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RE: Creation of a "National Institute of Forensic Science"

Summary

The Innocence Project urges the establishment of a National Institute of Forensic Science, housed within a science-focused federal agency, to facilitate research into the scientific validity of forensic disciplines, set and enforce standards for its use, and ensure adequate certification and training for entities and individuals in the profession. The institute would extensively improve the reliability of tools available to law enforcement for solving and preventing crime and terrorism; and the research and technological development dollars invested by the federal government would provide significant economic stimulation.

Background: NAS Committee on Identifying the Needs of the Forensic Sciences Community

Through the Justice for All Act of 2004 (JFAA), a bi-partisan Congress directed the National Academy of Sciences to create a "Committee on Identifying the Needs of the Forensic Sciences Community" to examine thoroughly and comprehensively the fundamental underpinnings of forensic scientific evidence and its applications in our criminal justice system. With championing by Senator Barbara Mikulski, \$1.5 million was later appropriated to conduct the study. The Committee's report is expected in early 2009 (late January or February).

In creating this Committee, Congress issued the following mandate:

- (1) assess the present and future resource needs of the forensic science community, to include state and local crime labs, medical examiners, and coroners;
- (2) make recommendations for maximizing the use of forensic technologies and techniques to solve crimes, investigate deaths, and protect the public;
- (3) identify potential scientific advances that may assist law enforcement in using forensic technologies and techniques to protect the public;
- (4) make recommendations for programs that will increase the number of qualified forensic scientists and medical examiners available to work in public crime laboratories;
- (5) disseminate best practices and guidelines concerning the collection and analysis of forensic evidence to help ensure quality and consistency in the use of forensic technologies and techniques to solve crimes, investigate deaths, and protect the public;
- (6) examine the role of the forensic community in the homeland security mission;
- (7) examine the interoperability of Automated Fingerprint Information Systems; and



- (8) examine additional issues pertaining to forensic science as determined by the Committee.

Concerns about the Reliability of Forensic Sciences

Based on the testimony presented and the discussion among Committee members at their public meetings, it appears likely that the forthcoming NAS forensic committee report will stress the significant shortcomings present in numerous of the forensic sciences (other than DNA testing) and urge the formal and comprehensive research and standard-setting necessary to ensure that such assays are reliable and valid indicators of innocence or guilt.

We anticipate that the Committee will convey that because many forensic assays have been developed experientially and without objective scientific testing to confirm or disprove their reliability and reproducibility, a lack of formal scientific vetting places their probative value in doubt. These weaknesses create significant questions about the reliability of the forensic tools on which law enforcement depends, and about the public safety breakdowns that result from reliance on potentially flawed techniques and devices. Indeed, questions may be raised about whether certain forensic science techniques are valid enough to be relied upon by law enforcement, prosecutors and defense attorneys, and the courts in criminal cases.

The Need for a “National Institute of Forensic Science” to Direct Forensic Research and Reform

We are hopeful that the Committee’s report will identify the need for a federal entity to function as a “national institute of forensic sciences.” This institute would play the central role in facilitating research into the scientific validity of forensic disciplines, setting and enforcing standards for its use, and ensuring adequate certification and training for entities and individuals in the profession. While all of these possible recommendations reflect a greater degree of oversight for the forensic sciences and emerging forensic technologies, we are hopeful that the Committee will also affirm the hard work of existing research-oriented initiatives on forensic science in a wide range of federal programs. Many of these existing initiatives have an underlying principal of improving the quality and reliability of assays as they relate to questions of efficiency and crime prevention. They meet a critical need of the forensic science community and should be incorporated into any future legislative or administrative responses to the NAS report.

Importance of Placement within a Science-based Agency

Although the “national institute of forensic science” entity will need to coordinate the work of multiple different federal agencies and capacities through the government, the Innocence Project strongly believes that this entity should be housed within an agency with a primary focus on science, and with experience in facilitating research priorities and programs and setting national standards. This will ensure that scientific methodology and evaluative techniques are at the core of the entity’s work, will most efficiently utilize existing scientific capacities and expertise within the federal government, and will avoid any biases – real or perceived – that could result from placement in a primarily law enforcement-focused agency.

Improvement of Law Enforcement Forensic Tools and Public Safety

The comprehensive improvement and expansion of valid forensic science techniques will provide law enforcement professionals with the tools that they need, increasing both public safety and public confidence in the justice system. The availability of valid and reliable forensic tools is central to law enforcement’s ability to respond to criminal activity, interpret



evidence and clues, and ultimately bring perpetrators of crime or terrorism to justice. If these tools are flawed or their reliability is overstated, they will not provide the information needed to identify individuals accurately, and may direct police, investigators, and prosecutors to the wrong person – leaving the real criminal actor free to commit more crimes.

Opportunity for Economic Stimulus and Development

Evaluating and strengthening forensic science techniques creates an opportunity for the United States to build its leadership in the emerging industry of forensics science technology. In recent years, the growth and development of U.S.-based industries and companies related to DNA technology has been tremendous. The government funding of research and development of both existing and new forensic disciplines will create new industries, products, and jobs in the U.S., just as the development of DNA technologies and their applications has done.

Recommended Components of a “National Institute of Forensic Science”

In consultation with a growing group of advisors from various backgrounds relating to the field of forensic science and criminal justice, the Innocence Project has articulated the following proposed goal, functions, and principles for an entity to undertake this important scientific challenge.

GOAL:

To create a federal entity or capacity to oversee the research, development, funding, and application of the forensic sciences; and to establish the standards, regulations, and reporting requirements that will improve the reliability and validity of the forensic sciences.

CORE ENTITY FUNCTIONS AND RESPONSIBILITIES:

1. The entity will establish forensic science research protocols and priorities, directing research through a competitive grant-making process for extant and developing forensic science techniques; and will direct and fund research that tests the validity and reliability of each current forensic technique, device, and assay that has not been subjected to rigorous scientific validation. Private enterprise and academic institutions, as well as public crime laboratories, will be eligible for and encouraged to seek grants.
2. The entity will set scientific, research-based standards for each forensic technique and will determine the parameters for its acceptable use and application, including parameters for validation prior to use, report writing, and scientific boundaries for testimony about results.
3. The entity will set standards for the accreditation of public and private laboratories, including medical examiner offices, and the certification of individuals conducting forensic tests and examinations for use in federal and state courts.
4. The entity will create a system to ensure that public and private laboratories, and individuals conducting forensic tests and examinations for use in federal and state courts, meet the established accreditation and certification standards. The enforcement of these accreditation standards and the certification of laboratory personnel will be the responsibility of the entity; but the enforcement and accreditation process may well be delegated to the states to conduct in collaboration with professional accreditation



organizations, consistent with practices adopted by other health and clinical laboratory systems.

5. The entity will establish standard assessments to ensure the integrity of existing and emerging forensic products and technology. This includes the validation and tracking of the use of instruments, written protocols, training, proficiency testing, data interpretation, report writing, and testimony.
6. The entity will inform and support comprehensive training and professional development in the forensic sciences in order to increase capacity for research and quality assurance, and to bring current and new forensic science personnel into compliance with established standards and qualifications.

CORE PRINCIPLES:

1. The entity will be headquartered within a scientific agency of the federal government in order to ensure objectivity and independence, and to prevent institutional biases or conflicts of interest, real or perceived.
2. The entity will coordinate all existing and future federal functions, programs, and research related to the forensic sciences and forensic evidence.
3. The entity will be a permanent program in order to ensure ongoing evaluation and review of current and developing forensic science techniques, tools, and assays; and continued United States leadership, both publicly and through private industry, in the research and development of improved technology with an eye towards future economic investments that benefit the public good and the administration of justice.
4. The entity will be funded appropriately so that its mandates can be executed in full.

CONCLUSION

In sum, it is our hope that the upcoming NAS report will be the beginning of a comprehensive federal commitment to stimulating basic and applied interdisciplinary research involving biological, physical, and computer sciences that will, in turn, generate competition in private industry and academia to improve forensic science. Just as America must be a world leader in the development of green technology, we can and should lead the world in the development of forensic science technology and its application in a truly robust criminal justice system. Doing so will contribute to better tools for our nation's law enforcement officials and will improve the reliability and accuracy of our justice systems. We look forward to working with the incoming Administration, Congress, and the scientific and criminal justice communities to address these important issues of justice and public safety.