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Paul C. Giannelli

Kevin C. McMunigal

Case Western University School of Law, kevin.mcmunigal@case.edu

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PROSECUTORS, ETHICS, AND EXPERT WITNESSES

Paul C. Giannelli* & Kevin C. McMunigal**

If the prosecution theory was that death was caused by a Martian death ray, then that was what Dr. Erdmann reported.¹

INTRODUCTION

Some of the most disturbing revelations that emerged from the DNA exonerations that occurred in the 1990s concern the misconduct of prosecutors. In *Actual Innocence*,² Barry Scheck and his colleagues examined sixty-two of the first sixty-seven DNA exonerations secured through Cardozo Law School's Innocence Project in order to ascertain what factors contributed to erroneous convictions. Prosecutorial misbehavior was found in forty-two percent of the cases.³ Another significant contributor to these miscarriages of justice was the misuse of expert testimony. A *third* of these cases involved "tainted or fraudulent science."⁴

* Albert J. Weatherhead III & Richard W. Weatherhead Professor of Law, Case Western Reserve University.

** Judge Ben C. Green Professor of Law, Case Western Reserve University.

1. Richard L. Fricker, *Pathologist's Plea Adds to Turmoil: Discovery of Possibly Hundreds of Faked Autopsies Helps Defense Challenges*, A.B.A. J., Mar. 1993, at 24, 24 (emphasis added) (internal quotation marks omitted); see Paul C. Giannelli, *The Abuse of Scientific Evidence in Criminal Cases: The Need for Independent Crime Laboratories*, 4 Va. J. Soc. Pol'y & L. 439 (1997) (discussing expert misconduct, including Dr. Ralph Erdmann's cases); see also Roy Bragg, *New Clues May Be Dug from Grave; Furor Touches on Autopsies, Brains*, Houston Chron., Mar. 28, 1992, at 1A ("[C]all him 'McErdmann,' . . . He's like McDonald's—billions served.") (quoting Dallam County District Attorney Barry Blackwell)); Chip Brown, *Pathologist Accused of Falsifying Autopsies, Botching Trial Evidence*, L.A. Times, Apr. 12, 1992, at A24 ("[F]ormer Dallas County assistant medical examiner Linda Norton was quoted as saying [Dr.] Erdmann routinely performs 'made-to-order autopsies that support a police version of a story.'").

2. Barry Scheck et al., *Actual Innocence: Five Days to Execution and Other Dispatches from the Wrongly Convicted* 246 (2000). As of September 2007, there have been over 205 DNA exonerations. Brandon L. Garrett, *Judging Innocence*, 108 Colum. L. Rev. (forthcoming Jan. 2008).

3. See Scheck et al., *supra* note 2, at 246. The conduct of defense attorneys was also found to be less than exemplary. See *infra* text accompanying notes 229–32.

4. Scheck et al., *supra* note 2, at 246. A subsequent review attributed 63% of the wrongful convictions to forensic science testing errors and 27% to false or misleading testimony by forensic experts. See Michael J. Saks & Jonathan J. Koehler, Review, *The Coming Paradigm Shift in Forensic Identification Science*, 309 Sci. 892, 892 fig.1 (2005). A 2005 study identified 24 prosecutions in which forensic scientists committed perjury. Samuel R. Gross et al., *Exonerations in the United States: 1989 Through 2003*, 95 J. Crim. L. & Criminology 523, 543 (2005). This study identified 340 exonerations, 196 of which did not

This essay examines the intersection of these two factors—the prosecutor’s role in using and presenting expert testimony, a topic that is being addressed with increasing frequency by commentators.⁵ The prosecutor’s suppression of exculpatory DNA test results in the Duke lacrosse case is but one recent illustration of this problem.⁶

The prosecutorial misconduct revealed in the exoneration cases, however, is not a new phenomenon. Older cases reveal similar misconduct, suggesting that the problem is systemic rather than episodic. Prosecutorial misconduct in the use of scientific evidence is significant because of the increasingly important role that scientific evidence plays in the criminal justice system. One study found that approximately “one quarter of the citizens who had served on juries which were presented with scientific evidence believed that had such evidence been absent, they would have changed their verdicts—from guilty to not guilty.”⁷ This research was published before the use of DNA evidence became widespread⁸ and prior to

involve DNA evidence. *Id.* at 524. The most recent study of 200 DNA exonerations found that expert testimony (present in 55% of the cases) was the second leading type of evidence (after eyewitness identifications, 79% of cases) used in the wrongful conviction cases. Garrett, *supra* note 2.

5. A number of commentators examine the issue. See, e.g., Bennett L. Gershman, *Misuse of Scientific Evidence by Prosecutors*, 28 Okla. City U. L. Rev. 17, 17 (2003) (“The prosecutor’s misuse of scientific evidence to charge and convict has not been sufficiently examined.”); Jane Campbell Moriarty, “*Misconvictions*,” *Science, and the Ministers of Justice*, 86 Neb. L. Rev. 1, 23 (2007) (“To date, the legal system and commentators have paid little attention to prosecutorial discretion in the use of unreliable expert testimony—despite mounting evidence that misconvictions have been based upon unreliable expert testimony.”); Michael J. Saks, *Scientific Evidence and the Ethical Obligations of Attorneys*, 49 Clev. St. L. Rev. 421, 421 (2001) (“What are the legal and ethical responsibilities of attorneys when offering scientific expert evidence to courts?” (internal quotation marks omitted)).

Some commentators have considered the ethical issues that arise in the use of experts in civil litigation. See Steven Lubet, *Expert Witnesses: Ethics and Professionalism*, 12 Geo. J. Legal Ethics 465, 466 (1999); Joseph Sanders, *Expert Witness Ethics*, 76 Fordham L. Rev. 1539 (2007); Dick Thornburgh, *Junk Science—The Lawyer’s Ethical Responsibilities*, 25 Fordham Urb. L.J. 449 (1998); Justin P. Murphy, Note, *Expert Witnesses at Trial: Where Are the Ethics?*, 14 Geo. J. Legal Ethics 217 (2000).

6. See *infra* text accompanying notes 117–18.

7. Joseph L. Peterson et al., *The Uses and Effects of Forensic Science in the Adjudication of Felony Cases*, 32 J. Forensic Sci. 1730, 1748 (1987); see also Scott Bales, *Turning the Microscope Back on Forensic Scientists*, Litig., Winter 2000, at 51, 51 (commenting that “prosecutors, defense attorneys, and judges agree that scientific evidence can powerfully affect—and often determine—the outcome in criminal cases”).

Justice Stephen Breyer wrote, “Scientific issues permeate the law. Criminal courts consider the scientific validity of, say, DNA sampling or voice prints, or expert predictions of defendants’ ‘future dangerousness,’ which can lead courts or juries to authorize or withhold the punishment of death.” Stephen Breyer, *Science in the Courtroom*, Issues in Sci. & Tech., Summer 2000, at 52, 53. According to Judge Jack B. Weinstein, “Hardly a case of importance is tried today in the federal courts without the involvement of a number of expert witnesses.” Jack B. Weinstein, *Improving Expert Testimony*, 20 U. Rich. L. Rev. 473, 473 (1986).

8. In 1985, Dr. Alec Jeffreys of the University of Leicester, England, recognized the utility of DNA profiling in criminal cases. Its first use in American courts came the following year. See Office of Tech. Assessment, U.S. Congress, *Genetic Witness: Forensic*

the avalanche of television programs on forensic science creating what has come to be known as the “CSI effect.”⁹

Once a prosecutor determines to employ an expert, a number of distinct decisions must be confronted—from choosing the expert, to complying with discovery obligations, to presenting the testimony at trial. Part I of this essay considers the selection of experts. Although improper selection of experts can be viewed as merely another aspect of presenting misleading testimony, we treat it separately in this essay because the literature typically ignores it. Part II examines the pretrial disclosure of scientific evidence. The issues that have arisen in this context include late disclosure, omitting information from laboratory reports, declining to have a report prepared, and failing to disclose exculpatory evidence. Part III explores a number of ways in which prosecutors have presented expert testimony in a misleading manner. What practices should be considered “misleading” is far from obvious. In Part IV, we take a broader view and consider reforms that have relevance across a range of issues.

I. EXPERT SELECTION

At times, prosecutors are not involved in choosing expert witnesses. In a routine drug case, for example, the police may submit a substance suspected of containing cocaine for testing by a chemist employed by the police without any notification to or input from the prosecutor who may eventually try the case. However, if the results of scientific testing are likely to be contested, the prosecutor may become quite involved and exercise considerable power and control in the selection of an expert witness. Such power may be exercised appropriately. For example, if fingerprints are a critical piece of evidence, a prosecutor might seek to obtain the most competent expert available. But such power may also be exercised inappropriately by seeking out an expert based on the expert’s willingness to support the prosecution’s theory of the case regardless of the soundness of the expert’s view. This latter practice, which we refer to as “shopping” for an expert, can result in the presentation of misleading evidence to a jury.

A. Louise Robbins

One of the U.S. Supreme Court’s prosecutorial immunity cases, *Buckley v. Fitzsimmons*,¹⁰ offers an illustration of how testimony can be skewed by

Uses of DNA Tests 8 (1990) [hereinafter OTA Report]. The first appellate case, was reported in 1988. See *Andrews v. State*, 533 So. 2d 841 (Fla. Dist. Ct. App. 1988) (holding DNA evidence admissible). By January 1990, forensic DNA analysis had been admitted into evidence “in at least 185 cases by 38 States and the U.S. military.” OTA Report, *supra*, at 14.

9. See generally Tom R. Tyler, *Viewing CSI and the Threshold of Guilt: Managing Truth and Justice in Reality and Fiction*, 115 Yale L.J. 1050 (2006) (noting the uncertainty of the phenomenon); Michael Mann, Comment, *The “CSI Effect”: Better Jurors Through Television and Science?*, 24 Buff. Pub. Int. L.J. 211 (2006).

10. 509 U.S. 259 (1993).

the selection process. In 1983, Stephen Buckley, along with Rolando Cruz and Alejandro Hernandez, was indicted for a highly publicized Illinois murder. The critical evidence was a boot print left by the killer on the door of the eleven-year-old victim's home when the killer kicked it in.¹¹ Experts from the county and state crime labs, as well as from the Kansas Bureau of Identification, were unable to identify Buckley's boot as the source of the print.¹² Ignoring these government experts, prosecutors shopped for a "positive identification" from Dr. Louise Robbins, a controversial expert.¹³

A detective, who resigned because he believed the wrong people had been charged, stated it this way,

The first lab guy says it's not the boot We don't like that answer, so there's no paper [report]. We go to a second guy who used to do our lab. He says yes. So we write a report on Mr. Yes. Then Louise Robbins arrives. This is the boot, she says. That'll be \$10,000. So now we have evidence.¹⁴

Buckley's trial ended in a hung jury. His codefendants, however, were convicted but later freed due to DNA analysis.¹⁵ Indeed, an appellate prosecutor, like the detective mentioned earlier, resigned in protest,¹⁶ and the district attorneys were subsequently tried (but acquitted) for their conduct in prosecuting the codefendants.¹⁷ DNA evidence later exonerated Buckley.¹⁸

11. *Id.* at 262.

12. *See id.* ("After three separate studies by experts from the Du Page County Crime Lab, the Illinois Department of Law Enforcement, and the Kansas Bureau of Identification, all of whom were unable to make a reliable connection between the print and a pair of boots that petitioner had voluntarily supplied, respondents obtained a 'positive identification' from one Louise Robbins, an anthropologist in North Carolina who was allegedly well known for her willingness to fabricate unreliable expert testimony.")

13. *See id.* at 272 (holding that "prosecutors are not entitled to absolute immunity for the claim that they conspired to manufacture false evidence that would link [Buckley's] boot with the footprint the murderer left on the front door. To obtain this false evidence, petitioner submits, the prosecutors shopped for experts until they found one who would provide the opinion they sought."); Giannelli, *supra* note 1, at 457–58 (discussing Robbins).

14. Barry Siegel, *Presumed Guilty: An Illinois Murder Case Became a Test of Conscience Inside the System*, L.A. Times, Nov. 1, 1992, (Magazine), at 19 (quoting former detective John Sam).

15. Edward Connors et al., *Convicted by Juries, Exonerated by Science: Case Studies in the Use of DNA Evidence to Establish Innocence After Trial* 44–46 (1996) (discussing the cases of Rolando Cruz and Alejandro Hernandez).

16. Siegel, *supra* note 14, at 19 (discussing the resignation of attorney Mary Brigid Kenney).

17. *See* Scheck et al., *supra* note 2, at 176–80; *see also* Pam Belluck, *Officials Face Trial in an Alleged Plot to Frame a Man for Murder*, N.Y. Times, Mar. 9, 1999, at A19 ("In a case being closely watched by lawyers and investigators, a group of seven prosecutors and sheriff's deputies will go on trial on Tuesday, charged with conspiring to frame an innocent man."); Eric Herman, *Conspiracy Theory*, Am. Law., Mar. 1998, at 75 (discussing the prosecution of the prosecutors and police officers involved in the alleged conspiracy before their trial).

18. *See* *People v. Cruz*, 643 N.E.2d 636, 644 (Ill. 1994) ("Seminal fluid recovered from the victim's body was DNA tested, excluding both of defendant's previous codefendants Alex Hernandez and Steven Buckley as possible sources, but not defendant or Brian Dugan,

When experts disagree, at what point is the prosecutor on notice that a serious problem might exist, thereby triggering an obligation to investigate further? What if an expert always says what the prosecutor wants to hear? Such questions were particularly relevant in the *Buckley* case; Robbins was at the center of controversy prior to being retained.¹⁹ As her moniker, the “Cinderella” expert, suggests, she claimed abilities that no one else had.²⁰

That alone should have given the prosecutor pause—especially after three other government experts could not support her conclusion. Moreover, the prosecutor announced Buckley’s indictment shortly before a tightly contested primary election.

B. Fred Zain

In West Virginia, the former head serologist of the state police crime laboratory, Trooper Fred Zain, falsified test results in as many as 133 cases from 1979 to 1989.²¹ A team of outside forensic scientists found that “when in doubt, Zain’s findings would always inculpate the suspect.”²² After Zain accepted a position in the San Antonio crime lab, West Virginia prosecutors sent evidence to him for retesting because the West Virginia serologists apparently could not reach the “right” results. For example, one serologist “testified that at least twice after Zain left the lab, evidence on which [the serologist] had been unable to obtain genetic markers was subsequently sent to Texas for testing by Zain, who again was able to identify genetic markers.”²³ His replacement as director of serology would

an individual convicted of several other sexual assaults and murders of young females, who indicated he alone killed Jeanine Nicarico.”)

19. See Thomas Frisbie, *Prosecution Tactics Drew Critics from the Beginning*, Chi. Sun-Times, Nov. 5, 1995, at 24 (“[P]rosecutors used the testimony of Louise Robbins, who used a scientifically unverified method of matching shoeprints to shoes through a ‘wear pattern.’ Robbins said her method showed Buckley kicked in the [victim’s] front door, even though the pattern on the bottom of Buckley’s shoes differed from the one on the door.”).

20. See *People v. Puluti*, 174 Cal. Rptr. 597, 603 (Ct. App. 1981) (Robbins “had never before been qualified as an expert to testify about foot imprints left inside of shoes for purposes of identification” (emphasis omitted)); *People v. Barker*, 170 Cal. Rptr. 69, 72 (Ct. App. 1980) (“She considered herself the chief proponent of the ‘unique shoeprint’ concept, in that she was the only person presently working on this subject.”); Mark Hansen, *Believe It or Not*, A.B.A. J., June 1993, at 64, 65 (“But Robbins was alone in claiming that she could tell whether a person made a particular print by examining any other shoes belonging to that individual.”); Vicki Quade, *If the Shoe Fits: Footprint Expert Testifies*, A.B.A. J., July 1984, at 34, 34 (“By analyzing the soles of a shoe, . . . she can determine whether a specific person wore the shoes, based on impressions and wear patterns made by the bones of the foot.”).

21. *In re W. Va. State Police Crime Lab.*, 438 S.E.2d 501, 510 & n.4 (W. Va. 1993).

22. *Id.* at 512 n.9. The American Society of Crime Laboratory Directors provided the team. *Id.*

23. *Id.* at 512. Other examiners had similar experiences. “[Serologist Howard Brent] Myers also testified that after he had been unable to find blood on a murder suspect’s jacket, it was sent to Texas, where [Fred] Zain found a bloodstain which tested consistent with the blood of the victim.” *Id.* According to Zain’s replacement, “several prosecutors expressed dissatisfaction with the reports they were receiving from serology and specifically requested that the evidence be analyzed by Zain.” *Id.* at 512 n.16.

later describe Zain as “very pro-prosecution.”²⁴ Apparently, no prosecutor ever questioned Zain’s methods or results during his “long history of falsifying evidence in criminal prosecutions.”²⁵ In a *60 Minutes* interview, a prosecutor excused his colleagues by saying that they thought that they had a “world class” expert.²⁶ Why prosecutors would believe that Zain, but not his coworkers, was a “world class” expert is not clear. Sending evidence to Zain in Texas after receiving results that did not support their case belies the notion that these prosecutors did not have notice of the problem.

C. Joyce Gilchrist

Joyce Gilchrist, a forensic chemist in the Oklahoma City Police Department crime laboratory, provides another illustration of prosecutors recklessly or knowingly selecting a corrupt expert.²⁷ Gilchrist started working for the lab in 1980. It was not long before she became enmeshed in controversy. An expert from another government lab filed an ethics complaint against her with the Southwestern Association of Forensic Scientists, which conducted an investigation and concluded that Gilchrist had failed to distinguish between her personal and scientific opinions.²⁸

In 1988, the Oklahoma Court of Criminal Appeals, reversing a criminal conviction, found that Gilchrist had “inexcusabl[y]” delayed sending her laboratory report as well as an evidence sample to a defense expert.²⁹ The

24. *Id.* at 514 n.23 (internal quotation marks omitted).

25. *Id.* at 503.

26. *60 Minutes: Right On, Fred Zain* (CBS television broadcast Apr. 24, 1994).

27. See Mark Fuhrman, *Death and Justice: An Exposé of Oklahoma’s Death Row Machine 232* (2003) (“[Joyce Gilchrist] appears to have used her lab tests to confirm the detectives’ hunches rather than seek independent scientific results. She also tried to control the results of her tests She treated discovery requests with contempt and kept evidence from the defense. She systematically destroyed evidence at the very time when she knew that much of that evidence might be retested.”).

28. See *McCarty v. State*, 765 P.2d 1215, 1219 (Okla. Crim. App. 1988). In that case, the court observed,

. . . [O]n December 14, 1987, Max Courtney, President of the Southwestern Association of Forensic Scientists, Inc., issued a prepared statement of the Board of Directors concerning allegations of professional misconduct lodged against Ms. Gilchrist. A certified copy of this statement, which was filed with this Court on January 4, 1988, concluded that Ms. Gilchrist had violated the ethical code, but interestingly she was not disciplined. That statement reads in relevant part: “Our Professional Conduct Committee thoroughly investigated the allegations against Ms. Joyce Gilchrist and . . . communicated with [her] that she should distinguish personal opinion from opinions based upon facts derived from scientific evaluation We further conclude that, in our system of jurisprudence, undue pressure can be placed upon the forensic scientist to offer personal opinions beyond the scope of scientific capabilities.”

Id.

29. *Id.* at 1217 (“Ms. Gilchrist’s delay and neglect in not completing her forensic examination and report . . . was inexcusable, since she began her forensic examination in December of 1982.”). In subsequent litigation, the court wrote, “[F]ollowing our decision in Petitioner’s first trial, it can be safely said that the entire legal community was on notice that

court also criticized Gilchrist for omitting critical information from the report, labeling her conduct “trial by ambush.”³⁰ Finally, the same court found that Gilchrist had testified beyond the state of the art.³¹ A year later, the court questioned her testimony concerning hair analysis in *Fox v. State*,³² a death penalty case, finding that she had overstated her conclusions at trial.³³

The following year, in *Pierce v. State*,³⁴ the court addressed Gilchrist’s conduct one more time. Here, again, she violated a court discovery order by failing to turn over evidence to the defense and wrote an incomplete report.³⁵ As before, the court used forceful language: “Instead of following either the letter of the Order or taking steps to have the Order changed or clarified by the court, she took it upon herself to determine the portions of the Order with which she wished to comply. This was not her decision to make.”³⁶ Although the conviction was upheld, Pierce was later exonerated by DNA³⁷ and sued Gilchrist for violating his constitutional rights.³⁸

this Court was not particularly impressed with Ms. Gilchrist’s hair comparison techniques and unscientific opinions in relation to Petitioner.” *McCarty v. State*, 114 P.3d 1089, 1093 (Okla. Crim. App. 2005).

30. *McCarty*, 765 P.2d at 1218 (“[T]he forensic report was at best incomplete, and at worst inaccurate and misleading. . . . Gilchrist admitted at trial, however, that she failed to include her conclusion . . . in the forensic report given to Mr. Wilson. This significant omission, whether intentional or inadvertent, resulted in a trial by ambush” (citations omitted)).

31. *Id.* (“We find it inconceivable why Ms. Gilchrist would give such an improper opinion, which she admitted she was not qualified to give.”).

32. 779 P.2d 562 (Okla. Crim. App. 1989) (upholding a murder conviction and the death penalty).

33. *See id.* at 571 (“The lack of scientific weight of such a conclusion is apparent on reflection by those dealing with similar evidence on a regular basis. But to a lay jury, usually ill-equipped to assimilate hair analysis findings on their own, such an opinion may appear too substantial.”); *id.* (“Ms. Gilchrist admitted that an individual could not be positively identified by hair evidence. However, she went on to testify that, ‘[in] her opinion . . . Mark Fowler and Bill Fox were in contact with John Barrier prior to death.’”).

34. 786 P.2d 1255, 1261 (Okla. Crim. App. 1990).

35. *Id.* at 1263 n.8 (“Specifically, Appellant claims that it was error for Gilchrist not to set out in the report, her opinion that the attacker was a non-secretor.”). At trial, Gilchrist testified that Jeffrey Todd Pierce was a nonsecretor, a person whose blood type cannot be determined through other body fluids, including semen. Twenty percent of the population falls into this category. 1 Paul C. Giannelli & Edward J. Imwinkelried, *Scientific Evidence* § 17.09, at 959 (4th ed. 2007).

36. *Id.* at 1261.

37. A later Federal Bureau of Investigation (FBI) examination of Gilchrist’s analyses in eight cases determined that she had misidentified hairs in six and fibers in another. *See* FBI, Summary of Case Reviews of Forensic Chemist, Joyce Gilchrist, Oklahoma City Police Department Crime Laboratory 1 (2001) (“The review of the laboratory notes revealed that they were often incomplete or inadequate to support the conclusions reached by the examiner. No documentation existed that would allow the examiner to identify textile fibers associated in one of the cases. No notations were present that would indicate a confirmation or review by another qualified examiner was undertaken, especially in the cases where hair evidence linked the suspect and victim.”). One of the cases was Pierce’s; the FBI found that none of the hairs taken from Pierce exhibited the same microscopic characteristics as those found at the crime scene. *Id.* at 3 (“[T]hese [pubic] hairs do not exhibit the same microscopic characteristics as the suspect’s known pubic hairs.”). As a result, the Oklahoma City Police

In the same year, the court reversed another rape conviction in which Gilchrist had testified, *Miller v. State*,³⁹ noting that Gilchrist had turned over hair evidence to the defense in an untimely manner⁴⁰ and had omitted crucial conclusions from her report.⁴¹ Mitochondrial DNA later exonerated Miller.⁴² Another suspect, Ronnie Lott, whom Gilchrist had cleared, was eventually convicted of the crime.⁴³ By this time, Gilchrist was so notorious that Professor James E. Starrs critiqued her work in a forensic science journal. He wrote, “[I]n her missionary zeal to promote the cause of the prosecution she had put blinders on her professional conscience so that the truth of science took a back seat to her acting the role of an advocate.”⁴⁴

Having been publicly rebuked in several judicial opinions and attacked by other forensic scientists, one would expect that her career as an expert either would be over or at least in jeopardy. Yet, despite this notoriety, she worked for another decade, even receiving commendations and promotions. A subsequent supervisor later wrote,

I knew from previous articles published over the years that she had been the subject of scrutiny by the courts, but I assumed they had been addressed by the department and resolved. I later found no indication in her personnel file that they had ever been investigated or addressed administratively.⁴⁵

Known as “Black Magic,” she continued to be a prosecution superstar.⁴⁶

Department had the evidence retested by a private DNA laboratory. DNA testing was not available at the time of Pierce’s trial in 1986.

38. *See Pierce v. Gilchrist*, 359 F.3d 1279, 1282 (10th Cir. 2004) (finding that Gilchrist does not have immunity).

39. 809 P.2d 1317 (Okla. Crim. App. 1991).

40. *Id.* at 1320 (“What is even more disturbing . . . is the fact that Ms. Gilchrist’s pretrial forensic report made absolutely no mention of her finding of a ‘unique characteristic’ concerning appellant’s pubic hairs. However, in his opening argument, the prosecutor alerted the jury to the State’s expert’s finding of the ‘unique characteristic.’ Clearly, this significant omission in Ms. Gilchrist’s report, whether intentional or inadvertent, coupled with the State’s extreme tardiness in complying with the discovery order, resulted in trial by ambush on a very critical piece of evidence.”).

41. *Id.* at 1319–20 (“[I]t was approximately two weeks after the deadline ordered by Judge Owens that Ms. Gilchrist mailed the hair evidence to the appellant’s expert. Thus, appellant’s expert received the evidence six and one-half days before trial began.”).

42. Scheck et al., *supra* note 2, at 87.

43. *Lott v. State*, 98 P.3d 318 (Okla. Crim. App. 2004).

44. James E. Starrs, *The Forensic Scientist and the Open Mind*, 31 J. Forensic Sci. Soc’y 111, 132–33 (1991).

45. Memorandum from Captain Byron Boshell, Lab. Servs., to Major Garold Spencer, Investigations Bureau (Jan. 16, 2001) (on file with author).

46. *See also* Fuhrman, *supra* note 27, at 71. Detective Bob Bemo claims that Gilchrist began giving the detectives test results that were so good “that he didn’t believe [she] was doing proper lab work, because her results were ‘too good.’ Bemo says that now, but it didn’t stop him and his partner Bill Cook from using Gilchrist’s lab results in many of their cases.” *Id.* “Homicide detective Bill Cook had given Gilchrist the nickname ‘Black Magic’ because she was able to get results that no other chemist could. When Cook and other

Given the many signals that her testimony was corrupt, prosecutors should have stopped using her as a witness.⁴⁷ When interviewed by Dan Rather in 2001, John Wilson, the expert who filed the ethics complaint against her, provided this perspective: “The whole criminal justice system has failed.”⁴⁸ He then elaborated, “[Y]ou have to look at the prosecutor’s office, that they had to understand what’s been going on. They had to have seen all the flags that’s been waved.” At the same time, the former chief of police said, “[T]he district attorney’s office loved having her as a witness.”⁴⁹

D. Michael West

1. The Early Years

Dr. Michael West, a Mississippi dentist, became infamous in the early 1990s. An article in *The National Law Journal* about him was entitled “*Expert Science Under Fire in Capital Cases*.”⁵⁰ Two years later *The ABA Journal* noted that “West’s self-proclaimed forensic abilities . . . have long been questioned by many of his peers.”⁵¹ In 1992, West matched a bite mark found on a rape victim with the teeth of Jonny Bourn, making a positive identification. DNA analysis of skin taken from fingernail scrapings of the victim conclusively excluded Bourn.⁵²

Although he testified most often as a forensic dentist, West did not restrict himself to bite mark identifications. He testified about tool marks, shoeprints, fingernail comparisons, knife wound comparisons, and other issues seemingly beyond his expertise.⁵³ In other cases, West identified a

homicide detectives gave Gilchrist hair samples from a suspect, they would often let her know that this was the person they wanted to arrest.” *Id.* at 91.

47. *See id.* at 223 (“If [Gilchrist] were simply incompetent, her mistakes would have been all over the map. Instead, her mistakes benefited the prosecution.”).

48. *60 Minutes: Under the Microscope: Forensics Scientist Joyce Gilchrist’s Lab Work Is Under Scrutiny* (CBS television broadcast May 8, 2001).

49. *Id.*

50. Marcia Coyle, “*Expert Science Under Fire in Capital Cases*,” Nat’l L.J., July 11, 1994, at A1.

51. Mark Hansen, *Out of the Blue*, A.B.A. J., Feb. 1996, at 50, 50–51. Dr. Michael West estimates that he has testified about fifty-five times over the past decade. A third of these cases were capital prosecutions and he has only “lost” one case. *Id.* One of the authors also wrote about him. *See* Giannelli, *supra* note 1; Paul C. Giannelli, Op-Ed., *When the Evidence Is a Matter of Life and Death*, N.Y. Times, Aug. 21, 1994, at E15.

52. Hansen, *supra* note 51, at 53.

53. “West’s proclaimed expertise is not limited to bite marks. In fact, he has created a comfy niche, mostly as a prosecution expert, matching not only bite marks with teeth, but also wounds with weapons, shoes with footprints and fingernails with scratches, even spills with stains.” Hansen, *supra* note 51, at 51; *see* *Howard v. State*, 853 So. 2d 781, 800–01 (Miss. 2003) (“During a hearing, Dr. West stated that he has testified seventy-five times . . . forty-one murder trials; thirty-two times as a wound pattern expert; one time as a trace metal expert; three times as an expert regarding gun shot residue; three times as an expert in gunshot reconstruction; three times as a death investigator expert; two times as a County Coroner; six times in child abuse trials; three times as a crime scene investigator; and one

footprint on a murdered girl's face, matched a bruise on a murder victim's stomach with a hiking boot belonging to the defendant,⁵⁴ and testified as a burn pattern specialist.⁵⁵ In one of these cases, the court even referred to him as a "controversial 'wound pattern analyst,'"⁵⁶ a well-deserved label because it is not clear that West or anyone else could do what he claimed to do.

In case after case, West testified with certainty. He repeatedly stated his opinion with the phrase "indeed and without doubt."⁵⁷ In addition, West used alternate light imaging (which he somewhat immodestly called the "West Phenomenon") to detect and analyze wounds.⁵⁸ He testified that this phenomenon, which he was inexplicably unable to photograph, was a generally accepted scientific technique. Nevertheless, the three experts who West claimed used his procedure later testified that this was not so. In still another capital murder case, West made a bite mark identification after exhuming the corpse fourteen months after death. Once again, he used his blue light ("West Phenomenon") technique to visualize the wound, which he then matched to the defendant's teeth. The skin tissue surrounding the mark was removed and placed in a preservative. Two weeks later,

time as a blood splatter expert. He also asserts that he has made 600 dental I.D.'s and 300 bite mark I.D.'s.").

54. *See* *State v. Van Winkle*, 658 So. 2d 198, 200 (La. 1995) (conviction overturned) ("Other forensic evidence was provided by Dr. West, a dentist and controversial 'wound pattern analyst' from Hattiesburg, Mississippi. He testified that markings on Patrick's stomach were consistent with the soles of tennis shoe hiking boots seized from Patricia's bedroom. A defense expert, Dr. Singer, contested this, finding there was no reasonable correlation between Patrick's bruise pattern and the boot in Patricia's room.").

55. Hansen, *supra* note 51, at 53; *see also* *Davis v. State*, 611 So. 2d 906, 910 (Miss. 1992). "[West] concluded that the wound was a bite mark consistent with having been inflicted approximately three weeks previously." *Id.* Dr. Richard Souviron, a forensic odontologist from Miami, Florida, "testified that the wound on Davis' arm was not a bite mark, but even if it were, it was inconsistent with Mrs. Davis' teeth." *Id.*

56. *Van Winkle*, 658 So. 2d at 200.

57. In *State v. Maxwell*, a capital murder case, West testified that a butcher knife blade "indeed and without doubt" caused skin wounds on two victims and a slash mark on a door. Moreover, the broken handle of the knife "indeed and without doubt" caused bruises on the accused's hand. This testimony was virtually the only evidence connecting Maxwell to the murders. *See* *State v. Maxwell*, No. 5139 (Miss. Cir. Ct. dismissed Apr. 24, 1992). In another capital case, *State v. Oppie*, West conducted a fingernail/scratch mark comparison, reporting that "indeed and without doubt" the scratches on the accused were made by the victim's fingernails. *State v. Oppie*, No. 90-10,600(3) (Miss. Cir. Ct. 1990). He acknowledged, however, that he had failed to (1) make test marks with the fingernail, (2) evaluate its class and individual characteristics, and (3) establish the reproducibility of such marks. Am. Acad. of Forensic Sciences Ethics Comm., Case No. 143, at 2 (1994) [hereinafter AAFS Comm.].

58. West used long wave ultraviolet blue light to visualize this phenomenon on the defendant's hands ten days after the murders. The knife had a wooden handle, one side of which was missing and thus exposing three rivets.

however, the preservative had erased the mark.⁵⁹ The conviction was later overturned.⁶⁰

An ethics committee of the American Academy of Forensic Sciences concluded that West had “misrepresented data in order to support his testimony” and that the term “indeed and without doubt” was unwarranted.⁶¹ Similarly, an ethics committee of the American Board of Forensic Odontologists concluded that West had “materially misrepresented the evidence and data.”⁶² It also concluded that the “West Phenomenon” was not “founded on scientific principles” and that West had presented testimony “outside the field of forensic odontology.”⁶³ Finally, the Crime Scene Certification Board of the International Association of Identification concluded (but only by a majority) that there was a basis for the complaint and provided West with an opportunity to relinquish his “Senior Crime Scene Analyst” certification.⁶⁴

2. The Later Years

At this point, one might have thought that West would have faded into legal obscurity. Not at all. In *Banks v. State*,⁶⁵ a 1997 capital murder case, West testified as a prosecution witness, matching the accused’s teeth with the bite marks in the remaining portion of a bologna sandwich found at the crime scene. A defense expert was compelled to use photographs of the sandwich because the sandwich was destroyed. Consequently, he was unable to reach any definite conclusions.⁶⁶ Reversing the conviction, the Mississippi Supreme Court wrote that “the prejudicial impact of the State’s destruction of the sandwich on the persuasive value of Banks’ case is

59. Coyle, *supra* note 50 (referring to Edward J. Castain, who represented Anthony Keko, for the murder of his estranged wife).

60. *See* Keko v. Hingle, No. Civ. A. 98-2189, 1999 WL 508406, at *1 (E.D. La. July 8, 1999) (“After serving two years and one month of his sentence, Keko was released from jail and granted a new trial based on the court’s determination that the prosecution had withheld information regarding the qualifications of its chief witness, Dr. West. . . . On January 13, 1998, the State dismissed all charges against Keko. Keko filed the present action on July 27, 1998.”), *aff’d*, 318 F.3d 639 (5th Cir. 2003) (rejecting West’s claim of absolute immunity for his pretrial conduct in Keko’s prosecution).

61. AAFS Comm., *supra* note 57, at 3. The committee recommended that West, a fellow in the odontology section, be expelled. *See also* Steven C. Batterman, President, Am. Acad. of Forensic Sciences, Letter to the Editor, *AAFS Did Not Deny Due Process to Dr. West*, Nat’l L.J., Nov. 7, 1994, at A20.

62. Am. Bd. of Forensic Odontology Ethics Comm., Complaint 93-B (1994).

63. *Id.* The committee recommended a one-year suspension, which was accepted by the American Board of Forensic Odontology Board of Directors on May 18, 1994. West appealed this decision. The appeal was denied.

64. When informed of this development, West resigned. Letter from Kenneth B. Zercie, Chairman, Crime Scene Certification Bd., to John Holdridge, Att’y, Capital Trial Assistance Project (Aug. 16, 1993) (on file with author).

65. 725 So. 2d 711 (Miss. 1997).

66. *See id.* at 713–14.

plainly apparent, and West's destruction of the sandwich was unnecessary and inexcusable."⁶⁷

In *Brooks v. State*,⁶⁸ a subsequent case decided in 1999, the Court upheld the use of West's bite mark testimony, acknowledging, however, the need for defense experts in bite mark cases.⁶⁹ A blistering dissent pointed out that there were only two linear marks on the victim and the defense expert could not say that they were even bite marks. Moreover, the dissent commented on West's proclivity "to boldly go where no expert has gone before,"⁷⁰ to lose evidence,⁷¹ and to create new fields of expertise.⁷² The dissent concluded, "This Court's apparent willingness to allow West to testify to anything and everything so long as the defense is permitted to cross-examine him may be expedient for prosecutors but it is harmful to the criminal justice system."⁷³

In 2001, an enterprising attorney, who had represented a defendant convicted on bite mark evidence but later exonerated with DNA evidence, decided to give West a blind proficiency test.⁷⁴ Using a ruse, he hired West to compare the bite mark in a prior murder case (photographed at the time of autopsy) with dental models supplied by a foil. In West's videotaped report, he concluded, "Finding this many patterns on this injury, I believe,

67. *Id.* at 716.

68. 748 So. 2d 736 (Miss. 1999).

69. "If expert testimony regarding bite-mark evidence is allowed by the trial court, the defense should be given the opportunity to present evidence that challenges the reliability of bite-mark comparisons . . ." *Id.* at 739.

70. *Id.* at 748 ("In *Harrison v. State*, 635 So. 2d 894, 897 (Miss. 1994), West testified that the victim's body was covered in teeth marks inflicted by the defendant. On appeal, Dr. Mincer gave an affidavit to the effect that the marks appeared to be ant bites. In *Davis v. State*, 611 So. 2d 906, 910 (Miss. 1992), West concluded that 'the wound was a bite mark consistent with having been inflicted approximately three weeks previously.' But Dr. Richard Souviron, a forensic odontologist from Miami, Florida, 'testified that the wound on Davis' arm was not a bite mark, but even if it were, it was inconsistent with Mrs. Davis' teeth.'").

71. *Id.* at 750 ("West seems to have difficulty in keeping up with evidence. In the instant case, he lost the [sic] not only the mold to Brooks's lower teeth but also the mold of another suspect's teeth. In [*Banks*], this Court was forced to reverse where West testified that the defendant's teeth correlated to marks in a sandwich left at the crime scene but failed to preserve the sandwich so that the defense could make its own comparisons.").

72. *Id.* at 750 n.4 ("A Westlaw search reveals that Michael West is apparently the only person testifying about the 'science' of 'wound pattern analysis.'").

73. *Id.* at 750 (citation omitted).

74. The attorney, Christopher J. Plourd, represented Ray Krone, who had been convicted of capital murder and sentenced to death based on the testimony of a forensic dentist. In *State v. Krone*, 897 P.2d 621, 622-23 (Ariz. 1995), two experienced experts concluded that the defendant had made the bite mark found on a murder victim: "The bite marks were crucial to the State's case because there was very little other evidence to suggest Krone's guilt." *Id.* at 622. The defendant, however, was later exonerated through DNA testing. See Mark Hansen, *The Uncertain Science of Evidence*, A.B.A. J., July 2005, at 48, 49-50 (discussing *Krone*).

can only lead an odontologist to one opinion that these teeth did create that mark.”⁷⁵ He was wrong; DNA had already identified the biter.

In 2002, West made his television debut on *60 Minutes*. The interviewer noted that “no practitioner [was] more suspect” than West and that West could find evidence everyone else had missed.⁷⁶ The next year, in *Howard v. State*,⁷⁷ the Mississippi Supreme Court once again upheld the admissibility of West’s bite mark comparison. Once again, a dissenting opinion vigorously disagreed, calling his testimony “junk science”⁷⁸ and noting that of the 100 board certified forensic odontologists in the United States “about 90% of them have testified for the opposite side when Dr. West is called as an expert witness.”⁷⁹ By this time, even the majority of the Court was having qualms. In *Stubbs v. State*,⁸⁰ they wrote,

. . . [W]e in no way implied that Dr. Michael West was given carte blanche to testify to anything and everything he so desired. . . . We caution prosecutors and defense attorneys, as well as our learned trial judges, to take care that Dr. West’s testimony as an expert is confined to the area of his expertise⁸¹

Despite the controversy, prosecutors continue to use West. Why? “[S]ome prosecutors are too willing to turn to somebody like West when they lack the evidence they believe they need to tie a suspect to a crime.”⁸² Yet one prosecutor believes that West is merely ahead of his time: “I’m quite confident in the guy, . . . I have a lot of faith in him. And I think he makes one heck of a witness.”⁸³ Indeed and without doubt.

At present, West is preparing to testify in the retrial of Kennedy Brewer,⁸⁴ who was granted a new trial because DNA analysis of the murder victim’s vaginal swab had eliminated him as the source of semen. West has made a positive identification and is once again prepared to express his unqualified opinion at the retrial.⁸⁵ The question remains: why would a

75. Affidavit of Christopher J. Plourd at 5, *State v. Brewer*, No. 5999 (Miss. Cir. Ct. Sept. 15, 2005) (quoting West’s video report) (affidavit and video report on file with author). West also stated, “I feel very confident that there are enough points of unique individual characteristics in this study model to say that these teeth inflicted this bite mark.” *Id.*

76. *60 Minutes: Forensic Evidence: Skepticism Surrounding Dr. Michael West’s Use of Bite Mark Analysis in Murder Cases* (CBS television broadcast Feb. 17, 2002) [hereinafter *60 Minutes: Forensic Evidence*].

77. 853 So. 2d 781 (Miss. 2003).

78. *Id.* at 799.

79. *Id.* at 801.

80. 845 So. 2d 656 (Miss. 2003).

81. *Id.* at 670.

82. Hansen, *supra* note 51, at 51–52.

83. *Id.* at 54 (quoting James Maxwell, Assistant District Attorney, Jefferson Parish, Louisiana).

84. See *Brewer v. State*, 725 So. 2d 106 (Miss. 1998).

85. See Shaila Dewan, *Despite DNA Test, Prosecutor Is Retrying Rape-Murder Case*, N.Y. Times, Sept. 6, 2007, at A1 (“The state’s star witness was Dr. Michael West . . . who had become a controversial expert in the identification of bite marks. Dr. West’s findings have been contradicted by DNA evidence in at least two other cases.”); *60 Minutes: Forensic Evidence*, *supra* note 76.

prosecutor call him as a witness at this point? As *Newsweek* noted in 2001, “West has been saving tough cases for police and prosecutors for more than 15 years—a much-sought-after clutch witness who, by testifying in 71 trials in nine states, has helped send dozens of defendants away.”⁸⁶

The reckless use of a tainted expert should be considered a due process violation. An analogy to a prosecutor’s obligation to determine whether an expert is testifying truthfully concerning his credentials is instructive. *People v. Cornille*⁸⁷ involved a prosecution expert who turned out to be an imposter and had testified falsely about his qualifications.⁸⁸ The Illinois Supreme Court found a due process violation, commenting,

. . . [U]nder certain circumstances the prosecutor should not be permitted to avoid responsibility for the false testimony of a government witness by failing to examine readily available information that would establish that the witness is lying. It would have been a simple procedure in this case for the State to have verified Michaelson’s qualifications before he testified at Cornille’s trial. As a direct result of its failure to do so, false testimony occurred at the trial, and a fraud was perpetrated on the court and on the defendant.⁸⁹

A similar due process obligation should extend to the content of an expert’s testimony, especially one with a checkered history.⁹⁰

86. Andrew Murr, *A Dentist Takes the Stand*, *Newsweek*, Aug. 20, 2001, at 24. “But his performance as an expert witness has long been controversial. Defense lawyers call him a ‘snake-oil salesman’ peddling ‘junk science’ to credulous judges and juries.” *Id.*

87. 448 N.E.2d 857 (Ill. 1983).

88. *Id.* at 862 (“In fact, the transcripts show that Michaelson had a record of extremely low scholarship; that he had been suspended on several occasions for his lack of academic diligence; and that he had not received an academic degree from any of the schools.”).

89. *Id.* at 865; *see also id.* at 865–66 (“Moreover, it is obvious that every party, including the State, has an obligation to verify the credentials of its expert witnesses. It is only on the basis of these credentials that experts are permitted to offer their professional opinions concerning the factual issues disputed in the criminal proceeding. This type of purportedly objective opinion testimony may have considerable influence on the jury, and the rules for qualifying expert witnesses are designed to ensure that only genuine experts will offer it.”).

90. In *Imbler v. Craven*, 298 F. Supp. 795, 807 (C.D. Cal. 1969), *aff’d per curiam*, 424 F.2d 631 (9th Cir. 1970), the court held that reckless use of highly suspicious false testimony violates due process.

Due process of law does not tolerate a prosecutor’s selective inattention to such significant facts. . . . It imposes as well an affirmative duty to avoid even unintentional deception and misrepresentation, and in fulfilling that duty the prosecutor must undertake careful study of his case and exercise diligence in its preparation, particularly where he is confronted with facts tending to cast doubt upon his witness’ testimony.

Id. at 808–09; *see also* *Northern Mariana Islands v. Bowie*, 243 F.3d 1109, 1118 (9th Cir. 2001) (“[A prosecutor’s due process duty] requires a prosecutor to act when put on notice of the real possibility of false testimony. This duty is not discharged by attempting to finesse the problem by pressing ahead without a diligent and a good faith attempt to resolve it. A prosecutor cannot avoid this obligation by refusing to search for the truth and remaining willfully ignorant of the facts.”). In Part IV, we propose a similar rule as an ethical standard for prosecutors.

II. PRETRIAL DISCOVERY

The general rubric of “discovery” is typically used to cover both inculpatory and exculpatory information. It is helpful, though, to distinguish between inculpatory and exculpatory information for two reasons. First, the rules regarding each rest on different legal foundations. The Supreme Court has held that there is no constitutional right to pretrial discovery of inculpatory information.⁹¹ Rather, Federal Rule of Criminal Procedure 16 (or a parallel state rule) is the primary source of the prosecutor’s obligation to provide the defendant with advance notice of inculpatory information. When it comes to disclosure of exculpatory information, by contrast, the Supreme Court has recognized a prosecutorial disclosure obligation grounded in due process.⁹² There also exists an explicit ethical rule requiring prosecutors to turn over exculpatory information to a defendant.⁹³

The second reason for distinguishing in our discussion between disclosure of inculpatory and exculpatory information is that the nature of the typical prosecutorial misconduct regarding each is different—late disclosure with inculpatory information versus nondisclosure with exculpatory information, although there is some overlap.⁹⁴

A. Inculpatory Information

The importance of comprehensive discovery in cases in which scientific proof is offered in evidence cannot be overstated. As the Advisory Committee note to the federal discovery rule comments, “[I]t is difficult to test expert testimony at trial without advance notice and preparation.”⁹⁵ The American Bar Association (ABA) Criminal Justice Standards note that the “need for full and fair disclosure is especially apparent with respect to scientific proof and the testimony of experts. This sort of evidence is practically impossible for the adversary to test or rebut at trial without an advance opportunity to examine it closely.”⁹⁶ Moreover, the National Academy of Sciences has recommended extensive discovery in DNA cases: “All data and laboratory records generated by analysis of DNA samples should be made freely available to all parties. Such access is essential for evaluating the analysis.”⁹⁷ Indeed, the *President’s DNA Initiative*

91. See *Weatherford v. Bursey*, 429 U.S. 545, 559 (1977) (“There is no general constitutional right to discovery in a criminal case . . .”).

92. See *infra* text accompanying notes 133–37.

93. Model Rules of Prof’l Conduct R. 3.8(d) (2007).

94. There can also be late disclosure of exculpatory evidence. See *infra* text accompanying notes 138–42.

95. Fed. R. Crim. P. 16 advisory committee’s note. See generally Paul C. Giannelli, *Criminal Discovery, Scientific Evidence, and DNA*, 44 Vand. L. Rev. 791 (1991).

96. Standards for Criminal Justice: Standards Relating to Discovery and Procedure Before Trial Standard 2.1, at 66 (Approved Draft 1970).

97. Nat’l Research Council, *DNA Technology in Forensic Science* 23 (1992); *id.* at 146 (“The prosecutor has a strong responsibility to reveal fully to defense counsel and experts retained by the defendant all material that might be necessary in evaluating the evidence.”);

emphasizes the value of pretrial discovery: “Early disclosure can have the following benefits: [1] Avoiding surprise and unnecessary delay. [2] Identifying the need for defense expert services. [3] Facilitating exoneration of the innocent and encouraging plea negotiations if DNA evidence confirms guilt.”⁹⁸

Several chronic problems relating to discovery abuses are addressed in this section.

1. Late Disclosure

One way to undercut the defense’s ability to confront expert testimony is to delay disclosure. This abuse is not uncommon.

a. *Laboratory Reports*

Discovery provisions relating to experts typically require pretrial disclosure of laboratory reports.⁹⁹ The widespread adoption of such provisions should make disclosure routine in all but the most exceptional cases. Nevertheless, it is not difficult to find discovery violations due to tardy disclosure. For example, in *United States v. Wicker*,¹⁰⁰ the testimony of a prosecution expert was excluded as a discovery violation sanction because the laboratory report had not been disclosed in a timely manner. For the same reason, the U.S. Court of Appeals for the Eighth Circuit upheld the exclusion of the prosecution’s DNA evidence in *United States v. Davis*.¹⁰¹ The prosecution in *Davis* offered no reasons for the delay,¹⁰² and the court found prejudice.

The government not only produced the DNA evidence a month late, but it did so almost literally on the eve of trial, making it virtually impossible, absent a continuance, for defendants to evaluate and confront the evidence

see also id. at 105 (“Case records—such as notes, worksheets, autoradiographs, and population databanks—and other data or records that support examiners’ conclusions are prepared, retained by the laboratory, and made available for inspection on court order after review of the reasonableness of a request.”); Nat’l Research Council, *The Evaluation of Forensic DNA Evidence* 167–69 (1996) (“Certainly, there are no strictly scientific justifications for withholding information in the discovery process, and in Chapter 3 we discussed the importance of full, written documentation of all aspects of DNA laboratory operations. Such documentation would facilitate technical review of laboratory work, both within the laboratory and by outside experts. . . . Our recommendation that all aspects of DNA testing be fully documented is most valuable when this documentation is discoverable in advance of trial.”).

98. President’s DNA Initiative: Principles of Forensic DNA for Officers of the Court (National Institute of Justice, U.S. Department of Justice, CD-ROM, n.d.) (on file with author).

99. *See* Giannelli & Imwinkelried, *supra* note 35, § 3.03 (discussing discovery provisions relating to scientific reports).

100. 848 F.2d 1059 (10th Cir. 1988).

101. 244 F.3d 666 (8th Cir. 2001).

102. *Id.* at 671 (“Because the government has not given any explanation for the delay, it is difficult, if not impossible, to assess whether the government had any justification for the delay.”).

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against them. DNA evidence is scientific and highly technical in nature; it would have required thorough investigation by defense counsel, including almost certainly retaining an expert witness or witnesses.¹⁰³

But exclusion of the prosecution expert's testimony is not automatic.¹⁰⁴ Rather, it is the most drastic sanction and requires justification.¹⁰⁵ The choice of sanction rests within the discretion of the trial court, and appellate courts will reverse only for an abuse of discretion. In exercising its discretion, the trial court typically considers three factors: (1) the reason for the violation, including whether the prosecution acted in bad faith; (2) "the extent of prejudice to the defendant"; and (3) "the feasibility of curing the prejudice with a continuance."¹⁰⁶ Courts frequently cite the failure of defense counsel to seek a continuance as evidence that the accused did not suffer prejudice. This, of course, ignores the realities of trial practice—the difficulty encountered by defense attorneys in preparing for trial and rescheduling other cases. In short, the accused is faced with what one court called a "Hobson's choice"¹⁰⁷—go to trial perhaps without adequate preparation or be forced to delay, which, in turn, provides the prosecution with a "tactical advantage" because "even with a continuance, the defense [is] forced to play catch-up."¹⁰⁸

103. *Id.*

104. *E.g.*, *United States v. Cardales*, 168 F.3d 548, 555–56 (1st Cir. 1999). In this case, during direct examination of a prosecution witness, "the witness disclosed for the first time the existence of a laboratory test showing that the [ship's] carpet tested negative for the presence of marijuana." *Id.* The court held that a mistrial was not required because defense counsel "effectively cross-examined the government witness who disclosed the report, and used the test results in its closing argument." *Id.*; *see also United States v. Longie*, 984 F.2d 955, 958 (8th Cir. 1993) ("Because the government did not learn of this evidence [medical report and photographs] until a late date and acted expeditiously to deliver it to the defense, we conclude that the government did not act in bad faith in failing to disclose the evidence sooner."); *United States v. Edmonson*, 962 F.2d 1535, 1545–46 (10th Cir. 1992) (holding that a fingerprint report prepared a month after trial commenced but promptly provided to defense at that time demonstrated good faith); *Commonwealth v. Montgomery*, 626 A.2d 109, 112 (Pa. 1993) (finding that results of a semen test conducted on the first day of trial and promptly turned over to defense did not violate discovery rules unless the results were deliberately withheld).

105. *See United States v. Johnson*, 228 F.3d 920, 926 (8th Cir. 2000) ("Our prior cases indicate that a district court must substantiate a defendant's claim of prejudice before adopting the most severe discovery sanction available—wholesale exclusion of evidence. We therefore reverse the district court's order."); *United States v. Charley*, 189 F.3d 1251, 1262 (10th Cir. 1999) ("We note that the sanction requested by Defendant—exclusion of the witnesses' expert testimony—is almost never imposed 'in the absence of a constitutional violation or statutory authority for such exclusion.'" (citation omitted)).

106. *Wicker*, 848 F.2d at 1061.

107. *See Ayres v. State*, 436 A.2d 800, 803 (Del. 1981) ("The State contends that its offer of a continuance to defendant (on the eve of trial and before receipt of the report) and defendant's decline of the offer bars assertion of a suppression contention. We consider that to have been a 'Hobson's choice' in view of the prior continuance of four months that was granted the State for the express purpose of obtaining an analysis of the State's physical evidence and presumably for arrangements to be made for an expert witness to testify as to the report's findings." (citation omitted)).

108. *Davis*, 244 F.3d at 673.

In some cases the abuses are recurrent and flagrant. For example, Joyce Gilchrist frequently delayed the transfer of evidence for defense examination, a practice for which she was repeatedly chastised by the courts.¹⁰⁹ Since a discovery request is directed to the prosecution, not the expert, it seems highly unlikely that this type of misconduct could have occurred so often without the prosecution's awareness and acquiescence at the least, and collusion at the worst.

b. *Summaries*

In 1994, Federal Rule 16 was amended to require a summary of expert testimony.¹¹⁰ This meant that federal prosecutors could no longer surprise defendants by calling experts who had not written reports. Further, the basis of the expert's opinion would now have to be disclosed. The Advisory Committee notes commented,

The amendment is intended to minimize surprise that often results from unexpected expert testimony, reduce the need for continuances, and to provide the opponent with a fair opportunity to test the merit of the expert's testimony through focused cross-examination. . . . Although no specific timing requirements are included [in the amendment], it is expected that the parties will make their requests and disclosures in a timely fashion.¹¹¹

Nevertheless, one of the first cases examining the amendment involved delayed disclosure.¹¹² In *United States v. Richmond*,¹¹³ the district court

109. See *Miller v. State*, 809 P.2d 1317, 1319–20 (Okla. Crim. App. 1991) (“[I]t was approximately two weeks after the deadline ordered by Judge Owens that Ms. Gilchrist mailed the hair evidence to the appellant’s expert. Thus, appellant’s expert received the evidence six and one-half days before trial began.”); *Pierce v. State*, 786 P.2d 1255, 1261 (Okla. Crim. App. 1990) (“Instead of following either the letter of the Order or taking steps to have the Order changed or clarified by the court, she took it upon herself to determine the portions of the Order with which she wished to comply. This was not her decision to make.”); *McCarty v. State*, 765 P.2d 1215, 1217 (Okla. Crim. App. 1988) (“Ms. Gilchrist’s delay and neglect in not completing her forensic examination and report . . . was inexcusable, since she began her forensic examination in December of 1982.”).

110. Fed. R. Crim. P. 16(a)(1)(G). The Rule states,

At the defendant’s request, the government must give to the defendant a written summary of any testimony that the government intends to use under Rules 702, 703, or 705 of the Federal Rules of Evidence during its case-in-chief at trial. If the government requests discovery under subdivision (b)(1)(C)(ii) and the defendant complies, the government must, at the defendant’s request, give to the defendant a written summary of testimony that the government intends to use under Rules 702, 703, or 705 of the Federal Rules of Evidence as evidence at trial on the issue of the defendant’s mental condition. The summary provided under this subparagraph must describe the witness’s opinions, the bases and reasons for those opinions, and the witness’s qualifications.

Id.

111. Fed. R. Crim. P. 16 advisory committee’s note.

112. Controversies concerning the amount of disclosure also soon developed. See *United States v. Jackson*, 51 F.3d 646, 651 (7th Cir. 1995) (holding that the prosecution “barely” met the minimum requirements and cautioning, “[W]e strongly encourage the government to

wrote, “The government’s response is totally unrealistic given the purposes which prompted enactment of the Rule. . . . [D]isclosure three days before trial is absurd.”¹¹⁴

c. Continuing Duty to Disclose

A closely related issue is the prosecution’s continuing duty to disclose newly developed information after a discovery request has been made. Federal Rule 16(c) recognizes a “continuing duty to disclose” scientific reports if, prior to or during trial, new reports are prepared. The rationale for such a provision is self-evident. The prosecutor should not be permitted to avoid discovery obligations simply because a scientific report is submitted after the prosecutor has complied with an initial discovery request. In *United States v. Kelly*,¹¹⁵ neutron activation tests were conducted after the trial court ordered discovery of scientific reports. The defense, however, was not informed of the tests until trial. After recognizing the prosecution’s continuing duty to disclose the results of scientific tests, the U.S. Court of Appeals for the Second Circuit wrote, “The course of the government smacks too much of a trial by ambush, in violation of the spirit of the rules. A new trial is required, with a fair opportunity for the defense to run its own neutron activation tests of the material”¹¹⁶

2. Omitting Information from Lab Reports

Leaving important information out of a laboratory report is another practice that undermines a defendant’s ability to confront expert testimony. In the Duke lacrosse case, the North Carolina Bar Association found that the prosecutor, Michael B. Nifong, violated numerous ethical rules in his

offer more specific descriptions of the opinions of the witnesses, foundations for their testimony, and their qualifications.”).

113. 153 F.R.D. 7 (D. Mass. 1994).

114. *Id.* at 8.

First, it is hard to imagine a situation in which the government would not learn of the need for expert testimony until the trial is underway except as rebuttal testimony. The Rule, by its explicit terms, does not require disclosure of any experts to be called in rebuttal. Rather, disclosure is limited to experts to be called by the government during its case in chief.

Id.

115. 420 F.2d 26 (2d Cir. 1969).

116. *Id.* at 29; *see also* *United States v. Barrett*, 703 F.2d 1076, 1080–81 (9th Cir. 1983); *United States v. Boney*, 572 F.2d 397, 403 (2d Cir. 1978) (involving a drug report); *United States v. Bockius*, 564 F.2d 1193, 1197–98 (5th Cir. 1977) (involving a polarimeter test); *Scipio v. State*, 928 So. 2d 1138, 1142 (Fla. 2006) (holding that when a medical examiner investigator realized that he had been mistaken in his deposition testimony, but this information was not given to defense prior to the trial, “the State also had an obligation to disclose any material change in that statement”); *State v. Wilson*, 507 N.E.2d 1109, 1110–12 (Ohio 1987) (holding that the failure to update a neutron activation analysis report resulted in “trial by ambush”); *Acevedo v. State*, 467 So. 2d 220, 224 (Miss. 1985) (finding that the state violated its continuing duty to disclose regarding a gunshot residue test).

handling of DNA evidence.¹¹⁷ DNA analysis of a rape kit revealed the profiles of multiple unidentified males. Nifong, however, instructed the examiner (Dr. Brian Meehan) to write a report mentioning only positive matches, conduct that violated, *inter alia*, a discovery rule.¹¹⁸ In an Oklahoma case, the appellate court wrote that an expert's report "was at best incomplete, and at worst inaccurate and misleading" and the expert conceded at trial that "she failed to include her conclusion" in the report.¹¹⁹ According to the court, "This significant omission, whether intentional or inadvertent, resulted in a trial by ambush . . ." ¹²⁰

This problem arises because, although lab reports are discoverable, discovery provisions do not specify the content of the report.¹²¹ For example, in *Harrison v. State*,¹²² the prosecution turned over an autopsy report in discovery.¹²³ At trial the pathologist testified about a number of factors not disclosed to the defense, including the critical fact that the murder victim had been raped, the qualifying circumstance for imposing the

117. See Amended Findings of Fact, Conclusions of Law and Order of Discipline at 20–24, N.C. State Bar v. Nifong, No. 06 DHC 35 (Disciplinary Hearing Comm'n of the N.C. State Bar Jul. 31, 2007). He was subsequently found in contempt by the trial judge in the case. See *Day in Jail for Ex-Duke Prosecutor*, N.Y. Times, Sept. 1, 2007, at A9. For an in-depth discussion and analysis of the Duke lacrosse case, see Robert P. Mosteller, *The Duke Lacrosse Case, Innocence, and False Identifications: A Fundamental Failure to "Do Justice,"* 76 Fordham L. Rev. 1337 (2007).

118. Revised Rules of Prof'l Conduct of the N.C. State Bar R. 3.4(c) (1997). He also violated Rule 3.3(a)(1) (prohibiting false statements of material fact or law to a tribunal) and compounded this error by falsely representing to the court and opposing counsel that he had provided all discoverable information. Rule 4.1 (prohibiting false statements of material fact to a third person in course of representing a client); Rule 8.4(c) (prohibiting conduct involving dishonesty, fraud, deceit or misrepresentations). An additional violation of Rules 3.3(a)(1) and 8.4(c) occurred at a December 15, 2006, hearing. He also lied to the Grievance Committee investigating his conduct. See Revised Rules of Prof'l Conduct of the N.C. State Bar R. (1997).

119. *McCarty v. State*, 765 P.2d 1215, 1218 (Okla. Crim. App. 1988) (citations omitted).

120. *Id.* (citations omitted); see also *Miller v. State*, 809 P.2d 1317, 1320 (Okla. Crim. App. 1991) ("What is even more disturbing . . . is the fact that Ms. Gilchrist's pretrial forensic report made absolutely no mention of her finding of a 'unique characteristic' concerning appellant's pubic hairs. However, in his opening argument, the prosecutor alerted the jury to the State's expert's finding of the 'unique characteristic.' Clearly, this significant omission in Ms. Gilchrist's report, whether intentional or inadvertent, coupled with the State's extreme tardiness in complying with the discovery order, resulted in trial by ambush on a very critical piece of evidence.").

121. Sometimes the crucial information is omitted from the laboratory report, and the prosecutor is left in the dark along with the defense counsel. For example, in *Jones v. City of Chicago*, a Chicago crime lab technician, after talking to detectives, intentionally deleted an exculpatory conclusion from her report in a murder case. 856 F.2d 985, 988–93 (7th Cir. 1988); *id.* at 988 (calling the deletion "a frightening abuse of power by members of the Chicago police force"). The court also noted, "[P]olice laboratory technician Mary Furlong . . . discovered that [defendant] George Jones had different semen and blood types from the types found in [the victim's] vagina. Furlong failed to include this information in the lab report . . ." *Id.* at 991. Sometimes the information is favorable, which raises *Brady* issues as discussed below. See *infra* notes 133–37.

122. 635 So. 2d 894 (Miss. 1994) (en banc).

123. See *id.* at 898.

death penalty. The Mississippi Supreme Court held that it could not “countenance or condone the willful withholding of crucial evidence during discovery.”¹²⁴ In *State v. Wilson*,¹²⁵ a laboratory report indicated that a gunshot residue test was inconclusive. However, at trial the expert testified that evidence of barium (a primer residue) alone was consistent with the firing of a gun. The defense was never informed of this opinion and thus was misled by the report. The Supreme Court of Ohio criticized the prosecutor’s conduct as “trial by ambush.”¹²⁶

Often, such tactics are intentional. In a symposium on the ethical responsibilities of forensic scientists, one article discussed laboratory reporting practices, including (1) “preparation of reports containing minimal information in order not to give the ‘other side’ ammunition for cross-examination,” (2) “reporting of findings without an interpretation on the assumption that if an interpretation is required it can be provided from the witness box,” and (3) “[o]mitting some significant point from a report to trap an unsuspecting cross-examiner.”¹²⁷

3. Failing to Prepare a Lab Report

Another recurring problem is an expert failing entirely to prepare a report. Roy Brown spent fifteen years in prison for murder before he was exonerated by DNA evidence.¹²⁸ The case rested largely on bite marks on the victim’s body that a local dentist testified matched Brown’s teeth.¹²⁹ Unbeknownst to the defense, a leading forensic odontologist, Lowell Levine, had analyzed the bite marks on the victim and concluded that the one mark he could interpret excluded Brown as the source of the mark. The prosecutor, however, “never asked Dr. Levine to file an official report Instead, the prosecutors relied on another expert, a local dentist, whose testimony helped convict Mr. Brown.”¹³⁰

124. *Id.* at 900. “The evidence withheld from the defense was in the form of expert opinion testimony, and was the only proof offered on the issue of rape, a necessary element of the offense charged in the indictment.” *Id.* at 896.

125. 507 N.E.2d 1109 (Ohio 1987).

126. *Id.* at 1112.

127. Douglas M. Lucas, *The Ethical Responsibilities of the Forensic Scientist: Exploring the Limits*, 34 *J. Forensic Sci.* 719, 724 (1989).

128. See *People v. Brown*, 600 N.Y.S.2d 593, 594 (App. Div. 1993) (upholding conviction). Rejecting a postconviction discovery request, another court later wrote, “In the instant case DNA testing was available at the time of investigation and trial but the defendant failed to avail himself of such procedures.” *People v. Brown*, 618 N.Y.S.2d 188, 190 (Cayuga County Ct. 1994). Dr. Levine’s opinion could also be characterized as *Brady* material. See *infra* text accompanying notes 133–37.

129. Fernanda Santos, *Evidence from Bite Marks, It Turns Out, Is Not So Elementary*, *N.Y. Times*, Jan. 28, 2007, at WK4 (“At the time of his conviction, Mr. Brown, 46, was missing two front teeth. The bite marks, meanwhile, had six tooth imprints.”).

130. Fernanda Santos, *With DNA from Exhumed Body, Man Finally Wins Freedom*, *N.Y. Times*, Jan. 24, 2007, at B5.

B. Exculpatory Information

The duty to disclose exculpatory evidence is grounded in constitutional due process, ethical precepts, and pretrial discovery rules.¹³¹ Although there is an obvious overlap among these sources of the duty to disclose, there are also important differences.¹³²

1. Due Process

Due process, according to *Brady v. Maryland*,¹³³ includes the right to the disclosure of exculpatory material evidence in the possession of the prosecution. Numerous scientific evidence cases have involved *Brady* issues.¹³⁴ For example, in *Hilliard v. Williams*,¹³⁵ a Tennessee prosecutor deliberately suppressed an exculpatory Federal Bureau of Investigation (FBI) forensic report, which determined that the devastating blood stains in a murder case were *not* blood stains. In *Gordon v. Thornberg*,¹³⁶ the accused's shoes were sent to the FBI laboratory, which determined that there were no flammable substances on the shoes. "Subsequently, the shoes were sent to the University of Rhode Island's crime laboratory. The URI

131. Some jurisdictions have discovery provisions that cover this subject. *See, e.g.*, Ohio R. Crim. P. 16(B)(1)(f).

132. As discussed below, the constitutional duty to disclose is a trial, not pretrial, right. Moreover, in contrast to the constitutional duty, the ethical rule and discovery provisions do not contain a "materiality" requirement.

133. 373 U.S. 83, 87 (1963) ("We now hold that the suppression by the prosecution of evidence favorable to an accused upon request violates due process where the evidence is material either to guilt or to punishment, irrespective of the good faith or bad faith of the prosecution.")

134. In *United States v. Stifel*, 433 F.2d 431 (6th Cir. 1970), the prosecution charged Orville Stifel with murdering his former girlfriend's fiancé by sending a bomb through the mail. Crucial prosecution evidence involved neutron activation analysis performed on bomb debris (vinyl tape, metal cap, cardboard mailing tube, and paper gummed label) and similar items obtained from Stifel's place of employment. The prosecution expert testified that the label and cardboard tube were "of the same type and same manufacture." *Id.* at 436 (internal quotation marks omitted). The metal cap and tape were "of the same manufacture" and from the "same batch"—one day's manufacturing production. *Id.* (internal quotation marks omitted). After his conviction, Stifel filed a request under the Freedom of Information Act. *See United States v. Stifel*, 594 F. Supp. 1525, 1528 (N.D. Ohio 1984). The Freedom of Information Act material revealed the existence of another suspect in the bombing and discrepancies about the background tests on the tape. *Id.* As a result, Stifel filed a postconviction petition, alleging a *Brady* violation. He argued that the expert, when cross-examined, had failed to disclose that additional tests had been performed on the tape. The court disagreed that the expert had misrepresented the facts on this issue, but noted the misleading character of this information in granting relief: "[H]ad the defense known of the November 1968 tests performed by [the expert] on tape obtained from Plymouth Rubber Company, it could have used this evidence to further impeach the credibility of [the expert's] scientific methods." *Id.* at 1543; *see also* Giannelli & Imwinkelried, *supra* note 35, § 3.12, at 184 (listing cases).

135. 516 F.2d 1344, 1346 (6th Cir. 1975). In an unreported opinion overturning Lilly Hilliard's first conviction, the Tennessee Court of Criminal Appeals noted that the blood on Hilliard's jacket was "[o]f quite devastating impact." *Id.* at 1351. After spending a year in prison, Hilliard was acquitted in a retrial in which the FBI report was admitted into evidence.

136. 790 F. Supp. 374 (D.R.I. 1992).

crime lab found gasoline on the shoes. When the existence of the negative FBI lab report became known, the state court granted Mr. Gordon's motion for a mistrial."¹³⁷

The *Brady* rule raises a number of issues: (1) the timing of disclosure, (2) the "exculpatory" requirement, (3) the "materiality" requirement, (4) appropriate sanctions, and (5) *Brady*'s applicability to crime laboratories.

a. *Timing of Disclosure*

Brady is a trial right, not a pretrial disclosure rule. Nevertheless, exculpatory evidence must be disclosed in time for defense counsel to make use of it.¹³⁸ Here, as with the discovery rules discussed above, delayed disclosure may place a defendant in an untenable position. In *Ex parte Mowbray*,¹³⁹ a murder case, the prosecutor used a blood spatter expert to refute the defense suicide theory. According to the prosecutor, his case "depended upon" this evidence. Prior to trial, the prosecution retained another expert, Herbert MacDonell, considered the premier expert in the field. After reviewing the crime scene, the physical evidence and the photographs, MacDonell concluded months before trial that "it was more probable than not that the deceased died from a suicide rather than a homicide."¹⁴⁰ Yet the defense did not receive his written report until ten days before trial and then only after the trial judge threatened sanctions. MacDonell never testified.¹⁴¹ The court wrote,

. . . State's counsel early on recognized the potential lethal effect of MacDonell's testimony on their theory of the case, and beginning in November and continuing until May they engaged in a deliberate course of conduct to keep MacDonell's findings and opinions from Applicant's counsel until the last days before trial. Even then they caused Applicant's counsel to believe MacDonell would be a witness and available for cross-examination.¹⁴²

137. *Id.* at 375 n.1. The vice in this case was not the request for a second opinion but rather the failure to disclose the opinion contained in the FBI report.

138. 5 Wayne R. LaFave et al., *Criminal Procedure* § 24.3(b), at 487 (2d ed. 1999).

139. 943 S.W.2d 461 (Tex. Crim. App. 1996) (en banc). "The State had an obligation to be forthcoming when the Brady motion was heard and granted in March. Instead, it chose to suppress MacDonell's exculpatory evidence until its hand was forced by the trial judge only days before trial, and, in so doing, the State denied Applicant due process." *Id.* at 465 (internal quotation marks omitted). Fredda "Susan" Mowbray was acquitted on a retrial. *See Mowbray v. Cameron County, Texas*, 274 F.3d 269, 278 (5th Cir. 2001) (noting that no case has extended *Brady* liability to laboratory technicians).

140. *Ex parte Mowbray*, 943 S.W.2d at 463 (emphasis omitted).

141. *Id.* at 464.

142. *Id.* at 465 (quoting habeas judge); *see also* *United States v. Scarborough*, 128 F.3d 1373, 1376 (10th Cir. 1997) ("The late disclosure of this exculpatory information [negative fingerprint report] is troubling, and it highlights the need for vigilance by prosecutors in ensuring that government agents are informed of and respect *Brady* requirements."); *Ayres v. State*, 436 A.2d 800, 803 (Del. 1981) (finding a *Brady* violation in a rape case). In *Ayres*, the court held, "We also conclude that the State's delay in submitting the entire package of

b. “Exculpatory” Requirement

Brady does not apply unless the evidence is exculpatory. Consequently, labeling a laboratory report as inconclusive may relieve the prosecution of the disclosure requirement. For example, in one case an inconclusive handwriting report “was not exculpatory, but merely not inculpatory.”¹⁴³ Similarly, a report showing that hair from a rape defendant was not found at the scene of the crime was deemed a “neutral” report.¹⁴⁴ However, as one court correctly understood,

[S]uch a characterization [as neutral] often has little meaning; evidence such as this may, because of its neutrality, tend to be favorable to the accused. While it does not by any means establish his absence from the scene of the crime, it does demonstrate that a number of factors which *could* link the defendant to the crime do not.¹⁴⁵

Similarly, in *Bell v. Coughlin*,¹⁴⁶ the prosecution failed to turn over FBI ballistics test results to the defense.

The lab positively matched a cartridge shell (B3) to the .45 caliber pistol but reported that no conclusion could be reached with respect to the two bullets (J/R2 and J/R4) in its possession. Thus, although the results of the FBI tests may be characterized as mixed, they clearly contained exculpatory material.¹⁴⁷

c. Materiality Requirement

In the *Brady* context, materiality means outcome determinative. The suppressed evidence is material “only if there is a reasonable probability that, had the evidence been disclosed to the defense, the result of the proceeding would have been different.”¹⁴⁸ This is an unnecessarily stringent standard.¹⁴⁹ In scientific evidence cases, problems have arisen with determining what is “material” evidence.¹⁵⁰ In *Nelson v. Zant*,¹⁵¹ the

physical evidence to the FBI was the probable cause of the late delivery of the report *and* the unavailability of an FBI witness to testify as to its findings.” *Id.*

143. *United States v. Hauff*, 473 F.2d 1350, 1354 (7th Cir. 1973).

144. *Norris v. Slayton*, 540 F.2d 1241, 1243–44 (4th Cir. 1976). In *Sadler v. State*, the prosecution’s failure to turn over an “inconclusive” DNA report did not violate *Brady*. 846 P.2d 377, 383 (Okla. Crim. App. 1993).

145. *Patler v. Slayton*, 503 F.2d 472, 479 (4th Cir. 1974) (involving an FBI lab report on shoeprint, soil sample, hair sample, murder weapon, and clothing).

146. 820 F. Supp. 780, 786–87 (S.D.N.Y. 1993), *aff’d*, 17 F.3d 390 (2d Cir. 1993).

147. *Id.* at 786–87 (citation omitted).

148. *United States v. Bagley*, 473 U.S. 667, 682 (1985).

149. See Bennett L. Gershman, *Reflections on Brady v. Maryland*, 47 S. Tex. L. Rev. 685, 689–90 (2006) (“The most pernicious consequence of the judiciary’s radical reconstruction of the concept of materiality has been to afford prosecutors an extraordinarily wide berth to conceal favorable evidence from the defense in the completely rational expectation that the suppression either will not be discovered or, if discovered, will be found by a reviewing court to not be material.”).

150. *E.g.*, *Bonnell v. Mitchell*, 301 F. Supp. 2d 698, 726–27 (N.D. Ohio 2004) (“Regarding the negative test result of the gun nitrates on the defendant’s jacket, there is no

critical evidence in the case was a hair found on the victim's body. The state's expert testified that the hair not only could have come from the defendant but that it could only have come from about 120 people in the entire Savannah area. The prosecution failed to disclose that the FBI had also examined the hair and had concluded that the hair was not suitable for comparison purposes. On review, the prosecution argued that this information was not "material" within the meaning of *Brady*. The Supreme Court of Georgia reversed.¹⁵²

d. Application to Crime Laboratories

The U.S. Supreme Court has extended *Brady* to cover exculpatory information in the control of the police.¹⁵³ Some courts have explicitly included crime labs within the reach of *Brady*. In one case, the Supreme Court of California noted that a laboratory examiner "worked closely" with prosecutors and was part of the investigative team.¹⁵⁴ The court concluded that the "prosecutor thus had the obligation to determine if the lab's files contained any exculpatory evidence, such as the worksheet, and disclose it to petitioner."¹⁵⁵

In another case, a court wrote that an experienced crime lab technician "must have known of his legal obligation to disclose exculpatory evidence to the prosecutors, their obligation to pass it along to the defense, and his

reasonable probability that the outcome of the trial would have been different had this test result been admitted. As the forensic scientist in this case testified regarding another matter, a negative test result does not make a positive finding."). *But see* *People v. Salazar*, 3 Cal. Rptr. 3d 262, 279 (Ct. App. 2003) ("[W]hile there is sufficient evidence in the record to affirm the conviction, we cannot be confident in the jury's verdict because of the *Brady* violation. Had the jury been aware of Dr. Ribe's credibility problems, which would have cast doubt on the prosecution's investigation, the case would have been cast in a different light with a reasonable probability of a different result.").

151. 405 S.E.2d 250 (Ga. 1991).

152. *Id.* at 252. Scheck and his colleagues provide this vignette:

Analyst Maria Pulling reported that Reynolds matched none of the trace evidence. She signed the report and forwarded it to the front desk of the lab for delivery to the prosecutor and the defense. But the exculpatory report was never delivered to the defense. Ten years later, the volunteer counsel . . . obtained DNA exonerations of both men That was when Pulling first learned the case had gone to trial.

When she found out that her report had been concealed, she was astonished.

Scheck et al., *supra* note 2, at 174 (discussing Donald Reynolds's case).

153. *Kyles v. Whitley*, 514 U.S. 419, 438 (1995) ("[I]t may be said that no one doubts that police investigators sometimes fail to inform a prosecutor of all they know. But neither is there any serious doubt that 'procedures and regulations can be established to carry [the prosecutor's] burden and to insure communication of all relevant information on each case to every lawyer who deals with it.' Since, then, the prosecutor has the means to discharge the government's *Brady* responsibility if he will, any argument for excusing a prosecutor from disclosing what he does not happen to know about boils down to a plea to substitute the police for the prosecutor, and even for the courts themselves, as the final arbiters of the government's obligation to ensure fair trials.").

154. *In re Brown*, 952 P.2d 715, 719 (Cal. 1998).

155. *Id.*

obligation not to cover up a *Brady* violation by perjuring himself.”¹⁵⁶ While the expert should have been on notice about perjury, it is less clear that the *Brady* obligation would be known to lab personnel—without the prosecutor tutoring the lab. How often do prosecutors discharge this duty? Many lab examiners have never heard of *Brady*.

2. Ethical Rule

Model Rule 3.8(d) requires a prosecutor to “make timely disclosure to the defense of all evidence or information known to the prosecutor that tends to negate the guilt of the accused or mitigates the offense.”¹⁵⁷ The Model Rule is broader than the *Brady* rule. It has no materiality limitation and it includes information as well as evidence. The ABA Criminal Justice Standards also provide that a prosecutor should disclose “[a]ny material or information within the prosecutor’s possession or control which tends to negate the guilt of the defendant.”¹⁵⁸ In the Duke lacrosse case, the prosecutor violated North Carolina’s version of Model Rule 3.8(d) by instructing the DNA analyst to write a report mentioning only positive matches.¹⁵⁹

As many commentators have recognized, disciplinary sanctions for *Brady* violations appear to be illusory.¹⁶⁰ As one scholar who researched disciplinary actions against prosecutors noted, “When it comes to disciplining a prosecutor who commits *Brady*-type misconduct . . . punishment is virtually nonexistent.”¹⁶¹ Given this pattern of

156. *Charles v. City of Boston*, 365 F. Supp. 2d 82, 89 (D. Mass. 2005). *But see* *Villasana v. Wilhoit*, 368 F.3d 976, 980 (8th Cir. 2004) (stating that extending *Brady* to lab personnel is “unsound”); *Mowbray v. Cameron County, Texas*, 274 F.3d 269, 278 (5th Cir. 2001) (noting that no case has extended *Brady* liability to laboratory technicians).

157. Model Rules of Prof’l Conduct R. 3.8(d) (2007) (special responsibilities of a prosecutor). One would think “timely” would mean at least in time to make use of it at trial. But what about in time for use in considering a guilty plea? Or making a motion to dismiss? Or conducting an investigation?

158. Standards for Criminal Justice: Discovery and Trial by Jury Standard 11-2.1(a)(viii) (3d ed. 1996).

159. See Revised N.C. Rules of Prof’l Conduct R. 3.8(d) (1997); *supra* notes 118–19 and accompanying text.

160. See Gershman, *supra* note 149, at 687 (“*Brady* is insufficiently enforced when violations are discovered, and virtually unenforceable when violations are hidden.”); Joseph R. Weeks, *No Wrong Without a Remedy: The Effective Enforcement of the Duty of Prosecutors to Disclose Exculpatory Evidence*, 22 Okla. City U. L. Rev. 833, 934 (1997) (“We should not continue to permit the almost total lack of meaningful sanctions to enforce the command of *Brady* to constitute our own sanction for the misconduct of our prosecutors.”); Ellen Yaroshefsky, *Wrongful Convictions: It Is Time to Take Prosecution Discipline Seriously*, 8 UDC/DCSL L. Rev. 275, 281–82 (2004).

161. Richard A. Rosen, *Disciplinary Sanctions Against Prosecutors for Brady Violations: A Paper Tiger*, 65 N.C. L. Rev. 693, 742 (1987). Furthermore, whether *Brady* applies to posttrial exculpatory information is not clear. See Roma Khanna & Steve McVicker, *Fingers Pointed at HPD Crime Lab in Death Row Case*, Houston Chron., Apr. 24, 2003, at 1A (“[T]he attorneys handling his appeal discovered that before Rousseau’s trial, HPD’s ballistics lab had matched the bullet that killed [the victim] to bullets from another killing . . . [and] about one month after Rousseau was sentenced the police crime lab matched bullets

nonenforcement of Model Rule 3.8(d), the disciplinary action in the Duke lacrosse case is striking.

C. Recommendations

There are several ways these problems can be addressed. First, there is little question that the common discovery provisions are flawed because they fail to specify the contents of scientific reports. The primary objective of discovery is to enable a defendant to address and challenge the accuracy of the evidence presented against him. Lack of detail in an expert's report seriously compromises the defense's ability to do this. Permitting forensic experts to testify without first preparing a report is even worse.

Discovery provisions should be amended in accordance with the 2006 ABA Criminal Justice Standards on DNA Evidence.¹⁶² Part III of the Standards includes provisions on DNA laboratories and the testing of evidence.¹⁶³ The Standards recommend that most laboratory protocols and procedures be publicly available and that each step in the testing of DNA evidence and in the interpretation of the test results be recorded contemporaneously in case notes.¹⁶⁴ Comprehensive laboratory reports are recommended.¹⁶⁵ Moreover, all case notes, raw electronic data, and lab reports are discoverable.¹⁶⁶ Under this approach, all tests are disclosed, whether exculpatory or inculpatory. There is no materiality requirement and pretrial disclosure is mandated. This information should be available before plea negotiations commence.¹⁶⁷

Second, ethical and discovery rules should explicitly require the prosecutor to instruct crime laboratories and other experts of their *Brady* obligations. The Supreme Court has imposed such a requirement with *Brady* material concerning deals with witnesses, remarking that "procedures and regulations can be established to carry [the prosecutor's] burden and to

from both shootings to a gun found on Juan Guerrero, who was convicted of the other murder. Prosecutors never turned over the crucial findings that would have supported Rousseau's innocence as required, his attorneys said.").

162. The Standards cover a wide range of topics, including provisions on (1) the collection, preservation, and retention of DNA evidence; (2) pretrial disclosure; (3) defense testing and retesting; (4) the admissibility of DNA evidence; (5) postconviction testing; (6) charging persons by DNA profile; and (7) DNA databases. *See generally* Standards for Criminal Justice: Standards on DNA Evidence (2006).

163. The Standards mandate (1) laboratory accreditation every two years; (2) written policies, including protocols for testing and interpreting test results; (3) quality assurance procedures, including audits, proficiency testing, and corrective action protocols; (4) procedures designed to minimize cognitive bias when interpreting test results; and (5) timely reports of credible evidence of lab misconduct or serious negligence. *Id.*

164. *See id.* Standard 3.1 (testing laboratories), Standard 3.2 (testing and interpretation of DNA evidence).

165. *See id.* Standard 3.3 (laboratory reports).

166. *See id.* Standard 4.1 (disclosure in pretrial proceedings).

167. *See* Kevin C. McMunigal, *Disclosure and Accuracy in the Guilty Plea Process*, 40 *Hastings L.J.* 957 (1989) (discussing the importance of *Brady* disclosure during plea negotiations). *But see* *United States v. Ruiz*, 536 U.S. 622 (2002) (rejecting this view).

insure communication of all relevant information on each case to every lawyer who deals with it.”¹⁶⁸ The ABA recently recommended that prosecutors should “[e]nsure that law enforcement agencies, laboratories and other experts understand their obligations to inform prosecutors about exculpatory or mitigating evidence.”¹⁶⁹

Finally, the rules should be enforced. Discovery sanctions should be imposed for late disclosure and other violations.

III. PRESENTATION OF EVIDENCE

Presentation of misleading expert testimony can range from outright fraud to more subtle tactics. The Model Rules prohibit knowingly using false testimony¹⁷⁰ and preclude an attorney from “knowingly . . . mak[ing] a false statement of fact or law to a tribunal.”¹⁷¹ They also forbid an attorney from engaging “in conduct involving dishonesty, fraud, deceit or misrepresentation.”¹⁷² The ABA Criminal Justice Standards state that it is unprofessional conduct for the prosecutor to “intentionally misstate the evidence or mislead the jury as to the inferences it may draw.”¹⁷³ There are also due process prohibitions against, as well as criminal statutes prohibiting, knowingly using false testimony.¹⁷⁴

A. Perjured Testimony

*Miller v. Pate*¹⁷⁵ is perhaps the most cited case of flagrant misconduct involving scientific evidence. Prior to trial, a defense request for the inspection of physical evidence that the prosecution intended to introduce at trial was denied.¹⁷⁶ At trial, a prosecution expert testified that stains on underwear shorts were type A blood, which matched the defendant’s blood

168. *Giglio v. United States*, 405 U.S. 150, 154 (1972) (finding a *Brady* violation even though the prosecutor who tried the case was unaware of the deal made by another prosecutor). See generally *Goldstein v. City of Long Beach*, 481 F.3d 1170 (9th Cir. 2007) (holding that the failure of a district attorney to promulgate policies regarding the sharing of information about informants and the failure to adequately train and supervise deputy district attorneys on this subject was not protected by absolute immunity in a civil rights action).

169. ABA Criminal Justice Section’s Ad Hoc Innocence Comm. to Ensure the Integrity of the Criminal Process, *Achieving Justice: Freeing the Innocent, Convicting the Guilty* 99 (Paul Giannelli & Myrna Raeder eds., 2006) [hereinafter *Achieving Justice*].

170. Model Rule 3.3(a)(3) prohibits an attorney from “offer[ing] evidence that the lawyer knows to be false.” Model Rules of Prof’l Conduct R. 3.3(a)(3) (2007). The ABA Standards for Criminal Justice also state that it is unprofessional conduct for a prosecutor to “knowingly offer false evidence, whether by documents, tangible evidence, or the testimony of witnesses.” Standards for Criminal Justice: Prosecution and Defense Function Standard 3-5.6(a) (3d ed. 1993).

171. Model Rules of Prof’l Conduct R. 3.3(a)(1) (candor toward the tribunal).

172. *Id.* R. 8.4(c) (misconduct).

173. Standards for Criminal Justice: Prosecution and Defense Function Standard 3-5.8(a).

174. See *Napue v. Illinois*, 360 U.S. 264 (1959); *Alcorta v. Texas*, 355 U.S. 28 (1957); *Pyle v. Kansas*, 317 U.S. 213 (1942); *Mooney v. Holohan*, 294 U.S. 103 (1935).

175. 386 U.S. 1 (1967).

176. *Id.* at 2.

type.¹⁷⁷ The prosecution repeatedly referred to this “crucial testimony” in closing argument, waving the “bloody” shorts in front of the jury.¹⁷⁸ At a subsequent federal habeas corpus hearing, the defense had the opportunity to examine the shorts and discovered that the stains were paint, not blood. In addition, these proceedings indicated that the prosecutor was aware of this fact at the time of trial.¹⁷⁹ The Supreme Court reversed, holding that “the Fourteenth Amendment [Due Process Clause] cannot tolerate a state criminal conviction obtained by the knowing use of false evidence.”¹⁸⁰

Outright mendacity is probably rare. Yet, as discussed below, other more common practices probe and press ethical boundaries.

B. Witness Preparation

In some countries, it is viewed as unethical for a lawyer to meet with a witness to prepare testimony. But in our adversary system, a lawyer is viewed as acting incompetently if she fails to meet with and prepare a witness. The adversary process requires attorneys to put forth their strongest case, a requirement that incentivizes lawyers to pressure their witnesses to testify in a way most favorable to the lawyers’ clients’ positions.¹⁸¹ Sometimes the pressure is overt.¹⁸² At other times it is subtle but nevertheless unmistakable.¹⁸³ The issue has been raised so often that the ABA Criminal Justice Standards include this provision: “A prosecutor who engages an expert for an opinion should respect the independence of

177. *Id.* at 3–4.

178. *Id.* at 5–6. A later investigation established that the stains were both blood and paint. See *The Vindication of a Prosecutor*, 59 J. Crim. L. Criminology & Police Sci. 335, 335 (1968).

179. *Miller*, 386 U.S. at 6.

180. *Id.* at 7.

181. See Michael J. Saks, *Accuracy v. Advocacy: Expert Testimony Before the Bench*, Tech. Rev., Aug.–Sept. 1987, at 43, 44–45 (“[E]xperts [are] vulnerable to the possibly distorting influence of lawyers. Long before the expert and lawyers arrive in court, a bond has formed between them. The influence of the lawyer is considerable.”); John I. Thornton, *Uses and Abuses of Forensic Science*, A.B.A. J., Mar. 1983, at 288, 292 (“The evidence will be selected or rejected with only those items that conform to the arguments of one side actually being submitted for examination. A distinct possibility exists that the results of the examination by the forensic scientist will be skewed. . . . These situations represent potential sources of mischief. . . . The danger is that conflicts easily arise between scientist and lawyer—the former attempts to describe the evidence as it actually is, while the latter attempts to describe it in the most favorable light.”).

182. See *Bank of N.S. v. United States*, 487 U.S. 250, 258 (1988) (stating that “[t]he District Court further concluded that one of the prosecutors improperly argued with an expert witness during a recess of the grand jury after the witness gave testimony adverse to the Government”); Flynn McRoberts & Steve Mills, *From the Start, A Faulty Science: Testimony on Bite Marks Prone to Error*, Chi. Trib., Oct. 19, 2004, §1, at 21 (“You get pushed a little bit by prosecutors, and sometimes you say OK to get them to shut up. . . . I allowed myself to be pushed.” (quoting a forensic dentist)).

183. See Scheck et al., *supra* note 2, at 31 (“Asked later if he was pressured to change his findings on Coakley, [Dr.] Shaler [the expert] said no. ‘Most attorneys,’ Shaler would also say, ‘like to let you know what their opinions of the facts of the case are—irrespective of the scientific conclusions.’”).

the expert and should not seek to dictate the formation of the expert's opinion on the subject."¹⁸⁴ The commentary to the Standard reads, "Statements made by physicians, psychiatrists, and other experts about their experiences as witnesses in criminal cases indicate the need for circumspection on the part of prosecutors who engage experts."¹⁸⁵

An example of the problem is found in John Grisham's first nonfiction book, *The Innocent Man*, which tells the story of Ron Williamson.¹⁸⁶ Five days before Williamson's scheduled execution for murder, a federal judge granted his petition for habeas relief.¹⁸⁷ The police had focused on Williamson and an acquaintance, despite the discovery of an unidentified bloody palm print at the crime scene. The print matched neither the suspects nor the victim, a fact that by itself might raise reasonable doubt. Then the fingerprint examiner inexplicably developed qualms about his earlier opinion. Consequently, four and a half years after the crime, the prosecution exhumed the victim's body, obtained new prints (from a now decomposing body), and the fingerprint expert changed his opinion, the "only time in his twenty-four-year career."¹⁸⁸ Now the bloody print matched the victim's palm, and the prosecution could proceed against Williamson,¹⁸⁹ who would later be exonerated by DNA.¹⁹⁰

*Troedel v. Wainwright*¹⁹¹ offers another illustration. Defendants David W. Troedel and David Lee Hawkins were convicted of capital murder in separate trials. An FBI report of a gunshot residue test using neutron activation analysis concluded that swabs "from the hands of Troedel and Hawkins contained antimony and barium [primer components] in amounts typically found on the hands of a person who has discharged a firearm or has had his hands in close proximity to a discharging firearm."¹⁹² The expert, John Riley, testified in accordance with this report at Hawkins's trial but enhanced his testimony at Troedel's trial, where he testified that "Troedel had fired the murder weapon."¹⁹³ State courts upheld Troedel's conviction. During federal habeas proceedings, Riley's deposition was

184. Standards for Criminal Justice: Prosecution and Defense Function Standard 3-3.3(a) (3d ed. 1993).

185. *Id.* at cmt. 59. The commentary further adds, "Nothing should be done by a prosecutor to cast suspicion on the process of justice by suggesting that the expert color an opinion to favor the interests of the prosecutor." *Id.*

186. John Grisham, *The Innocent Man: Murder and Injustice in a Small Town* (2006).

187. *Williamson v. Reynolds*, 904 F. Supp. 1529, 1534 (E.D. Okla. 1995), *aff'd*, 110 F.3d 1508 (10th Cir. 1997).

188. Grisham, *supra* note 186, at 121.

189. The examination of the hair evidence was also suspect. The first examiner found that the hair samples recovered at the scene were "consistent only with" the victim's hair. The case was then transferred to another examiner, who, after twenty-seven months, found that the crime scene samples were consistent with the defendants' hair. *Id.* at 179-80. For a further discussion of the case, see *infra* text accompanying notes 210-13.

190. Glen Gore, who testified against Ron Williamson, was later proved to be the actual killer through DNA evidence. Grisham, *supra* note 186, at 311, 346.

191. 667 F. Supp. 1456 (S.D. Fla. 1986), *aff'd*, 828 F.2d 670 (11th Cir. 1987).

192. *Id.* at 1458.

193. *Id.* at 1459.

taken, at which time he testified that “he could not, from the results of his tests, determine or say to a scientific certainty who had fired the murder weapon” and the “amount of barium and antimony on the hands of Troedel and Hawkins were basically insignificant.”¹⁹⁴

The district court found Riley’s trial testimony “at the very least” misleading.¹⁹⁵ Riley claimed that the prosecutor had “pushed” him further in Troedel’s trial, a claim the prosecutor substantiated:

. . . [O]ne of the prosecutors testified [at the habeas hearing] that, at Troedel’s trial, after Mr. Riley had rendered his opinion which was contained in his written report, the prosecutor *pushed* to “see if more could have been gotten out of this witness.” When questioned why, in the Hawkins trial, he did not use Mr. Riley’s opinion that Troedel had fired the weapon, the prosecutor responded he did not know why.¹⁹⁶

In granting habeas relief, the court found,

In light of this admission, the above testimony received at the evidentiary hearing and the inconsistent positions taken by the prosecution at Hawkins’ and Troedel’s trials, respectively, the Court concludes that the opinion Troedel had fired the weapon was known by the prosecution not to be based on the results of the neutron activation analysis tests, or on any scientific certainty or even probability. Thus, the subject testimony was not only misleading, but also was used by the State knowing it to be misleading.¹⁹⁷

C. Withholding Information at Trial

In *Driscoll v. Delo*,¹⁹⁸ a capital murder case, the laboratory report indicated that blood traces on Robert Driscoll’s knife were type A, which matched the blood of a prison guard who had been injured by a stab wound but did not match the blood type of a murdered guard whose blood type was O.¹⁹⁹ To explain the absence of type O blood, the prosecution offered several theories, one of which was that the presence of the type O blood

194. *Id.*

195. *Id.*

196. *Id.*

197. *Id.* at 1459–60. The court also found David Troedel’s counsel ineffective. Because defense counsel knew that the gunshot residue testimony was “critical,” his “failure either to depose the State’s expert witness or, more importantly, to consult with any other expert in the field, fell outside the scope of reasonably professional assistance.” *Id.* at 1461.

198. 71 F.3d 701 (8th Cir. 1995).

199. *Id.* at 707. The defense counsel was also ineffective:

[Whether the alleged murder weapon] had blood matching the victim’s constituted an issue of the utmost importance. Under these circumstances, a reasonable defense lawyer would take some measures to understand the laboratory tests performed and the inferences that one could logically draw from the results. At the very least, any reasonable attorney under the circumstances would study the state’s laboratory report with sufficient care so that if the prosecution advanced a theory at trial that was at odds with the serology evidence, the defense would be in a position to expose it on cross-examination.

Id. at 709.

was “masked” by the type A blood.²⁰⁰ The chief serologist of the state crime laboratory testified about this theory at trial.²⁰¹ Only in a subsequent habeas proceeding was it revealed that the serologist had performed another procedure (a lattes test) which had eliminated the “masking” problem, revealing the lack of type O blood.²⁰² “The jury was never informed that the lattes test was performed or that no type O blood was on the knife. . . . In its closing argument, the state made much of the masking theory, turning unfavorable serology evidence into neutral evidence at worst.”²⁰³

In the infamous Cruz and Hernandez prosecution, the misuse of scientific evidence as well as other evidence led a police officer and an assistant attorney general to resign in protest during the initial proceedings and led to trials of the original prosecutors and police officers.²⁰⁴ Professor Barry Scheck and his colleagues explain one instance of misconduct:

When a crime technician arrived at the courthouse to testify for the state, he pulled aside one of the prosecutors and relayed some news: representatives from the Nike shoe company said that the prints at the back window had been made by a woman’s shoe, perhaps size six or five and a half. Either size was too small for Cruz or Hernandez. The prosecutor put the technician on the witness stand and carefully avoided any mention of shoe size or likely gender. In fact, the defense was not told about the Nike analysis.²⁰⁵

D. Failure to Correct Overstatements

Expert testimony that goes beyond the limitations of a scientific technique is not unusual.²⁰⁶ It is often difficult to discern, however, whether the prosecutor is a knowing participant in this context. Nevertheless, because “competence” is the first ethical obligation of an attorney and no criminal practitioner should go into court today without understanding scientific evidence, a claim of ignorance merely shifts the ethical lapse from one rule to another.

200. *Id.* at 707.

201. *Id.*

202. *Id.* at 708.

203. *Id.*

204. Connors et al., *supra* note 15, at 44–46. The case is also discussed *supra* text accompanying notes 10–20. Stephen Buckley was the third defendant.

205. Scheck et al., *supra* note 2, at 178.

206. See *State v. Spencer*, 216 N.W.2d 131, 134 (Minn. 1974) (“We are concerned . . . about the sweeping and unqualified manner in which [the expert’s] testimony was offered An expert witness could be permitted to testify that in his opinion the chemicals present on defendant’s hand may have resulted from the firing of a gun. He should not have been permitted to state, as he did, that this defendant had definitely fired a gun.”); Dennis S. Karjala, Comment, *The Evidentiary Uses of Neutron Activation Analysis*, 59 Cal. L. Rev. 997, 1024 (1971) (“[F]ew experts have used appropriate care in limiting their testimony . . .”).

Hair evidence is illustrative.²⁰⁷ In one case, the expert testified that the crime scene hair sample “was unlikely to match anyone” other than the defendant, Edward Honaker.²⁰⁸ This testimony was a gross overstatement. At best, the expert could have testified that the hairs were consistent, which means that they could have come from Honaker or thousands of other people. A competent prosecutor should have known this. Indeed, another prosecutor would later acknowledge that “[t]here was no question that the state hair expert [at Honaker’s trial] had overstated the distinctiveness of the hair recovered from the victim’s shorts in his trial testimony.”²⁰⁹

Similarly, in *Williamson v. Reynolds*,²¹⁰ the expert testified at trial that hair samples were “consistent microscopically”²¹¹ and then went on to explain what this meant: “In other words, hairs are not an absolute identification, but they either came from this individual or there is—could be another individual *somewhere in the world* that would have the same characteristics to their hair.”²¹² As John Grisham notes, “There is an excellent chance that [the hairs] could *not* have come from the same source, but such testimony was rarely volunteered, at least on direct examination.”²¹³ Both Honaker and Williamson were later exonerated by DNA testing.

In *Mitchell v. State*,²¹⁴ Joyce Gilchrist’s testimony implicated the accused in a sexual assault. She knew, however, that her testimony had been completely undercut by an exculpatory DNA report, which had been withheld from the defense. The U.S. Court of Appeals for the Tenth Circuit observed that this improper conduct was compounded by “the prosecutor, whom the district court found had ‘labored extensively at trial to obscure

207. See generally Paul C. Giannelli & Emmie West, *Forensic Science: Hair Comparison Evidence*, 37 *Crim. L. Bull.* 514 (2001) (discussing the DNA exoneration cases in which hair evidence was used to convict the innocent); Clive A. Stafford Smith & Patrick D. Goodman, *Forensic Hair Comparison Analysis: Nineteenth Century Science or Twentieth Century Snake Oil?*, 27 *Colum. Hum. Rts. L. Rev.* 227, 231 (1996) (“If the purveyors of this dubious science cannot do a better job of validating hair analysis than they have done so far, forensic hair comparison analysis should be excluded altogether from criminal trials.”).

208. Connors et al., *supra* note 15, at 58.

209. Harland Levy, *And the Blood Cried Out: A Prosecutor’s Spellbinding Account of the Power of DNA* 153 (1996).

210. 904 F. Supp. 1529 (E.D. Okla. 1995), *aff’d sub nom.*, *Williamson v. Ward*, 110 F.3d 1508, 1523 (10th Cir. 1997); see also *supra* text accompanying notes 186–90 (discussing other aspects of the *Williamson* case).

211. *Id.* at 1554.

212. *Id.* (emphasis added). The defendant was later exonerated by exculpatory DNA evidence, and, as Scheck and his colleagues point out, “The hair evidence was patently unreliable.” Scheck et al., *supra* note 2, at 146; see also *id.* at 134 (“Not until December 1985, three years after the murder, did the state finish its first report on the hair examination. A trained hair man named Melvin Hett concluded that thirteen hairs found around the victim’s body appeared to have come from the head and pubis of Dennis Fritz [an alleged accomplice]. Another four hairs from the murder scene were linked to Ron Williamson. By itself, though, the hair report was not strong enough to prove capital murder.”).

213. Grisham, *supra* note 186, at 179.

214. 884 P.2d 1186 (Okla. Crim. App. 1994).

the true DNA test results and to highlight [the expert's] test results,' and whose characterization of the FBI report in his closing argument was 'entirely unsupported by evidence and . . . misleading.'"²¹⁵

E. *Technically Accurate but Misleading Opinions*

A more difficult issue arises when the testimony is accurate in a technical sense and yet misleading. The controversial Sacco and Vanzetti case, in which the defendants were charged with murder during a payroll robbery in 1921, is illustrative. Many believe their execution resulted more from their foreign status and "radical" beliefs than from the cogency of the evidence presented against them. Firearms identification evidence played a critical role in this prosecution. The firearms identification testimony was "carelessly assembled, incompletely and confusedly presented," and was, in the view of some commentators, "beyond the comprehension" of the jury.²¹⁶ After reviewing the case, Professors Edmund M. Morgan and G. Louis Joughin noted,

On October 23 Captain Proctor made [a posttrial] affidavit indicating that he had repeatedly told [the prosecutor] that he would have to answer in the negative if he were asked whether he had found positive evidence that the fatal bullet had been fired from Sacco's pistol. The statement which Proctor made on the witness stand was: "My opinion is that it is consistent with being fired by that pistol."²¹⁷

Although the "consistent with" language is technically correct, it involves a distinction too subtle for most juries. It is, in effect, misleading, and as the above passage suggests, intentionally so.

F. *Closing Argument*

Properly presented evidence may become misleading due to its characterization in closing argument to the jury. *Williamson* also exemplifies this issue. In summation, the prosecutor claimed, "[T]here's a

215. *Mitchell v. Gibson*, 262 F.3d 1036 (10th Cir. 2001) (emphasis omitted). "The results thus completely undermined Ms. Gilchrist's testimony." *Id.* at 1064. As the court noted, An expert testified at the evidentiary hearing that the DNA testing performed by Agent Vick unquestionably eliminated Mr. Mitchell This expert reviewed Ms. Gilchrist's trial testimony . . . and stated that the testimony was based on the use of test methods Ms. Gilchrist knew were less precise than the DNA tests which eliminated Mr. Mitchell. Moreover, he pointed out that one of the tests she performed in fact excluded Mr. Mitchell.

Id.; see also *Gilchrist v. Okla. Employment Sec. Comm'n*, 94 P.3d 72, 75 (Okla. 2004) ("Gilchrist's conduct in *Mitchell*, that is knowingly giving false and misleading testimony in a criminal case, constituted 'misconduct' sufficient to support the denial of unemployment benefits . . .").

216. G. Louis Joughin & Edmund M. Morgan, *The Legacy of Sacco and Vanzetti* 15 (1948); see also James E. Starrs, *Once More unto the Breech: The Firearms Evidence in the Sacco and Vanzetti Case Revisited* (pts. 1 & 2), 31 J. Forensic Sci. 630 (1986), 31 J. Forensic Sci. 1050 (1986).

217. Joughin & Morgan, *supra* note 216, at 15.

match.”²¹⁸ Even the state court misinterpreted the evidence, writing that the “[h]air evidence placed [petitioner] at the decedent’s apartment.”²¹⁹ Using the term “match”—without further explication—is frequently confusing.²²⁰

Similarly, in *People v. Linscott*²²¹ the Illinois Supreme Court found that the prosecutor improperly argued that hairs collected from the victim’s apartment “were conclusively identified as coming from defendant’s head and pubic region. There simply was no testimony at trial to support these statements. In fact, [the prosecution experts] and the defense hair expert . . . testified that no such identification was possible.”²²² Steven Paul Linscott was also subsequently exonerated by DNA evidence.²²³

IV. OBSERVATIONS AND REFORMS

In the preceding sections, we made some specific recommendations regarding particular problems such as late and incomplete disclosure and inadequate or nonexistent lab reports. Here we offer some observations and suggestions that apply broadly to all of the problems discussed above.

A. *Effective Representation of the Public*

DNA exonerations have revealed that defense counsel in criminal cases involving scientific evidence often did not provide their clients with effective representation. Perhaps because the prosecutor’s client is the government rather than an individual, we often fail to appreciate that the prosecutors in these cases also seriously fail in their ethical obligations to represent the government effectively. Through the conviction of innocent persons, the consequent failure to convict the actual perpetrators, and the creation of cynicism toward the criminal justice system, prosecutors who misuse scientific evidence fail to serve the interests of the governments they represent as well as the public interest, and thus fail in their ethical obligations.

218. *Williamson v. Reynolds*, 904 F. Supp. 1529, 1557 (E.D. Okla. 1995) (alteration in original).

219. *Id.* (emphasis omitted).

220. See Gershman, *supra* note 5, at 36 (discussing misuse of the term “match” in the Central Park jogger case).

221. 566 N.E.2d 1355 (Ill. 1991).

222. *Id.* at 1359.

223. Connors et al., *supra* note 15, at 65 (“The State’s expert on the hair examination testified that only 1 in 4,500 persons would have consistent hairs when tested for 40 different characteristics. He only tested between 8 and 12 characteristics, however, and could not remember which ones. The appellate court ruled on July 29, 1987, that this testimony, coupled with the prosecution’s use of it at closing argument, constituted denial of a fair trial.” (citation omitted)).

B. *Need to Investigate Prosecutors' Role*

The frequency and seriousness of prosecutorial misuse of scientific evidence suggest something is seriously wrong, not only with the experts who provide this evidence but also with the prosecutors who call those experts into criminal courtrooms. Particularly troubling is the fact that some prosecutors have repeatedly used experts such as Fred Zain and Joyce Gilchrist, despite obvious warning signs of corruption.

Why have prosecutors engaged in such behavior? Why have they failed to detect or act to correct defective scientific evidence?²²⁴ One plausible answer is that prosecutors act this way simply because these experts, corrupt or not, help win convictions. Certainly obtaining convictions is a powerful incentive for prosecutors. But an explanation that focuses solely on the incentive to win a case seems unduly simplistic, failing to account for the complexity of the constellation of incentives operating on a prosecutor and the psychological dynamics of the prosecutor's role. Prosecutors are subject to a number of incentives to avoid the use of corrupt scientific evidence, such as the desire not to convict the innocent and the desire to convict the guilty. Self-interest also provides an incentive not to use corrupt evidence in order to avoid public embarrassment, damage to career, and implication in obstruction of justice.

One possible explanation for prosecutorial use of junk scientific evidence is that prosecutors are simply not skilled enough in this area to provide a check on tainted experts. But if, as noted above, pressure from prosecutors is a significant contributing cause of the introduction of corrupt scientific evidence, then something more malign than simple incompetence is at play in some cases. Another possible explanation is that the psychological phenomenon of escalation of commitment may blind prosecutors to the possibility of a defendant's innocence or an expert witness's falsity.

Many prosecutors undoubtedly adhere to their legal and ethical obligations regarding the selection, discovery, and presentation of expert witnesses and, in doing so, help protect our criminal justice system from perverse scientific evidence. But a disturbingly high number of cases reveal prosecutors who fail to adhere to these obligations. Unfortunately, we do not have much information about what percentage of prosecutors fall into this latter category. Nor do we have good information about what is driving this misconduct when it occurs. As Professor Bennett L. Gershman commented,

224. See Peter A. Joy, *The Relationship Between Prosecutorial Misconduct and Wrongful Convictions: Shaping Remedies for a Broken System*, 2006 Wis. L. Rev. 399, 400 ("[P]rosecutorial misconduct is largely the result of three institutional conditions: vague ethics rules that provide ambiguous guidance to prosecutors; vast discretionary authority with little or no transparency; and inadequate remedies for prosecutorial misconduct, which create perverse incentives for prosecutors to engage in, rather than refrain from, prosecutorial misconduct.").

The prosecutor's misuse of scientific evidence to charge and convict has not been sufficiently examined. Courts and commentators critiquing abuses of scientific evidence in criminal cases rarely focus on the prosecutor's role in the process. Issues typically discussed are the questionable nature of the evidence, the controversial manner in which the evidence was acquired and tested, whether the expert arrived at her conclusions in a scientifically reliable manner, and whether the expert's courtroom testimony was false or misleading. *The prosecutor's control over and manipulation of the scientific evidence to shape the fact-finder's evaluation of the facts and to persuade the fact-finder of the defendant's guilt usually escapes scrutiny.*²²⁵

Investigation into prosecutorial involvement in the misuse of scientific evidence is an important step toward understanding and correcting such conduct.

C. Competence

Perhaps the most basic of professional ethical obligations is competence. Indeed, it appears as the first of the Model Rules of Professional Conduct: "A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation."²²⁶ An accompanying comment explains that relevant factors in determining whether a lawyer acts competently include "the relative complexity and specialized nature of the matter."²²⁷

As its text indicates, questions of competence under Model Rule 1.1 can be broken down into issues of expertise and preparation. The first—which the Rule refers to with the words "knowledge" and "skill"—deals with the capability of a lawyer to handle a particular representation. The second—which the Rule refers to with the words "thoroughness and preparation"—deals with the time and effort the lawyer invests in preparing the case. In other words, a lawyer may violate the duty of competence by lacking sufficient knowledge of or skill in a particular field, such as patent, tax, or divorce law. Or, even if he has sufficient expertise, he may violate the duty of competence by failing to investigate and prepare the case sufficiently by, for example, failing to obtain sufficient information from the client, to interview witnesses, or to review documents provided in discovery.

No attorney can competently try criminal cases today without a grounding in scientific evidence. The ABA recently adopted the following recommendations: (1) "Training in forensic science for attorneys should be made available at minimal cost to ensure adequate representation for both the public and defendants," and (2) "Counsel should have competence in the relevant area or consult with those who do where forensic evidence is

225. Gershman, *supra* note 5, at 17 (emphasis added).

226. Model Rules of Prof'l Conduct R. 1.1 (2007).

227. *Id.* R. 1.1 cmt. 1.

essential in a case.”²²⁸ Familiarity with scientific evidence could be made part of the basic training for all new prosecutors. Or a prosecutor’s office could train certain prosecutors in scientific evidence and assign them to cases involving experts or have them handle expert witnesses as part of a trial team.

D. *Prosecutors in an Adversary System*

Our criminal justice system employs a series of measures aimed at controlling the quality of evidence used to support a conviction. The quality control device most frequently highlighted in our adversary system is opposing counsel.²²⁹ Defense counsel’s role is to challenge and to reveal the weaknesses in the prosecution’s evidence through cross-examination, presentation of counterproof, and drawing the fact-finder’s attention to the weaknesses of the prosecution’s evidence in closing argument. As the Supreme Court has noted, “Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”²³⁰

Yet there is little question that defense counsel have often failed in controlling the quality of scientific proof,²³¹ and the ABA recommendations cited in the previous section apply to defense attorneys as well as to prosecutors. In addition, we have advocated comprehensive pretrial discovery in prior parts of this essay, recommendations that would go a long way in promoting effective representation.²³² Moreover, a number of

228. Achieving Justice, *supra* note 169, at 47.

229. Another quality control mechanism is the fact-finder—either judge or jury—who is trusted with ultimate responsibility for sorting out what is false and what is true, using judgment and reasoning to assess what has been presented by the lawyers. In a criminal case, the adversary system also relies on a high standard of proof—beyond reasonable doubt—as a quality control measure regarding prosecution evidence.

230. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 596 (1993) (citing *Rock v. Arkansas*, 483 U.S. 44, 61 (1987)).

231. See *Scheck et al.*, *supra* note 2, at 246. Twenty-seven percent of the cases involved incompetent counsel. *Id.*; e.g., *Glenn v. Tate*, 71 F.3d 1204, 1209–11 (6th Cir. 1995) (finding ineffective assistance in the penalty phase of a capital murder case due to counsel’s failure to present evidence of defendant’s mental retardation/neurological impairment, counsel’s acquiescence to prosecutor’s suggestion that the experts requested by defense be treated as court-appointed rather than defense experts, and counsel’s failure to challenge expert reports); *Foster v. Lockhart*, 9 F.3d 722, 726–27 (8th Cir. 1993) (finding a failure to pursue an impotency defense in a rape case); *United States v. Tarricone*, 996 F.2d 1414, 1418 (2d Cir. 1993) (holding that a failure to consult handwriting expert made out a viable claim of ineffectiveness); *Sims v. Livesay*, 970 F.2d 1575, 1580 (6th Cir. 1992) (finding a failure to have a quilt examined for gunshot residue).

232. “It is also clear that in case after case, defense counsel failed to review the case notes of the prosecution’s forensic serologists. Even a layperson would have seen that Fred Zain’s written reports and sworn testimony were contradicted by his case notes.” Walter F. Rowe, *Commentary*, in *Connors et al.*, *supra* note 15, at xv, xviii.

studies have demonstrated the recurrent failure to provide independent experts to the defense.²³³ This needs to be rectified.

1. Judge as Gatekeeper

Both scholars and practitioners have expressed concern in recent years that the adversary system's quality control mechanisms are insufficient to assure the reliability of scientific evidence. One response to this concern has been the recognition of a "gatekeeping" role for trial judges. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*²³⁴ has been transformed from a case that most courts and commentators believed lowered the barriers to the admissibility of scientific evidence to one that the Court now describes as imposing an "exacting" standard.²³⁵ As gatekeepers, judges are charged with screening out scientific evidence deemed unreliable because of insufficient data, unsound scientific principles, or unsound application of sound principles.²³⁶ The trial judge's gatekeeping responsibility, it should be noted, supplements rather than replaces traditional adversarial quality control mechanisms such as cross-examination, counterproof, the fact-finder's judgment, and the standard of proof.

However, the demanding standards of *Daubert* have yet to be fully implemented in criminal litigation.²³⁷ Courts, for example, continue to

233. See generally Paul C. Giannelli, *Ake v. Oklahoma: The Right to Expert Assistance in a Post-Daubert, Post-DNA World*, 89 Cornell L. Rev. 1305 (2004) (discussing the need to bolster the accused's right to defense experts).

234. 509 U.S. 579 (1993). The Court followed with *General Electric Company v. Joiner*, 522 U.S. 136 (1997), and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), to form what is now known as the *Daubert* trilogy.

235. *Weisgram v. Marley Co.*, 528 U.S. 440, 455 (2000).

236. See Fed. R. Evid. 702. Indeed, some federal courts have read the *Daubert* trilogy as inviting a "reexamination even of 'generally accepted' venerable, technical fields." *United States v. Hines*, 55 F. Supp. 2d 62, 67 (D. Mass. 1999) (discussing handwriting comparison); see also *United States v. Hidalgo*, 229 F. Supp. 2d 961, 966 (D. Ariz. 2002). The court noted, "Courts are now confronting challenges to testimony, as here, whose admissibility had long been settled." *Id.* The court also noted that handwriting comparison is a well-settled field that is now being reexamined. *Id.* As a result, attacks have been launched against handwriting evidence, hair comparisons, fingerprint examinations, firearms identification, bite mark analysis, and intoxication testing. While most of these challenges have been unsuccessful in terms of admissibility, they have exposed the lack of empirical support for many commonly employed forensic techniques.

237. One commentator noted that "the heightened standards of dependability imposed on expertise proffered in civil cases has continued to expand, but . . . expertise proffered by the prosecution in criminal cases has been largely insulated from any change in pre-*Daubert* standards or approach." D. Michael Risinger, *Navigating Expert Reliability: Are Criminal Standards of Certainty Being Left on the Dock?*, 64 Alb. L. Rev. 99, 149 (2000). An extensive study of the reported criminal cases found that "the *Daubert* decision did not impact on the admission rates of expert testimony at either the trial or the appellate court levels." Jennifer L. Groscup et al., *The Effects of Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases*, 8 Psychol., Pub. Pol'y & L. 339, 364 (2002). In contrast, a Rand Institute study of civil cases concluded that, "since *Daubert*, judges have examined the reliability of expert evidence more closely and have found more evidence unreliable as a result." Lloyd Dixon & Brian Gill, *Changes in the Standards for Admitting Expert Evidence in Federal Civil Cases Since the Daubert Decision* 25 (2001).

admit comparative hair analysis.²³⁸ Consequently, one might question whether either the adversary system or the judiciary will adequately protect against the use of junk science by prosecutors.

2. The Prosecutor as Gatekeeper

In this section, we suggest the recognition of a gatekeeping role for prosecutors when offering scientific evidence. A possible mechanism for implementing such a role would be to modify Model Rule of Professional Conduct 3.8, which governs the special responsibilities of the prosecutor. In sum, we suggest adding a provision that would make it an ethics violation for a prosecutor to knowingly, recklessly, or negligently offer defective scientific evidence.

A different rule, Model Rule 3.3(a)(3) (candor toward the tribunal) is currently the key ethics provision in all the contexts we discuss above—selecting, preparing, and presenting expert testimony. It provides,

- (a) A lawyer shall not *knowingly*: . . .
- (3) offer evidence that the lawyer *knows* to be false. If a lawyer, the lawyer's client, or a witness called by the lawyer, has offered material evidence and the lawyer comes to *know* of its falsity, the lawyer shall take reasonable remedial measures, including, if necessary, disclosure to the tribunal. A lawyer may refuse to offer evidence, other than the testimony of a defendant in a criminal matter, that the lawyer *reasonably believes* is false.²³⁹

Before turning to a gatekeeping role for prosecutors regarding corrupt scientific evidence, it is worth noting a few salient features of this Model Rule. First, it applies the same standard to prosecutors as it does to civil litigators and criminal defense lawyers. In contrast, Model Rule 3.8 articulates the distinct obligations of prosecutors. But it does not address presentation of false evidence, by default leaving prosecutors covered by Model Rule 3.3(a)(3).

Second, Model Rule 3.3(a)(3) places a minimal obligation on prosecutors. The prosecutor may introduce evidence unless she knows that it is false. If the prosecutor suspects that evidence is false or even is aware of a substantial risk that the evidence is false, Model Rule 3.3(a)(3) permits the prosecutor to introduce the evidence. In other words, using Model

238. *See, e.g.*, *State v. Fukusaku*, 946 P.2d 32, 44 (Haw. 1997) (“Because the scientific principles and procedures underlying hair and fiber evidence are well-established and of proven reliability, the evidence in the present case can be treated as ‘technical knowledge.’ Thus, an independent reliability determination was unnecessary.”); *McGrew v. State*, 682 N.E.2d 1289, 1292 (Ind. 1997) (concluding that hair comparison is more a matter of observation by persons with specialized knowledge than a matter of scientific principles); *Johnson v. Commonwealth*, 12 S.W.3d 258, 262 (Ky. 1999) (noting that evidence of hair analysis by microscopic comparison has been admissible in that jurisdiction for many years).

239. Model Rules of Prof'l Conduct R. 3.3(a)(3) (2007) (emphasis added).

Penal Code terminology, the prosecutor may introduce evidence if the prosecutor's mental state regarding its falsity is one of innocence, negligence, or even recklessness.²⁴⁰ Only when the prosecutor's mental state is "knowledge" does Model Rule 3.3(a)(3) impose a gatekeeping function and require the prosecutor not to offer the evidence. A troubling aspect of Model Rule 3.3(a)(3)'s use of knowledge as the triggering criterion is that it creates an incentive to avoid such knowledge in order to avoid the prohibition against offering false evidence.²⁴¹ An interesting question is whether or not willful blindness on the part of a prosecutor constitutes knowledge under Model Rule 3.3 as it does in many criminal codes.²⁴²

Why does an ethics rule condone a lawyer offering evidence when he or she is aware or should be aware of a serious risk that the evidence is false? The answer is that Model Rule 3.3(a)(3) reflects an adversarial paradigm that assigns the task of quality control primarily to opposing counsel and the fact-finder rather than the lawyer offering the evidence. Like many of our legal ethics rules, Model Rule 3.3(a)(3) is a mixed or blended rule, having both adversarial and cooperative aspects. When the prosecutor has knowledge of falsity, she must act cooperatively and not introduce false evidence. But when the prosecutor has a mental state less than knowledge, Model Rule 3.3(a)(3) reflects an adversarial conception of the prosecutor's role regarding false evidence.²⁴³

240. Model Penal Code § 2.02 (2001). The Model Penal Code created four precisely defined mental states: (1) purpose, (2) knowledge, (3) recklessness, and (4) negligence. Recklessness has a subjective component, requiring awareness of the risk. See Joshua Dressler, *Understanding Criminal Law* § 10.07 (3d ed. 2001).

241. "If the attorney is prohibited only from offering false expertise when she knows it to be false, then ignorance is bliss for both the proffered expert and the attorney." Saks, *supra* note 5, at 427.

242. See Gershman, *supra* note 5, at 27 ("The well-known criminal law doctrine known as 'willful blindness' should apply equally to a prosecutor who regularly uses a scientific expert who is notorious for incompetence and dishonesty.").

243. Federal Rule of Evidence 601, dealing with the competence of witnesses, provides a useful comparison to Model Rule 3.3(a)(3) in terms of both favoring admissibility and reliance on the adversary system. The common law prevented witnesses from testifying on bases such as a witness's conviction of a crime and being a party to the litigation. The thinking behind these exclusions was that a witness's bad character and bias threaten the reliability of a witness's testimony. The modern approach reflected by the Federal Rules of Evidence does away entirely with these competence bans despite the fact that the Federal Rules still view character and bias as highly relevant to the assessment of witness credibility. Why, one might ask, does the modern view allow a biased witness or one with a prior perjury conviction to testify? The response is not that the Federal Rules deny that character and bias raise reliability issues. Rather, the idea here is that the task of monitoring witness reliability should be handled not by the judge as a gatekeeper enforcing categorical competence bans, but by opposing counsel wielding the tools of cross-examination and counterproof in addition to the fact-finder employing its judgment, its reasoning ability, and the standard of proof. In other words, Rule 601, when compared to the common law of evidence that preceded it, reveals a shift of power and responsibility away from the judge as gatekeeper and toward opposing counsel and the fact-finder as primary monitors of witness reliability. Model Rule 3.3(a)(3) reflects similar reasoning regarding lawyers as gatekeepers of evidence.

What supports our proposal of creating a greater gatekeeping role for prosecutors regarding scientific evidence than the one reflected in Model Rule 3.3(a)(3)? Our primary argument is that such a role is appropriate for prosecutors because the quality control mechanisms of the adversary system simply are not working in regard to scientific evidence due to lack of defense resources. Thus, the minimal obligation set forth in Model Rule 3.3(a)(3) needs to be heightened. Moreover, the cooperative role of gatekeeper is consistent with and required by the distinct role and responsibilities of a prosecutor.

Criminal defendants and their lawyers routinely lack the resources to effectively cross-examine a prosecution expert, to present competing scientific counterproof, or to point out weaknesses in that expert's testimony to the fact-finder in closing argument. The lack of an effective challenge by opposing counsel has the practical impact of nullifying the fact-finder's ability to distinguish corrupt from valid scientific evidence. Close examination of criminal cases has revealed what is often in effect an *ex parte* presentation of scientific evidence by the prosecution. The defendant and defense counsel are physically present during the presentation of the evidence, but cannot participate in anything other than a *pro forma* fashion due to lack of access to the scientific expertise necessary for cross-examination, presentation of counterproof, and addressing evidentiary weaknesses in closing argument.

Investigation of the misuse of scientific evidence, sparked largely by the advent of DNA evidence, has revealed not only that the defense lawyer's and fact-finder's ability to monitor the quality of scientific evidence has been seriously compromised, but also that the lack of adversarial challenge has had a corrupting influence on the experts themselves. How could an expert such as Fred Zain repeatedly falsify serology tests if there was effective cross-examination and counterproof from the defense? How would he muster the audacity to repeatedly falsify evidence if he was not confident that the supposedly adversarial criminal justice system in which he operated presented no realistic threat that his falsification would be revealed?

Lawyer ethics rules uniformly recognize a cooperative standard when a lawyer makes an *ex parte* presentation to a fact-finder because the quality control mechanisms of the adversary system are lacking. Model Rule 3.3(d), for example, requires that a lawyer in an *ex parte* proceeding present all material information to the fact-finder, not just what is favorable to his client as the adversary system would dictate. Comment 14 to Model Rule 3.3 states the obvious reasoning behind this cooperative standard: "[T]here is no balance of presentation by opposing advocates."²⁴⁴ Thus, the lawyer must reveal all facts he "reasonably believes are necessary to [support] an informed decision."²⁴⁵

244. Model Rules of Prof'l Conduct R. 3.3 cmt. 14 (2007).

245. *Id.*

This cooperative *ex parte* standard often applies to prosecutors. For example, it requires a prosecutor applying for a search warrant or a court order authorizing a wiretap to make a complete and candid presentation of the facts. The judge in an *ex parte* context also has an obligation to act differently than she would in a setting in which both parties participate. As pointed out above, although the presentation of scientific evidence takes place in a setting that appears adversarial, in reality it functions as an *ex parte* presentation to the fact-finder.

How might such a cooperative standard be created? One possibility would be to add a new subsection to Model Rule 3.8 to recognize a gatekeeper role for prosecutors regarding scientific evidence that would state, “The prosecutor in a criminal case shall: . . . (g) refrain from knowingly, recklessly, or negligently offering false scientific evidence.”

Instead of allowing the presentation of scientific evidence unless the prosecutor knows it is false, as current Model Rule 3.3(a)(3) does, our proposal would bar a prosecutor from offering scientific evidence unless she knows it is sound. This would create an affirmative obligation on the part of the prosecutor to take reasonable steps to assure the soundness of the scientific evidence she offers.²⁴⁶ Such an obligation is consistent with the ethical duty of competence, since a negligent prosecutor is not acting competently. Alternatively, a rule could be cast as imposing on the prosecutor a duty to assure that she has a good faith and reasonable basis for believing in the soundness of scientific evidence she offers, analogous to the duty to refrain from filing charges without probable cause or the civil litigator’s obligations under Federal Rule of Civil Procedure 11.²⁴⁷ Such a rule could be phrased as follows:

246. Professor Jane Campbell Moriarty has recently proposed amending Model Rule 3.8 to prohibit the use of unreliable evidence: “The Prosecutor in a criminal case shall: make reasonable efforts to assure that only reliable expert evidence is admitted into evidence. A prosecutor shall not use evidence that she knows or reasonably should know is unreliable.” Moriarty, *supra* note 5, at 28. She names hair evidence as a type of evidence that would be targeted by this proposal. *Id.* at 29. Professor Michael J. Saks cites handwriting. Saks, *supra* note 5, at 428. The weak scientific bases of hair analysis and some other forensic techniques have concealed expert misconduct in many cases. Yet, as long as courts admit these types of evidence—the overwhelming majority do—what is or is not reliable is subject to debate. It would be difficult to fault a prosecutor who used such evidence carefully—that is, ensuring that the jury understood its limitations. The argument over hair evidence may be academic, because mitochondrial DNA will probably replace it as the method of choice. See Max M. Houck & Bruce Budowle, *Correlation of Microscopic and Mitochondrial DNA Hair Comparisons*, 47 J. Forensic Sci. 964, 966 (2002) (“Of the 80 hairs that were microscopically associated, nine comparisons were excluded by mtDNA analysis.”); see also Robert Aronson & Jacqueline McMurtrie, *The Use and Misuse of High-Tech Evidence by Prosecutors: Ethical and Evidentiary Issues*, 76 Fordham L. Rev. 1453, 1472 (2007) (“Although it has become widely available only in the last few years, mtDNA analysis has nonetheless proven an effective and highly reliable technique to definitively exclude (or include) an individual as the person who deposited one or more hairs at a crime scene.” (footnotes omitted)).

247. Another analogous requirement is the one imposed on lawyers during cross-examination of a good faith basis for asking an impeaching question that implies the existence of an impeaching fact. See, e.g., Ohio R. Evid. 607(B) (“A questioner must have a

A prosecutor shall not offer scientific evidence unless she has a good faith and reasonable belief that the evidence (1) is based upon sufficient facts or data, (2) is the product of reliable principles and methods, and (3) is the product of reliable application of such principles and methods to the facts of the case.²⁴⁸

CONCLUSION

This essay examines a number of recurring problems associated with the prosecution's use of experts: selection of experts, compliance with discovery obligations, and presentation of testimony at trial. Each presents different issues. As for pretrial disclosure, amending discovery rules to require full disclosure of expert testimony, including documentation for each test and specifying the content of laboratory reports, would obviate most problems. Imposing discovery sanctions for late disclosure would also help.

Full discovery would also reduce, though not eliminate, problems with the presentation of expert testimony. Requiring laboratory reports to specify the limitations of the technique and including a statement to the jury explaining the significance of the findings would aid defense counsel and judges as well as the jury. The selection of experts presents a far more difficult issue. Yet prosecutors cannot be given a free pass. There should be both a due process and an ethical obligation on prosecutors to scrutinize "controversial" experts more thoroughly than some currently do.

Given the special responsibilities of prosecutors as ministers of justice and the lack of defense access to expert resources, we propose a gatekeeping role for prosecutors regarding scientific evidence. In sum, we suggest adding a provision to Model Rule 3.8 that would make it an ethics

reasonable basis for asking any question pertaining to impeachment that implies the existence of an impeaching fact.").

248. One way to qualify a gatekeeping obligation for the prosecutor might be to distinguish among the various categories found in Federal Rule of Evidence 702. Rule 702 essentially codifies the *Daubert* and *Kumho* cases and recognizes the trial judge's role as a gatekeeper regarding scientific evidence. Rule 702 recognizes three distinct prerequisites for admission of scientific evidence for the trial judge to monitor: (1) sufficiency of data, (2) reliability of principles and methods, and (3) reliable application to facts. Some commentators have argued that recognizing a gatekeeping role for lawyers would be too onerous since the principles and methods of science are often uncertain and in a state of flux. To address this problem, a new ethics rule for prosecutors might distinguish among the various categories recognized by Rule 702, imposing a more demanding affirmative duty regarding categories (1) and (3) and a less demanding duty regarding category (2). In a case involving serology, for example, the prosecutor would need to satisfy herself that the expert had in fact performed the tests he claims to have conducted and performed them in a way that minimizes the risk of corruption, such as blind testing. The prosecutor might satisfy this obligation in a number of ways. The prosecutor's office might insist on periodic auditing by outside experts and other measures aimed at reducing the risk of corruption. The prosecutor could also refrain from offering evidence provided by experts whose work has been revealed as lacking in reliability in earlier cases or when other circumstantial evidence raises a question of reliability.

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violation for a prosecutor to knowingly, recklessly, or negligently offer defective scientific evidence.