

June 9, 2017

The Honorable Jeff Sessions
Attorney General of the United States
U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530-0001

Dear Mr. Attorney General:

The undersigned scientific organizations – which collectively represent hundreds of thousands of scientists – respectfully submit these comments in response to *Federal Register* notice DOJ-LA-2017-0006-0001 published on 13 April 2017. Our organizations have long insisted all branches of government should receive advice on the best scientific information available. Public trust in the integrity of science and scientists remains essential to the effective use of scientific research to improve human welfare.

Thus, we have long been concerned by reports from sources independent of the Department of Justice (DOJ), most notably the 2009 National Academies of Sciences Report [*Strengthening Forensic Science in the United States: A Path Forward*](#), that have exposed major gaps in the scientific basis for commonly used forensic analysis techniques.

These reports and evaluations by others and by [American Association for the Advancement of Science \(AAAS\)](#) are clear: the reliability and validity of many forensic investigative and prosecutorial practices have not been established on sound scientific bases. We simply do not know whether many forensic practices are reliable or valid scientifically, and in some circumstances forensics practices are demonstrably unreliable. Yet the results of many of these forensic disciplines continue to be commonly used as evidence in our courtrooms.

It is critical that the DOJ and stakeholders in the public and private sector continue to make progress on identifying the scientific and technical gaps that exist in our knowledge base and pursue the scientific investigations necessary to close those gaps. Many people have been convicted on the basis of forensic evidence that investigators, prosecutors, and juries alike considered reliable and valid, only to find that it was not, often many years later. According to the [National Registry of Exonerations](#), which has records of exonerations dating back to 1989, 490 individuals have been exonerated after being convicted on the basis of false or misleading forensic science. Ensuring that scientific standards for forensic evidence used in our judicial system remain at the highest level is essential to advancing science and serving society.

The existing shortcomings in our scientific base for forensic techniques, standards for evaluating and presenting that evidence, and forensic training and codes of conduct come with high societal costs, leaving some guilty parties free while other innocents languish, wrongfully convicted. And when lapses and errors are exposed to light, years of appeals and millions of dollars of resources remediating those errors can result. Not only are people's lives at stake, society's faith in the American justice system is at risk.

Many critical issues remain to ensure rigorous science is used in convicting the guilty and exonerating the innocent. These include evaluating the foundational science, setting forth a discipline-specific research agenda for forensic fields, developing clearer standards of practice, and establishing research-based approaches to communicating forensic science information accurately in a legal setting.

The National Commission on Forensic Science (NCFS) has served a crucial role in bringing together all relevant stakeholders – academic scientists, forensic science practitioners, defense and prosecutorial lawyers, judges, law enforcement, and victims’ advocates – to further the science and practices that will improve legal proceedings and judicial decisions. The Commission was able to make progress on multiple fronts in large part due to the fact that the diverse stakeholder communities were able to reach consensus. In particular, its recommendations have been adopted by state and local crime labs, and they have resulted in changes to both DOJ discovery practices and codes of professional conduct for those working in Federal DOJ laboratories.

Given the Commission’s successful track record, we strongly recommend that the DOJ maintain an independent, transparent Federal Advisory Committee or similar forum tasked with the goals laid out in the notice. This entity should provide direct advice to both the Attorney General and Federal laboratories, as well as the Congress, and maintain: (1) a broad representation of forensic science stakeholders representing policy, practice, and research; (2) transparency and openness to public comment; (3) an advisory role to the DOJ; (4) partnerships with Federal science agencies, including, but not limited to, the National Institute of Standards and Technology; and (5) a public forum for discussing the needs of all forensic science disciplines and encouraging the development of strategic plans and research agendas to address those needs.

Going forward, this entity should be tasked first with commissioning a thorough, independent, external review that (1) identifies which aspects of a forensic method are based on solid science that is acceptable not only to forensic practitioners but also to academic or other scientists; (2) identifies areas of forensic practice that are unreliable and/or invalid; and (3) sets forth a research agenda that explicitly states what issues in any particular forensic discipline require further study for improving practice based on sound science.

The importance of independence from DOJ in this endeavor cannot be overstated. The DOJ must not be put in the position of using forensic tools in its role as a prosecutor in federal criminal litigation, while simultaneously determining the scientific value of those same tools. If DOJ, or any part thereof such as the Federal Bureau of Investigation, conducts these much-needed evaluations, it risks being perceived as lacking objectivity and credibility within the larger stakeholder community – from academicians to justices and defense attorneys and society at large. We recommend that the commissioned review be conducted by an external association, institution, or academic department(s) that is independent, which should reach beyond its borders to recruit highly qualified scientists, engineers, and statisticians. This effort need not begin from scratch, as there are the beginnings of such analyses from prestigious organizations in circulation or published.

Further, to improve the understanding of forensic science by legal practitioners, workshops, conferences or other venues for each type of practitioner – prosecutors, defense bar, and judges – should be convened separately to discuss the state of forensic science. These should be conducted independently of organizations involved directly in litigation to avoid conflicts of interest.

The scientific community stands ready to work with the DOJ and other stakeholders to move forward on this critical national priority. Citizens of the United States must have confidence that the criminal justice system is fair and not stacked against any citizen. We count key experts across all disciplines of science among our hundreds of thousands of members, many of whom may be able to provide key insights that will advance the state of science in the service of justice.

Sincerely,

American Association for the Advancement of Science

American Chemical Society

Federation of Associations in Behavioral and Brain Sciences

Human Factors and Ergonomics Society