INNOCENCE PROJECT

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Chairman Benjamin Civiletti
Maryland Commission on Capital Punishment
Governor's Office of Crime Control and Prevention
300 E. Joppa Road, Suite 1105
Baltimore, MD 21286

Dear Chairman Civiletti & Commission Members:

Thank you again for the opportunity to speak before the Commission on September 5, 2008. I ask that the attached written testimony, along with this letter and supplemental materials – intended to respond to the particular questions raised by your members – be included in the record.

Commissioner Schellenberger asked for documentation of the percentage range I cited where DNA testing will be dispositive of guilt in capital cases. This figure is based upon frequent representations from our nation's leading criminologists. Barry A. J. Fisher, past-president of the American Academy of Forensic Sciences, past-president of the International Association of Forensic Sciences, past-president of the American Society of Crime Laboratory Directors and a past-chairman of the American Society of Crime Laboratory Directors – Laboratory Accreditation Board, recently testified before the California Commission on the Fair Administration of Justice and stated that DNA testing constitutes approximately five percent of the work of crime labs. Michael M. Baden, M.D., director of the Medicological Investigations Unit of the New York State Police, in testimony before the U.S. Senate Committee on the Judiciary indicated that "in less than 10% of murders, the criminal leaves DNA evidence behind." James Christy, director of the Future Explorations Unit of the Department of Defense's Cyber Crime Unit was quoted as saying that "only about 1% of criminal cases introduce DNA evidence." Nonetheless, there is no rigorous study I know of that establishes whether there is a higher percentage in capital cases.

While Commissioner Schellenberger agreed in response to my question that no more than half of capital cases likely contain testable biological evidence, I just picked that number for purposes of advancing the discussion. As reflected in my testimony, the 10% estimate given by Dr. Baden and the observations of Barry Fisher are consistent with my own experience. So I think it's safe to say that an estimate that 50% of homicide cases contain biological evidence susceptible to dispositive, or even very informative DNA testing, would be a substantial overestimate of the actual rate. But even granting such an estimate, the mere presence of biological evidence that

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might have come from the assailant must be considered in the context of several other factors:

First, the presence of testable biological evidence from a crime scene does not mean that once the evidence is tested, it is always dispositive or material evidence of guilt. For instance, matching DNA-tested fingernail scrapings from a murder victim to a suspect where there is evidence of a struggle, or matching semen to a suspect in a rape murder, is likely to be dispositive of guilt, but matching DNA tests of a hair recovered from a crime scene from a suspect may not, in some cases, be equally powerful proof unless the hair was found in a probative location, such as under a fingernail or in the hand of the victim after a struggle.

Second, despite the fact that DNA is the gold standard of forensic assays, DNA tests are only as good as the humans charged with performing them – an old saw in forensic circles is "DNA testing is, in theory, foolproof but any fool can do it." Evidence from across the nation of cross-contamination, mislabeling of evidence, mistakes, forensic misconduct and other quality assurance problems demonstrate the fallibility of even this most robust of forensic tests. Of course, as I mentioned in my oral testimony, just last month, such a problem occurred in Maryland's backyard when Baltimore City's Crime Lab director of ten years was fired following revelations that employees at the lab had tainted evidence with their own DNA. This is the kind of problem can lead to false exclusions of guilty parties, and false inclusions of innocents, particularly in situations where there are mixed samples.

Third, and perhaps most importantly, even if half of all capital cases contained testable biological evidence, which could be directly tied to the crime, and that evidence was subjected to reliable DNA testing, it would only provide highly probative evidence about guilt or innocence in half of all capital cases. As I point out in the attached testimony, under a framework in which DNA is used as a sentencing tool, a person who committed a single stabbing where DNA evidence was available for testing would receive the death penalty, while an individual who shot ten men, where there was an absence of biological evidence, would not. In light of this, it is inconceivable to me that this commission would conclude that DNA testing alone could eliminate the risk of error or be the basis for assuring the fairness of the capital punishment system.

Commissioner Campbell asked whether recent advances in forensic technology assure us that the risk of executing an innocent has diminished. Actually, the opposite is true. DNA testing has exposed serious scientific problems in many other forensic disciplines that have not been seriously examined for years. I raised the Cameron Todd Willingham arson murder case during my testimony not because I believe that Marylanders should wrestle with a possible wrongful execution in Texas, but because it is exemplary of an instance where science that was largely thought to be sound was later determined to be unsound. Who's to say that in 20 or 30 years there won't be further advances that reveal our current methods to be based on false assumptions? Science never stops advancing, and there is always the potential for another breakthrough to raise new questions about old methods. Simply because we are only now beginning to understand the scope of issues affecting the quality of forensic results does not mean that we can be assured that the risk of executing a wrongfully convicted person is now

minimized.

Chicago Tribune reporters in 2004 conducted an exhaustive investigation on state-funded crime laboratories and determined that more than a quarter of 200 DNA and death row exonerations

since 1986 involved "faulty crime lab work or testimony."[1] After their review of DNA exonerations, professors Michael Saks and Jonathan J. Koehler concluded that 63 percent involved forensic science testing errors and 27 percent involved false or misleading testimony by forensic experts.[2] Professor Samuel Gross and his University of Michigan colleagues examined 340 DNA and non-DNA exonerations, and found that 24 involved forensic scientists who committed perjury.[3] Finally, after studying the first 200 DNA exonerations, University of Virginia Law Professor Brandon Garrett concluded that missteps involving forensic evidence were present in 57 percent of the wrongful convictions.[4]

These findings, combined with the exposure of crime lab scandals and instances of misleading forensic testimony led Congress to call upon the National Academy of Sciences (NAS) to study the validity of forensic techniques currently in use. I have attached the agendas from each of the seven meetings to provide the Commission with a sense of the breadth and scope of this inquiry. For instance, NAS recently received oral and written submissions from the United States Secret Service, in which that entity calls for a "strategic plan for research and development throughout the forensic disciplines to include statistical studies which are needed to provide stronger scientific foundations in
various disciplines."

Indeed, the NAS is investigating a host of forensic disciplines currently employed, ranging from forensic odontology, ballistics, arson, hair microscopy to fingerprints. (And to provide the Commission with a more immediate sense of some of the problems with fingerprints, a traditionally well-regarded forensic discipline, I am including two reports on the Brandon Mayfield case – one from the FBI and the other from the Office of the Inspector General, which I began to describe to you during my oral testimony.) Based upon the testimony provided to date, I am confident that NAS will conclude in its final report that sweeping changes must be made in a great number of disciplines.

Considering the epic scale of the NAS inquiry and history of problems in all forensic disciplines, DNA cannot be looked upon as the silver bullet that lends fairness to a death penalty; DNA is

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1 Maurice Possley et al., *Scandal Touches Even Elite Labs: Flawed Work, Resistance to Scrutiny Seen Across U.S.*, CHI. TRIB., Oct. 21, 2004, at 1.

2 See Michael J. Saks & Jonathan J. Koehler, The Coming Paradigm Shift in Forensic Identification Science, 309 Science 892, 892 fig.1 (2005) (reviewing 86 DNA exoneration cases and noting "Percentages exceed 100% because more than one factor was found in many cases.").

3 Samuel R. Gross et al., *Exonerations in the United States: 1989 Through 2003*, 95 J. CRIM. L. & CRIMINOLOGY 523, 543 (2005).

4 For example, in a comprehensive review of the first 200 convictions overturned with DNA evidence:

> One hundred and thirteen cases (57%) involved introduction of forensic evidence at trial, with serological analysis of blood or semen the most common (79 cases), followed by expert comparison of hair evidence (43 cases), soil comparison (5 cases), DNA tests (3 cases), bite mark evidence (3 cases), fingerprint evidence (2 cases), dog scent identification (2 cases), spectrographic voice evidence (1 case), shoe prints (1 case), and fiber comparison (1 case).

Brandon L. Garrett, *Judging Innocence*, 108 COLUM. L. REV. 55, 81 (2008).

only dispositive of guilt in a small universe of cases. DNA cases can, however, allow us to shed light on issues plaguing the criminal justice system. It is critically important that policymakers closely track these cases, for while DNA is only probative in a fraction of all criminal cases, the practices leading to wrongful convictions are fundamental to the vast majority of criminal investigations. Reforming those practices will help us not only free the innocent, but identify the guilty.

Commissioner Jones specifically asked about one of these necessary reforms, namely eyewitness

identification. Indeed, more than 75% of the nation's DNA exonerations contained at least one eyewitness misidentification. To address Commissioner Jones's question, I have included the Innocence Project's model legislation and best model practices, informed by more than 25 years of social science research, a resource guide that describes each of the model practices and the specific scientific research that informs them, copies of model practices being employed in other jurisdictions (i.e. New Jersey & Wisconsin), and some information about the laptop computer technology that Maryland might consider employing statewide.

In short, before deciding whether to continue to expend energy and resources on the administration of capital punishment – which cannot eliminate the risk of executing an innocent no matter how much you tinker, narrow, or modify it – Maryland would do well to take stock of serious problems faced by the system and implement the simple and readily available reforms demonstrated to address them, including those highlighted in my submitted testimony.

If there are any questions that I did not address in this letter or my testimony, please feel free to call upon me at any stage in your work.

Sincerely,

Barry C. Scheck
Co-Director