DNA Fingerprinting and Civil Liberties

Guest Edited by Alice A. Noble and Benjamin W. Moulton

141 Letter from the Editor

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Symposium Articles

SYMPOSIUM ARTICLES – PART I

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Benjamin W. Moulton

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Introduction: DNA Fingerprinting and Civil Liberties
Alice A. Noble

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The Expanding Use of DNA in Law Enforcement: What Role for Privacy?
Mark A. Rothstein and Meghan K. Talbott

DNA identification is being used in ever-widening ways, including databases of greater scope, familial and low-stringency searches, and DNA dragnets. After examining the law enforcement and privacy interests, the article concludes that forensic DNA uses must be consistent with privacy and civil liberties.

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Is Obtaining an Arrestee’s DNA a Valid Special Needs Search Under the Fourth Amendment? What Should (and Will) the Supreme Court Do?
Tracey Maclin

A small number of states have enacted laws that authorize the taking and analysis of DNA from certain categories of arrestees. This article addresses the constitutionality, under the Fourth Amendment, of taking DNA samples from persons subject to arrest.

188
Who Needs Special Needs? On the Constitutionality of Collecting DNA and Other Biometric Data from Arrestees
D. H. Kaye

Several commentators have argued that the police practice of taking DNA samples during custodial arrests is an unconstitutional search and seizure. This article proposes a “biometric identification exception” to the warrant and probable-cause requirements of the Fourth Amendment that would encompass certain systems of DNA sampling on arrest.

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California’s Proposition 69: A Dangerous Precedent for Criminal DNA Databases
Tania Simoncelli and Barry Steinhardt

On November 2, 2004, California voters elected to radically expand their state criminal DNA database through the passage of Proposition 69. The approved ballot initiative authorized DNA collection and retention from all felons, any individuals with past felony convictions – including juveniles – and, beginning in 2009, all adults arrested for any felony offense. This dramatic database expansion threatens civil liberties and establishes a dangerous precedent for U.S. criminal databases.

214
A Communitarian Approach: A Viewpoint on the Study of the Legal, Ethical and Policy Considerations Raised by DNA Tests and Databases
Amitai Etzioni

A communitarian approach is applied to DNA testing and databases. It concerns itself both with individual rights and the common good. It finds that DNA testing, although it is highly intrusive, often advances both individual rights (for instance, helps exonerate suspects) and the common good (for example, acts as a deterrent). However given its high level of intrusiveness and the insufficient level of oversight provided by existing checks and balances, the author argues for a national civil review board to provide still more accountability.

222
Turning Base Hits into Earned Runs: Improving the Effectiveness of Forensic DNA Data Bank Programs
Frederick R. Bieber

This manuscript provides an overview of forensic DNA data banks and their use, with some focus on existing programs established in the U.S., Canada, and the U.K. The intent is to provide a constructive analysis of both strengths and weaknesses in performance, and especially to suggest directions for improvement. Implementation of these suggestions will be crucial to allow DNA data banks to be most effective in advancing societal goals of enhancing public safety and collective security.
Inclusiveness, Effectiveness and Intrusiveness: Issues in the Developing Uses of DNA Profiling in Support of Criminal Investigations
Robin Williams and Paul Johnson

The rapid implementation and continuing expansion of forensic DNA databases around the world has been supported by claims about their effectiveness in criminal investigations and challenged by assertions of the resulting intrusiveness into individual privacy. These two competing perspectives provide the basis for ongoing considerations about the categories of persons who should be subject to non-consensual DNA sampling and profile retention as well as the uses to which such profiles should be put. This paper uses the example of the current arrangements for forensic DNA databasing in England and Wales to discuss the ways in which the legislative and operational basis for police DNA databasing is reliant upon continuous deliberations over these and other matters by a range of key stakeholders. We also assess the effects of the recent innovative use of DNA databasing for “familial searching” in this jurisdiction in order to show how agreed understandings about the appropriate uses of DNA can become unsettled and reformulated even where their investigative effectiveness is uncontested. We conclude by making some observations about the future of what is recognized to be the largest forensic DNA database in the world.

Family Ties: The Use of DNA Offender Databases to Catch Offenders’ Kin
Henry T. Greely, Daniel P. Riordan, Nanibaa’ A. Garrison, and Joanna L. Mountain

The authors examine the scientific possibility and the legal and ethical implications of using DNA forensic technology, through partial matches to DNA from crime scenes, to turn into suspects the relatives of people whose DNA profiles are in forensic databases.

Social and Ethical Issues in the Use of Familial Searching in Forensic Investigations: Insights from Family and Kinship Studies
Erica Haimes

This article explores the socio-ethical concerns raised by the familial searching of forensic databases in criminal investigations, from the perspective of family and kinship studies. It discusses the broader implications of this expanded understanding for wider debates about identity, privacy and genetic databases.

About Face: Forensic Genetic Testing for Race and Visible Traits
Pilar N. Ossorio

Information from forensic genetic tests of crime scene samples has been used to make claims about suspects’ race and appearance. This article discusses and critiques the techniques used to make such claims, and raises policy concerns about them.

Explaining Differential Trust of DNA Forensic Technology: Grounded Assessment or Inexplicable Paranoia?
Troy Duster

In the spring of 2005, the Portuguese government passed legislation paving the way for all residents to contribute their DNA to a national database to be used for medical and forensic purposes. There was no significant opposition. In sharp contrast, the United States will experience a contentious debate with strong opposition from many groups if and when such a law is proposed. Some of the reasons have to do with a history of sharply different experiences with, and trust of, the criminal justice system.

Interrelationships among Native Peoples, Genetic Research, and the Landscape: Need for Further Research into Ethical, Legal, and Social Issues
Mercyn L. Tano

To understand the impacts of development on native peoples requires an understanding of how their genetic make-up is implicated in their relationship with their landscapes. This is an area ripe for more research. The ASLME project on DNA Fingerprinting and Civil Liberties proposed improvements to the ethical and legal safeguards for the collection and storage of DNA-derived genetic information. Native peoples have proposed a similar examination of the ethical and legal issues related to the collection and storage of their genetic information obtained via family histories and genealogies.

Forensic Science
Paul C. Giannelli

Scientific evidence is often more reliable than other types of evidence commonly used in criminal trials – i.e., eyewitness identifications, confessions, and informant testimony. Nevertheless, despite its obvious value, forensic science has not always merited the term “science.” Three developments in the 1990s focused attention on its shortcomings: the advent of DNA profiling, the Supreme Court’s “junk science” decision, and a number of well-publicized crime laboratory scandals. 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, a number of reforms are needed: Crime laboratories should be accredited, lab procedures should be standardized, and basic research needs to be conducted on many commonly used techniques. Court procedures also require improvement: Defense experts should be more readily available to indigent defendants, and more comprehensive pretrial disclosure of the substance of expert testimony should be provided.

The Impact of DNA Exonerations on the Criminal Justice System
Margaret A. Berger

One obvious result of DNA exonerations has been the enactment of legislation regulating postconviction DNA testing. But the impact on our criminal justice system goes beyond formal statutory change. The DNA exonerations are changing attitudes towards the death penalty, are
focusing attention on how forensic laboratories operate, and are leading to the stricter scrutiny of forensic science.

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Just Evidence: The Limits of Science in the Legal Process
Sheila Jasanoff
Both opponents and proponents of the death penalty express faith in science and in DNA evidence to justify their positions. This article examines the production of forensic evidence as a social activity and suggests that tendencies toward bias and error may not apply symmetrically in inculpation and exoneration contexts.

342
Genes and Antisocial Behavior: Perceived versus Real Threats to Jurisprudence
Gregory Carey and Irving I. Gottesman
Separating wheat from chaff in regard to the hyperbole surrounding media coverage about genes for violence, born killers, et cetera provides a launch pad for two experienced behavioral geneticists who have conducted research on aggression and crime with twins, families, and adoptees to provide an essay on the facts and limitations of current knowledge; they conclude that any current threats to jurisprudence lie in perception rather than in empirical facts.

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Ethical Issues in Secondary Uses of Human Biological Materials from Mass Disasters
Bartha Maria Knoppers, Madelaine Saginur, and Howard Cash
This paper addresses the ethical issues of secondary uses of samples collected for identification purposes following mass disasters. It studies norms governing secondary use of samples (general/deceased/vulnerable), ultimately concluding that limited secondary research uses of these samples should be permissible.

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Statutory Frameworks for Regulating Information Flows: Drawing Lessons for the DNA Databanks from other Government Data Systems
David Laser and Viktor Mayer-Schönberger
This paper examines the existing statutory frameworks in the US limiting government use of individual fingerprint, DMV, and tax data, drawing lessons for the existing statutory limitations on the use of government-controlled offender DNA databanks.

SYMPOSIUM ARTICLES – PART II: COMMENTARIES

Two Perspectives: Sample Retention

375
Should Biological Evidence or DNA be Retained by Forensic Science Laboratories After Profiling? No, Except Under Narrow Legislatively-Stipulated Conditions
R. E. Gaensslen
DNA profiling and databasing are now commonplace. A body of state and federal legislation enables the establishment and operation of profile databases for law-enforcement purposes. Enabling legislation is usually specific about who, or what evidence, may be profiled for a database. It may be less specific or silent on the issue of specimen retention following profiling and databasing.

380
Retention of Offender DNA Samples Necessary to Ensure and Monitor Quality of Forensic DNA Efforts: Appropriate Safeguards Exist to Protect the DNA Samples from Misuse
M. Dawn Herkenham
Retention of offender DNA samples serves an important quality assurance role for forensic DNA laboratories. Consistent with the principles of confidentiality underlying the establishment of the state and national DNA databases, safeguards are in place to protect the DNA samples from unauthorized use.

Two Perspectives:
Forensic Database Expansion

385
Let’s Make the DNA Identification Database as Inclusive as Possible
Michael E. Smith
The more comprehensive our DNA database, the more useful it is for identifying perpetrators and lifting suspicion from innocents. By excluding persons never arrested, our database will come to hold DNA profiles of nearly seventy-five percent of adult males and ninety percent of black males. Privacy is threatened not by the database but by government retention of tissue samples after analysis of the tiny fraction of DNA that yields the uniquely identifying profile. Public safety and privacy would best be protected by routinely destroying samples while deliberately constructing a comprehensive database.

390
Dangerous Excursions: The Case against Expanding Forensic DNA Databases to Innocent Persons
Tania Simoncelli
Recent expansions of federal and state law enforcement databanks to include DNA samples and profiles of innocent persons threaten individual privacy, impose unjustifiable costs on society, and may undermine our pursuit of justice. The move to permanently retain DNA from arrestees and proposals for a universal database should be vigorously opposed on matters of principle, legality, and practicality.
Symposium articles are solicited by the guest editor for the purposes of creating a comprehensive and definitive collection of articles on a topic relevant to the study of law, medicine and ethics. Each article is peer reviewed.

Independent articles are essays unrelated to the symposium topic, and can cover a wide variety of subjects within the larger medical and legal ethics fields. These articles are peer reviewed.

Columns are written or edited by leaders in their fields and appear in each issue of JLME.

Next Issue: Race & Ethnicity
A symposium guest edited by Susan M. Wolf

Two Perspectives: Rights of Donors

398 Who Owns Your Body? A Patient’s Perspective on Washington University v. Catalona
Lori Andrews
Washington University v. Catalona revolves around ownership of tissue samples provided by patients for research purposes, raising significant ethical and legal questions concerning patient rights, current human research practices, and the treatment of samples as capital resources by the research institution.

408 A Consumer Perspective on Forensic DNA Banking
Sharon F. Terry and Patrick F. Terry
This article describes a model of DNA banking that incorporates appropriate consumer influence on the design and use of DNA databanks. This model values input of consumer stakeholders in key decisions, including contracts between donors, researchers and the bank.

Independent Articles

415 Closing the Organ Gap: A Reciprocity-Based Social Contract Approach
Gil Siegal and Richard J. Bonnie
Organ transplantation has become a proven, cost-effective lifesaving treatment, but its promise is contingent on the number of available organs. The growing gap between the demand and supply results in unnecessary loss and diminished quality of life as well as high costs for surviving patients and health insurers. Twenty years after the enactment of the National Organ Transplantation Act, it is time to rethink the moral basis and overall design of organ transplantation policy. We propose a national plan for organ transplantation insurance under which the federal government would assume responsibility for increasing the organ supply and would cover all costs associated with transplantation for patients not otherwise covered.

424 Fiduciary Obligation in Clinical Research
Paul B. Miller and Charles Weijer
Heated debate surrounds the question whether the relationship between physician-researcher and patient-subject is governed by a duty of care. Miller and Weijer argue that fiduciary law provides a strong legal foundation for this duty, and for articulating the terms of the relationship between physician-researcher and patient-subject.

441 Equipoise and the Criteria for Reasonable Action
Emily L. Evans and Alex John London
Critics of clinical equipoise have long argued that it represents an overly permissive, and therefore morally unacceptable, mechanism for resolving the tensions inherent in clinical research. In particular, the equipoise requirement is often attacked on the grounds that it is not sufficiently responsive to the interests of individual patients. In this paper, we outline a view of equipoise that not only withstands a stronger version of this objection, which was recently articulated by Deborah Hellman, but also plays important roles in clarifying the discussion.

451 Pediatric Assent: Subject Protection Issues among Adolescent Females Enrolled in Research
Theresa O’Lonergan and John J. Zodrow
Re-assent of adolescent females enrolled in clinical research through the onset of puberty is necessary to respect their rights to access sexual and reproductive health information, their rights under HIPAA as well as assuring compliance with the Common Rule.

Columns

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