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From Insanity to Beyond Diminished Capacity: mental Illness and Criminal Excuse in the Post-Clark Era

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NOTES

BLINDED BY SCIENCE: DOES THE GENERAL ACCEPTANCE OF FORENSIC DNA EVIDENCE WARRANT A MORE STREAMLINED APPROACH TO ADMISSIBILITY?*

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I. INTRODUCTION

The gold standard of admissibility for scientific evidence was laid out in *Frye v. United States* in 1923.[1] Though the *Frye* standard continues to be useful to Florida's courts, in light of the extensive judicial recognition of DNA, this Note argues that a *Frye* analysis should no longer be considered the benchmark of admissibility. By contrast, the standards

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1. Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

actually applied by Florida courts in their purported *Frye* analyses serve as a much better assessment of admissibility. Ultimately, a graduation from the *Frye* standard is warranted followed by a move towards a more streamlined approach to admissibility.

Part II of this Note discusses the importance of DNA evidence in today's criminal justice system and the historical basis for the standards used in determining admissibility. Part III explores what Florida Courts understand about the DNA testing process, as expressed in both state and federal cases from Florida, and educates the reader about the complex issues surrounding DNA in criminal courts. Parts IV and V explain how *Frye* has been used in Florida and suggest that it is applied in name only, having been informally replaced by more germane standards. Finally, Part VI outlines the transition from *Frye* to a more streamlined approach that should be adopted in Florida.

II. DNA AND THE LEGAL SYSTEM

A. *Science Geeks Have Finally Had Their Day*

DNA evidence first gained a considerable amount of attention as essential evidence in criminal courts in 1997[2] when the FBI first announced that their experts could testify that DNA samples could lead to an exact match.[3] Television has played a large role in DNA's greater prevalence sparked by the public's interest in the O.J. Simpson trial in 1997[4] and more recently with the overwhelming popularity of CBS's "CSI: Crime Scene Investigation."[5] The prevalence of shows like "CSI" has led to what some in the criminal justice community are calling the "CSI Effect," where jurors are disinclined to make a conviction unless presented with supporting DNA evidence[6] and are predisposed to convict if there is any supporting DNA evidence.

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2. *See* Jamie Stockwell, *Defense, Prosecution Play to New 'CSI' Savvy*, WASH. POST, May 22, 2005, at A01.

3. Constance Holden, *Random Samples: DNA Fingerprinting Comes of Age*, SCIENCE, Nov. 21, 1997, at 1407.

4. Eric S. Lander & Bruce Budowle, *DNA Fingerprinting Dispute Laid to Rest*, 371 NATURE 735 (1994).

5. Stockwell, *supra* note 2.

6. *Id.* (recalling a Maryland jury that "would not convict a man accused of stabbing his girlfriend to death because a half- eaten hamburger, which was recovered from the crime scene and assumed to have been his, was not tested for DNA.").

Beyond providing a powerful tool for prosecutors and presenting a new hurdle for defense attorneys, this phenomenon has given new hope to those in jail and on death row who believe that post-conviction DNA testing will ultimately prove their innocence.[7] The Innocence Project, a nonprofit organization started by lawyers in 1992,[8] has in large part led this movement. One of the first death row inmates exonerated by DNA evidence was Kirk Bloodsworth who was convicted of raping and murdering a 9 year old girl in 1985.[9] His conviction was founded on the testimony of five witnesses who all claimed they saw Bloodsworth with the victim.[10] However, with the help of the Innocence Project, Bloodsworth was able to show the court the "signature differences" between his DNA and the DNA isolated from the semen found on the victim's underwear, thereby proving he was not the aggressor.[11] Since Bloodsworth was freed, there have been over 190 exonerations from post-conviction DNA testing.[12]

DNA evidence carries with it a strong capacity for persuasion,[13] and the U.S. Supreme Court has taken notice. In January 2006, the Court heard oral arguments in *House v. Bell*[14] to determine whether new DNA evidence, not available to the trial court in 1985, was sufficient to warrant a new trial for the appellant, Paul House.[15] House was sentenced to death by a Tennessee jury for murdering a woman after luring her from her home to rape her.[16] The evidence used to convict House was largely circumstantial,[17] and the prosecution relied heavily on the appellant's alleged sexual motive for the crime.[18] House wants a new jury to hear that

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7. *See* Amanda Schaffer, *Solving Puzzles With Body Parts as the Pieces*, N.Y. TIMES, Feb. 28, 2006, at F3.

8. *Id.* The Innocence Project was founded by Peter J. Neufeld and Barry C. Scheck.

9. *Id. See also* Bloodsworth v. State, 543 A.2d 382 (Md. Ct. Spec. App. 1988).

10. Schaffer, *supra* note 7.

11. *Id.*

12. Innocence Project Web Site, http://www.innocenceproject.org (last visited Jan. 17, 2007).

13. *See, e.g.*, Rutherford v. State, 926 So. 2d 1100, 1117 (Fla. 2006) (Anstead, J., concurring in part and dissenting in part) (stating that "[w]ith the possible exception of DNA evidence, the confession of another person raises the most compelling and fundamental doubt about a prior determination of guilt.").

14. 126 S. Ct. 2064 (2006).

15. Warren Richey, *Should DNA Results Lead to New Trials?*, CHRISTIAN SCI. MONITOR, Jan. 11, 2006, at 2.

16. House v. Bell, 386 F.3d 668, 670-73 (6th Cir. 2004) (Though tests were performed on the semen stains found on the victim's nightgown, they were identified only to the extent that they were "from a male secretor of the same general type as appellant [House].").

17. *Id.* at 673.

18. *Id.* at 685.

DNA evidence proves that the semen found on the victim belonged to her husband and not from House.[19] This case is significant because it marks the first time the U.S. Supreme Court has addressed the question of whether post-conviction DNA testing will substantiate a claim for a new trial.[20]

House's claim rests on the Court's interpretation of the test outlined in *Schlup v. Delo*[21] as applied to the reliability of exculpatory scientific evidence. In meeting this burden, House showed "that it is more likely than not that no reasonable juror would have convicted him in the light of the new evidence."[22] In reversing the decision of the Court of Appeals for the Sixth Circuit, Justice Kennedy explained that while this was not "a case of conclusive exoneration," the new DNA evidence, along with other testimony, was substantial enough to create reasonable doubt in a jury sufficient to warrant a remand.[23] The Court's determination of the persuasive power of DNA on a jury will afford House one more chance to prove that he is innocent.[24]

Even if House succeeds, his work will not be over. Now that House gets his day in court, he will still have to convince a judge that the DNA evidence is admissible as determined by standards established in either *Frye v. United States*[25] or *Daubert v. Merrell Dow Pharmaceuticals*.[26]

B. *From the Twilight Zone,*[27] *A Standard Emerges*

Frye v. United States, decided in 1923, is the seminal case for determining the admissibility of scientific evidence.[28] In *Frye*, the Court of Appeals of the District of Columbia held that the scientific principles underlying the systolic blood pressure deception test (a lie detector test) had not yet gained "general acceptance" with physiologists and

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19. *Id.* at 681. *See also* Charles Lane, *Court May Revise Rule on Death Row Appeals*, WASH. POST, June 29, 2005, at A03.

20. Richey, *supra* note 15.

21. 513 U.S. 298 (1995).

22. *Id.* at 327.

23. House v. Bell, 126 S. Ct. 2064, 2086-87 (2006).

24. The U.S. Supreme Court has recently decided another case involving the importance of DNA evidence, Holmes v. South Carolina, 126 S. Ct. 1727 (2006). *See* Warren Richey, *If Judges Screen Evidence, is the Jury Usurped?*, CHRISTIAN SCI. MONITOR, Feb. 22, 2006, at 3.

25. 293 F. 1013 (D.C. Cir. 1923).

26. 509 U.S. 579 (1993).

27. *Frye*, 293 F. at 1014 ("Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidentiary force of the principle must be recognized").

28. *See id.* at 1013-14.

psychologists "as would justify the courts in admitting expert testimony deduced" from the test.[29] The circuit court felt that because the test was based on experimental scientific theories and outside the "common experience" of the jury, expert testimony on the test results should not be admitted into evidence.[30] The general acceptance test in *Frye*, used to determine admissibility of new or novel scientific and technical evidence, remains good law in a number of jurisdictions.[31]

Most of the jurisdictions that no longer follow *Frye* instead adopt the test laid out in *Daubert v. Merrell Dow Pharmaceuticals*.[32] In *Daubert*, petitioners sued the manufacturer of the drug Bendectin, and alleged that the Bendectin they ingested during their pregnancies caused birth defects in their babies.[33] Petitioners' experts, relying on recalculations of previously published epidemiological studies in reaching their conclusion, testified that Bendectin could have caused the birth defects.[34] Holding this evidence inadmissible, the Court announced that *Frye* would be superseded by a new standard of admissibility based primarily on Rule 702 of the Federal Rules of Evidence.[35] The *Daubert* criteria, though not a "definitive checklist or test,"[36] are: "whether a theory or technique . . . can be (and has been) tested," "whether the theory or technique has been subjected to peer review and publication," what the "known or potential rate of error" is, and whether there is "general acceptance" in the "relevant

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29. *Id.* at 1014.

30. *Id.*

31. Alice B. Lustre, *Annotation, Post-Daubert Standards for Admissibility of Scientific and Other Expert Evidence in State Courts*, 90 A.L.R. 5th 453, § 28-43 (2005).

32. *Id.* § 2 (noting that "[t]wenty-five states have affirmatively adopted the Daubert or similar test for use in their courts . . . Fifteen states and the District of Columbia adhere to Frye . . . Six states have not wholly rejected Frye, but apply the Daubert factors . . . and four states have developed their own tests.").

33. Daubert v. Merrell Dow Pharm., 509 U.S. 579, 582 (1993).

34. *Id.* at 583.

35. *Id.* at 589-94. *See* FED. R. EVID. 702 (2006).

> Testimony by Experts. If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

FED. R. EVID. 702.

36. *Daubert*, 509 U.S. at 593.

scientific community."[37] The *Daubert* Court emphasized that this standard would focus courts on the relevance and reliability of the new or novel[38] science underlying the evidence.[39]

Although the Supreme Court of Florida has specifically endorsed the *Frye* test over *Daubert* and Rule 702 of the Federal Rules of Evidence,[40] some scholars suggest that Florida courts have adopted a standard for novel scientific evidence that is much closer to the *Daubert* criteria than to the *Frye* test.[41] In analyzing the Florida Supreme Court's 2001 decision in *Ramirez v. State*,[42] Professor Barnes observed that the primary difference between the court's alleged "*Frye*" analysis and the *Daubert* standard was the substitution of the general acceptance test with the requirement of "scientific soundness."[43] Since the application of this "*Frye*-Plus"[44] test in *Ramirez*, Florida Courts have reaffirmed their reliance on the *Frye* test while simultaneously including criteria from *Daubert* and *Ramirez* in their analysis.[45]

The standards by which a court measures the admissibility of a scientific technique has a profound impact on the execution of the

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37. *Id.* at 593-94.

38. *Id.* at 593 n.11 (stating that though *Frye* focused on novel scientific techniques, the Court does not suggest such narrow application of the standards. "Indeed, theories that are so firmly established as to have attained the status of scientific law, such as the laws of thermodynamics, properly are subject to judicial notice under Federal Rule of Evidence 201.").

39. *Id.* at 594-95.

40. Flanagan v. State, 625 So. 2d 827, 829 n.2 (Fla. 1993).

41. *See generally* David W. Barnes, *General Acceptance Versus Scientific Soundness: Mad Scientists in the Courtroom*, 31 FLA. ST. U. L. REV. 303 (2004) (tracing, in great detail, the similarities between the Florida Supreme Court's decision in *Ramirez v. State* (*Ramirez* III), 810 So. 2d 836 (Fla. 2001), and the U.S. Supreme Court's decision in *Daubert*).

42. Ramirez v. State, 810 So. 2d 836, 853 (Fla. 2001) (holding that knife mark identification evidence was not admissible under *Frye* to establish a knife as the murder weapon because the technique had not gained the "imprimatur of science.").

43. Barnes, *supra* note 41, at 332.

44. *Id.* at 310-11.

45. *See, e.g.*, Bevil v. State, 875 So. 2d 1265, 1269 (Fla. Dist. Ct. App. 2002) (applying *Frye*, peer review and publication, and inquiring about validation studies to test the FDLE database); Magaletti v. State, 847 So. 2d 523, 525 (Fla. Dist. Ct. App. 2003) (using *Frye* and the "four-step inquiry" used in Ramirez v. State (*Ramirez* II), 651 So. 2d 1164, 1166 (Fla. 1995). A court must determine whether: 1) expert testimony will assist the jury in understanding the evidence or in determining a fact in issue; 2) the expert's testimony is based on a scientific principle or discovery that is "sufficiently established to have gained general acceptance in the particular field in which it belongs" under the Frye test; and 3) the particular expert witness is qualified to render an opinion on the subject in issue. 4) If the trial court's answer to the first three questions is in the affirmative, then the expert may testify at trial and the jury can assess the expert's credibility and determine whether to accept or reject his or her opinion.

"gatekeeping role for the judge."[46] This is a heavy burden, and it is compounded when dealing with the admissibility of DNA evidence. As applied to DNA, both the *Frye* and *Daubert* standards require significant judgment calls on evidentiary submissions that often strain the court's area of expertise.[47]

III. A PROFILE OF FLORIDA CASES

In 1953, researchers James Watson and Francis Crick discovered the structure of Deoxyribonucleic Acid (DNA) and further proposed that it possessed the mechanism for copying genetic material.[48] Before this breakthrough, scientists commonly believed that proteins contained our genetic material.[49] Fifty years later, scientists have mapped the human genome,[50] media coverage and political debate regarding stem cell research is rampant,[51] and DNA evidence plays a leading role in many criminal trials.[52] Therefore, it is not unreasonable to expect that courts should take judicial notice[53] of DNA evidence as being scientifically sound or as being generally accepted in the relevant scientific community. However, when considering the admissibility of DNA evidence, most courts still apply some criteria from either *Frye* or *Daubert*[54]—tests for the admissibility of new or novel scientific evidence.

Florida courts, adhering loosely to the *Frye* test[55] when determining the admissibility of DNA, are no exception in their treatment of DNA evidence as new or novel. However, it would be a mistake to interpret this

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46. Daubert v. Merrell Dow Pharm., 509 U.S. 579, 597 (1993).

47. *See* Brim v. State, 695 So. 2d 268, 270 (Fla. 1997).

48. J.D. Watson & F.H.C. Crick, *Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid* (reprinted from NATURE, Apr. 25, 1953), 224 NATURE 470-71 (1969). Though there is considerable historical debate that the findings of Watson and Crick were based on the work of others, most notably Rosalind Franklin and Maurice Wilkins, Watson and Crick are generally given credit for the discovery.

49. *See* Human Genome Project Information Web Site, http://doegenomes.org (last visited Feb. 16, 2007).

50. *Id.*

51. *See* Norimitsu Onishi, *In a Country that Craved Respect, Stem Cell Scientist Rode a Wave of Pride*, N.Y. TIMES, Jan. 22, 2006, at A12.

52. Stockwell, *supra* note 2.

53. FED. R. EVID. 201(b) (2006) ("A judicially noticed fact must be one not subject to reasonable dispute in that it is either (1) generally known within the territorial jurisdiction of the trial court or (2) capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned."). *See supra* text accompanying note 37.

54. *See* Lustre, *supra* note 31, § 2.

55. Barnes, *supra* note 41, at 310.

prudence as an indication that judges do not understand the science underlying DNA testing. In fact, judges are well-versed in the science and techniques employed by the forensic analysts who test DNA and testify to those results.

In *Brim v. State*, the Florida Supreme Court divided the DNA testing process into two distinct steps in an attempt to simplify the issues surrounding DNA.[56] The first step "relies upon principles of molecular biology and chemistry" to determine whether two DNA samples match.[57] The second step relies on statistics in order to give quantitative significance to a match.[58] By dividing the issues, the court hoped to clarify the two major portions of the DNA testing process that must satisfy *Frye*.[59]

A. *"Science! It's Poetry In Motion."*[60]

The first step of DNA testing is where most of the science takes place, and interestingly, where courts display the greatest degree of understanding and acceptance. There are two main types of DNA used in forensic DNA analysis:[61] nuclear DNA (nucDNA), found in the nucleus of all cells, and mitochondrial DNA (mtDNA), found within the cell in organelles called mitochondria.[62] While nucDNA can be extracted from blood, semen, skin cells, and even saliva (mainly from cheek cells), mtDNA is used when the only sample is a shaft of hair, which contains no nucDNA.[63] Due to recent advances in technology, DNA can be collected from even smaller samples of cellular material found at a crime scene.[64]

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56. Brim v. State, 695 So. 2d 268, 269-70 (Fla. 1997).

57. *Id.* at 269.

58. *Id.* at 269-70.

59. *Id.* at 270 (stating that both steps must satisfy *Frye*).

60. THOMAS DOLBY, *She Blinded Me With Science*, *on* THE GOLDEN AGE OF WIRELESS (Capitol Records 1990).

61. A third type, Y-chromosome DNA, is used mainly in determining paternity. Wikipedia, *Y-STR*, http://en.wikipedia.org/wiki/Y-STR (giving a definition for a Y-STR) (as of Feb. 1, 2007, 16:58 EST).

62. Magaletti v. State, 847 So. 2d 523, 525 n.3 (Fla. 2d DCA 2003) (dealing with the admissibility of mtDNA).

63. *Id.* at 527. Also, mtDNA can be extracted from a single hair that has been subjected to extreme cold or heat, or that is old and degraded. *Id. See also* M.R. Wilson et al., *Extraction, PCR Amplification and Sequencing of Mitochondrial DNA from Human Hair Shafts*, 18 BIOTECHNIQUES, 662 (1995).

64. Wilson et al., *supra* note 63. *See also* Brim v. State (Brim II), 779 So. 2d 427, 438 (2000) (on remand) (noting that the polymerase chain reaction technique (PCR) allows for the extraction of DNA from smaller samples); Holden, *supra* note 3 ("[in] the late 1980s and early 1990s . . . you really needed a hearty sample, like a quarter-size. Now we're talking nanograms. You can swab a drinking glass and get saliva cells").

Regardless of the type of DNA collected, the testing process requires extraction of DNA from the sample[65] and isolation of regions of the DNA molecule that are unique between individuals.[66] Once in the lab, the DNA sample is broken up by enzymes that cut the DNA molecule at predetermined regions and are then isolated from the rest of the sample.[67] Scientists choose these enzymes because they cut the DNA molecule at the predetermined regions called polymorphic sites.[68] These polymorphic sites, which account for most of the genetic variability in humans,[69] serve as points of comparison between DNA samples. Each polymorphic site is composed of a DNA sequence (allele) unique in length to the individual.[70] There are many different possible alleles at a given locus (location of a polymorphic site), and the specific alleles at each locus comprise the DNA profile, or fingerprint, unique to an individual.[71]

Once these individual DNA segments are isolated from the sample found at the crime scene, they are each copied and multiplied using a technique called polymerase chain reaction (PCR).[72] PCR is based on the DNA replication process used naturally by the cells in our body.[73] In short, PCR allows scientists to perform a series of steps in which each DNA segment is copied repeatedly. Think of it as a loudspeaker for DNA—PCR amplifies each DNA segment many times over until the amount of DNA has grown exponentially.[74] Whereas with older technology a relatively large sample had to be collected in order to extract enough DNA to create a visible profile,[75] PCR allows a large amount of pure DNA to be reproduced from a tiny drop of blood or a single hair.[76] Through PCR, a pure sample of each allele is obtained, from both the samples collected at

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65. *Brim II*, 779 So. 2d at 438-39.
66. *See* United States v. Gaines, 979 F. Supp. 1429, 1431 (S.D. Fla. 1997).
67. *Brim II*, 779 So. 2d at 438-39.
68. *Id.* at 440.
69. *See Gaines*, 979 F. Supp. at 1431 ("Although 99.9% of human DNA does not vary from person to person, no two persons other than identical twins have the same DNA." (quoting United States v. Shea, 957 F. Supp. 331, 333 (D.N.H. 1997))).
70. *Id.* at 1431-32.
71. *Id.*
72. *Id.* at 1432.
73. *See id.*
74. *Gaines*, 979 F. Supp. at 1432-33.
75. Brim v. State, 779 So. 2d 427 at 438 (Fla. 2d DCA 2000).
76. Stockwell, *supra* note 2.

a crime scene and known samples collected directly from the victim and suspected perpetrators.[77]

Next, a tangible DNA profile, or fingerprint, is created from the amplified samples.[78] This is accomplished by placing each allele from a sample into a lane in a sheet of specialized gel through which an electric current is run, a process called electrophoresis.[79] Because DNA has a negative chemical charge,[80] and each allele has a specific length, each allele is drawn through the sieve-like gel at a different rate.[81] Since each lane carries a different allele, after a set length of time, electrophoresis results in distinct bands of DNA in each lane of the gel sheet.[82] After all of the samples undergo electrophoresis, the resulting pattern of DNA bands is transferred to film, which is then processed and developed.[83] Once the film is developed, the samples can be compared for a match,[84] and the first step of the DNA testing process is complete.

B. *"It Was A Million-to-One Shot, Doc., Million to One."*[85]

According to *Brim v. State*, the second step when testing DNA for forensic purposes is statistical, giving quantitative meaning to the probability that two DNA samples, if selected randomly, would match.[86] Without some "expert guidance," the probative value of the similarities between two samples is minimal.[87] Also, presenting statistical probabilities of a random match between samples without expert interpretation of relevance is "meaningless."[88] For example, if Florida's jury hears that the chance of randomly selecting a similar DNA profile to the one found at a crime scene would be 1 in 2.7 billion and hears that Florida's population is less than 15 million, the jury could easily infer guilt.[89] However, for a defendant, it is crucial that the jury understand that the FBI does not

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77. *See id.*
78. *Id.* at 439.
79. *Id.*
80. Andrews v. State, 533 So. 2d 841, 848 (Fla. 5th DCA 1988).
81. *Id.*
82. *Brim II*, 779 So. 2d at 439.
83. *Andrews*, 553 So. 2d at 848. The DNA is first transferred to a nylon membrane, then subjected to radioactive probes which transfer the image of the DNA bands to X-ray film, which is then developed. *See id.*
84. *Id.*
85. Seinfeld: The Fusilli Jerry (NBC television broadcast Apr. 27, 1995).
86. *Brim*, 695 So. 2d at 270.
87. *See id.*
88. *Id.*
89. *See* Brim v. State (Brim II), 779 So. 2d 427, 445 (Fla. 2d DCA 2000) (on remand).

endorse a "positive identification" from statistics unless the random match probability is at least 1 in 260 billion.[90]

So where do these numbers come from? As the Supreme Court of Florida in *Butler v. State*[91] explained: "To estimate the frequency of a suspect's overall DNA pattern, the individual allele frequencies are multiplied together, using a multiplication or product rule, to compute an aggregate estimate of the probability that this combination of alleles in the suspect's DNA sample would be encountered in a particular racial population."[92] Using the example of rolling dice, this is the same simple math used to find the chance that two six-sided dice will land on the same number when thrown, which is 1 in 36, or 1/6 X 1/6.[93]

The FBI,[94] Florida Department of Law Enforcement (FDLE),[95] and Miami-Dade Police Department[96] have all compiled databases comprising thousands of known DNA profiles. Using the product rule described above, experts are able to determine the frequency of the alleles found in a crime scene sample to those in the general population.[97] This is done by comparing how frequently each sample allele is found at corresponding loci of the profiles in the database.[98] For example, if locus 1 of the sample has an allele, X, that is found in 3 out of 100 of the corresponding loci in the database, that allele would be given a 3% frequency. This frequency would then be multiplied by the frequencies of all the other alleles in the profile, resulting in an estimate of the overall frequency of the profile in the population. This is what the DNA expert will testify to during trial,[99] assuming that the court admits the DNA results into evidence.

The process of collecting and analyzing DNA evidence is complex, but not unmanageable. Florida's courts have grappled with the admissibility of DNA evidence for almost thirty years[100] and have admitted DNA

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90. *Id.* at 445 n.48 (noting that 260 billion is many times more than the population of Earth).
91. 842 So. 2d 817 (Fla. 2003).
92. *Id.* at 829 n.6 (quoting United States v. Bonds, 12 F.3d 540, 550 (6th Cir. 1993)).
93. *Brim II*, 779 So. 2d at 445.
94. *Id.* at 437.
95. Bevil v. State, 875 So. 2d 1265, 1266 (Fla. 1st DCA 2004).
96. Perdomo v. State, 829 So. 2d 280, 282 (Fla. 3d DCA 2002).
97. *Brim II*, 779 So. 2d at 443.
98. *Id.* at 442-46.
99. *See* Darling v. State, 808 So. 2d 145, 152 (Fla. 2002) (summarizing testimony given by the state's DNA expert).
100. *See* Magaletti v. State, 847 So. 2d 523, 527 (Fla. 2d DCA 2003); *see generally* Andrews v. State, 533 So. 2d 841 (Fla. 5th DCA 1988). Andrews was one of the first Florida cases to address DNA admissibility.

evidence in numerous cases.[101] But has *Frye* outlived its usefulness to Florida's courts as the applicable standard of admissibility?

IV. WITH GREAT POWER COMES GREAT RESPONSIBILITY[102]

When it comes to DNA evidence, the gatekeeping role of the judge is no easy task. Judges have expressed the need for experts to help them digest the technical scientific literature behind the DNA testing process[103] and have even admitted to the risk of getting stuck on "auto pilot" when dealing with hard scientific issues.[104] Though Florida courts are well versed in the science and procedures involved in the DNA testing process,[105] there is still a need to thoroughly screen such evidence to prevent prejudice to the defendant and to counter the "CSI Effect."

Frye applies to new or novel scientific techniques and the opinions of expert witnesses generated therefrom.[106] The test serves to prevent jurors from being influenced by the "aura of infallibility"[107] surrounding expert witnesses who testify based on experimental and unproven scientific discoveries.[108] Bad science and bad experts lead to bad testimony while still carrying a dangerous tendency to prejudice the party against whom the evidence is offered.[109] Regardless of the attention DNA has received in popular culture, the fundamental science underlying the testing procedures remains outside the common experience of most jurors.[110]

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101. *Magaletti*, 847 So. 2d at 527. Recently, the Florida Supreme Court of Florida referenced DNA evidence admitted by lower courts with no discussion concerning standards for admissibility, or whether the *Frye* test was even used. *See, e.g.*, Ballard v. State, 923 So. 2d 475 (Fla. 2006); Seibert v. State, 923 So. 2d 460 (Fla. 2006); Snelgrove v. State, 921 So. 2d 560 (Fla. 2005); Mansfield v. State, 911 So. 2d 1160 (Fla. 2005).

102. SPIDER-MAN (Columbia Pictures 2002).

103. *Brim II*, 779 So. 2d at 429-30.

104. Stockwell, *supra* note 2 (quoting Circuit Judge C. Phillip Nichols of Prince George's County, MD.).

105. *See* discussion *supra* Part III.

106. Frye v. United States, 293 F. 1013, 1014 (D.C. Cir. 1923).

107. *In re* Amber B., 191 Cal. App. 3d 682, 686 (Cal. Ct. App. 1987) (quoting People v. McDonald, 690 P.2d 709, 724 (Cal. 1984).

108. *Frye*, 293 F. at 1014.

109. *See, e.g.*, Bevil v. State, 875 So. 2d 1265, 1269 (Fla. 1st DCA 2004) (holding that it was not harmless error where the State did not carry its *Frye* burden, but nevertheless used statistics to convince jurors "that it was scientifically impossible for anyone other than [the] appellant to have committed the crimes").

110. Stockwell, *supra* note 2 ("Your average citizen sees that kind of stuff on 'CSI' and says, 'I know you can do that. I see it on TV.' But on television, they take a long shot case and in a matter of hours, a good result is available.").

Though *Frye* applies only to new or novel techniques, the standard continues to provide guidance, however limited, to courts that question a technique's admissibility.[111]

The threshold question for application of *Frye*, however, is not whether a scientific technique is new or novel, but whether it has been subjected to *Frye* criteria in the legal community.[112] In *Williams v. State*, the district court addressed whether the Horizontal Gaze Nystagmus test (HGN), a sobriety test based on the eye's response to movement when a person is intoxicated, need undergo a *Frye* hearing before the results could be admitted into evidence.[113] Because HGN had "met the *Frye* test in other legal jurisdictions" and had been found to be generally accepted in the relevant scientific community, the court held that a reapplication of the *Frye* test was not warranted.[114] Therefore, the court required a proper foundation that the "test was correctly administered by a qualified [expert]"[115] before admitting the evidence. In doing so, the district court sought to avoid the "needless waste of judicial resources on sufficiently established principles."[116] Once the technique passes the rigor of the *Frye* test, it is no longer new or novel, and the focus of the admissibility inquiry shifts.[117]

The Third District Court of Appeals, in *State v. Meador*, explained this shift.[118] When *Frye* is no longer applicable, the admissibility of scientific evidence is proper after demonstrating the general reliability of the technique, the qualifications of the experts, and an explanation of the results.[119] The use of these "traditional predicates"[120] does not suggest that the general acceptance requirement of *Frye* is unimportant, but rather that when dealing with established scientific techniques,[121] general acceptance serves more as a starting point for a showing of reliability than ultimate

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111. *See* Zack v. State, 911 So. 2d 1190, 1197-98 (Fla. 2005).

112. Williams v. State, 710 So. 2d 24, 30-31 (Fla. 3d DCA 1998).

113. *Id.* at 26-28. HGN detects "rapid involuntary horizontal oscillation of the eyes when attempting to follow a target moved from side to side." *Id.* at 27 n.4. By observing a person's reaction to the test, the administering officer can determine if the individual's blood alcohol content is greater than .10 percent, the legal limit. *See id.* at 29.

114. *Id.* at 32.

115. *Id.*

116. *Id.* at 31.

117. State v. Meador, 674 So. 2d 826, 835 (Fla. 4th DCA 1996) (addressing the admissibility of HGN, and finding that there is a consensus that the test "is an established method to detect the presence of alcohol").

118. *Id.*

119. *Id.*

120. *Id.*

121. *See Williams*, 710 So. 2d at 31.

proof of reliability.[122] A proper showing of the predicate reasons for admissibility is still required to prevent unfair prejudice to the defendant.

If the DNA testing process has been subjected to the rigors of *Frye*, both *Williams* and *Meador* suggest that while general acceptance of the forensic DNA analysis is still relevant, the *Frye* test should no longer be the linchpin standard of admissibility.[123] In practice, however, Florida's affinity to *Frye* has resulted in the repeated application of the *Frye* test to DNA in Florida's courts.

In 1996, the Florida Supreme Court, in *Brim v. State*, divided the DNA testing process into two main steps: the scientific testing of the samples and the statistical analysis of the results.[124] Additionally, the Court required that both steps satisfy the *Frye* test.[125]

As to the first step, the Court noted that in 1995, it took judicial notice that the science of the DNA testing process, if properly conducted, would satisfy *Frye*.[126] On remand, the Second District Court of Appeals held that the DNA evidence satisfied *Frye* and mentioned specifically that the ladder (relating to electrophoresis) and probes (referring to the loci tested) used also satisfied *Frye*.[127]

In 2001, the Third District Court of Appeals, in *Lemour v. State*, concluded that the PCR method was generally accepted in the relevant scientific community after having passed the *Frye* test.[128] The general acceptance of PCR was confirmed by the Florida Supreme Court in 2005.[129]

Further, the Second District Court of Appeals, in *Magaletti v. State*, made clear that the first step of DNA testing, including extraction,

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122. *See Meador*, 674 So. 2d at 835-36 (determining that HGN test results were not admissible, not because HGN was not generally accepted, but because proper predicate was not satisfied, it had not been "properly administered and interpreted").

123. *See also* Andrews v. State, 533 So. 2d 841, 844 n.1 (Fla. 5th DCA 1988) (criticizing *Frye* as being "too inflexible" because it requires courts to wait until a technique is generally accepted. This results in a "cultural lag" which might exclude evidence that "could be completely reliable.").

124. *See* discussion *supra* Part III.

125. Brim v. State, 695 So. 2d 268, 270 (Fla. 1997).

126. *Id.* at 271.

127. Brim v. State, 827 So. 2d 259, 260 (Fla. 2d DCA 2002).

128. Lemour v. State, 802 So. 2d 402, 404-06 (Fla. 3d DCA 2001) (the district court approved both PCR in general and also PCR when used to amplify DNA segments called short tandem repeats (STR)).

129. Zack v. State, 911 So. 2d 1190, 1198 n.3 (Fla. 2005) (citing *Lemour*, 802 So. 2d at 404-05).

replication, and sequencing, has been "scientifically validated and used by researchers . . . since the 1970s and 1980s."[130]

Concerning the second step, the Florida Supreme Court, in *Brim*, remanded the case for a *Frye* hearing on the general acceptance of the product rule in determining population frequency statistics as a result of recent advances in statistical analysis.[131] On remand, the district court held that the product rule was properly admitted as was the FBI database used in the statistical analysis.[132] In 2003, the Florida Supreme Court reaffirmed the general acceptance of the product rule in statistical analysis both in Florida and other jurisdictions.[133]

DNA evidence has passed the rigor of the *Frye* test in Florida for more than a decade, yet courts still generally adhere to *Frye*.[134] When dealing with DNA evidence, however, the *Frye* test is applied in name only.

V. WOULD A *FRYE* BY ANY OTHER NAME SMELL AS SWEET?

General acceptance in the scientific community is an important factor when determining the admissibility of DNA evidence, but in light of *Williams* and *Meador*, general acceptance is a starting point, not the finish line for DNA admissibility. Because DNA evidence tends to be more complex than other forms of forensic evidence,[135] a graduation from *Frye*'s inflexibility is warranted. Appropriately, Florida's courts have moved beyond the basic *Frye* requirements and have adopted admissibility standards that dig deeper toward the reliability of DNA evidence. The following cases track the standards actually applied in assessing the admissibility of DNA evidence in Florida.

In 1988, the appellate court in *Andrews v. State* addressed the admissibility of DNA identification evidence—a topic that no U.S.

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130. Magaletti v. State, 847 So. 2d 523, 527 (Fla. 2d DCA 2003) (though dealing with mtDNA and not nucDNA, the lab methods used are analogous).

131. *Brim*, 695 So. 2d at 273-75 (reasoning that due to the recent publication of the 1996 NRC report discussing the use of the product rule and declaring the conservative "ceiling principles" no longer necessary).

132. *Brim*, 827 So. 2d at 260 (holding the DNA evidence was properly admitted, and the associated concerns were rendered moot after the *Frye* hearing and the Florida Supreme Court decision in *Darling v. State*, 808 So. 2d 145 (Fla. 2002)).

133. Butler v. State, 842 So. 2d 817, 829 (Fla. 2003) (quoting, e.g., Clark v. State, 679 So. 2d 321 (Fla. 3d DCA 1996) ("'product rule calculations are appropriate as a matter of scientific fact and law.'")). The FDLE database has also been *Frye* tested and found to be generally accepted. *See Darling*, 808 So. 2d at 158-60.

134. Ibar v. State, 31 Fla. L. Weekly Supp. 149 (Fla. 2006).

135. Andrews v. State, 533 So. 2d 841, 850 (Fla. 5th DCA 1988).

appellate court had ever addressed in criminal cases.[136] In determining the admissibility of DNA evidence, the court looked at several factors: 1) Whether DNA test results would be helpful to the jury; 2) Whether there had been any relevant extrajudicial use of the technique; 3) Whether there was scientific literature dealing with DNA testing; and 4) Whether the frequency of the test led to erroneous results.[137] Finding sufficient evidence of these factors, the court concluded that "[i]n contrast to evidence derived from hypnosis, truth serum and polygraph, evidence derived from DNA print identification appears based on proven scientific principles."[138] Particularly compelling was the finding that DNA testing had been conducted in labs around the world for approximately ten years and had been utilized in diagnosis, treatment, and research for genetically inherited diseases.[139] The *Andrews* court adopted a relevancy standard in favor of the *Frye* test,[140] though the circuit court noted that the DNA evidence presented would pass *Frye* as well.[141]

In determining general acceptance, a common and useful form of supporting evidence comes from publications both scientific and legal.[142] For example, in *Lemour v. State*, the court looked to relevant scientific and forensic literature as well as to other courts that admitted DNA evidence to determine whether general acceptance had been attained.[143] Furthermore, the court, in *Collier v. State*, restated the need for legal opinions supporting general acceptance in addition to the testimony of the DNA expert.[144] Thus, courts have recognized the need for "independent evidence"[145] to assist in determining a technique's general acceptance.

It is also apparent that courts should question the reliability of the techniques used in each case especially if the state has not carried its

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136. *Id.* at 850 n.10.

137. *Id.* at 849-50.

138. *Id.* at 850.

139. *Id.* at 849.

140. *Andrews*, 533 So. 2d at 846-47 (explaining that the *Frye* standard, as applied at the time, required a "nose counting" of experts to determine general admissibility, and may therefore, exclude evidence that is otherwise reliable) (citing United States v. Downing, 753 F.2d 1224, 1238 (3d Cir. 1985)).

141. *Id.* at 847 n.6 (discussing that both standards apply, "pending a definitive interpretation by our supreme court.").

142. *See* discussion *supra* Part II. *See generally* Daubert v. Merrell Dow Pharm., 509 U.S. 579 (1993).

143. Lemour v. State, 802 So. 2d 402, 405-06 (Fla. 3d DCA 2001).

144. Collier v. State, 857 So. 2d 943, 945-46 (Fla. 4th DCA 2003).

145. *Id.* at 945.

burden of proof.[146] In *Hayes v. State*,[147] the Florida Supreme Court suggested that while DNA evidence was not new or novel, it should nonetheless be "evaluated on a case by case basis."[148] Here, the Florida court took judicial notice that DNA evidence is generally reliable.[149] Though in affirming that the DNA evidence was admissible, the Florida court expressed concern that the implemented laboratory testing procedures implemented had failed to protect against false readings and sample contamination.[150] If the testing procedures are not properly conducted, the results will not be reliable and therefore, should not be admitted.

Additionally, the courts in *Bevil v. State*[151] and *Magaletti v. State*[152] looked at whether the procedures, techniques,[153] and the database used[154] had undergone validation studies, which "facilitate uniformity, monitor consistency and . . . ensure that results are reproducible."[155] These studies help a court determine if it can trust the laboratory and statistical procedures.[156]

When technicians and experts do not follow these established procedures, courts are not likely to trust the results. In *Murray v. State*, the Florida Supreme Court held DNA test results inadmissible where the testifying technician admitted that he failed to follow lab procedures, did not properly document certain steps, was "sloppy[,]" and performed "below standards."[157] Further, in *United States v. Gaines*, the court held that DNA evidence can be challenged by a showing that "'a scientifically sound methodology has been undercut by sloppy handling of the samples,

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146. Ramirez v. State (Ramirez II), 651 So. 2d 1164, 1168 (Fla. 1995) (requiring a showing by the preponderance of the evidence of general acceptance).

147. Hayes v. State, 660 So. 2d 257 (Fla. 1995).

148. *Id.* at 264 (noting that this "extremely important new identification technique" was based on "evolving" technology). The Florida court relied on the findings of the National Research Council's 1992 report, which was being updated at the time. The 1996 NRC report laid to rest many of the concerns expressed in the 1992 report. *See generally* Brim v. State, 695 So. 2d 268 (Fla. 1997) (discussing some of the differences between the 1992 and 1996 NRC reports, specifically the shift from the more conservative "ceiling principle" in 1992 to the product rule in 1996, which is now considered the appropriate standard).

149. *Id.* at 264-65.

150. *Hayes*, 660 So. 2d at 264-65.

151. Bevil v. State, 875 So. 2d 1265 (Fla. 1st DCA 2004).

152. Magaletti v. State, 847 So. 2d 523 (Fla. 2d DCA 2003).

153. *Id.* at 527 n.5.

154. *Bevil*, 875 So. 2d at 1268-69.

155. *Magaletti*, 847 So. 2d at 527 n.5.

156. *See supra* text accompanying note 122.

157. Murray v. State, 838 So. 2d 1073, 1081 (Fla. 2002).

failure to properly train those performing the testing, [and a] failure to follow appropriate protocols.'"[158] In these cases, the courts are not suggesting that the DNA testing is not generally accepted, but rather, if the tests are not carefully performed, the results will not be accepted as reliable evidence.[159]

Not only must the tests be conducted in order to produce reliable results, but the individual testifying to the results of the tests must be qualified. In *Everett v. State*, the Florida Supreme Court investigated the background of the state's DNA expert to ensure she was qualified to testify on the population frequencies as they related to the evidence at issue.[160] The Florida Supreme Court held that to be qualified the expert must demonstrate a "'sufficient knowledge of the database grounded in the study of authoritative sources.'"[161] Specifically, the court looked at the expert's work experience, training, attendance of courses and conferences, previous experience testifying as a DNA expert, whether the tests were reviewed by others, and how concise the testimony would be.[162] Satisfied with the answers to this inquiry, the Florida Supreme Court found no error in the trial court's decision to admit expert testimony that the probability of randomly finding another person with the same DNA profile was 1 in 15.1 quadrillion.[163] Had the court not felt comfortable with the state's demonstration of expertise,[164] this evidence likely would not have been admitted.[165] Determining the qualifications of the expert to testify is the bottleneck of admissibility analysis.[166]

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158. United States v. Gaines, 979 F. Supp. 1429, 1433 (S.D. Fla. 1997) (quoting United States v. Beasley, 102 F.3d 1440, 1448 (8th Cir. 1996)).

159. *Cf.* Yisrael v. State, 827 So. 2d 1113, 1114-15 (Fla. 4th DCA 2002) (holding that because the DNA was tested with a scientifically reliable test kit with general acceptance, the results of the test kit were also admissible under *Frye*).

160. Everett v. State, 893 So. 2d 1278 (Fla. 2004).

161. *Id.* at 1281 (quoting Butler v. State, 842 So. 2d 817, 828 (Fla. 1997)).

162. *Id.*

163. *Id.* at 1281-82.

164. *See* Perdomo v. State, 829 So. 2d 280, 283-84 (Fla. 3d DCA 2002) (an example of the state not meeting its burden to show that the expert was qualified).

165. *See, e.g.*, Miles v. State, 694 So. 2d 151, 153 (Fla. 4th DCA 1997) (remanded for a *Frye* hearing on the issue of expert's qualifications); Murray v. State, 838 So. 2d 1073, 1081-82 (Fla. 2002) (reversing the convictions of first-degree murder, burglary with assault, and sexual battery because, among other things, the state did not meet its burden in proving the witness was qualified as an expert).

166. Courts should not take this step lightly, because when dealing with DNA and statistics, unqualified witnesses can cause confusion in the courtroom. *See, e.g.*, *Miles*, 694 So. 2d at 152 n.1. The expert testified:

Considering how Florida's courts actually approach DNA evidence, it seems logical that the *Frye* test has been supplanted by the preceding cases, which outline a broader array of in-depth questions affecting admissibility. It also seems likely that the court would be in favor of departing from the requirements of *Frye* where the evidence is not new or novel as is the case with DNA.

VI. CONCLUSION: TOWARDS A MORE STREAMLINED APPROACH

It is counterintuitive that courts still frame the issue in terms of a *Frye* requirement. As suggested by *Williams* and *Meador*,[167] a determination that DNA is no longer new or novel should translate into a simpler test for admissibility. Though in practice, the standards actually applied tend to broaden rather than narrow the inquiry. The development of judicial tests should make the application of the law to a specific issue more efficient.

A departure from *Frye* is especially warranted considering that *Frye* testing consumes a great deal of judicial time and resources.[168] The *Frye* test requires that the proponent of the evidence "prove [by a preponderance of the evidence] the general acceptance of both the underlying scientific principle and the testing procedures used to apply the principle to the facts at hand."[169] *Frye* hearings are held before the evidence is presented to the jury, generally in lengthy pre-trial conferences,[170] which is by no means a light task.

> So, what we do is we have, we would go out and test 100 or 200 individuals and find out how often a specific type occurs like the one type of DQ Alpha 1.2, 2. We would just go out and test and see how often it occurs. Each one would do that. We can multiply that together because they are inherited separately, they're not linked, and when you multiply that number together you find out what the frequency is.

Id.

167. *See supra* text accompanying notes 106-34. *See also* U.S. Sugar Corp. v. Henson, 823 So. 2d 104, 109 (Fla. 2002) (determining that the "extrapolation" method utilized by experts to conclude that chronic exposure to pesticides caused the claimant's condition. "By definition, the *Frye* standard only applies when an expert attempts to render an opinion that is based upon new or novel scientific techniques. Therefore, in the vast majority of cases, no *Frye* inquiry will be required–because no innovative scientific theories will be at issue.").

168. Williams v. State, 710 So. 2d 24, 31 (Fla. 3d DCA 1998) (the district court sought to avoid the "needless waste of judicial resources on sufficiently established principles").

169. Ramirez v. State (*Ramirez II*), 651 So. 2d 1164, 1168 (Fla. 1995).

170. *See* FLA. STAT. § 90.105(1) (2005). *See also* Wagner v. State, 864 A.2d 1037, 1047 (Md. Ct. Spec. App. 2005); Kelly v. State, 824 S.W. 2d 568, 573 (Tex. Crim. App. 1992); State v. Roman Nose, 649 N.W.2d 815, 819 (Minn. 2002).

Interestingly, courts do not seem to mind. More so, when proponents of DNA evidence have failed to meet their burden, courts have not been lenient,[171] suggesting that *Frye* is still mandatory. Also telling of the affinity for the standard is that appellate courts have reversed, citing prejudicial error, where the trial courts have decided not to hold *Frye* hearings.[172] Even though *Frye* is not required, courts still rely on the test when dealing with DNA evidence.

To this end, Florida's judges should not have to sit through lengthy hearings in which prosecutors and defense attorneys debate the general acceptance of science that has been utilized for decades.[173] Though the standards used by Florida's courts cover every aspect of DNA testing,[174] not all are at issue in every case, and every standard need not be applied before a court may admit the evidence.[175] Doing so would lead to even longer, more technically complex hearings, which are not necessarily more helpful to the judge in determining admissibility. The judge needs to be comfortable in admitting DNA evidence.

To provide this comfort, the proponent need not reinvent the wheel. Enough courts have admitted DNA as generally accepted and reliable[176] that all that is truly needed is an expedited review of the laboratory procedures actually performed and the testimony to be given in the particular case.[177] Because the testimony holds the probative force of the DNA evidence, as long as the judge is aware of the basis for the expert's testimony, he or she can make the preliminary determination of admissibility required by the Florida evidence code.[178]

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171. *See, e.g.*, Perdomo v. State, 829 So. 2d 280, 281 (Fla. 3d DCA 2002) (remanded for further evidentiary hearings to determine the qualifications of the expert). *See also* Bevil v. State, 875 So. 2d 1265, 1269 (Fla. 1st DCA 2004) (holding error not harmless where state failed to meet its burden).

172. Arnold v. State, 807 So. 2d 136, 141 (Fla. 4th DCA 2002). *See also* Roberts v. State, 841 So. 2d 558, 559 (Fla. 4th DCA 2003) (affirming the *Arnold* requirement to hold a *Frye* hearing).

173. Magaletti v. State, 847 So. 2d 523, 527 (Fla. 2d DCA 2003).

174. *See* discussion *supra* Part V.

175. Most courts are concerned with only one aspect of the DNA testing process. *See, e.g.*, Hudson v. State, 820 So. 2d 1070, 1073-74 (Fla. 5th DCA 2002) (requiring a limited evidentiary hearing to demonstrate that the witness had the requisite expertise to testify); Perdomo v. State, 829 So. 2d 280, 281 (Fla. 3d DCA 2002) (remanded to determine qualifications of the expert).

176. *See* discussion *supra* Part V.

177. *See* State v. Roman Nose, 649 N.W.2d 815, 823 n.9 (Minn. 2002) (noting that regardless of the "overwhelming evidence" of general acceptance, "the established procedure for determining general acceptance must be followed.").

178. *See* FLA. STAT. § 90.105(1) (2005) ("Preliminary questions. (1) Except as provided in subsection (2), the court shall determine preliminary questions concerning the qualification of a

In light of the exhaustive *Frye* testing of DNA, courts should be given discretion to streamline the admissibility of such evidence. Further, courts should not feel obligated to hold extensive *Frye* hearings in every case involving DNA. Instead, by taking judicial notice that the DNA testing process is generally accepted as reliable in both the scientific and legal community, judges can establish legal precedent to this end. This will simultaneously expedite the admissibility process for trial courts while reducing the time spent by appellate courts reviewing challenges to lower court decisions.

In the place of *Frye*, a short, pretrial hearing could be held, focusing on whether the expert is qualified, and whether the tests were performed correctly.[179] This would give the prosecution the opportunity to lay the proper foundation while affording the defense a specific avenue to challenge the evidence. Having a hearing stripped of the unnecessary hurdles of *Frye* would satisfy the evidentiary requirements while preempting the misuse of judicial resources associated with a full-blown *Frye* hearing.[180]

Foregoing the *Frye* test for a more streamlined admissibility analysis is warranted, but this does not suggest that courts should become too relaxed to their approach. Judges and lawyers are not scientists,[181] and DNA evidence is too persuasive[182] to be left unchallenged before it gets to the jury. On the bright side, with a little help, courts are very capable of navigating the challenges associated with DNA. Unless the average juror becomes so well versed in forensic sciences that no expert is needed to present DNA test results at trial, admissibility standards are necessary to guide the court in the right direction.

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person to be a witness, the existence of a privilege, or the admissibility of evidence."); *see also* FLA. STAT. § 90.702 (2005).

> Testimony by experts. If scientific, technical, or other specialized knowledge will assist the trier of fact in understanding the evidence or in determining a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify about it in the form of an opinion; however, the opinion is admissible only if it can be applied to evidence at trial.

Id.; *cf.* FED. R. EVID. 702 (2006).

179. *See supra* text accompanying note 173. *See also* discussion *supra* Part V.

180. Of course, judges and lawyers are not the only ones who are inconvenienced by lengthy *Frye* hearings. Forensic lab technicians, who are often the State's expert witness, spend considerable time away from work for every case in which they testify.

181. *Roman Nose*, 649 N.W.2d at 822-23.

182. *See supra* text accompanying note 13.

Ultimately, it is important that courts get the chance to shield the jury from unfairly prejudicial evidence. Along the way, they must be careful not to get blinded by science themselves.