

**AMERICAN BAR ASSOCIATION  
SECTION OF CRIMINAL JUSTICE**

**REPORT TO THE HOUSE OF DELEGATES**

**RECOMMENDATION**

1           RESOLVED, That the American Bar Association urges federal, state, local and territorial  
2 governments to reduce the risk of convicting the innocent, while increasing the likelihood of  
3 convicting the guilty, by adopting the following principles:  
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5           1. Crime laboratories and medical examiner offices should be accredited, examiners  
6 should be certified, and procedures should be standardized and published to ensure the validity,  
7 reliability, and timely analysis of forensic evidence.  
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9           2. Crime laboratories and medical examiner offices should be adequately funded.  
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11           3. The appointment of defense experts for indigent defendants should be required  
12 whenever reasonably necessary to the defense.  
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14           4. Training in forensic science for attorneys should be made available at minimal cost to  
15 ensure adequate representation for both the public and defendants.  
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17           5. Counsel should have competence in the relevant area or consult with those who do  
18 where forensic evidence is essential in a case.

## REPORT

### INTRODUCTION

In *Actual Innocence*, Barry Scheck, Peter Neufeld, and Jim Dwyer examined 62 of the 67 DNA exonerations secured through Cardozo Law School's Innocence Project to ascertain what factors contributed to these miscarriages of justice. One of the more astounding conclusions was that a *third* of these cases involved "tainted or fraudulent science."<sup>1</sup>

### Scientific Evidence

The Supreme Court has long recognized the value of scientific evidence – especially when compared to other types of evidence. For example, in *Escobedo v. Illinois*,<sup>2</sup> the Court observed: "We have learned the lesson of history, ancient and modern, that a system of criminal law enforcement which comes to depend on the 'confession' will, in the long run, be less reliable and more subject to abuses than a system which depends on extrinsic evidence independently secured through skillful investigation." In *Davis v. Mississippi*,<sup>3</sup> the Court commented:

Detention for fingerprinting may constitute a much less serious intrusion upon personal security than other types of police searches and detentions. Fingerprinting involves none of the probing into an individual's private life and thoughts that marks an interrogation or search. Nor can fingerprint detention be employed repeatedly to harass any individual, since the police need only one set of each person's prints. Furthermore, fingerprinting is an inherently more reliable and effective crime-solving tool than eyewitness identifications or confessions and is not subject to such abuses as the improper line-up and the "third degree."

*Recent developments.* Three developments in the 1990s dramatically altered the judicial approach to scientific evidence. The first was the advent of DNA profiling. Although DNA evidence revolutionized forensic science, its introduction into the courtroom was not without controversy.<sup>4</sup> Even the FBI's top scientist acknowledged the shortfalls of DNA evidence when first introduced: "The initial outcry over DNA typing standards concerned laboratory problems: poorly defined rules for declaring a match; experiments without controls; contaminated probes and samples; and sloppy interpretation of autoradiograms. Although there is no evidence that

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<sup>1</sup> BARRY SCHECK ET AL., *ACTUAL INNOCENCE: FIVE DAYS TO EXECUTION AND OTHER DISPATCHES FROM THE WRONGLY CONVICTED* 246 (2000).

<sup>2</sup> 378 U.S. 478, 488-89 (1964). *See also* *Breithaupt v. Abram*, 352 U.S. 432, 439 (1957) ("Modern community living requires modern scientific methods of crime detection lest the public go unprotected.").

<sup>3</sup> 394 U.S. 721, 727 (1969).

<sup>4</sup> *See* William C. Thompson, *Evaluating the Admissibility of New Genetic Identification Tests: Lessons From the "DNA War"*, 84 J. CRIM. L. & CRIMINOLOGY 22 (1993).

these technical failings resulted in any wrongful convictions, the lack of standards seemed to be a recipe for trouble.”<sup>5</sup> As a consequence, extensive standards were developed.

Moreover, the National Academy of Sciences issued two reports on the subject, noting the importance of certain practices: “No laboratory should let its results with a new DNA typing method be used in court, unless it has undergone . . . proficiency testing via blind trials.”<sup>6</sup> Commentators began to ask why such procedures were not applied in other forensic fields.<sup>7</sup> In short, DNA analysis now sets the gold standard against which other forensic sciences are measured – e.g., drug testing, fingerprint comparisons, firearms identifications (“ballistics”), and questioned document examinations. (DNA cases, however, make up only a small portion of crime lab work – about five percent)

The second development was the Supreme Court’s decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*,<sup>8</sup> which was followed by *General Electric Co. v. Joiner*<sup>9</sup> and *Kumho Tire Co. v. Carmichael*.<sup>10</sup> If DNA evidence revolutionized forensic science, *Daubert* and its progeny revolutionized the admissibility of evidence based on forensic science. Over the last decade, *Daubert* has developed into a rigorous standard for judging the admissibility of expert testimony. Indeed, in *Weisgram v. Marley Co.*,<sup>11</sup> the Supreme Court referred to *Daubert* as imposing “exacting standards of reliability.” In response to *Daubert* and *Kumho*, Federal Rule 702 was amended in 2000. Admissibility now requires that expert testimony (1) be “based upon sufficient facts or data,” (2) be “the product of reliable principles and methods,” and (3) be reliably applied “to the facts of the case.” Forensic techniques, many of which gained judicial acceptance before these demanding standard were required, are now subject to *Daubert* scrutiny. As one district court observed, the Supreme Court in *Daubert* and *Kumho* “is plainly inviting a reexamination even of ‘generally accepted’ venerable, technical fields.”<sup>12</sup> Although numerous courts have rejected *Frye* “general acceptance” test in favor of the *Daubert* approach,<sup>13</sup> some

<sup>5</sup> Eric S. Lander & Bruce Budowle, *DNA Fingerprinting Dispute Laid to Rest*, 371 NATURE 735, 735 (Oct. 27, 1994).

<sup>6</sup> NATIONAL RESEARCH COUNCIL, *DNA TECHNOLOGY IN FORENSIC SCIENCE* 55 (1992).

<sup>7</sup> See Michael J. Saks & Jonathan J. Koehler, *What DNA “Fingerprinting” Can Teach the Law About the Rest of Forensic Science*, 13 CARDOZO L. REV. 361, 372 (1991) (“[F]orensic scientists, like scientist in all other fields, should subject their claims to methodologically rigorous empirical tests. The results of these tests should be published and debated. Until such steps are taken, the strong claims of forensic scientists must be regarded with far more caution than they traditionally have been.”).

<sup>8</sup> 509 U.S. 579 (1993).

<sup>9</sup> 522 U.S. 136 (1997).

<sup>10</sup> 526 U.S. 137 (1999).

<sup>11</sup> 528 U.S. 440, 445 (2000).

<sup>12</sup> *United States v. Hines*, 55 F. Supp. 2d 62, 67 (D. Mass. 1999). See also *United States v. Hidalgo*, 229 F. Supp. 2d 961, 966 (D. Ariz. 2002) (“Courts are now confronting challenges to testimony, as here, whose admissibility had long been settled.”).

<sup>13</sup> E.g., *People v. Shreck*, 22 P.3d 68, 70 (Colo. 2001); *Schafersman v. Agland Coop.*, 631 P.3d 862, 867

jurisdictions have retained *Frye*,<sup>14</sup> and many of these are populous states – *i.e.*, those in which many, if not most, criminal cases are tried. Some of these courts believe *Frye* offers greater protection for defendants than *Daubert*.<sup>15</sup> Thus, whether under an increasingly stringent *Daubert* standard or a reinvigorated *Frye* test,<sup>16</sup> scientific proof is being scrutinized more closely than ever before.

The third development concerned scientific evidence “abuse cases,” which involved hair and pre-DNA serological evidence. Fred Zain’s conduct at the West Virginia crime laboratory is probably the most prominent example. A judicial report concluded:

The acts of misconduct on the part of Zain included (1) overstating the strength of results; (2) overstating the frequency of genetic matches on individual pieces of evidence; (3) misreporting the frequency of genetic matches on multiple pieces of evidence; (4) reporting that multiple items had been tested, when only a single item had been tested; (5) reporting inconclusive results as conclusive; (6) repeatedly altering laboratory records; (7) grouping results to create the erroneous impression that genetic markers had been obtained from all samples tested; (8) failing to report conflicting results; (9) failing to conduct or to report conducting additional testing to resolve conflicting results; (10) implying a match with a suspect when testing supported only a match with the victim; and (11) reporting scientifically impossible or improbable results.<sup>17</sup>

Unfortunately, Zain was not alone.<sup>18</sup> Similar issues have arisen in Oklahoma City and Montana. Such cases are beginning to have an impact on admissibility decisions. For example, the Florida Supreme Court has commented:

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(Neb. 2001). Other states that have explicitly adopted *Daubert* include Alaska, Connecticut, Idaho, Indiana, Kentucky, Massachusetts, New Hampshire, New Mexico, Oklahoma, South Dakota, Tennessee, and West Virginia. See 1 GIANNELLI & IMWINKELRIED, SCIENTIFIC EVIDENCE § 1-13 (3d ed. 1999).

<sup>14</sup> *E.g.*, *People v. Leahy*, 882 P.2d 321, 323 (Cal. 1994)”; *People v. Miller*, 670 N.E.2d 721, 731 (Ill. 1996); *Burrall v. State*, 724 A.2d 65, 80 (Md. 1999); *Goeb v. Tharaldson*, 615 N.W.2d 800, 814 (Minn. 2000). Other *Frye* jurisdictions include Alabama, Arizona, Florida, Kansas, Michigan, Mississippi, Missouri, Nevada, New Jersey, New York, Pennsylvania, and Washington. See 1 GIANNELLI & IMWINKELRIED, SCIENTIFIC EVIDENCE § 1-15 (3d ed. 1999).

<sup>15</sup> See *Ramirez v. State*, 810 So.2d 836, 843 (Fla. 2001); *State v. Copeland*, 922 P.2d 1304, 1314 (Wash. 1996) (en banc).

<sup>16</sup> See *Ramirez v. State*, 810 So. 2d 836, 844 (Fla. 2001); *Wilson v. State*, 803 A.2d 1044 (Md. 2002) (excluding probability testimony concerning two children in the same family suffering sudden infant death syndrome (SIDS) under *Frye*).

<sup>17</sup> In re Investigation of the W. Va. State Police Crime Lab., Serology Div., 438 S.E.2d 501, 503 (W. Va. 1993) (quoting report).

<sup>18</sup> See Paul C. Giannelli, *The Abuse of Scientific Evidence in Criminal Cases: The Need for Independent Crime Laboratories*, 4 VA. J. SOC. POL’Y & L. 439 (1997). See also David Bernstein, *Junk Science in the United States and the Commonwealth*, 21 YALE J. INT’L L. 123 (1996) (discussing cases in Canada, Australia, New Zealand, and England).

In order to preserve the integrity of the criminal justice system in Florida, particularly in the face of rising nationwide criticism of forensic evidence in general, our state courts – both trial and appellate – must apply the *Frye* test in a prudent manner to cull scientific fiction and junk science from fact. Any doubt as to admissibility under *Frye* should be resolved in a manner that minimizes the chance of a wrongful conviction, especially in a capital case.<sup>19</sup>

These cases have led to some important reforms, as can be gleaned from the Inspector General’s report on the FBI laboratory. The report’s recommendations included: (1) seeking accreditation of the FBI laboratory by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board; (2) requiring examiners in the Explosives Unit to have scientific backgrounds in chemistry, metallurgy, or engineering; (3) mandating the preparation and signing of separate reports instead of issuing one composite report “without attribution to individual examiners”; (4) establishing report review procedures by unit chiefs; (5) preparing adequate case files to support reports; (6) monitoring court testimony in order to preclude examiners from testifying to matters beyond their expertise or in ways that are “unprofessional”; and (7) developing written protocols for scientific procedures.<sup>20</sup>

In light of these developments and in order to take full advantage of the power of forensic science to aid in the search for truth, the Committee makes five recommendations, which are discussed below.

**Recommendation 1: Crime laboratories and medical examiner offices should be accredited, examiners should be certified, and procedures should be standardized and published to ensure the validity, reliability, and timely analysis of forensic evidence.**

### A. Accreditation

Citing clinical laboratories, which are regulated under the Clinical Laboratory Improvements Act of 1988,<sup>21</sup> commentators have argued that crime laboratories should also be regulated.<sup>22</sup> Only a few jurisdictions, however, require their forensic laboratories to be

<sup>19</sup> Ramirez v. State, 810 So. 2d 836, 853 (Fla. 2001) (citations omitted).

<sup>20</sup> U.S. DEPARTMENT OF JUSTICE, OFFICE OF INSPECTOR GENERAL, THE FBI LABORATORY: AN INVESTIGATION INTO LABORATORY PRACTICES AND ALLEGED MISCONDUCT IN EXPLOSIVES-RELATED AND OTHER CASES (April 1997).

<sup>21</sup> 42 U.S.C. § 263a.

<sup>22</sup> See Eric Lander, *DNA Fingerprinting On Trial*, 339 NATURE 501, 505 (1989) (“At present, forensic science is virtually unregulated — with the paradoxical result that clinical laboratories must meet higher standards to be allowed to diagnose strep throat than forensic labs must meet to put a defendant on death row.”); Randolph Jonakait, *Forensic Science: The Need for Regulation*, 4 HARV. J. L. & TECH. 109, 191 (1991) (“Current regulation of clinical

accredited, which often includes proficiency testing.<sup>23</sup> In addition, DNA procedures are regulated under the DNA Identification Act of 1994. That statute created a DNA Advisory Board on quality assurance, which was tasked with the promulgation of standards for proficiency testing of laboratories and analysts.<sup>24</sup>

The United Kingdom's experience offers another model for regulation. In the 1980s, both Touche Ross, management consultants, and the Home Affairs Committee reviewed the Forensic Science Services (FSS), and as a consequence, FSS became an executive agency of the Home Office. Moreover, a Royal Commission recommended the establishment of a Forensic Science Advisory Council that would, among other things, review the performance and standards of crime laboratories.<sup>25</sup> Although this recommendation was not implemented, some progress has apparently been made, at least with respect to the registration of experts.<sup>26</sup>

Currently, the American Society of Crime Lab Directors/Laboratory Accreditation Board (ASCLD/LAB) operates an accreditation program for public and private crime laboratories.<sup>27</sup> Over 240 laboratories have been accredited, and judicial opinions are citing these accreditation standards in their admissibility decisions.<sup>28</sup> In addition, the National Forensic Science Technology Center accredits individual laboratory programs under the auspices of the International Organization for Standardization (ISO) standard 17025; it is an ISO Guide 58

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labs indicates that a regulatory system can improve crime laboratories.”); Judge Jack B. Weinstein, *Science, and the Challenge of Expert Testimony in the Courtroom*, 77 OR. L. REV. 1005, 1011 (1998) (“Accreditation of laboratories presenting research in courts would provide a minimum standard for gauging the credibility of the research and testimony offered.”).

<sup>23</sup> See N.Y. EXEC. § 995-b (McKinney 1996); (accreditation by Forensic Science Commission); OKLA. STAT. ANN. tit. 74 § 150.37 (requiring accreditation by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board or the American Board of Forensic Toxicology); TEX. CRIM. PROC. CODE art. 38.35 (accreditation by the Department of Public Safety).

<sup>24</sup> 42 U.S.C. § 14131(1)(a) & (c). The DNA Advisory Board has expired. Currently, the FBI DNA Quality Assurance Standards govern DNA laboratories that receive federal funding. These standards require periodic external audits to ensure compliance with the required quality assurance standards. The American Society of Crime Laboratory Directors/Laboratory Accreditation Board conducts these required audits for those laboratories accredited under its program.

<sup>25</sup> See ROYAL COMM’N ON CRIM. JUSTICE 151 (Cm. 2263, July 1993) (“[W]e are ... concerned at the lack of external oversight of the steps being taken. We therefore see great attraction in the proposal put to us by the Royal Society for Chemistry that a Forensic Science Advisory Council should be set up which would report to the Home Secretary on the performance, achievements and efficiency of the forensic science laboratories. As we have already made clear, we recommend the establishment of a such a body.”). See also David E. Bernstein, *Junk Science in the United States and the Commonwealth*, 21 YALE J. INT’L L. 123, 170-73 (1996) (discussing this proposal).

<sup>26</sup> See MIKE REDMAYNE, EXPERT EVIDENCE AND CRIMINAL JUSTICE 139 (2001).

<sup>27</sup> ASCLD/LAB is moving toward ISO accreditation standards.

<sup>28</sup> See *Smith v. State*, 702 N.E.2d 668, 673 (Ind. 1998) (DNA) (“[T]he lab was accredited by the American Society of Crime Lab Directors in 1990. Furthermore, the lab runs its tests under controlled conditions, follows specific protocols, and conducts quality testing on the kits and the analysts. Any concerns in this respect go to the weight of the evidence, not its admissibility.”).

compliant accrediting body. The National Association of Medical Examiners (NAME) runs an accreditation program for Coroners and Medical Examiner Offices, and the American Board of Forensic Toxicology accredits toxicology laboratories. These are all voluntary programs, however, and many laboratories remain unaccredited. In 2002, the President of the American Academy of Forensic Sciences observed:

Unfortunately, while the ASCLD/LAB program has been successful in accrediting over 200 Laboratories, a large number of forensic laboratories in the U.S. remain unaccredited by any agency. A similar situation exists with death investigation agencies accredited by the National Association of Medical Examiners (NAME); forty such medical systems have been accredited, covering only 25% of the U.S. population. The same dichotomy exists in certification programs for the practicing forensic scientist, even though forensic certification boards for all the major disciplines have been in existence for over a decade. Why have forensic laboratories and individuals been so reluctant to become accredited or certified?<sup>29</sup>

The Committee does not recommend any particular type of accreditation program or endorse any particular organization. It does believe, however, that rigorous accreditation standards should be mandated, and regulation of crime laboratories is the best way to accomplish this goal.

## B. Proficiency Testing

Proficiency testing in the forensic sciences dates back to 1978.<sup>30</sup> Later studies demonstrated the feasibility of such testing.<sup>31</sup> Nevertheless, some courts have indicated that current proficiency testing in fingerprint<sup>32</sup> and handwriting comparisons<sup>33</sup> is not sufficiently

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<sup>29</sup> Graham R. Jones, *President's Editorial –The Changing Practice of Forensic Science*, 47 J. FORENSIC SCI. 437, 438 (2002).

<sup>30</sup> JOSEPH L. PETERSON ET AL., CRIME LABORATORY PROFICIENCY TESTING RESEARCH PROGRAM (1978).

<sup>31</sup> See Joseph L. Peterson & Penelope N. Markham, *Crime Laboratory Proficiency Testing Results, 1978-1991, Parts I and II*, 40 J. FORENSIC SCI. 994, 1009 (1995).

<sup>32</sup> See *United States v. Crisp*, 324 F.3d 261, 274 (4<sup>th</sup> Cir. 2003) (Michael, J., dissenting) (“Proficiency testing is typically based on a study of prints that are far superior to those usually retrieved from a crime scene.”); *United States v. Llera Plaza*, 188 F. Supp. 2d 549, 565, 558 (E.D. Pa. 2002) (“On the record made before me, the FBI [fingerprint] examiners got very high proficiency grades, but the tests they took did not. ... [O]n the present record I conclude that the proficiency tests are less demanding than they should be.”; a fingerprint examiner from New Scotland Yard testified that: “It’s not testing their ability. It doesn’t test their expertise. I mean I’ve set these tests to trainees and advanced technicians. And if I gave my experts these tests, they’d fall about laughing.”).

<sup>33</sup> See *United States v. Crisp*, 324 F.3d 261, 279 (4<sup>th</sup> Cir. 2003) (Michael, J., dissenting) (“Moreover, although the government’s expert here testified to his success on proficiency tests, the government provides no reason for us to believe that these tests are realistic assessments of an examiner’s ability to perform the tasks required in his field. See J.A. 342 (testimony of the government’s handwriting expert that he has always achieved a perfect score on proficiency tests.)”); *United States v. Lewis*, 220 F. Supp. 2d 548, 554 (S.D.W.Va. 2002) (“There were aspects of

rigorous.

The FBI DNA Quality Assurance Guidelines require that two proficiency tests be completed annually by DNA examiners as well as by technical support personnel performing DNA analytical techniques. Both proficiency tests must be from a source external to the laboratory.<sup>34</sup>

In addition, laboratories accredited by ASCLD/LAB must have a documented program of proficiency testing that measures the capability of its examiners and the reliability of its analytical results. The proficiency tests must be provided by external providers, where available. These laboratories are also encouraged to conduct proficiency testing using blind tests prepared internally or externally and submitted as normal casework evidence or by re-examination by another examiner on completed casework.

The Committee believes that stringent quality assurance/quality control procedures should be required of crime laboratories, although recommendations concerning the specific nature of these procedures is beyond the scope of this report.

### C. Certification

A number of organizations offer examiner certification programs.<sup>35</sup> Some certification organizations, however, appear to lack stringent requirements.<sup>36</sup> In response, the American Academy of Forensic Sciences has formed a Forensic Specialties Accreditation Board to accredit certifying organizations.

The Committee believes that rigorous certification standards should be required of examiners, although (here again) recommendations concerning the specific nature of these standards is beyond the scope of this report. One would expect, however, that demanding written examinations, proficiency testing, continuing education,<sup>37</sup> recertification procedures, an ethical code, and effective disciplinary procedures would be part of such a program.

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Mr. Cawley's testimony that undermined his credibility. Mr. Cawley testified that he achieved a 100% passage rate on the proficiency tests that he took and that all of his peers *always* passed their proficiency tests. Mr. Cawley said that his peers *always* agreed with each others' results and *always* got it right. Peer review in such a 'Lake Woebegone' environment is not meaningful.").

<sup>34</sup> A recent study of blind DNA proficiency testing raised some questions about the cost and feasibility of this type of testing, as well as its effectiveness when compared to other methods of quality assurance such as more stringent external case audits. Joseph L. Peterson et al., *The Feasibility of External Blind DNA Proficiency Testing. I. Background and Findings*, 48 J. FORENSIC SCI. 21, 30 (2003).

<sup>35</sup> For example, the American Board of Criminalistics has such a program.

<sup>36</sup> See Mark Hansen, *Expertise to Go*, 86 ABA J. 44, 45 (Feb. 2000) ("checkbook credentials"); Elizabeth MacDonald, *The Making of an Expert Witness: It's in the Credentials*, WALL ST. J., Feb. 8, 1999, at B1.

<sup>37</sup> See Technical Working Group for Education and Training in Forensic Science (TWGED).

## D. Standardization of Technical Procedures

In *Daubert*, the Supreme Court cited the “existence and maintenance of standards controlling the technique’s operation” as a relevant factor in assessing the reliability of expert testimony. The adoption and public promulgation of written laboratory protocols would seem to be required by this factor. Indeed, any laboratory without such protocols cannot be called a “scientific” laboratory. The National Academy of Sciences DNA reports mandated such protocols,<sup>38</sup> and the American Society for Testing and Materials (ASTM) has promulgated standards in some forensic areas.<sup>39</sup>

All ASCLD/LAB accredited laboratories must maintain written copies of appropriate technical procedures. These protocols include descriptions of sample preparation methods, controls, standards, and calibration procedures, as well as a discussion of precautions, sources of possible error, and literature reference. A representative number of laboratory reports are subjected to review to ensure that the conclusions of examiners are reasonable and within the constraints of scientific knowledge. This technical review assures that laboratory protocols are being utilized. All new technical procedures must be scientifically validated before being used in casework.

## E. Research

In *Daubert*, the Supreme Court wrote that “in order to qualify as ‘scientific knowledge,’ an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation – i.e., ‘good grounds,’ based on what is known. In short, the requirement that an expert’s testimony pertain to ‘scientific knowledge’ establishes a standard of evidentiary reliability.”<sup>40</sup>

As noted above, many forensic techniques achieved judicial acceptance before the demanding *Daubert* standards were operative. Consequently, empirical support is often lacking, which makes the need for basic research a pressing concern. Such research should be supervised or commissioned by independent organizations whenever feasible. For example, the National Academy of Sciences has conducted reviews on voiceprints,<sup>41</sup> DNA,<sup>42</sup> polygraph,<sup>43</sup> and

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<sup>38</sup> NATIONAL RESEARCH COUNCIL, DNA TECHNOLOGY IN FORENSIC SCIENCE 8 (1992) (“Each DNA typing procedure must be completely described in a detailed, written laboratory protocol.”).

<sup>39</sup> See Eric Stauffer & John J. Lentini, *ASTM Standards for Fire Debris Analysis: A Review*, 132 FORENSIC SCI. INT’L 63 (2003).

<sup>40</sup> *Daubert*, 509 U.S. at 590.

<sup>41</sup> NATIONAL RESEARCH COUNCIL, ON THE THEORY AND PRACTICE OF VOICE IDENTIFICATION (1979).

<sup>42</sup> NATIONAL RESEARCH COUNCIL, THE EVALUATION OF FORENSIC DNA EVIDENCE (1996); NATIONAL RESEARCH COUNCIL, DNA TECHNOLOGY IN FORENSIC SCIENCE (1992).

compositional analysis of bullet lead.<sup>44</sup> Unfortunately, the lack of funding for independent research in non-DNA forensic sciences has handicapped further research in this area.

**Recommendation 2: Crime laboratories and medical examiner offices should be adequately funded.**

The underfunding of crime labs in this country is chronic. In 1967, President Johnson’s Crime Commission noted that “the great majority of police department laboratories have only minimal equipment and lack highly skilled personnel able to use the modern equipment now being developed.”<sup>45</sup> In 1974, President Nixon’s Crime Commission commented: “Too many police crime laboratories have been set up on budgets that preclude the recruitment of qualified, professional personnel.”<sup>46</sup>

Twenty years later, a report on Washington State crime labs revealed that a “staggering backlog of cases hinders investigations of murder, rape, arson, and other major crimes.”<sup>47</sup> At any time, “thousands of pieces of evidence collected from crime scenes sit unanalyzed and ignored on shelves in laboratories and police stations across the state.”<sup>48</sup> A *USA Today* survey reached the same conclusion: “Evidence that could imprison the guilty or free the innocent is languishing on shelves and piling up in refrigerators of the nation’s overwhelmed and underfunded crime labs.”<sup>49</sup> In one case a suspected serial rapist was released “because it was going to take months to get the DNA results needed to prove the[] case. Weeks later, [the suspect] raped victim No. 4 as she slept in her home. When the DNA tests finally came back – 18 months after samples first went to the lab – a jury convicted [the suspect] of all four rapes.”

Congress has recognized the need for federal funding for public crime laboratories and medical examiner offices by enacting the Paul Coverdell National Forensic Science Improvement Act<sup>50</sup> in 2000. However, appropriations have been well below authorized limits.<sup>51</sup>

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<sup>43</sup> See NATIONAL RESEARCH COUNCIL, *THE POLYGRAPH AND LIE DETECTION* (2002).

<sup>44</sup> NATIONAL RESEARCH COUNCIL, *FORENSIC ANALYSIS: WEIGHING BULLET LEAD EVIDENCE* (2004).

<sup>45</sup> PRESIDENT’S COMMISSION ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE, *THE CHALLENGE OF CRIME IN A FREE SOCIETY* 255 (1967).

<sup>46</sup> NATIONAL ADVISORY COMMISSION ON CRIMINAL JUSTICE STANDARDS AND GOALS, *REPORT ON POLICE* 304 (1974).

<sup>47</sup> Tomas Guillen & Eric Nalder, *Overwhelming Evidence: Crime Labs in Crisis*, SEATTLE TIMES, Jun. 19, 1994, at A1, A14.

<sup>48</sup> *Id.*

<sup>49</sup> Becky Beaupre, *Crime Labs Staggering Under Burden of Proof*, USA TODAY, Aug. 20, 1996, at 1.

<sup>50</sup> 42 U.S.C. § 3797j-o.

<sup>51</sup> In contrast, DNA technology has been funded. On March 11, 2003, the Attorney General of the United States announced the President’s DNA initiative, entitled “Advancing Justice Through DNA Technology.” This initiative proposes over \$1 billion in funding for FY ‘04 through FY ‘08 to reduce casework and database backlogs in DNA laboratories, to improve the DNA analysis capacity of public laboratories, to support training, and to assist

The validity of forensic evidence depends on funding for facilities, equipment, and personnel as well as for the accreditation, certification, and standardization recommendations made in this report.

*Time limits.* Timely analysis of forensic evidence is critical. Innocent defendants may languish in jail and the guilty may remain at large as evidence awaits analysis. A 30-day turn-around time would eliminate this problem. This is an aspirational goal that is not currently practicable. Turn-around time depends on adequate resources to ensure that labs have the capacity to meet this goal.

**Recommendation 3: The appointment of defense experts for indigent defendants should be required whenever reasonably necessary to the defense.**

In many criminal cases, securing the services of experts to examine evidence, to advise counsel, and to testify at trial is critical.<sup>52</sup> As the commentary to the ABA Standards note: “The quality of representation at trial ... may be excellent and yet unhelpful to the defendant if the defense requires the assistance of a psychiatrist or handwriting expert and no such services are available.”<sup>53</sup> As early as 1929, Justice Cardozo commented: “[U]pon the trial of certain issues, such as insanity or forgery, experts are often necessary both for the prosecution and for defense .... [A] defendant may be at an unfair disadvantage, if he is unable because of poverty to parry by his own witnesses the thrusts of those against him.”<sup>54</sup> Similarly, Judge Jerome Frank observed in a 1956 opinion: “The best lawyer in the world cannot competently defend an accused person if the lawyer cannot obtain existing evidence crucial to the defense, e.g., if the defendant cannot pay the fee of an investigator to find a pivotal missing witness or a necessary document, or that of an expert accountant or mining engineer or chemist.” He went on to observe: “In such circumstances, if the government does not supply the funds, justice is denied the poor – and represents but an upper-bracket privilege.”<sup>55</sup>

The ABA Standards require adequate access to experts for both the defense<sup>56</sup> and prosecution,<sup>57</sup> and there are some statutory provisions for defense experts. For example, the

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research and development.

<sup>52</sup> See Paul C. Giannelli, *Ake v. Oklahoma: The Right to Expert Assistance in a Post-Daubert, Post-DNA World*, 89 CORNELL L. REV. (2004).

<sup>53</sup> Commentary, ABA STANDARDS FOR CRIMINAL JUSTICE, PROVIDING DEFENSE SERVICES 5-1.4, at 22 (3d ed. 1992).

<sup>54</sup> *Reilly v. Berry*, 166 N.E. 165, 167 (N.Y. 1929).

<sup>55</sup> *United States v. Johnson*, 238 F.2d 565, 572 (2d Cir. 1956) (dissent), *vacated*, 352 U.S. 565 (1957).

<sup>56</sup> ABA STANDARDS FOR CRIMINAL JUSTICE, PROVIDING DEFENSE SERVICES 5-1.4 (3d ed. 1992).

<sup>57</sup> ABA STANDARDS FOR CRIMINAL JUSTICE, PROSECUTION FUNCTION AND DEFENSE FUNCTION 3-2.4 (b) (3d ed. 1993).

Criminal Justice Act provides for expert assistance for indigent defendants in federal trials.<sup>58</sup> The Act, however, limits expenses for experts to \$1,000.00 unless the court certifies that a greater amount is “necessary to provide fair compensation for services of an unusual character or duration.” But, as Judge Weinstein has noted, “The Act’s \$1,000 limit for defense experts is far too low ... and must be increased if due process is to be afforded defendants.”<sup>59</sup> Many states have comparable provisions, but the monetary limits are often incredibly low.<sup>60</sup>

In *Ake v. Oklahoma*,<sup>61</sup> the Supreme Court recognized a due process right to a defense expert: “[W]hen a State brings its judicial power to bear on an indigent in a criminal proceeding, it must take steps to assure that the defendant has a fair opportunity to present his defense.”<sup>62</sup> This fair opportunity mandates that an accused be provided with the “basic tools of an adequate defense.”

Nevertheless, a number of sources indicate that the lack of defense experts continues to be a problem.<sup>63</sup> In 1990, the *National Law Journal* published the results of a six-month investigation of capital murder defenses in the South. One of the “key findings” concerned defense experts: “Judges routinely deny lawyers’ requests for expert/investigative fees.”<sup>64</sup> As part of the investigation, sixty death row trial lawyers were interviewed: “54.2% felt courts provided inadequate investigation and expert funds.”<sup>65</sup> One attorney, who was appointed to represent a death row inmate in Georgia, had his request for the appointment of an expert denied. He commented: “There’s an economic presumption of guilt.... The district attorney has all the resources of the state crime lab, and we have to go hat in hand to the judge and the DA on every request.”<sup>66</sup> In addition, a 1992 study of indigent defense systems by the National Center for State Courts noted that the “greatest disparities occur in the areas of investigators and expert witnesses, with the prosecutors possessing more resources.”<sup>67</sup> The following year, a report by

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<sup>58</sup> 18 U.S.C. § 3006(A)(e).

<sup>59</sup> Judge Jack B. Weinstein, *Science, and the Challenge of Expert Testimony in the Courtroom*, 77 OR. L. REV. 1005, 1008 (1998).

<sup>60</sup> See ILL. COMP. STAT. ch. 725, § 5-113-3(d) (\$250 maximum in capital cases); MINN. STAT. ANN. § 611.21 (\$1,000 maximum).

<sup>61</sup> 470 U.S. 68 (1985).

<sup>62</sup> *Id.* at 76.

<sup>63</sup> See Judge Jack B. Weinstein, *Science, and the Challenge of Expert Testimony in the Courtroom*, 77 OR. L. REV. 1005, 1008 (1998) (“Courts, as gatekeepers, must be aware of how difficult it can be for some parties – particularly indigent criminal defendants – to obtain an expert to testify. The fact that one side may lack adequate resources with which to fully develop its case is a constant problem.”).

<sup>64</sup> Marcia Coyle et al., *Trial and Error in the Nation’s Death Belt: Fatal Defense*, NAT’L L.J., June 11, 1990, at 30.

<sup>65</sup> *Id.* at 40.

<sup>66</sup> *Id.* at 38.

<sup>67</sup> ROGER HANSON, INDIGENT DEFENDERS: GET THE JOB DONE AND DONE WELL 100 (1992) (study by the National Center for State Courts).

The Spangenberg Group prepared for the Texas State Bar concluded: “There is a serious underfunding of essential expert services and other expenses in capital trials and appeals.”<sup>68</sup>

**Recommendation 4. Training in forensic science for attorneys should be made available at minimal cost to ensure adequate representation for both the public and defendants.**

**Recommendation 5. Counsel should have competence in the relevant area or consult with those who do where forensic evidence is essential in a case.**

No attorney can try criminal cases today without a grounding in scientific evidence.<sup>69</sup> Unfortunately, exposure to forensic science is typically not provided in law school.

Although the right to counsel includes the right to effective assistance of counsel,<sup>70</sup> incompetence of counsel cases involving scientific evidence are not hard to find. For example, in *Baylor v. Estelle*<sup>71</sup> the Ninth Circuit wrote:

We have difficulty understanding how reasonably competent counsel would not recognize “the obvious exculpatory potential of semen evidence in a sexual assault case,” particularly when the criminalist’s report plainly indicates that the donor was an ABO nonsecretor whereas Baylor was an ABO type “O” secretor and that this “would thus eliminate” Baylor as the perpetrator unless a test ... on a liquid semen sample showed that he mimicked a nonsecretor ... Whether or not Stockwell’s report was itself conclusive, it was one test away from tilting the scale powerfully in Baylor’s direction.<sup>72</sup>

Similarly, another court found ineffectiveness where defense counsel knew that gunshot residue testimony was “critical,” but nevertheless “neither deposed ... the State’s expert witness, nor bothered to consult with any other expert in the field.”<sup>73</sup> Other cases, both federal<sup>74</sup> and state,<sup>75</sup>

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<sup>68</sup> See also *A Study of Representation in Capital Cases in Texas*, 56 TEX. B.J. 333, 408 (Apr. 1993).

<sup>69</sup> See ABA MODEL RULE 1.1 (“A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.”).

<sup>70</sup> See *McMann v. Richardson*, 397 U.S. 759, 771 n. 14 (1970) (“It has long been recognized that the right to counsel is the right to the effective assistance of counsel.”). See also *Strickland v. Washington*, 466 U.S. 668 (1984); *United States v. Cronin*, 466 U.S. 648 (1984); *Powell v. Alabama*, 287 U.S. 45, 71 (1932).

<sup>71</sup> 94 F.3d 1321 (9<sup>th</sup> Cir. 1996) (citation omitted).

<sup>72</sup> *Id.* at 1324. See also *Proffitt v. United States*, 582 F.2d 854, 857 (4<sup>th</sup> Cir. 1978) (“The failure of defense counsel to seek such assistance when the need is apparent deprives an accused of adequate representation in violation of his sixth amendment right to counsel.”); *United States ex rel. Foster v. Gilmore*, 35 F. Supp. 2d 626, 630 (N.D. Illinois 1999) (“This court finds inexplicable – and wholly ineffective – defense counsel’s failure to consult a psychiatric expert prior to or even during the trial.”).

<sup>73</sup> *Troedel v. Wainwright*, 667 F. Supp. 1456, 1461 (S.D. Fla. 1986). See also *Bloom v. Calderon*, 132 F.3d

are of the same ilk.

Not only does deficient lawyering lead to wrongful convictions, but inadequately trained defense counsel often leads to unnecessary appeals. Similarly, prosecutors who do not understand scientific issues may not scrutinize cases dependent on forensic evidence sufficiently to avoid charging or trying an innocent defendant, and may also be less able to ensure that they satisfy their *Brady* obligations regarding the forensic evidence. The Prosecution's Best Practices report Recommendation No. 2 discusses the *Brady* issue in detail.

The Department of Justice and the American Prosecutor's Research Institute currently provide such training. Defense counsel programs need to be expanded. Joint prosecution and defense counsel programs, as in New York City, may be the most cost effective way to provide such education.

Respectfully submitted,

Norman Maleng  
Chair, Criminal Justice Section  
August 2004

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1267, 1278 (9<sup>th</sup> Cir. 1997) (“Even the third-year law student knew the defense needed a psychiatric expert witness.”).

<sup>74</sup> *E.g.*, Glenn v. Tate, 71 F.3d 1204, 1209-11 (6<sup>th</sup> Cir. 1995) (ineffective assistance in penalty phase of capital murder case for failing to present evidence of defendant's mental retardation/neurological impairment); Driscoll v. Delo, 71 F.3d 701, 709 (8<sup>th</sup> Cir. 1995) (In a capital murder case whether alleged murder weapon “had blood matching the victim's constituted an issue of the utmost importance. Under these circumstances, a reasonable defense lawyer would take some measures to understand the laboratory tests performed and the inferences that one could logically draw from the results. At the very least, any reasonable attorney under the circumstances would study the state's laboratory report with sufficient care so that if the prosecution advanced a theory at trial that was at odds with the serology evidence, the defense would be in a position to expose it on cross-examination.”); Foster v. Lockhart, 9 F.3d 722, 726 (8<sup>th</sup> Cir. 1993) (failure to pursue an impotency defense in a rape case); United States v. Tarricone, 996 F.2d 1414, 1418 (2d Cir. 1993) (failure to consult handwriting expert made out a viable claim of ineffectiveness); Sims v. Livesay, 970 F.2d 1575, 1580 (6<sup>th</sup> Cir. 1992) (failure to have quilt examined for gunshot residue).

<sup>75</sup> *E.g.*, People v. Frierson, 599 P.2d 587, 598-600 (Cal. 1979); Moore v. State, 827 S.W.2d 213, 214 (Mo. 1992) (counsel ineffective for failing to request serological test); State v. Hicks, 536 N.W.2d 487, 491 (Wis. App. 1995).

## GENERAL INFORMATION FORM

**1. Summary of Recommendation.**

The proposed resolution sets forth policies for improving scientific and expert testimony in criminal cases. It recommends the accreditation of crime laboratories and medical examiner offices, the certification of examiners, and the standardization and publication of lab procedures. It also urges adequate funding for crime labs and medical examiner offices. In addition, it recommends the appointment of defense experts for indigent defendants whenever reasonably necessary to the defense. Finally, training in forensic science for attorneys is proposed.

**2. Approved by Submitting Entity.**

This recommendation was approved by the Criminal Justice Section Council at its April 17-18, 2004 meeting.

**3. Similar Recommendations Submitted Previously.**

This recommendation has not previously been submitted to the House of Delegates or the Board of Governors.

**4. Relevant Existing ABA Policies and Affect on These Policies.**

There are no relevant existing ABA Policies.

**5. Urgency Requiring Action at this Meeting.**

The misuse of scientific evidence has played a major part in numerous cases in which innocent defendants have been wrongfully convicted. These recommendations would improve the reliability of expert testimony in the criminal justice system.

**6. Status of Congressional Legislation (If applicable).**

No legislation is currently pending.

**7. Cost to the Association.**

The recommendation's adoption would not result in direct costs to the Association. The only anticipated costs would be indirect costs that might be attributable to lobbying to have the recommendation adopted or implemented at the state and federal levels. These indirect costs cannot be estimated, but should be negligible since lobbying efforts would be conducted by existing staff members who already are budgeted to lobby Association policies.

**8. Disclosure of Interest (If Applicable).**

No known conflict of interest exists.

**9. Referrals.**

Concurrently with submission of this report to the ABA Policy Administration Office for calendaring on the August 2004 House of Delegates agenda, it is being circulated to the following:

Sections, Divisions and Forums:  
All Sections and Divisions

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