



NATIONAL ASSOCIATION OF CRIMINAL DEFENSE LAWYERS

Comment on Advancing Forensic Science DOJ-LA-2017-0006 June 9, 2017

The National Association of Criminal Defense Lawyers (NACDL) commends the Department of Justice (DOJ) for its previous efforts to improve the reliability of forensic evidence in the criminal justice system. NACDL submits this comment to urge the DOJ to continue to advance and improve the reliability of forensic science as outlined below, including: reinstatement of a national commission on forensic science; implementation of a Forensic Science Discipline Review; and development of scientific standards for testimony and reports with input from independent scientists and statisticians.

NACDL is the largest organization in the United States advancing the mission of the nation's criminal defense lawyers to ensure justice and due process for persons accused of crimes. Fundamental to the representation of the accused is that all defendants have the Fifth Amendment right to due process of law and the Sixth Amendment rights to present evidence, to confront witnesses against them, to a fair trial, and to the effective assistance of counsel. All of these protections are designed to promote what the United States Supreme Court has called the "ultimate objective" of the criminal justice system, to ensure that "the guilty [are] convicted and the innocent go free."¹ We know that the DOJ shares these objectives. NACDL has worked collaboratively with the DOJ, the FBI and the Innocence Project on the FBI Microscopic Hair Comparison Analysis (MHCA) Review project since 2012, and, as a result, we have seen firsthand how pervasive scientifically unsupported testimony had been in that discipline.

Faulty forensic science is the second leading cause of wrongful conviction.² A 2009 blue-ribbon panel of experts funded by Congress and convened by the National Academy of Sciences (NAS) produced *Strengthening Forensic Science in the United States*, a landmark report that analyzed a range of forensic disciplines.³ In 2016, the President's Council of Advisors on Science and Technology (PCAST) issued its own report, reaffirming many of the underlying conclusions of the 2009 NAS report.⁴ These reports, along with the seemingly endless litany of major scandals at forensic laboratories nationwide, reveal that the fundamental system for delivery of forensic science in the criminal justice system is broken in the United States, and that structural reform is needed.

¹ *Herring v. New York*, 422 U.S. 853, 862 (1975).

² BRANDON L. GARRETT, CONVICTING THE INNOCENT: WHERE CRIMINAL PROSECUTIONS GO WRONG 114, 84-117, 280 (2012) ("Over half of the 250 exonerees, or 128, had one of more of the problems discussed in this chapter: invalid, unreliable, concealed, or erroneous forensic evidence.").

³ NAT'L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD (2009) [hereinafter 2009 NAS Report].

⁴ Executive Office of the President, President's Council of Advisors on Science and Technology, *Forensic Science in the Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* (Sept. 2016) [PCAST Report].

NACDL convened its own task force in response to the 2009 NAS report, and issued a series of recommendations in 2010.⁵ That document endorsed: (1) forming a central, science-based federal agency that is independent of law enforcement and prosecution agencies, (2) improving the culture of science, (3) adopting a national code of ethics, (4) reinforcing the prerequisite of research, (5) providing greater education, (6) ensuring transparency and discovery, and (7) allocating greater defense resources, particularly for indigent defense services. Progress has been made on some of these objectives. But sadly, much of the promise of the 2009 NAS report and its associated recommendations remain unfulfilled, as the 2016 PCAST report attests.

NACDL urges the DOJ to support and advance efforts that have been made to improve forensic science as a result of these reports, and to safeguard against reversing that progress just as it has begun to have a positive impact on the field of forensic science.

1. Establish and provide a dedicated funding stream to support a National Commission on Forensic Science separate from law enforcement.

The 2009 NAS report recommended the formation of an independent agency to provide oversight, issue guidance documents, and support research in forensic science. That agency was never established, but in its place, the DOJ and the National Institute for Standards and Technology (NIST) agreed in 2013 to found the National Commission on Forensic Science (NCFS).⁶ In the short time since it began work in 2014 until its termination in April, 2017, the NCFS was remarkably productive. As stated in the summary report of its two terms, the Commission adopted 43 work products, covering a broad range of topics including accreditation and proficiency testing, identification of needed areas of research, reporting and testimony standards, training and de-biasing materials, and more.⁷

NACDL urges the DOJ to establish a national commission on forensic science that is both independent from law enforcement, and open and transparent in its work and scientific debate. It is critical that the national commission on forensic science have a composition that is scientific and neutral in character. The DOJ should take this opportunity either to fulfill the promise of the 2009 NAS report and establish an entirely independent commission, or in the alternative, set up a funding stream directly to NIST to fund the work of a national commission with ample input from, but not direct exclusive control by, the DOJ. The commission members must include independent scientists, researchers and statisticians, as well as forensic science practitioners.

In contrast, an Office of Forensic Sciences and a Forensic Science Board within the DOJ would not meet the criteria of independence and transparency that are essential to promote a culture of science.⁸ The original NCFS had been influential on both the federal and state level,

⁵ National Ass'n of Criminal Defense Lawyers, *Principles and Recommendations to Strengthen Forensic Evidence and Its Presentation in the Courtroom*, Adopted Feb. 27, 2010, Austin, Texas, available at <https://www.nacdl.org/WorkArea/DownloadAsset.aspx?id=21802&libID=21772>

⁶ The NCFS charter is here: <https://www.justice.gov/archives/ncfs/file/624216/download>.

⁷ National Comm'n on Forensic Science, *Reflecting Back – Looking Toward the Future* (Apr. 11, 2017) available at <https://www.justice.gov/archives/ncfs/page/file/959356/download>.

⁸ The March 2017 version of that proposal can be found here: https://csidds.files.wordpress.com/2017/03/cfso_ofs_proposal-3_6_17_rev.pdf.

and served as a critical intermediary between the interests of science and law enforcement.⁹ There is still much work to be done, as outlined in the NCFS's closing report.¹⁰ That work will suffer both in quality and in the perception of fairness if it is dominated by the objectives of law enforcement substituting for debate among independent scientists. Permitting law enforcement to reclaim complete control over forensic science standards and oversight threatens to wind back the clock on the progress made in the years since the NAS report.

2. Implement a Forensic Science Discipline Review and continue development of Uniform Language for Testimony and Reports.

a. Uniform Language for Testimony and Reports (ULTRs)

The federal government must engage independent scientists and statisticians to set the boundaries of scientifically supportable testimony based on the accepted limits of each individual discipline. Therefore, NACDL continues to strongly encourage the DOJ to seek input on the continued development of the draft ULTRs from statisticians and the scientific community, including from the NIST Organization of Scientific Area Committees (OSAC) as they also work to develop standards. NACDL is very concerned that the last draft proposed hair comparison ULTR standard does not fully and accurately reflect the accepted limits of that discipline and would not prevent the types of testimony that have previously led to wrongful convictions, and were found to be scientifically invalid by the DOJ and the FBI in the MHCA Review.

The results of the FBI MHCA Review demonstrate the urgent need for clear, precise guidelines that govern the language used by forensic experts in both testimony and lab reports. It is NACDL's hope that if the ULTRs, or similar standards, continue to be developed and revised with significant and meaningful peer review, they will finally set limits on the language that analysts may use to convey their results to a jury, which will aid in preventing the miscarriages of justice identified by the CBLA Review, the 2014 OIG Report on the DOJ Task Force Review of the FBI Lab, and the MHCA Review.

b. Forensic Science Discipline Review (FSDR)

NACDL commends the DOJ for its work thus far on developing the Forensic Science Discipline Review plan and methodology, and is concerned that this important work will not proceed.

The DOJ and FBI agreed to undertake the MHCA Review after three men who had served lengthy prison sentences were exonerated by DNA testing in cases in which three different FBI hair examiners provided testimony which exceeded the limits of science and contributed to their wrongful convictions. While the MHCA Review is ongoing, the results thus far have conclusively documented the extraordinary frequency of exaggerated testimony. The DOJ and the FBI agree that FBI examiner testimony exceeded the limits of the science in over 90% of trials reviewed.

⁹ The NCFS's closing report lists a number of ways in which the Commission has had a tangible impact. See *supra* note 7, at 1-2.

¹⁰ See *id.* at 6-10.

As a result of the FBI MHCA Review, we now know that that at least one comparison discipline within the FBI Laboratory generated high rates of testimony that overstated the limits of the discipline. The possibility that similar scientifically invalid statements occurred in other subjective comparison disciplines must be addressed expeditiously through the FSDR. NACDL encourages the DOJ to engage experts and statisticians from outside of the DOJ with expertise in designing and implementing such studies. The FSDR should review feature comparison disciplines to determine, at a minimum, whether the testimony or lab report exceed what the DOJ now finds is appropriate. This inquiry should be informed by input from independent scientists and statisticians and may be guided by appropriately revised ULTRs or standards promulgated and entered into the registry by the OSAC.

3. Establish mandatory accreditation, certification, and proficiency standards.

For decades, crime laboratories functioned in the United States with little to no oversight at all. Very few laboratories were accredited, and few crime scene technicians had received formal certifications of any kind. Once on the job, technicians were rarely tested in field conditions to determine their continued competence.

Recent years have brought important changes in the areas of accreditation, certification, and proficiency testing.¹¹ Currently, roughly 88% of 409 publicly funded crime laboratories in the nation are accredited by a professional forensic science organization.¹² Roughly 72% of public crime labs have at least one externally certified analyst,¹³ and 98% of labs conduct some kind of proficiency testing.¹⁴ Some states even require accreditation for their crime laboratories.¹⁵

The problem, however, is that these standards remain too lax to be meaningful. As a result, nearly every major lab has weathered a major scandal of incompetence or malfeasance,¹⁶ even though nearly all were accredited. Standards for proficiency testing are actually *dropping*. In 2014, only 35% of labs conducted random case analysis testing (down from 54% in 2002), and only 10% conducted blind exams (down from 27% in 2002).¹⁷ These declines are worrying. Far more labs use declared tests to gauge proficiency.¹⁸ Such tests often do not include samples that truly replicate the ambiguity or difficulty inherent in real-world conditions and, by nature of being declared, are a poor means by which to judge an analyst's typical work performance.

The federal government has an opportunity to shore up forensic science by imposing national standards for accreditation, certification, and proficiency testing for forensic scientists. That

¹¹ *Accreditation* refers to a requirement that a laboratory demonstrate that it has met certain pre-established criteria for quality control and management. *Certification* refers to a test or standard that an individual employee must pass to establish competency in a field of testing. *Proficiency testing* refers to periodic reviews to ensure that an analyst or laboratory is performing its duties properly.

¹² Andrea M. Burch et al., Publicly Funded Crime Laboratories: Quality Assurance Practices, 2014, Bureau of Justice Statistics (Nov. 2016).

¹³ *Id.* at 6.

¹⁴ *Id.*

¹⁵ *See, e.g.*, Tex. Admin. Code § 651.8.

¹⁶ DAVID FAIGMAN ET AL., MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY § 30:15 (2016) (providing a list of laboratories involved in just DNA-related scandals).

¹⁷ Burch, *supra* note 12, at 4.

¹⁸ *Id.*

opportunity has arisen because the dominant commercial accreditor – a spinoff of a professional organization known as ASCLD/LAB – was recently acquired by ANAB,¹⁹ an entity with a long track record of more meaningful oversight. If basic standards are set – such as ones that require certification of some technicians as well as proficiency testing more meaningful than by declared exam – then ANAB will craft its oversight guidelines to meet those standards.

4. Reinforce the emerging culture of science and increased transparency in forensic work.

As the NCFS history indicates, some of the sharpest areas of conflict on the National Commission occurred with respect to moving forensic science away from its law enforcement roots and toward a more scientific footing. In the time since the 2009 report, several state and local jurisdictions have made major pronouncements in the field of forensic science, leaving the federal government behind the times. For instance, the Texas Commission on Forensic Science issued several major reports, including one which sharply criticized use of outdated and discredited methods for fire investigation²⁰ and another which recommended against the use of bite mark evidence in any criminal cases.²¹ The New York City Council adopted regulations that imposed greater transparency and oversight on its DNA lab, requiring that the lab conduct a “root cause analysis” in the aftermath of significant error and ordering the lab to make its protocols and operating procedures publicly available.²²

Questions of transparency and accountability in forensic science only continue to grow as new methods emerge and develop. For example, the PCAST report identified probabilistic genotyping software – proprietary programs developed by for-profit companies to analyze DNA samples – as an area of growth that deserved closer scrutiny and attention. The NCFS closing summary also identified that field, along with others, such as digital forensics and medico-legal death investigation, as requiring studied attention. Congress should appropriate funds to ensure that these fields are cultivated with an eye toward transparent scientific principles of accuracy, rather than an adversarial attitude with a disposition toward secrecy.

5. Enhance the support for defense attorneys commensurate with the increased prevalence and role of forensic science in criminal cases.

Although meaningful reform of forensic science in the United States requires close attention to what should be transparent and non-adversarial upstream issues such as establishing the scientific foundations of disciplines, ensuring laboratory training, and analyst oversight, a safeguard against the misuse of forensic evidence remains the criminal defense attorneys across the United States who represent clients in the individual cases in which this evidence is offered.

¹⁹ ANAB stands for the ANSI-ASQ National Accreditation Board, an entity formed in the 1990s in response to the need for an American certification body that would ensure private-sector compliance with international standards developed to facilitate commerce in the nascent European Union. In 2011, it expanded into forensic science with the acquisition of Forensic Quality Services, an established accreditor of forensic laboratories, and in 2015 it acquired ASCLD/LAB. *See generally* <http://anab.org/about-anab/history/>.

²⁰ The Willingham/Willis report, *available at* <http://www.fsc.texas.gov/cases>.

²¹ Forensic Bite-mark Comparison Complaint – Final Report, April 12, 2016, *available at* <http://www.fsc.texas.gov/sites/default/files/FinalBiteMarkReport.pdf>.

²² N.Y.C. Admin. Code §§ 17–207 & 208.

Even as the introduction and use of forensic evidence in both investigations and trials has grown, support for defense attorneys has largely stagnated. Many defenders remain reliant on the state for information about the forensic evidence in the case, and dependent upon courts for the resources to consult with experts or test evidence independently. Funds should be allocated to provide better resources and support for defense lawyers with respect to forensic evidence. Likewise, judges and prosecutors require training on the reliability, validity and appropriate use of forensic evidence. Criminal trials can perform their function as a search for the truth through an adversary process only if both parties have the ability to challenge evidence presented by the other side and have the resources to present their own.

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This is a critical moment in the evolution of forensic evidence in the United States. After two scathing reports on the lamentable state of science in our criminal courts, progress has slowly begun to be made. NACDL is hopeful that the DOJ will continue the positive change and forward momentum, and not return to the practices – most importantly, exclusive control of forensic science by law enforcement interests – that led to the high profile failures that motivated efforts to undertake reform in the first place.