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**STATEMENT OF THE INNOCENCE PROJECT
NATIONAL COMMISSION ON FORENSIC SCIENCE
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The Innocence Project is a national litigation and public policy organization dedicated to exonerating wrongfully convicted people through post-conviction DNA testing and reforming the criminal justice system to prevent future miscarriages of justice. Validated and reliable science is central to our work. Forensic DNA analysis, scientifically supported by basic and applied research efforts, the subject of two National Research Council reports, and regulated by national quality standards, is the scientific assay used by the Innocence Project to overturn wrongful convictions and free innocent people from prison. Post-conviction DNA testing is especially important to the criminal justice system because each DNA exoneration offers the system a unique and crucial opportunity to understand how wrongful convictions occur.

By deconstructing the sequence of events that produced each of the nation's 312 wrongful convictions proven by post-conviction DNA testing,¹ the Innocence Project has identified various factors that contribute to wrongful convictions and otherwise threaten to negatively impact the criminal justice system. The Innocence Project also identifies upstream systems to mitigate and minimize the contributing factors that lead to wrongful convictions and advocates for their adoption. By increasing the accuracy of criminal investigations, strengthening prosecutions, and helping to ensure the integrity of convictions, we hope to aid all stakeholders in the criminal justice system.

In our review of the nation's first 312 post-conviction DNA exonerations, reliance on unvalidated, improper, or flawed forensic evidence has proven to be the second most frequent contributing factor, having played a role in 49 percent of those cases. In each of those cases,

¹ Among the 312 post-conviction DNA exonerations, the Innocence Project has worked on 172 cases.



while the innocent sat in prison for an average of almost 15 years, the actual assailant was left free to commit other crimes. Justice was not served.

Among these cases, there are many instances in which testimony regarding forensic evidence was exaggerated or unsupported by empirical data. Historically, the criminal justice system has relied upon both cross-examination by defense lawyers and gatekeeping by judges to regulate this kind of testimony. However, these approaches have not sufficiently guarded against inaccurate scientific evidence being used to support criminal convictions. Defense attorneys are rarely adequately trained to provide effective cross-examination on forensic evidence and judges rarely suppress the evidence even where it is in fact inaccurate.

More to the point, the most effective place to address the scientific issues of forensic science is long before the evidence is introduced in court. An important example of such a failure is the FBI's recent decision to conduct an exhaustive review of more than 2,100 criminal cases where the FBI conducted microscopic hair comparison analysis and declared that it incriminated someone who may have been convicted of a crime. The review focuses on specific cases in which FBI Laboratory reports and testimony included statements that could not be scientifically supported. Of the 312 post-conviction DNA exonerations, convictions in 74 cases relied in part on microscopic hair comparison. This systemic failure was in part due to the absence of national standards for report writing and testifying in a manner that comported with basic scientific principles, and it underscores that the appropriate place to address the scientific issues of forensic science is long before the evidence is introduced in court. This is not the fault of the FBI, and the Innocence Project applauds the FBI for its proactive review and acknowledgement of a crime laboratory's duty to correct when scientific errors occur.

The 2009 National Academy of Sciences report, *Strengthening Forensic Science in the United States: A Path Forward*, confirmed our experience with forensic science and emphasized the need to determine the validity and reliability of a number of commonly used forensic science disciplines.² Because biological evidence indicative of guilt or innocence is present in only 5-

² The National Academy of Sciences report, *Strengthening Forensic Science in the United States: A Path Forward* (2009), states, "Although some of the techniques used by the forensic science disciplines—such as DNA analysis, serology, forensic pathology, toxicology, chemical analysis, and digital and multimedia forensics—are built on solid bases of theory and research, many other techniques have been developed heuristically. That is, they are based on observation, experience, and reasoning without an underlying scientific theory, experiments designed to test the



10% of felony cases according to crime lab directors, it is imperative that non-DNA forensic science is strengthened and subjected to the same scientific scrutiny that allowed forensic DNA testing to mature. Rigorously validated, reliable, and robust forensic evidence will not only lead investigations to the true perpetrators of crime and free the innocent, but it will improve public safety and bring closure to crime victims and their families.

Non-DNA forensic analyses have not had the opportunity to benefit from the same support of the academic and research communities as have forensic DNA testing and a few other forensic assays that originated from clinical medicine, e.g., toxicology. Although clinical testing and medicine are not perfect, the analogy nevertheless responds to many of the same scientific needs and capacities that forensic science requires. To wit, the National Institute of Health and National Science Foundation fulfill clinical laboratories' needs for basic and applied research. The U.S. Food and Drug Administration vets devices and assays (even if pharmaceutical or biotech companies finance much of the applied research). Finally, the Clinical Laboratory Improvement Amendments of 1988, or CLIA, as administered by the Centers for Medicare & Medicaid Services, establishes inspection and certification standards to produce reliable and reproducible clinical results. There are no comparable federal institutions serving forensic science to the extent they are served in clinical science. The National Commission on Forensic Science presents an opportunity to end that disparity. The work of this committee has the potential to harness the power of our country's research capacity and significantly strengthen the tools used in criminal investigations.

The Innocence Project is gratified that this Commission brings together members of the criminal justice community with academic scientists and researchers. The fact that the Department of Justice and the National Institute of Standards and Technology are partnering to address this issue represents the highest levels of government committing to support the future of forensic science as a scientific endeavor while ensuring that the voice and experience of expert practitioners is clearly understood and incorporated. That balance of stakeholders will ensure that forensic sciences are improved in a manner that strengthens their scientific foundation while

uncertainties and reliability of the method, or sufficient data that are collected and analyzed scientifically.” These heuristic techniques include friction ridge analysis, shoeprint and tire tracks, toolmark and firearms identification, analysis of hair evidence, analysis of fiber evidence, questioned document examination, analysis of paint and coatings evidence, analysis of explosives evidence and fire debris, forensic odontology, and bloodstain pattern analysis.



supporting their practical application. And that balance will be especially important in the generation of science-based forensic science standards whose implementation will increase the accuracy of criminal investigations, strengthen criminal prosecutions, protect the innocent and the victims, and enable law enforcement to consistently focus its resources not on innocent suspects, but on the true perpetrators of crimes.

It is our hope that the Commission will create a robust scientific framework to establish a forensic science research funding agenda, develop rigorous scientific standards, advance the use of valid and reliable forensic evidence, and provide meaningful guidance on the intersection of forensic science in the courts. Accomplishing these upstream priorities will improve our country's commitment to the future of forensic science and result in a justice system that is more fair and more accurate.