

American Society of Law, Medicine & Ethics
DNA Fingerprinting and Civil Liberties

Report of Workshop 2

I. Background

A. Overview of Project:

The American Society of Law, Medicine & Ethics held the second of a series of four workshops as part of the project *DNA Fingerprinting and Civil Liberties* on September 17 and 18, 2004. The project is funded by an ELSI grant from the National Institutes of Health, grant no. 1R01 HG002836 -01. The workshop series is the centerpiece of the project and was designed to bring together a multi-disciplinary group of experts and stakeholders to explore various positions on new and controversial privacy and civil liberties issues involved in the application of DNA technology to the criminal justice system.

Each workshop consists of a half-day Public Forum, followed by a full day invitation-only meeting devoted to more in-depth exploration of the workshop theme. Through discussion sessions, viewpoints of the participants are sought on key issues consistent with the workshop theme. One of the grant goals is to record these viewpoints, to document consensus where it exists and, otherwise, to clarify positions on issues, noting advantages and disadvantages of each. These positions will be disseminated at a national symposium for law and policy makers so that their work in this area may be informed by this two-year, four-workshop process.

B. Overview of Workshop 2:

Workshop 2 explored the theme of privacy and justice. On the first day of the Workshop a public forum was held featuring talks on legal and policy issues surrounding access to genetic information, social concepts of privacy, legal issues and forensic science, science truth and justice, science in the courtroom—a view from the bench. On the second day of Workshop 2, background talks and subsequent small group discussion sessions explored two topics: (1) partial matches and family relationships; and (2) autonomy of science in the criminal justice system. Videos and power points from each talk are available at ASLME's website, www.aslme.org.

The discussions were conducted in four groups of eight or fewer participants, including the group discussion leader. Frederick R. Bieber, David Lazer, Benjamin Moulton, and Mark Rothstein, served as discussion leaders. The discussions were summarized by rapporteurs. The following is a summary of the discussion sessions.

II. Summary of Workshop 2 Breakout Discussions

A. Breakout Session 1: Partial Matches and Family Relationships

1. Question considered: What are the legal and policy issues raised by partial profile or low stringency DNA database searches?

Each group recognized that allowing low stringency searches from a DNA database expanded the reach of that database beyond those explicitly listed. Individuals not in the database could be identified by database searches and the subsequent investigations. Given that entry into the database has been a focus point in policy discussions, this implicit expansion needs to be highlighted in the realm of public debate. One group argued that it changed the nature of who was considered a suspect, particularly because many of the people investigated will have no link to the investigation other than a shared genetic attribute with the crime scene sample. Some saw it as a slippery slope towards a universal database; indeed, there were several discussions about whether a universal database would make more sense.

One argument for a universal database in the face of low stringency searches was a fear of amplifying a racial or geographic bias in the criminal justice system. All groups noted that, since certain groups are over-represented in the extant databases of arrestees or convicts, including their genetic relatives in the effective search space would amplify this systematic bias. One participant observed that this would form a “perverse model of a universal database” but there was no overall consensus as to whether this bias negated that benefits of low stringency searches in a criminal database. One law enforcement official noted that investigators often search for suspects by interviewing those with previous involvement in the criminal justice system. Other proponents of these searches asserted that the bias was an issue of the larger criminal justice system, rather than just DNA testing.

The intrusiveness of the investigation that might follow a low stringency database search was discussed by most of the groups. They acknowledged that interviewing the genetic relatives of potential suspects could be very disruptive, particularly since such an investigation must ask about close relatives. Ultimately, investigators would be forced to inquire about sexual history, asking subjects to reveal information that they may not have told others in their life. Some questioned whether such privileged information would remain private, or even if police would be trusted by their subjects. Moreover, one participant noted that, for certain groups such as Native Americans, “the kind of definition that we have for family is not shared by the tribe.” Some were concerned with how many people would have to be interviewed, but others downplayed the impact of this expansion. One participant wondered whether it was any different that using a phone book to locate relatives of a suspect with a rare last name. Another group wondered whether the bias in these interviews would be any different than police visiting certain problem areas or families in a small town, or interviewing “the usual suspects.”

Low stringency searches also reawakened general concerns about DNA database searches. Two groups wondered whether the “imprimatur of science” would lead to too much trust in DNA testing, and its perceived infallibility might even lead to a reduction in protection of defendants. Others in these groups responded that law and institutions would continue to protect defendants, and that the principle use of DNA evidence to date has been to exonerate the wrongly convicted. Nonetheless, one participant wondered whether the focus on expensive DNA testing might divert resources from other aspects of law enforcement. The question of retention of genetic material came up on three of the groups as well, with one group agreeing the 4th amendment search protections did not apply to any sample willingly given to investigators, only to the process of obtaining the sample in the first place. Another group stressed the importance of keeping any samples obtained in low stringency searches for non-criminal investigations such as missing person identification separate from the searchable criminal database to maintain trust in the system.

Consensus: Low stringency searches are an implicit database expansion that should be open to public debate.

Consensus: The investigations that follow low stringency database searches can involve asking non-suspects to reveal extremely intimate information.

Consensus: Low stringency searches and the subsequent investigations will amplify any racial or geographic bias already in the DNA database system.

2. Question considered: Under what circumstances, if any, should partial profile or low stringency searches be performed?

All groups noted the care needed in choosing when to use low stringency searches. Many groups used hypothetical situations to devise tests for standards of appropriate use. One group, concerned about implicating multiple suspects from interviews, concluded that there would be no problem compelling a DNA sample if a profile search and subsequent interviews led to a single suspect, but could not reach a consensus on how to treat multiple suspects from a low stringency search process. Another group raised a similar concern about dragnets that involve investigating a large number of people, all except one of whom are innocent.

Other aspects of discussion focused around the motivations for using these searches. No one objected to using such tactics for missing persons or victim identification searches. One group agreed that, if the technology were available, it probably would be adopted for extreme crimes such as serial rape and murder, or terrorism. There was no consensus on whether it was appropriate to use these methods for less drastic crimes. A substantial number of participants raised concerns about a slippery slope for such searches, and whether they might spill over from law enforcement to terror surveillance or other policy issues.

The groups' discussions highlighted the need for clear standards about use of searches. Beyond number of suspects and purpose of search, one group wondered whether standards would be needed for the low stringency database searches themselves. The number of loci that comprise a match sets a standard of suspicion that should be treated like other legal standards in the investigative process such as warrants. In general, groups felt that thresholds were needed for appropriate use, but acknowledged the difficulty in establishing these thresholds.

Finally, all groups noted the substantial costs of the search and subsequent investigations. Most noted that many forensic DNA labs are already congested with more conventional DNA tests, and that widespread use of low stringency searches would overwhelm these labs. Several participants claimed, however, that technology will continue to make DNA database searching more efficient, and it is also likely that lab facilities would be expanded to meet demand. Another group noted the high cost of the investigations that must accompany low-stringency searches. If police must interview many matches and pursue the implicated relatives for each, a single test could consume substantial resources in a police department.

Consensus: Clear standards and care are needed for choosing when and how to perform low stringency searches.

Consensus: The substantial costs to the criminal justice system and to the number of subjects of investigations must be weighed against the benefits of using low stringency searches.

B. Breakout Session 2: Autonomy of Science/ The Reliability of Science in the Criminal Justice System

1. Question considered: What administrative or governance structure best serves provision of quality forensic services within the criminal justice system?

The discussion groups reached a consensus that DNA forensics labs need to have either institutional or functional independence. Affiliation with criminal investigators or prosecutors is unnecessary and can lead to bias. One group urged that the labs be directed and managed as scientific labs as much as possible, rather having its administration be linked with the criminal justice system. However, another group raised the issue of funding; if labs are not embedded in an established bureaucracy, they may lack the advocates and political capital to obtain necessary resources.

In two groups, there was substantial debate about the approach to reforming laboratories and the lab process. Some maintained that it was a question of standards and institutions. One proponent noted that ISO and other standards processes regularly deal with process issues, and another observed that formal decisions like promotions can shape behavior of individuals in institutions. Others maintained that quality forensics is a function of culture and trust. On the question of institutional placement, one lab official commented, "If we think we're on the prosecutorial team, it doesn't matter if you put us with the

pope.” Several individuals noted that, if a technician wanted to falsify results, the only way to detect this deception would be to duplicate the tests.

Each group agreed that there was room for improvement in the field of forensics, and stressed the scientific nature of the field. Many made the case for more funding for research, both in the labs and the universities. Funding research in the labs, argued one group, could retain qualified forensic specialists interested in new work. A participant noted that the fairly repetitive nature of much DNA testing is more the work of a lab technician than a qualified scientist, and if the labs wanted to retain a highly educated staff, they needed to offer them more creative opportunities. The group also acknowledged that funding academic research would create an independent source of expertise for both labs and courts. Competitive funding processes would further stimulate the quality of research. Another group urged the creation of other scientific institutions inside the field of forensics, such as a tradition of peer review.

Two groups also debated the merits of whether the DNA labs should be public, private or some competitive non-profit arrangement. No consensus was achieved, as participants acknowledged the advantages and drawbacks of each approach.

Consensus: Forensics labs need either functional or institutional independence from other forces in the criminal justice system.

Consensus/Debate: The laboratory system is in need of reform, but there was some debate about whether to focus on institutional or cultural factors.

Consensus: The field of forensics would benefit from emphasis on research and scientific institutions.

2. Question considered: How can the current system be improved at serving the objectives of accountability and avoidance of mistakes and malfeasance?

All the groups saw the need to identify and resolve sources of bias in the current system. Two groups expressed concern about the practice of involving the forensics people in the details of the criminal investigation beyond what is needed to perform the tests. Following up on the discussion of forensic labs as independent parties, one participant noted that sharing often-gruesome details of a case could only serve to inflame the lab workers, and should not be needed for proper work practices. A different group noted that promotion practices and commendations in crime labs were sometimes tied to specific outcomes, rather than quality of work.

The discussion groups all saw a need for more funding for labs and oversight measures. More training could lead to a more professional approach, and higher funding levels could raise morale, seen as important issue by some participants. The need for more education was seen not just for the forensics community, but also for lawyers who have to deal with evidence from these labs. One group saw the need for a greater degree of policy coordination with respect to the distribution of DNA labs. A participant noted that

there were, in fact, “too many crime labs in the US doing DNA,” while others claimed that there was a shortage of qualified people to run the tests demanded. At the same time, the group noted, labs may prioritize whose cases receive immediate attention at the expense of other cases, possibly based on region or jurisdiction.

Two groups agreed on the need for some sort of “legislatively mandated independent oversight body.” Such an institution would have the ability to advise on policy and function as an independent auditing board for investigating allegations of misconduct. One group began discussing who might serve on such a board, and proposed a wide range of interests that should be represented. One participant expressed concern, however, that for an oversight board to form a representative cross-section of interests, it would require too many people to function well.

Consensus: There is a need to identify and resolve sources of bias in the current system, including a tendency to see interests aligned with investigators and prosecutors.

Consensus: More coordination is needed for forensics labs, possibly including a national independent oversight body.

3. Question considered: What impact does the adversarial process have upon the reliability of expert forensic DNA testimony?

There was consensus across all groups that the adversarial system was good in theory, but reflected certain problems in practice. Two groups agreed that there was often an imbalance between the investigative resources of the prosecution and the defense, particularly in the case of public defenders. The disadvantaged party may not have the resources to obtain good forensic DNA information, or the knowledge to use it. In general, participants expressed concern about the shortage of expert review, and one group urged more funding for such expertise through a variety of mechanisms.

The question of the adversarial process also highlighted, for two groups, the need for independent labs. Several individuals claimed that there was a natural affiliation of criminal labs with police and prosecutors that needed to be countered. Independent labs prevent one side from taking advantage of familiarity with lab personnel; independent expertise and educated lawyers can reduce the information gap. One group encouraged forensics and forensic legal issues to be taught at Continuing Legal Education (CLE) seminars.

Consensus: The adversarial system can produce good and unbiased results, as long as both parties have equal resources.

Consensus: Independent labs and sources of expertise can help balance the playing field in the adversarial process.

IV. Conclusion

The success of this second Workshop was due in large part to the efforts and expertise of the project consultants, Drs. Frederick R. Bieber, David M. Lazer, Philip R. Reilly, and Mark Rothstein, and to the distinguished participants who attended and contributed so generously of their insights and perspectives. A listing of all Workshop #2 invitees follows as “Appendix A.” The Workshop #2 Agenda is attached as “Appendix B.” A description of Workshop 1 through 4 topics is attached as “Appendix C.”

APPENDIX A:**Workshop 2 Participants**

Frederick R. Bieber <i>Harvard Medical School</i>	Sheila Jasanoff <i>Harvard University, John F. Kennedy School of Government</i>
Michael T. Bourke <i>Connecticut State Police Forensic Science Laboratory</i>	Carl Ladd <i>Connecticut State Police Forensic Science Laboratory</i>
Charles H. Brenner <i>Consulting in Forensic Mathematics</i>	David Lazer <i>Harvard University, John F. Kennedy School of Government</i>
Tom Callaghan <i>FBI Laboratory, CODIS Unit</i>	Harry Miles <i>Green, Miles, Lipton, White</i>
George Castelle <i>Office of the Public Defender, Charleston, West Virginia</i>	Benjamin W. Moulton <i>American Society of Law, Medicine & Ethics</i>
Cait Clarke <i>National Defender Leadership Institute</i>	Alice A. Noble <i>American Society of Law, Medicine & Ethics</i>
David Coffman <i>Florida Department of Law Enforcement</i>	Philip R. Reilly <i>Interleukin Genetics, Inc.</i>
Simon Cole <i>University of California - School of Sociology and Ecology</i>	Lynn Rooney <i>Middlesex County District Attorney's Office</i>
Honorable Andre Davis <i>United States District Court for the District of Maryland</i>	Mark Rothstein <i>University of Louisville</i>
Troy Duster <i>University at California at Berkeley</i>	Tania Simoncelli <i>Technology and Liberty Program, ACLU</i>
Amitai Etzioni <i>George Washington University</i>	Mervyn Tano <i>International Institute for Indigenous Resource Management</i>
Ron Fourney <i>DNA Databank of Canada</i>	Victor Weedn <i>Duquesne University</i>
Robert Gaensslen <i>University of Illinois - Chicago</i>	Debra Whitcomb <i>American Prosecutors Research Institute</i>
Paul C. Giannelli <i>Case Western Reserve University School of Law</i>	Robin Williams <i>University of Durham, United Kingdom</i>
Dawn Herkenham <i>Science International Application Corporation</i>	David Winickoff <i>University of California, Berkeley</i>

APPENDIX B

American Society of Law, Medicine & Ethics

DNA Fingerprinting and Civil Liberties Workshop #2

September 17-18, 2004
Harvard University
Kennedy School of Government
79 John F. Kennedy Street
Cambridge, MA 02138

Agenda

Friday, September 17, 2004

11:30 – 12:00 PM Registration
12:00 – 1:00 Welcome Lunch, ASLME Welcome/Goals

Public Forum: DNA Fingerprinting and Civil Liberties Bell Hall, Belfer Building

1:00 – 1:30 PM Philip R. Reilly, Interleukin Genetics, Inc.
Overview of Legal and Policy Issues Surrounding Access to
Genetic Information
1:30 – 2:00 Amitai Etzioni, George Washington University
Social Concepts of Privacy
2:00 – 2:30 Paul C. Giannelli, Case Western Reserve University School of Law
Legal Issues and Forensic Science
2:30 – 3:00 Q & A
3:00 – 3:30 BREAK
3:30 – 4:00 Sheila Jasanoff, John F. Kennedy School of Government
Science, Truth and Justice
4:00 – 4:30 Judge Andre Davis, U.S. District Court for the District of Maryland
Science in the Courtroom-A View from the Bench
4:30 – 5:00 Q & A
5:00 – 6:00 Film and Discussion – Mark Rothstein, University of Louisville

Reception and Dinner Harvard Faculty Club

6:30 PM Reception and Working Dinner for Workshop 2 participants

Saturday, September 18, 2004
Malkin Penthouse, Littauer Building

7:45 – 8:30 AM Continental Breakfast

Session 1: Widening the Net—Search Strategies and DNA Collections

Moderator for Session 1: Mark Rothstein

8:30 – 9:00 AM Frederick R. Bieber, Harvard Medical School
Kinship and the possibilities of low stringency data searches

9:00 – 9:30 Robin Williams, University of Durham, United Kingdom
Making Do with Partial Matches: DNA Intelligence and Criminal
Investigations in the United Kingdom

9:30 – 9:45 Q & A

9:45 – 10:00 BREAK

10:00 – 11:15 *Breakout session 1*
Session leaders: Frederick R. Bieber, Harvard Medical School, David
Lazer, Harvard University, John F. Kennedy School of Government,
Benjamin W. Moulton, ASLME, Mark Rothstein, University of
Louisville

11:15- 11:30 BREAK/Session Leader Meeting

11:30 – 12:30 PM Report Back/Discussion

12:30 – 1:30 LUNCH

Session 2: Autonomy of Science in the Criminal Justice System

Moderator for Session 2: Mark Rothstein

1:30 – 2:00 PM Robert Gaensslen, University of Illinois-Chicago
Autonomy and the Practice of Forensic Science

2:00 – 2:30 George Castelle, Office of the Public Defender, Charleston, West
Virginia
Autonomy and Science – A Defense Advocate's View

2:30 – 2:45 Q & A

2:45 – 3:00 BREAK

3:00 – 4:15 *Breakout session 2:*
Session leaders: Frederick R. Bieber, David Lazer, Benjamin W.
Moulton, Mark Rothstein

4:15 – 4:30 BREAK/coffee/snack/session leader meeting

4:30 – 5:30 Report Backs/Discussion

5:30 – 5:45

Mark Rothstein
Summary of Workshop 2
Challenges ahead
Preview of future workshop topics and dates
Solicit discussion

5:45 PM

Adjourn

APPENDIX C

DNA Fingerprinting and Civil Liberties

Workshop Topics

Workshop 1: Identification Technologies, History, and Law

- Technology in context
- Ethical and policy issues

Workshop 2: Policy Issues: Privacy and Justice

- Access to information
- Racial identification
- Partial matches and family relationships
- Resource allocation and equity
- Role of federal and state governments
- Autonomy of science in criminal justice

Workshop 3: Research and Ownership of Samples

- Who owns the samples?
- Medical research
- Behavioral research
- Epidemiological research
- Obligations to those who provide samples
- Collections of DNA for identification in mass disasters, such as TWA flight 800 and the World Trade Center
- Role of federal and state governments

Workshop 4: Views from the Other End of the Needle: Present and Future Policies

- Exonerating innocents
- Families of prisoners (indirect DNA information about family members and families' rights to know medical information)
- Effects on family relationships
- Racial identification using DNA
- National DNA identification cards