>

#### A. *Testimonial Evidence Now Includes Forensic Reports*

In 2009, the Supreme Court considered the application of the Confrontation Clause in the specific context of forensic evidence. In *Melendez-Diaz v. Massachusetts*, the Court held that a forensic report is testimonial and therefore triggers the Confrontation Clause.<sup>31</sup> *Melendez-Diaz* was convicted of selling cocaine.<sup>32</sup> A certified lab report was

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<sup>27</sup> *Id.* However, it wasn’t until 2006 that *Davis v. Washington* provided a comprehensive definition for testimonial evidence:

Statements 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.

*Davis v. Washington*, 547 U.S. 813, 822 (2006).

<sup>28</sup> *Williams v. Illinois*, 132 S. Ct. 2221, 2232 (2012) (citing *Ohio v. Roberts*, 448 U.S. 56, 66 (1980)).

<sup>29</sup> *Id.* (brackets omitted and emphasis added) (quoting *Crawford*, 541 U.S. at 59). These factors are hard to satisfy, as a witness will almost never be subject to cross-examination before giving trial testimony.

<sup>30</sup> *Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009); *Bullcoming v. New Mexico*, 131 S. Ct. 2705 (2011); *Williams*, 132 S. Ct. 2221.

<sup>31</sup> *Melendez-Diaz*, 557 U.S. at 310.

<sup>32</sup> *Id.* at 308.

admitted into evidence, identifying the white substance found on Melendez-Diaz as cocaine.<sup>33</sup> However, the forensic analyst who tested the cocaine, and wrote the report, never testified at trial.<sup>34</sup> The defendant argued his constitutional right to confront this witness was violated because the lab report was testimonial hearsay.<sup>35</sup> Although the lower courts had found that the forensic report was not testimonial evidence, the Supreme Court disagreed.<sup>36</sup> It held that the lab report had been specifically prepared for a criminal prosecution, and therefore it was subject to the requirements of the Confrontation Clause.<sup>37</sup>

Regarding testimonial evidence, the Court said that

[v]arious formulations of this core class of testimonial statements exist: *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.<sup>38</sup>

Although the forensic report was considered a “formalized material,” the Court classified it as testimonial.<sup>39</sup>

The majority also noted that the use of “[c]onfrontation is one means of assuring accurate forensic analysis.”<sup>40</sup> Specifically, a defendant could attack “an analyst’s lack of proper training or deficiency in judgment” during cross-examination.<sup>41</sup> However, the dissent argued that confronting a forensic analyst would not be very helpful because as a laboratory professional, the analyst would not arrive at different results after identifying and accusing the defendant.<sup>42</sup>

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<sup>33</sup> *Id.*

<sup>34</sup> *Id.* at 308-09.

<sup>35</sup> *Id.* at 309.

<sup>36</sup> *Id.* at 310.

<sup>37</sup> *Id.* at 310-11. Justice Kennedy’s dissent criticized the majority for dispensing with the long-held rule that a scientific report could be admitted without testimony from the analyst who produced it. *Id.* at 330 (Kennedy, J., dissenting).

<sup>38</sup> *Id.* at 310 (majority opinion) (quoting *Crawford v. Washington*, 541 U.S. 36, 51-52 (2004)).

<sup>39</sup> *Melendez-Diaz*, 557 U.S. at 310.

<sup>40</sup> *Id.* at 318.

<sup>41</sup> *Id.* at 320.

<sup>42</sup> *Id.* at 317.

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Ultimately, the Court found the forensic report qualified as testimonial evidence subject to the Confrontation Clause, and the prosecution was required to call a witness from the testing lab to introduce the scientific evidence at trial.<sup>43</sup> However, the Court did not address who would qualify as an appropriate witness until 2011.

*B. Surrogate Testimony Will Not Satisfy the Confrontation Clause*

In 2011, in *Bullcoming v. New Mexico*, the Supreme Court held that the testimony of a lab analyst's supervisor would not satisfy the Confrontation Clause.<sup>44</sup> Bullcoming was convicted of driving under the influence.<sup>45</sup> A report was prepared showing that Bullcoming's blood-alcohol level exceeded the legal limit to drive.<sup>46</sup> The analyst who prepared the report did not testify at trial, but his supervisor testified to the results of the blood-alcohol testing.<sup>47</sup> The defendant challenged the use of the surrogate's testimony, arguing both that the lower court erroneously admitted the testimonial statements of a non-testifying analyst and that the supervisor would not be able to accurately respond to cross-examination.<sup>48</sup>

The Court agreed and held the surrogate's testimony invalid because the testifying supervisor neither observed the analysis of the evidence nor worked on the forensic report.<sup>49</sup> The Court specifically stated that "if an out-of-court statement is testimonial in nature, it may not be introduced against the accused at trial unless the witness who made the statement is unavailable and the accused has had a prior opportunity to confront that witness."<sup>50</sup> The Court reasoned that the surrogate witness would not have been able to talk about potential mistakes made by the testing analyst and therefore was not an appropriate witness to satisfy the Confrontation Clause.<sup>51</sup>

The government argued that an "unbending application of the Confrontation Clause to forensic evidence would impose an undue burden on the prosecution."<sup>52</sup> It highlighted the defendant's right to

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<sup>43</sup> *Id.* at 311.

<sup>44</sup> *Bullcoming v. New Mexico*, 131 S. Ct. 2705, 2707 (2011).

<sup>45</sup> *Id.* at 2709.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 2712.

<sup>49</sup> *Id.* at 2710.

<sup>50</sup> *Id.* at 2713.

<sup>51</sup> *Id.* at 2715.

<sup>52</sup> *Id.* at 2717.



request retesting of the evidence and his right to call his own expert witnesses. The dissent noted that the surrogate was a representative of the testing laboratory and could reasonably explain the lab's testing procedures and the details of the report.<sup>53</sup> In fact, the defendant had an opportunity to cross-examine the surrogate about this information. During cross-examination, the defendant

[highlighted] the absence at trial of certain laboratory employees. Under questioning by Bullcoming's attorney, [the surrogate witness] acknowledged that his name did not appear on the report; that he did not receive the sample, perform the analysis, or complete the review; and that he did not know the reason for some personnel decisions. After weighing arguments from defense counsel concerning these admissions, and after considering the testimony of [the surrogate witness], who knew the laboratory's protocols and processes, the jury found no reasonable doubt as to the defendant's guilt.<sup>54</sup>

Even with the ability to cross-examine a seemingly appropriate surrogate witness, the Court decided that Bullcoming's Sixth Amendment right was violated. Additionally, Justice Sotomayor's concurrence envisioned a situation that would face the Court just a year later; she opined that this case would have turned out differently had the surrogate witness been qualified as an expert witness.<sup>55</sup> That situation became reality in 2012.

### C. *Expert Testimony Circumvents the Confrontation Clause*

In 2012, the Supreme Court held in *Williams v. Illinois* that the use of a scientific expert to introduce the results of a non-testifying analyst does not violate the Confrontation Clause. This decision seemingly created a loophole in the rules established in *Melendez-Diaz v. Massachusetts* and *Bullcoming v. New Mexico*. In *Williams v. Illinois*, a DNA sample was taken from the defendant when he was arrested on unrelated charges.<sup>56</sup> A state lab analyst entered his DNA profile into the state's database looking for a match.<sup>57</sup> Contemporaneously, a private lab called Cellmark Diagnostics was preparing a DNA profile from semen collected from a sexual assault victim in another case.<sup>58</sup> At trial, the

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<sup>53</sup> *Id.* at 2723 (Kennedy, J., dissenting).

<sup>54</sup> *Id.* at 2724 (citation to the record omitted).

<sup>55</sup> *Id.* at 2722 (Sotomayor, J., concurring).

<sup>56</sup> *Williams v. Illinois*, 132 S. Ct. 2221, 2229 (2012).

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

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Cellmark report was not admitted into evidence: however, the prosecution's expert witness read the results of the report aloud during the bench trial.<sup>59</sup> No one from Cellmark Diagnostics testified during trial.<sup>60</sup> The expert witness testified about the *match* between the defendant's blood sample and the semen sample from the crime scene.<sup>61</sup> The defendant argued that the analyst who prepared the report should be required to testify in order to satisfy the Confrontation Clause.<sup>62</sup>

Ultimately, the Supreme Court held that the expert testimony did not violate the Confrontation Clause, although no one rationale was endorsed by a majority of the Justices, an four Justices dissented.<sup>63</sup> While the reports were never admitted into evidence, the expert's testimony about those reports was admissible, and Williams's conviction was upheld.<sup>64</sup> While expert testimony is admissible under the Federal Rules of Evidence, allowing an expert's testimony to replace, rather than just complement, a forensic analyst's testimony has adverse ramifications for a defendant's rights under the Confrontation Clause. This denies the defendant the ability to truly question the manner in which a sample was analyzed, which is an important part of confronting adverse scientific witnesses.

## II. DNA ANALYSIS ROADMAP

While DNA evidence is important in the criminal justice system, its application and admissibility in the courts is a work in progress. Compared to other forensic science evidence, DNA has received the most scrutiny by the courts.<sup>65</sup> When DNA first appeared in criminal trials, many courts gave more weight to victim identification testimony than to DNA evidence, because DNA was relatively unknown in the courts and had not reached a level of general acceptance.<sup>66</sup> While courts have faced the admissibility of DNA evidence for over two decades,<sup>67</sup> DNA analysis procedures are complex and subject to rapid change, so while older procedures are reviewed on appeal, newer procedures are

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<sup>59</sup> *Id.* at 2229-30.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.* at 2230.

<sup>62</sup> *Id.* at 2228.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> RON C. MICHAELIS, ROBERT G. FLANDERS, JR. & PAULA H. WULFF, A LITIGATOR'S GUIDE TO DNA: FROM THE LABORATORY TO THE COURTROOM 215 (2008).

<sup>66</sup> *Id.* at 239.

<sup>67</sup> Connor, *supra* note 3.

tested and litigated at the trial level.<sup>68</sup> With ever-advancing DNA procedures, trial courts needed guidance in dealing with forensic evidence and the Confrontation Clause. The Supreme Court attempted to provide that guidance with *Melendez-Diaz v. Massachusetts*, *Bullcoming v. New Mexico*, and *Williams v. Illinois*.

Scientific witnesses are needed to help juries understand the complexity of forensic evidence, especially DNA evidence. These witnesses are useful to explain the testing procedures, to decide if a DNA profile matches evidence left at a crime scene, and to identify a suspect in the case. The need for these forensic witnesses is important to *both* sides during trial. Prosecutors need these witnesses to explain the science leading to the results and why juries should believe those results. Defendants need the ability to attack both the credibility of these witnesses and the scientific results obtained.

#### A. DNA Generally

A DNA “match” in a criminal case means that the suspect’s DNA profile “matches” a reference sample taken from a piece of evidence from the crime scene. A “DNA profile” refers to a numerical representation of thirteen specific points (“loci”) on a person’s inactive DNA, or “junk DNA.”<sup>69</sup> Laboratories use the junk DNA because that is the most unique portion of a person’s DNA strand.<sup>70</sup> Junk DNA is polymorphic,<sup>71</sup> which refers to “the alternative forms of a gene [making up DNA] that a person could possess.”<sup>72</sup>

An analyst who tests a DNA sample looks at these unique areas to determine how likely this sequence in the DNA is to appear in a given population of people.<sup>73</sup> “Human beings share more biological similarities than differences.”<sup>74</sup> Therefore, it is important for the analyst to isolate the junk DNA because “over 99% of human DNA does not vary from person to person.”<sup>75</sup> This DNA profile or “DNA fingerprint” is a unique identifier that allows law enforcement to compare evidence

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<sup>68</sup> ABA CRIMINAL JUSTICE STANDARDS COMM., *supra* note 3, at 96.

<sup>69</sup> *What Is DNA*, FRANKLING COUNTY, N.Y., DISTRICT ATTORNEY’S OFF., [www.franklincony.org/content/Departments/View/15:field=documents;/content/Documents/File/430.pdf](http://www.franklincony.org/content/Departments/View/15:field=documents;/content/Documents/File/430.pdf) (last visited Mar. 7, 2013).

<sup>70</sup> *Id.*

<sup>71</sup> *People v. Smith*, 132 Cal. Rptr. 2d 230, 234-35 (Ct. App. 2003).

<sup>72</sup> *Id.* at 235.

<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*

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from one crime scene to another, or to known individuals, just as a fingerprint does.<sup>76</sup> When a person cannot be eliminated as a suspect from the DNA results, matching loci will likely be given statistical significance.<sup>77</sup>

*B. DNA Can Be Analyzed in Numerous Ways*

DNA is useful in criminal prosecutions due to several unique characteristics.<sup>78</sup> First, DNA is durable.<sup>79</sup> It can be extracted from skeletal remains, badly burned remains, decades-old evidence, and even Egyptian mummies.<sup>80</sup> Second, DNA has a high degree of polymorphism, which means the chances of two people having the same DNA profile are nearly impossible.<sup>81</sup> This near impossibility is demonstrated using statistics and probabilities. DNA probabilities can exceed “both the present world population and the number of human beings who have ever populated the world.”<sup>82</sup> For example, one analyst

analyzed [two separate DNA samples] and confirmed that the DNA profiles matched. She then applied the product rule to determine the rarity of the profile to assess whether it was a real match or just coincidence because the profile was shared by more than one person. She determined that the profile obtained from the evidence item sperm fraction was estimated to occur at random in the general population in about one in 130 quadrillion African-Americans, one in 240 quadrillion Caucasians, and one in 4.3 quadrillion Hispanics.<sup>83</sup>

The numerical results show the high probability that two matching profiles come from the same person, and it is improbable that there would be another suspect with that DNA profile anywhere in the world.

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<sup>76</sup> *What Is DNA*, *supra* note 65.

<sup>77</sup> *People v. Soto*, 981 P.2d 958, 964 (Cal. 1999).

<sup>78</sup> Edward J. Imwinkelried, *The Relative Priority that Should Be Assigned to Trial Stage DNA Issues*, in *DNA AND THE CRIMINAL JUSTICE SYSTEM: THE TECHNOLOGY OF JUSTICE* 92 (David Laze ed., 2004).

<sup>79</sup> *Id.*

<sup>80</sup> *Id.* at 92-93.

<sup>81</sup> *Id.* at 93. This is not true, of course, for identical twins, who share the same DNA profile. James, *supra* note 5, at 1.

<sup>82</sup> Imwinkelried, *supra* note 74, at 93. For example, a DNA probability can be described as: a one in 7.87 trillion chance that the DNA profile cannot be attributed to anyone other than a one matching DNA profile. With only several billion people on earth today, those results clearly rule out every possible person that has ever inhabited the earth, other than the matching DNA profile. *Id.*

<sup>83</sup> *People v. Johnson*, 139 Cal. App. 4th 1135, 1143 (2006).

When referencing a DNA profile, “it is not scientifically justifiable to claim a match as proof of identity in the absence of statistics.”<sup>84</sup> “When a DNA profile is relatively common, there is a more compelling argument that the suspect might not be linked to the crime scene. Similarly if the DNA profile is extremely rare, then the evidence is stronger that the suspect was a DNA donor to the crime scene sample.”<sup>85</sup> Additionally, there are many different techniques used for DNA analysis in order to obtain a DNA profile. The selection of a particular technique could depend on “cost, time available for analysis and the quality and amount of the DNA sample available.”<sup>86</sup> The main techniques used for forensic DNA analysis are RFLP, PCR, STR, Mitochondrial, and Y-Chromosome, all of which are discussed below.

### 1. RFLP Analysis

Restriction Fragment Length Polymorphism (RFLP) was one of the first techniques used to identify DNA profiles in forensic investigations.<sup>87</sup> In this process, an analyst digests a DNA sample with specific enzymes, which cuts the DNA at a certain recognition site.<sup>88</sup> The presence or absence of these recognition sites appear in a profile, which is then separated using a process called gel electrophoresis.<sup>89</sup> During this process, bands appear along a gel plate.<sup>90</sup> These bands are then counted and the distance between them is measured.<sup>91</sup> The results are then compared with other samples for a match.<sup>92</sup>

While RFLP is helpful, labs are generally moving away from this technique. First, it requires the subjective judgment of an analyst to determine if the bands match.<sup>93</sup> Second, it is a slow process, typically

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<sup>84</sup> CHROMOSOMAL LABS., INC., LAWYER’S GUIDE TO FORENSIC STATISTICS (TECHNICAL BULLETIN 40-021) (undated), available at <http://schooldays360.wikispaces.com/file/view/LawyerGuidetoForensicStatistics.pdf>.  
<http://sciencembhsbc.wikispaces.com/file/view/LawyerGuidetoForensicStatistics.pdf>.

<sup>85</sup> *Id.*

<sup>86</sup> Shanna Freeman, *How DNA Profiling Works*, (Aug. 19, 2008), HOWSTUFFWORKS, <http://science.howstuffworks.com/dna-profiling1.htm>.

<sup>87</sup> William C. Thompson & Dan E. Krane, *DNA in the courtroom*, in JANE CAMPBELL MORIARTY, PSYCHOLOGICAL AND SCIENTIFIC EVIDENCE IN CRIMINAL TRIALS § 11:4, at 11-8 (2003), available at [www.bioforensics.com/articles/Chapter11.pdf](http://www.bioforensics.com/articles/Chapter11.pdf).

<sup>88</sup> *Id.* § 11:15, at 11-26.

<sup>89</sup> *Id.* § 11:16, at 11-26.

<sup>90</sup> *Id.* § 11:16, at 11-26.

<sup>91</sup> *Id.* § 11:16, at 11-27.

<sup>92</sup> *Id.* § 11:16, at 11-27.

<sup>93</sup> *Id.* § 11:4, at 11-10.

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taking from four to six weeks to get results.<sup>94</sup> Third, it requires a large amount of DNA in order to get a useable profile.<sup>95</sup> Lastly, if a sample was degraded due to environmental conditions like mold, the sample would likely not work well with RFLP.<sup>96</sup>

## 2. PCR Analysis

Polymerase Chain Reaction (PCR) is the primary method forensic scientists use to amplify a DNA profile.<sup>97</sup> It requires only a minute sample of DNA, which can then create billions of copies of certain loci in a sample.<sup>98</sup> The process amplifies a DNA sample into a workable sample, detectable by specific machines.<sup>99</sup> The amplification of DNA using PCR allows a scientist to use as little as a few skin cells to run a full DNA profile. PCR can also be used to analyze degraded DNA samples. However, the process is sensitive, and great care must be taken to prevent contamination of the DNA sample.<sup>100</sup> This process is important for criminal investigations because a sample can be analyzed within one to two days.<sup>101</sup>

## 3. STR Analysis

The most common type of DNA profiling for criminal cases and forensic evidence is Short Tandem Repeat (STR) analysis.<sup>102</sup> STR analyzes specific loci within DNA. It combines “the sensitivity of a PCR-based test with great specificity (profile frequencies potentially as low as one in trillions).”<sup>103</sup> The Federal Bureau of Investigation (FBI) maintains a national database, CODIS, to store DNA profiles of convicted felons. CODIS stands for Combined DNA Index System, and

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<sup>94</sup> *Id.* § 11:4, at 11-11.

<sup>95</sup> *Id.* § 11:4, at 11-10 to 11-11.

<sup>96</sup> NATIONAL INSTITUTE OF JUSTICE, U.S. DEPARTMENT OF JUSTICE, USING DNA TO SOLVE COLD CASES 5 (2002), available at [www.ncjrs.gov/pdffiles1/nij.194197.pdf](http://www.ncjrs.gov/pdffiles1/nij.194197.pdf).

<sup>97</sup> Thompson & Krane, *supra* note 83, § 11:5, at 11-12.

<sup>98</sup> *Id.* § 11:5, at 11-12.

<sup>99</sup> *Id.* § 11:5, at 11-12.

<sup>100</sup> JOHN M. BUTLER, FORENSIC DNA TYPING: BIOLOGY, TECHNOLOGY, AND GENETICS OF STR MARKERS 152 (2005).

<sup>101</sup> Thompson & Krane, *supra* note 83, § 11:5, at 11-12.

<sup>102</sup> *STR Analysis*, NAT'L INST. JUST. (Mar. 3, 2011), [www.nij.gov/journals/267/extending-str.htm](http://www.nij.gov/journals/267/extending-str.htm).

<sup>103</sup> Thompson & Krane, *supra* note 83, § 11:5, at 11-13.

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was created with the passage of the DNA Identification Act of 1994.<sup>104</sup> The FBI set a standard use of thirteen specific STR loci in order to maintain CODIS.<sup>105</sup> The FBI chose these thirteen loci because “a statistical calculation based upon the [loci] reveals the probability of two unrelated Caucasians having identical STR profiles . . . is approximately 1 in 575 trillion.”<sup>106</sup> CODIS contains two indices: one contains DNA profiles of convicted offenders, and the other contains DNA profiles from crime-scene evidence.<sup>107</sup> The database continuously runs both indices against each other looking for matches.<sup>108</sup>

PCR, discussed above, is widely used to replicate specific STR loci sites.<sup>109</sup> Analysts familiar with both PCR and STR should be relied upon to explain these procedures to the judge and/or jury in a criminal proceeding. The importance of explaining the complexity of both procedures during trial will allow the trier of fact to analyze the credibility of the evidence.

## 4. Mitochondrial DNA Analysis

A recent advance in DNA testing is the use of Mitochondrial DNA analysis.<sup>110</sup> DNA in general is found in the nucleus of every living cell.<sup>111</sup> However, the mitochondrion,<sup>112</sup> which is also present in every cell, contains its own version of DNA. Mitochondrial DNA is uniquely inherited only from the mother and can therefore be traced maternally up the ancestry line.<sup>113</sup> Law enforcement has been able to utilize

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<sup>104</sup> 42 U.S.C. § 14132; see DNA Identification Act of 1994, Pub. L. No. 103-322, §§ 210306, 108 Stat. 1796, 2065-71; see also *Combined DNA Index System Operational and Laboratory Vulnerabilities, Audit Report* 06-32, OFF. OF THE INSPECTOR GEN. (2006), [www.justice.gov/oig/reports/FBI/a0632/laws.htm](http://www.justice.gov/oig/reports/FBI/a0632/laws.htm).

<sup>105</sup> Karen Norrgard, *Forensics, DNA Fingerprinting, and CODIS*, NATURE EDUCATION (2008), [www.nature.com/scitable/topicpage/forensics-dna-fingerprinting-and-codis-736](http://www.nature.com/scitable/topicpage/forensics-dna-fingerprinting-and-codis-736).

<sup>106</sup> *Id.*

<sup>107</sup> Kathryn M. Turman, *Understanding DNA Evidence: A Guide for Victim Service Providers*, OFF. FOR VICTIMS OF CRIME BULL. 5, APR. 2001, available at [www.ojp.usdoj.gov/ovc/publications/bulletins/dna\\_4\\_2001/NCJ185690.pdf](http://www.ojp.usdoj.gov/ovc/publications/bulletins/dna_4_2001/NCJ185690.pdf).

<sup>108</sup> *Id.*

<sup>109</sup> *DNA*, DEPARTMENT OF PUBLIC SAFETY: SCIENTIFIC CRIME DETECTION LABORATORY, <http://dps.alaska.gov/CrimeLab/DNA.aspx>.

<sup>110</sup> Thompson & Krane, *supra* note 83, § 11:8, at 11-15.

<sup>111</sup> *Id.* § 11:8, at 11-15.

<sup>112</sup> The mitochondrion is an organelle in the cytoplasm whose primary function is to produce energy. The mitochondrion contains DNA that is passed maternally. *Mitochondrion*, MERRIAM-WEBSTER, [www.merriam-webster.com/concise/mitochondrion](http://www.merriam-webster.com/concise/mitochondrion).

<sup>113</sup> Thompson & Krane, *supra* note 83, § 11:8, at 11-15 to 11-16.

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mitochondrial DNA in order to identify missing persons, human remains, and maternal relationships between a mother and child.

Additionally, some biological evidence collected at a crime scene may not contain nuclei, (such as hair shafts, teeth, and bones), but these samples can still be tested using mitochondrial DNA to determine a maternal chain and, ideally a suspect.<sup>114</sup> Mitochondrial DNA is also important for older DNA samples or highly degraded DNA samples, with which STR analysis might not be successful.<sup>115</sup> Specifically, mitochondrial DNA has become helpful with cold cases in which cells have lost their nuclear DNA.<sup>116</sup>

## 5. Y-Chromosome Analysis

Much like Mitochondrial DNA analysis, Y-Chromosome DNA analysis is a major advance in analyzing DNA for specific attributes. This process tests nuclear DNA, looking specifically for the Y-Chromosome.<sup>117</sup> The Y-Chromosome examines male-specific portions of a biological sample only.<sup>118</sup> While the mitochondrial DNA passes maternally, the Y-Chromosome passes paternally.<sup>119</sup> The paternal link in this process is important because most violent crimes, including sexual assaults, involve male perpetrators.”<sup>120</sup> A sexual assault crime scene may contain large amounts of female DNA and a minute amount of male DNA.<sup>121</sup> The use of Y-Chromosome DNA analysis essentially blinds the machine to any female DNA and allows only the male DNA to be extracted, amplified, and profiled. While Y-Chromosome analysis can be important in sexual assaults and other violent crimes, it is also important in identifying human remains and missing persons.<sup>122</sup>

### C. *How a Piece of Evidence Turns into a Working DNA Profile*

A piece of evidence may pass through many hands from the time it is collected at the crime scene all the way through trial. A prosecutor

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<sup>114</sup> *Id.* § 11:8, at 11-15.

<sup>115</sup> BUTLER, *supra* note 96, at 241.

<sup>116</sup> *Id.*

<sup>117</sup> *Forensic DNA: Y-Chromosome*, NAT'L INST. JUST., <http://nij.gov/topics/forensics/evidence/dna/research/Pages/y-chromosome.aspx> (last modified Oct. 11, 2012).

<sup>118</sup> *Id.*

<sup>119</sup> *Id.*

<sup>120</sup> BUTLER, *supra* note 96, at 201-02.

<sup>121</sup> *Id.* at 202-03.

<sup>122</sup> *Forensic DNA: Y-Chromosome*, *supra* note 113.



must determine who is “important” along that chain in order to call appropriate witnesses during trial. The defense is also entitled to confront any adverse witnesses.

Justice Breyer, in his *Williams* concurrence, highlighted a potential slippery slope if a defendant is entitled to confront every person who touched the evidence along that chain.<sup>123</sup> Justice Breyer detailed the life of a piece of evidence specifically to show the number of people a prosecutor would need to call if the defendant were entitled to confront every analyst. First, a lab receives a piece of evidence collected from a crime scene.<sup>124</sup> An analyst (A1) examines the evidence for the presence of biological materials.<sup>125</sup> If biological materials are found, A1 will take a cutting or a swab of the evidence.<sup>126</sup> Next, the DNA is extracted from the cutting or swab.<sup>127</sup> In order to do this, a different analyst (A2) will need to add specific chemicals to the cutting or swab to break up the cells and free the DNA from the nucleus.<sup>128</sup> Once the DNA is freed, another analyst (A3) will measure it to ensure there is a large enough quantity to obtain useable results.<sup>129</sup> Then another analyst (A4) will amplify the DNA using PCR, which targets, tags and copies certain locations on the DNA strand in order to get detectable samples for a machine to read.<sup>130</sup> Next, one or two subsequent analysts (A5 & A6) run the amplified DNA through capillary electrophoresis in order to label the strands of DNA at specific loci.<sup>131</sup>

Through the use of software, an analyst can measure the length of each peak at each locus.<sup>132</sup> These peaks will be unique to each person, especially when looking at several different loci to determine a working profile of the suspected DNA profile.<sup>133</sup> In order to identify someone as a match, a scientist will compare thirteen specific loci from the DNA evidence to the suspected DNA profile.<sup>134</sup> This entire process is then repeated using a different DNA sample collected from a suspect to get a

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<sup>123</sup> *Williams v. Illinois*, 132 S. Ct. 2221, 2246 (2012) (Breyer, J., concurring).

<sup>124</sup> *Id.* at 2252-54 (app. to opinion of Breyer, J., concurring).

<sup>125</sup> *Id.*

<sup>126</sup> *Id.*

<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> *Id.*

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> *Id.*

<sup>133</sup> *Id.*

<sup>134</sup> BUTLER, *supra* note 96, at 439-40 (2005).

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DNA profile,<sup>135</sup> with the potential to use completely different analysts (A7-A12).<sup>136</sup> Ultimately, yet another analyst (A13) will compare a DNA profile from the evidence with a DNA profile from a suspect and see if the two profiles match.<sup>137</sup>

As just outlined, the process of DNA profiling might involve anywhere between one and thirteen DNA analysts, depending upon whether one analyst performs multiple steps. Current Confrontation Clause jurisprudence leaves prosecutors and defendants unsure of who actually needs to testify about forensic DNA evidence. A prosecutor would be unduly burdened if it were necessary to call every analyst along that chain; however, a prosecutor needs to call at least one analyst to satisfy the Confrontation Clause. A prosecutor would need to pick the most appropriate witness along that chain in order to get the best testimony about the testing procedures and the results of those tests. Every decision a prosecutor makes about forensic witnesses implicates a defendant's constitutional right to confront certain witnesses. Here is where a balancing of both sides' interests should be a top priority for the courts.

### III. A NEED FOR BALANCING—BOTH FOR PROSECUTORS AND FOR DEFENDANTS

Since 2004, both conservative and liberal justices have “breathed new but fragile and halting life into the [Confrontation Clause].”<sup>138</sup> Justice Breyer seems to believe that the Court is moving in an absolutist direction, with a science that is ever-evolving.<sup>139</sup> If he is correct, that would mean that criminal justice proceedings may never reap the full benefits of DNA evidence.<sup>140</sup> The problem with the recent Supreme Court decisions is that there are still no clear guidelines that lower courts can look to in order to deal with DNA evidence. A court still needs to be able to admit reliable scientific evidence, but in a way that protects a defendant's constitutional right to confront adversarial witnesses.

There should be a balancing test that courts can perform when faced with scientific evidence. A discretionary test, similar to that prescribed

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<sup>135</sup> *Williams*, 132 S. Ct. at 2252-54 (app. to opinion of Breyer, J., concurring).

<sup>136</sup> *Id.*

<sup>137</sup> *Id.*

<sup>138</sup> Adam Liptak, *No Majority Rationale in Crime Lab Testimony Ruling*, N.Y. TIMES, June 18, 2012, [www.nytimes.com/2012/06/19/us/supreme-court-ruling-on-crime-lab-testimony-lacks-majority-rationale.html?\\_r=0](http://www.nytimes.com/2012/06/19/us/supreme-court-ruling-on-crime-lab-testimony-lacks-majority-rationale.html?_r=0).

<sup>139</sup> *Williams*, 132 S. Ct. at 2245 (Breyer, J., concurring).

<sup>140</sup> *Id.*

by Federal Rule of Evidence 403, would allow a judge to look at the specific facts of the case in order to make a decision. A judge would be able to *balance* the trustworthiness of the evidence with the defendant's right to cross-examine a witness. In essence, this would create a "special needs" category for DNA forensic testimonial evidence.<sup>141</sup>

A. *Procedural Safeguards Ensure Trustworthiness That a Prosecutor Can Rely on*

1. Accreditation Matters

Over the years, different agencies<sup>142</sup> have been created to ensure accurate and trustworthy forensic results. A lab that analyzes DNA evidence should be required to meet many state and federal standards before it can analyze a piece of evidence.<sup>143</sup> A defendant cross-examining a forensic scientist is looking to highlight mistakes that may have been made with his or her particular sample. For example, the reliability of evidence depends on three factors: first, the validity of the underlying theory; second, the validity of the technique applying that theory; and third, the proper application of the technique on a particular occasion.<sup>144</sup> A reliable result will *not* be produced if an invalid technique is used, or if a valid technique is improperly applied.<sup>145</sup>

Accreditation of a lab is an important element in determining if a piece of evidence passed the reliability and trustworthiness aspect of this proposed balancing test. The FBI formed the Technical Working Group of DNA Analysis Methods to give DNA laboratories a forum to share

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<sup>141</sup> This would be much like the "special needs" exception to the Fourth Amendment. "The 'special needs' doctrine, which has been used to uphold certain suspicionless searches performed for reasons unrelated to law enforcement, is an exception to the general rule that a search must be based on individualized suspicion of wrongdoing. The doctrine permits intrusions into a person's body and home, areas afforded the greatest Fourth Amendment protection." *City of Indianapolis v. Edmond*, 531 U.S. 32, 54 (2000) (Rehnquist, C.J., dissenting) (citing *Skinner v. Ry. Labor Executives' Ass'n*, 489 U.S. 602 (1989) (drug test search); *Camara v. Mun. Court*, 387 U.S. 523 (1967) (home administrative search)).

<sup>142</sup> There are many accreditation labs throughout the country. *See, e.g.*, ASCLD-LAB at [www.ascl-d-lab.org/](http://www.ascl-d-lab.org/); Forensic Specialties Accreditation Board, Inc., at <http://thefsab.org/>; and ANSI-ASQ National Accreditation Board at <http://fqsforensics.org/>.

<sup>143</sup> INT'L. LAB. ACCREDITATION COOPERATION, WHY BECOME AN ACCREDITED LABORATORY? (2011), available at [www.ascl-d-lab.org/wp-content/uploads/2013/05/Why-become-an-accredited-lab.pdf](http://www.ascl-d-lab.org/wp-content/uploads/2013/05/Why-become-an-accredited-lab.pdf).

<sup>144</sup> ABA CRIMINAL JUSTICE STANDARDS COMM., *supra* note 3, at 95-96.

<sup>145</sup> *Id.*

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data.<sup>146</sup> Another organization, called the National Research Council, has generated several reports that helped the FBI issue the 1998 *Quality Assurance Standards for Forensic DNA Testing Laboratories*.<sup>147</sup> With the development of these organizations, a specific program was created to accredit laboratories and certify analysts.<sup>148</sup>

Now, most laboratories are accredited by the Laboratory Accreditation Board of the American Association of Crime Laboratory Directors.<sup>149</sup> “Laboratory accreditation programs assess the laboratory’s organization, the testing protocols that are used, the laboratory’s quality control and quality assurance programs, and the training and qualifications of the laboratory personnel.”<sup>150</sup> For example, if a forensic DNA testing laboratory wants to access the FBI’s CODIS database, it must adhere to

standards governing, among other things, the organization and management of the laboratory; education, training, and experience requirements for laboratory personnel; the laboratory’s physical facilities and security measures; control of physical evidence; validation of testing methodologies; procedures for analyzing samples, including the reagents and controls that are used in the testing process; equipment calibration and maintenance; documentation of the process used to test each sample handled by the laboratory; technical and administrative review of every case file; proficiency testing of laboratory[] personnel; corrective action that addresses any discrepancies in proficiency tests and casework analysis; internal and external audits of the laboratory; environmental health and safety; and outsourcing of testing to vendor laboratories.<sup>151</sup>

Through this accreditation, labs and their analysts are more likely to be well maintained and properly trained.

## 2. Surrogate Testimony Is Better than Expert Testimony

With procedural safeguards like accreditation, prosecutors should be able to rely on testimony from someone *other than* the forensic scientist who performed a specific test in the event that the scientist is unavailable

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<sup>146</sup> RON C. MICHAELIS, ROBERT G. FLANDERS, JR. & PAULA H. WULFF, *supra* note 61, at 56. The group was later renamed the Scientific Working Group on DNA Analysis Methods. *Id.* at 57.

<sup>147</sup> *Id.* at 57.

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

<sup>150</sup> *Id.* at 57-58.

<sup>151</sup> *Williams v. Illinois*, 132 S. Ct. 2221, 2249-50 (2012) (Breyer, J., concurring).

to testify. According to Justice Breyer, allowing testimony only from a lab analyst who worked on a piece of evidence could create many logistical problems for courts.<sup>152</sup> Analysts are overworked with huge caseloads.<sup>153</sup> Requiring an analyst's testimony may prevent a case from moving forward in court if the analyst is unavailable during trial. Prosecutors should be able to rely on surrogate testimony to ensure that reliable DNA evidence is admissible at trial. On cross-examination a defendant will likely try to elicit whether an invalid forensic technique was used or whether a valid technique was improperly applied.<sup>154</sup> The use of a surrogate witness would still allow the defendant to attack the credibility of a lab and the credibility of analysts using their work records, and to highlight any mistakes that may have been made.

Part of a surrogate witness's knowledge will be the specific aspects of his or her lab and coworkers. In addition, past proficiency results are considered discoverable and the defense is entitled to them under *Brady v. Maryland*.<sup>155</sup> With the advent of these accreditations, a lab is now held accountable, annually, for the upkeep of its lab and the reliability of its analysts. These together should be enough to satisfy a defendant's confrontation right, but only if there is a showing that the actual testing analyst is unavailable to testify. In order for this to work, rules would need to be established to determine if an analyst is unavailable. The criteria for unavailability of an analyst could be similar to those established by the Federal Rules of Evidence for determining whether a declarant is unavailable for purposes of admitting hearsay testimony.

The Supreme Court's decisions in *Melendez-Diaz* and *Bullcoming* disallow the use of surrogate testimony for testimonial forensic reports, but the Court should reconsider. As Justice Breyer stated in *Williams*:

Lower courts and treatise writers have recognized the problem. And they have come up with a variety of solutions. The New Wigmore, for example, lists several nonexclusive approaches to when testifying experts may rely on testing results or reports by nontestifying experts (*i.e.*, DNA technicians or analysts), including: (1) "the dominant approach," which is simply to determine the need to testify by looking

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<sup>152</sup> Liptak, *supra* note 134.

<sup>153</sup> *Bullcoming v. New Mexico*, 131 S. Ct. 2705, 2728 (2011) (Kennedy, J., dissenting) (citing amicus briefs stating that ten analysts for Los Angeles Police Department spent 782 hours in 261 court appearances during a one-year period, and that a typical blood-alcohol analyst in California processes 3,220 cases per year).

<sup>154</sup> *Bullcoming*, 131 S. Ct. at 2723 (Kennedy, J., dissenting).

<sup>155</sup> These results are discoverable under *Brady v. Maryland*, 373 U.S. 83 (1963), because the defense is entitled to both exculpatory evidence and impeachment evidence. RON C. MICHAELIS, ROBERT G. FLANDERS, JR. & PAULA H. WULFF, *supra* note 61, at 58.

“the quality of the nontestifying expert’s report, the testifying expert’s involvement in the process, and the consequent ability of the testifying expert to use independent judgment and interpretive skill”; (2) permitting “a substitute expert to testify about forensic science results only when the first expert is unavailable” (irrespective of the lack of opportunity to cross-examine the first expert, cf. *Crawford, supra*, at 59, 124 S.Ct. 1354); (3) permitting “a substitute expert” to testify if “the original test was documented in a thorough way that permits the substitute expert to evaluate, assess, and interpret it”; (4) permitting a DNA analyst to introduce DNA test results at trial without having “personally perform[ed] every specific aspect of each DNA test in question, provided the analyst was present during the critical stages of the test, is familiar with the process and the laboratory protocol involved, reviews the results in proximity to the test, and either initials or signs the final report outlining the results”; (5) permitting the introduction of a crime laboratory DNA report without the testimony of a technician where the “testing in its preliminary stages” only “requires the technician simply to perform largely mechanical or ministerial tasks . . . absent some reason to believe there was error or falsification”; and (6) permitting introduction of the report without requiring the technicians to testify where there is a showing of “genuine unavailability.”<sup>156</sup>

All of these approaches have one thing in common: the DNA evidence is coming in at trial. These methods highlight different working alternatives that would likely fall under the proposed “special needs” category for DNA forensic testimonial evidence.

*B. A Defendant Should Be Entitled to at Least One Knowledgeable Witness To Ensure the Confrontation Clause Is Not Violated*

Prohibiting a defendant from cross-examining a witness deprives him or her of the chance to “prob[e] the witness’ perception, memory, narration, and sincerity.”<sup>157</sup> Cross-examination allows a defendant to reveal errors in the witness’s testimony, and if the witness was responsible for developing forensic evidence, cross-examination can reveal errors in the production of that evidence.<sup>158</sup> “Forensic evidence is

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<sup>156</sup> *Williams*, 132 S. Ct. at 2247 (Breyer, J., concurring).

<sup>157</sup> *Id.* at 2249.

<sup>158</sup> For example, during trial in a case unrelated to *Williams v. Illinois*, an analyst took the stand to testify about the results of her testing and how the defendant’s DNA matched DNA extracted from blood found on a piece of evidence. “As she explained on direct examination, the DNA found on the sweatshirt belonged to [the defendant]. But after undergoing cross-examination, the analyst realized she had made a mortifying error. She took the stand again, but this time to admit

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reliable only when properly produced, and the Confrontation Clause prescribes a particular method for determining whether that has happened.”<sup>159</sup>

### 1. Williams Went Too Far

Because of the Court’s decision in *Williams v. Illinois*, prosecutors now have a loophole that can be exploited. A defendant might no longer be faced with an analyst who actually worked on a piece of evidence. Instead, the defendant would be left to cross-examine an expert who might not be able to describe the specifics of the lab, the accuracy of the testing procedures, or the reliability of the analyst. In *Melendez-Diaz* and *Bullcoming*, the Court held that a prosecutor needs to give the defendant an opportunity to cross-examine the analyst actually responsible for the forensic report, if the prosecution intends to use that report during trial.<sup>160</sup> *Williams* directly contradicts these decisions.

Under Federal Rule of Evidence 703, an expert may rely on inadmissible evidence to form the basis of his or her opinion, if experts in the relevant field would reasonably rely on that kind of evidence in forming their opinions.<sup>161</sup> In *Williams*, the dissent argued for an alternative to this rule that would require the prosecution to provide at least one witness who wrote the report relied upon.<sup>162</sup> Specifically, the dissent stated that:

Williams’s attorney could not ask questions about that analyst’s “proficiency, the care he took in performing his work, and his veracity.” He could not probe whether the analyst had tested the wrong vial, inverted the labels on the samples, committed some more technical error, or simply made up the results. Indeed, Williams’s lawyer was even more hamstrung than *Bullcoming*’s. At least the surrogate witness in *Bullcoming* worked at the relevant laboratory and was familiar with its procedures. That is not true of [the expert]: She

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that the report listed the victim’s control sample as coming from [the defendant], and [the defendant’s] as coming from the victim. So the DNA on the sweatshirt matched not [the defendant], but the victim herself. *Williams*, 132 S. Ct. at 2264 (Kagan, J., dissenting).

<sup>159</sup> *Id.*

<sup>160</sup> See *Bullcoming v. New Mexico*, 131 S. Ct. 2705, 2722-23 (2011) (Sotomayor, J., concurring in part).

<sup>161</sup> FED. R. EVID. 703. Additionally, FRE 703 allows an expert to disclose the inadmissible evidence to the jury, but only if the probative value in helping the jury evaluate the expert’s opinion substantially outweighs any prejudicial effect of the disclosure. *Id.*

<sup>162</sup> *Williams*, 132 S. Ct. at 2246 (Breyer, J., concurring).

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had no knowledge at all of Cellmark’s operations. Indeed, for all the record discloses, she may never have set foot in Cellmark’s laboratory.

Under our case law, that is sufficient to resolve this case. “[W]hen the State elected to introduce” the substance of Cellmark’s report into evidence, the analyst who generated that report “became a witness” whom Williams “had the right to confront.”<sup>163</sup>

This highlights a defendant’s need to have *someone* on the stand. Interestingly, the dissent would have preferred surrogate testimony before allowing the expert to testify.<sup>164</sup>

The written opinions in *Williams* leave much to be desired. The case generated four separate opinions, and the Court was split in a five-to-four vote as to the result—that the expert’s testimony was admissible—but without any majority agreement as to the reason for the result. In fact, Justice Kagan went as far as telling lower courts *not* to follow the plurality opinion and to follow *Melendez-Diaz* and *Bullcoming* until those decisions are reversed or limited by a majority of the Supreme Court.<sup>165</sup>

## 2. Justice Breyer’s Concurrence in *Bullcoming* Should Be Considered

“Now that a general consensus has been reached that the methods used to generate forensic DNA evidence are reliable, defense attacks rarely focus on whether the procedures were appropriate; rather, they focus on whether the appropriate procedures were followed.”<sup>166</sup> In order to do so accurately, the defense would need to confront the person responsible for following the procedures. This is where the Court in *Bullcoming* got it wrong. Justice Breyer properly pointed out in *Williams* that there would be “no logical stopping place between requiring the prosecution to call as a witness one of the laboratory experts who worked on the matter and requiring the prosecution to call *all* of the laboratory experts who did so.”<sup>167</sup>

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<sup>163</sup> *Id.* at 2267-68 (Kagan, J., dissenting) (citations omitted).

<sup>164</sup> *Id.* at 2268.

<sup>165</sup> “Precedent-based decisionmaking provides guidance to lower court judges and predictability to litigating parties. Today’s plurality and concurring opinions, and the uncertainty they sow, bring into relief that judicial method’s virtues. I would decide this case consistently with, and for the reasons stated by, *Melendez-Diaz* and *Bullcoming*. And until a majority of this Court reverses or confines those decisions, I would understand them as continuing to govern, in every particular, the admission of forensic evidence.” *Id.* at 2277 (Kagan, J., dissenting).

<sup>166</sup> RON C. MICHAELIS, ROBERT G. FLANDERS, JR. & PAULA H. WULFF, *supra* note 61, at 61.

<sup>167</sup> *Williams*, 132 S. Ct. at 2246 (Breyer, J., concurring).



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A surrogate *should* be allowed to testify in the place of an analyst, but only if there is good cause for concluding that the analyst cannot testify. To prove unavailability of an analyst, the Court should come up with certain parameters. The Court could look to rules such as Federal Rule of Evidence 804(a)(4), which states witnesses are unavailable if they “cannot be present to testify at the trial or hearing because of death or a then-existing infirmity, physical illness, or mental illness.”<sup>168</sup> With a showing of unavailability, the defendant would still be entitled to confront a person from the lab, just not the actual analyst that reached the results.

A defendant is still able to reap the benefits of the Confrontation Clause, so long as there is a knowledgeable person on the stand. This surrogate witness could still answer questions about the procedures of the lab, any problems with accreditation or certification, and any problems with the analyst that performed the analysis. If the surrogate is a supervisor, as in *Bullcoming*, he or she would be able to speak to the nature of the analyst’s past performance and whether there was a trend of poor results.

This, however, could not happen if the prosecution were able to bypass the lab completely by calling only an expert witness to the stand to discuss a “match.”<sup>169</sup> Such an expert might not be familiar with the analyst or the lab used to analyze the evidence. This expert would be used solely to admit evidence without any consideration for the Confrontation Clause and the defendant’s ability to challenge the evidence’s credibility.

C. *Creating a “Special Needs” Category for DNA Forensic Testimonial Evidence*

The solution to this struggle between prosecutors using forensic evidence and defendants’ right to confront adverse witnesses lies in the adoption of a balancing test. This would require balancing the need for convicting guilty criminals with the prevention of unconstitutional litigation.

There are aspects of the public perception of DNA evidence on which both sides can capitalize. On one hand, the growing confidence in the ability of DNA evidence to help secure accurate verdicts, both guilty

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<sup>168</sup> FED. R. EVID. 804(a)(4).

<sup>169</sup> “So if the plurality were right, the State would have a ready method to bypass the Constitution (as much as in my hypothetical case); a wink and a nod, and the Confrontation Clause would not pose a bar to forensic evidence.” *Williams*, 132 S. Ct. at 2270 (Kagan, J., dissenting).

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and not guilty, makes it easier for the prosecution to secure a conviction when there is strong DNA evidence against the defendant. On the other hand, there are those rare but sensational cases in which police or expert witnesses have behaved unethically or laboratories have made mistakes. These cases leave strong impressions in the minds of the public and can often be called upon by the defense in its effort to blunt the effect of the DNA evidence.<sup>170</sup>

In *Melendez-Diaz*, the Court refused to create a “forensic evidence” exception to the Confrontation Clause;<sup>171</sup> however, the Court should consider a variation of this exception. Doing so would require a special category for DNA forensic testimonial evidence that more closely resembles the rule from *Ohio v. Roberts*. Under *Ohio v. Roberts*, a statement was deemed admissible if it bore “adequate indicia of reliability.”<sup>172</sup> As mentioned above, if the prosecution is able to show reliability and trustworthiness of the evidence, a Confrontation Clause “special needs” category should be allowed for forensic evidence. These “special needs” elements should include (1) accreditation of the testing lab, (2) certification of the testing analyst, (3) unavailability of the testing forensic analyst, and (4) surrogate testimony by someone knowledgeable about the lab and the personnel records of the testing analyst. With all of this information available to the defendant, the surrogate testimony would be open to confrontation and the information would be available to discredit the testing.

When the Court allowed expert testimony to replace the actual analyst’s testimony, it created a loophole to the Confrontation Clause that has the potential for unfair exploitation by prosecutors. This loophole may even be a greater detriment to the defendant than the proposed “special needs” category for DNA forensic testimonial evidence. The loophole of expert testimony would allow the forensic evidence to be heard at trial without giving the defendant the right to confront any person from the lab that tested the evidence used against him or her. With the proposed category, the defendant, at a minimum, has the opportunity to cross-examine a member of the actual testing facility to highlight any problems with the lab, the testing analyst, or the DNA sample itself. Since defendants mainly attack whether procedures were done correctly versus the actual procedures used, the presence of a knowledgeable witness on the stand is imperative for both sides. This

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<sup>170</sup> RON C. MICHAELIS, ROBERT G. FLANDERS, JR. & PAULA H. WULFF, *supra* note 61, at 240.

<sup>171</sup> *Bullcoming v. New Mexico*, 131 S. Ct. 2705, 2713 (2011).

<sup>172</sup> *Ohio v. Roberts*, 448 U.S. 56, 66 (1980), *abrogated by Crawford v. Washington*, 541 U.S. 36 (2004).

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surrogate testimony, allowable only if the four proposed elements were met, would be able to speak directly to the procedures used, whether they were done correctly, and whether the testing analyst had a history of any problems.

#### CONCLUSION

The Court should create a “special needs” category for DNA forensic testimonial evidence. This category would allow a trial court to balance the interests of the prosecution with the rights of the defendant. Strict elements would have to be met in order for a court to even consider allowing surrogate testimony. Ultimately, it should be a discretionary balancing test, subject to review for “abuse of discretion.” This discretion would give courts the opportunity to balance the interests of both sides involved.

The Supreme Court has rendered three separate decisions in the last five years that are confusing and hard to implement. The Supreme Court should adopt a “special needs” category for DNA forensic testimonial evidence. This category would allow courts the discretion to make the best possible decision on a case-by-case basis with the facts presented to them.