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THE NAS REPORT: IN PURSUIT OF JUSTICE

*Geoffrey S. Mearns**

I had the privilege of serving on the Committee on Identifying the Needs of the Forensic Science Community at the National Academy of Sciences (NAS). In February 2009, after more than two years of work, our committee issued a report entitled, “Strengthening Forensic Science in the United States: A Path Forward.”¹ As a former federal prosecutor, I believe it is imperative that the recommendations in the NAS Report be implemented. Implementing our recommendations will advance the principal goal of the NAS Report: to assist law enforcement officials in identifying and convicting people who commit crimes.²

In order to understand fully why I believe law enforcement officials should embrace the recommendations in the NAS Report, it is important to understand how my personal views of forensic science evolved during the two-year period in which I served on the NAS Committee. I believe my own growth may help others, particularly law enforcement officers, to reconsider some of their pre-existing views about forensic science.

Before becoming dean of the Cleveland-Marshall College of Law at Cleveland State University in July 2005, I practiced law and tried criminal cases for more than fifteen years. My trial experience included nine years as a federal prosecutor with the United States Department of Justice. While serving in the Justice Department, I had several positions. As an Assistant United States Attorney for the Eastern District of New York, I was Chief of the Organized Crime and Racketeering Section. I then became the First Assistant United States Attorney for the Eastern District of North Carolina. I completed my Justice Department career as Special Attorney to United States Attorney General Janet Reno. In that capacity, I assisted in the successful prosecution of Terry Nichols for his role in the Oklahoma City bombing.³

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1. NAT'L RES. COUNCIL, NAT'L ACADEMY OF SCI., STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD (2009) [hereinafter NAS REPORT].

2. *Id.* at 4.

3. *United States v. Nichols*, 169 F.3d 1255 (10th Cir. 1999).

As a federal prosecutor, I tried more than twenty criminal cases. As a result, I gained substantial experience preparing and examining expert witnesses from various forensic science disciplines. I questioned chemists who analyzed suspected narcotics, technicians who compared tool marks, fingerprint examiners, and handwriting experts. In the *Nichols* case, I presented expert testimony regarding the chemical composition of plastic fragments that were found in the rubble of the Murrah Building in order to establish a link between that evidence and large plastic drums that were seized from Nichols.

Based on that experience, I began my service on the NAS Committee with two fundamental assumptions about forensic science. First, I assumed that the vast majority of forensic science disciplines were well-grounded in scientific research and scientific methodologies. Second, I assumed that forensic science analysts followed uniform processes and procedures to ensure the accuracy and reliability of their tests and their trial testimony. In short, I had faith in the scientific expertise of the practitioners and in the scientific validity of the tests and methodologies they used.

During the two-year period in which I served on the NAS Committee, my views about forensic science generally and some of the specific disciplines changed significantly. I came to realize that there was not nearly enough genuine *science* to validate many forensic science disciplines. I also came to realize that these deficiencies were impeding law enforcement's efforts to identify and apprehend criminals. I became increasingly concerned that these deficiencies were adversely affecting the fairness of the criminal justice system and undermining the accuracy and reliability of verdicts in criminal cases.

In the NAS Report, our Committee identified many of the systemic problems that plague forensic science, and we identified thirteen specific recommendations to address these systemic problems.⁴ At the core of all of these recommendations is our collective judgment that the forensic science community needs substantial systemic reforms in order to create a "culture of science."⁵

4. See NAS REPORT, *supra* note 1, at 18-33 (advocating for Congress to establish an independent federal agency, the National Institute of Forensic Science, to address the needs of the forensic science community and outlining the thirteen specific recommendations for such an agency, including the establishment of standard terminology to be used in reporting results of forensic investigations, competitive funding of peer-reviewed research, the encouragement of research programs on human observer bias, the institution of mandatory individual certification of forensic science professionals, and the establishment of quality assurance control procedures and a national code of ethics).

5. See *id.* at 39.

As we formulated our recommendations, we became acutely aware that it would take substantial, tangible progress to create this culture. Therefore, we recommended that Congress create the federal capacity to stimulate research, set uniform standards, and ensure that these rigorous standards would be enforced. In our collective judgment, there were serious systemic problems that require specific, systemic solutions.⁶ Although the solutions cannot be implemented easily or cheaply, I am hopeful that this “culture of science” can and will be developed. My optimism stems from three principal facts.

First, I am optimistic because the Congressional mandate to conduct the NAS study was supported by some members of the forensic community.⁷ These forensic scientists were concerned with the lack of a commitment to scientific protocols and procedures in some disciplines, and they were troubled by the fact that some practitioners did not appreciate the need for basic scientific research and rigorous, mandatory standards. So, even before the NAS Committee process began, some members of the forensic science community recognized the need for systemic reform.

Second, since the NAS Report was released, broad support has quickly developed for the specific recommendations we identified.⁸ Indeed, a great many forensic scientists recognize that the NAS Report can generate financial resources and other support that will elevate their profession. This response is very encouraging.

Third, within a few months of the release of the NAS Report, the United States Supreme Court expressly relied upon the analysis contained in the NAS Report to support the Court’s interpretation of the Confrontation Clause.⁹ In that case, a majority of the Court readily grasped one of the central themes of the NAS Report: there is a common misperception among

6. See *supra* note 4 and accompanying text.

7. See, e.g., Kenneth Melson, *President’s Editorial: The Journey to Justice*, 48 J. FORENSIC SCI. 705, 707 (2003); see also Hon. Harry T. Edwards, *The National Academy of Science Report on Forensic Sciences: What it Means for the Bench and Bar*, Presentation at the Superior Court of the District of Columbia Conference on the Role of the Court in an Age of Developing Science and Technology 2 (May 6, 2010).

8. See Thomas L. Bohan, *President’s Editorial: Strengthening Forensic Science: A Way Station on the Journey to Justice*, 55 J. FORENSIC SCI. 5, 5-7 (2010); Memorandum from Robert Garrett, President, Int’l Assoc. for Identification on the Nat’l Acad. of Sci. Report to Int’l Ass’n for Identification Members (Feb. 19, 2009), available at http://www.theiai.org/current_affairs/nas_memo_20090219.pdf; Press Release, Am. Soc’y of Crime Lab. Dir., ASCLD’s Comments on the Release of the NAS Report on Forensic Science (Feb. 19, 2009), available at <http://www.asclcd.org/files/ASCLD%20NAS%20Comments%20090219.pdf>.

9. See *Melendez-Diaz v. Massachusetts*, 129 S. Ct. 2527, 2536-38 (2009). The Confrontation Clause provides: “In all criminal prosecutions, the accused shall enjoy the right . . . to be confronted with the witnesses against him . . .” U.S. CONST. amend VI.

lawyers, judges, and juries that the vast majority of forensic science disciplines are inherently trustworthy and intrinsically sound because they are well grounded in objective science.¹⁰ The fact is, however, as discussed in the NAS Report, many forensic science disciplines have not yet been scientifically validated. I believe that the Court's reliance on the NAS Report will prompt lawyers and judges to support our Committee's call for systemic change.

In order for there to be significant progress, however, the law enforcement community must also embrace the recommendations in the NAS Report. There are many compelling reasons why law enforcement officers and prosecutors should do so.

The central goal of all our recommendations is to enhance the accuracy and reliability of forensic science testing and testimony. No law enforcement officer who is interested in truth and justice can object to recommendations that will achieve that goal. So, it is in the best interests of law enforcement to support systemic reforms.

To appreciate this basic point, it is important to reflect upon the evolution and impact of DNA testing. DNA analysis and expert testimony are grounded in extensive scientific research, which routinely helps law enforcement to identify dangerous criminals. DNA expert testimony about the results of DNA testing also frequently persuades juries to return guilty verdicts.¹¹ While DNA testing has also helped to exonerate some people who were wrongfully convicted of crimes that they did not commit, DNA testing has been an even more powerful weapon in successfully identifying and prosecuting violent criminals.¹² I believe that other still-to-be scientifically validated forensic science disciplines may similarly assist law enforcement in achieving its important mission—protecting the public.

10. In the majority opinion, Justice Scalia wrote: "Nor is it evident that what [the State] calls 'neutral scientific testing' is as neutral or as reliable as [the State] suggests." *Melendez-Diaz*, 129 S. Ct. at 2536.

11. Joel D. Lieberman et al., *Gold Versus Platinum: Do Jurors Recognize the Superiority and Limitations of DNA Evidence Compared to Other Types of Forensic Evidence*, 14 PSYCHOL. PUB. POL'Y & L. 27, 43-44 (2008) ("A series of planned contrasts indicated that DNA evidence led to significantly higher estimates of guilt compared to . . . [other forms of evidence] . . . [This study] provides further evidence for the powerful effects of DNA testimony. Using a new set of materials, we observed that after damaging cross-examination testimony and jury instructions detailing how to prudently use scientific evidence testimony, jurors were still more likely to convict when DNA evidence existed compared to other types of evidence.").

12. According to statistics kept by the Innocence Project, there have been 265 DNA exonerations in United States history. See *Innocence Project Case Profiles*, INNOCENCE PROJECT, <http://www.innocenceproject.org/know/> (last visited Nov. 17, 2010).

In my judgment, the problems that currently plague the forensic science community have undermined this mission. If faulty forensic science produces inaccurate results during an investigation, then law enforcement agents have wasted time and money. If flawed forensic science results or expert testimony have led to an unfounded criminal charge or a wrongful conviction, then a person has been unjustly convicted—and the real perpetrator remains free to hurt other innocent people.

Implementing the recommendations in the NAS Report may expedite the resolution of criminal cases. For example, if more of the forensic science disciplines are scientifically validated, then criminal defense lawyers are increasingly likely to counsel their clients to negotiate guilty pleas. Conversely, without such scientific validation, defense lawyers will choose to go to trial with the possibility of obtaining an acquittal by demonstrating the potential flaws in the prosecutor's forensic science results and testimony. Similarly, if a federal agency establishes standards for the content of laboratory reports to make them more comprehensive, I believe that more defense lawyers, not fewer, would stipulate to the admissibility of the results. Experienced defense lawyers would quickly recognize that challenging results that are well grounded in genuine science and that are well documented in reports is a futile and potentially counterproductive tactic.

I also believe it is important that the future of forensic science be distanced from the law enforcement agencies that have traditionally controlled forensic science research and testing. I have not formed this conclusion because of a lack of faith in the integrity of forensic science practitioners who work in law enforcement laboratories, or because of a lack of faith in the competence of the administrators who supervise those practitioners. To the contrary, I continue to trust in the integrity and the motives of law enforcement, and I remain quite proud of my past service as a federal prosecutor.

But law enforcement officials and forensic scientists are human, and all of us have biases that can affect our judgment. In order to ensure the public, including judges and juries, that those human biases do not undermine the accuracy and reliability of forensic science testing, we should insulate such testing from the potential, unintended influence of law enforcement agencies. Our goal is to create a "culture of science" within the forensic science community. To create such a culture, we should remove forensic science research and testing from the law enforcement culture.

In sum, I encourage law enforcement officers to support all of the important recommendations that are contained in the NAS Report. I do so because I believe that these recommendations will advance public safety, a

mission to which law enforcement officers have committed their professional lives.