

# CENTER FOR THE STUDY OF LAW, SCIENCE, AND TECHNOLOGY

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College of Law  
FORUM is  
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## A Message from the Director

This issue of the FORUM initiates publication of a newsletter by the Center for the Study of Law, Science, and Technology. The Center is thriving; there is much to report.

Since its founding in 1985 the Center has sought to contribute, through research and education, to the informed and wise development of law on issues generated by scientific advances and their technological applications. The task is difficult. Our legal system asks largely lay officials – judges, juries, legislators, public administrators – to assign responsibility or make policy choices arising from complex scientific and technical advances. Claims are frequently contested; time is constrained; information is imperfect.

But the law's job is critically important, since the consequences of decision are so high. A few recent Center projects make the point: defining the proper scope of copyright protection for computer software; law reform to govern the explosion of information and medical applications in human genetics; the forensic use of DNA identification technologies; the Internet's impact on legal notions of jurisdiction, free expression, and privacy; and implications for law of biological perspectives on human sexual aggression.

Founded at ASU on the strength of an extraordinary group of science-trained law professors, the Center has now grown to affiliate fully one-third of the College faculty. In the last year our expertise has further deepened, with the College's hiring of Michael Saks, a leading national scholar in psychology, social science, and the law from the University of Iowa, and geneticist/lawyer Gary Marchant. It would be hard to imagine a stronger faculty assemblage in this field.

The Center is now midway through the largest research grant the College has ever received, a three-year project on law and genetics underwritten by the SmithKline Beecham Corporation. Since 1985 we have edited and co-

published *Jurimetrics: The Journal of Law, Science, and Technology*, the prestigious refereed journal of the ABA Section of Science and Technology: we deeply appreciate the Section's continuing confidence and support. In recent years Regents Professor David H. Kaye has greatly increased student participation in editing and writing for the journal.

In other areas, a recent gift from Lee Loevinger has enabled us to expand our mission to include the scientific study of law and legal institutions. Center programs for students and visiting scholars are more active than ever before. Our strong law/science curriculum continues to grow. Next year, in addition to the SmithKline Beecham program, we are planning to co-sponsor, with the Gruter Institute for Law and Behavioral Research, a conference on law, behavioral biology, and economics. We are also exploring a multi-year project on law and public policy governing genetically modified foods. To help us manage this expanding range of activity, last year the Center hired its first Associate Director, Andrew Askland, J.D., Ph.D. (Philosophy), a step made possible by Dean White's commitment to the Center.

I am proud of the Center's growth and achievements during the decade in which I have served as its Director; deeply grateful to faculty colleagues and Deans for their support; and excited about our future growth. We pledge to keep you up to date in future issues of the FORUM. In the meantime, we welcome your comments and questions, and invite you to visit our website at [www.law.asu.edu/programs/sci-tech](http://www.law.asu.edu/programs/sci-tech).



Daniel S. Strouse  
Center Director, Professor of Law

*Dan Strouse*

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# Big Diehl

It's a long way from studying caterpillars in the mountains of Oregon to the ASU College of Law, but third year law student Jonathan Diehl made the transition quite

successfully.

It was Diehl's strong interest in natural resources and the environment that drew him to law school. "I'm interested in the public policies of

science and agriculture and that's what really got me interested in studying the law," he said.

Diehl's scientific background, which includes an M.S. in Entomology from Oregon State University, gave him a good foundation for his position as a Note and

Comment Editor on *Jurimetrics: The Journal of Law, Science, and Technology*. In 1999, the journal published his article "Drafting a Fair DNA Exception to the Statute of Limitations in Sexual Assault Cases."

During his second year of law school, Diehl worked as a writing instructor. He counts this experience as one of his favorite law school memories because he enjoyed the one-on-one contact with the students he was instructing.

"As a student writing instructor, Jon was respected by his students and his peers, and he has gained the respect of the faculty as well," said Professor Judy Stinson, director of the writing program. "Jon is a wonderful student and will be a wonderful, insightful lawyer. We will miss him when he graduates."

After graduation, Diehl will clerk for Judge Sheldon Weisberg of the Arizona Court of Appeals, Division One. "I want to remain open job-wise and clerking will give me the chance to get to know some lawyers and to learn about the profession," he said, although he thinks he'd ultimately like to work in the public sector in the area of natural resources and environmental law.

When not busy with schoolwork, Diehl is a devoted family man who enjoys raising butterflies, bird watching and hiking with his wife and their four-year-old daughter.

## The Second Annual ASU – SmithKline Beecham Conference on Genetics and the Law

The second annual Arizona State University – SmithKline Beecham Conference on Genetics and the Law was a resounding success. This year's symposium, held at the SunBurst Resort Hotel in Scottsdale on April 7-8, focused on *Legal Liabilities at the Frontier of Genetic Testing*.

A formidable collection of scholars from law, medicine, human genetics, molecular biology, philosophy, sociology and government regulatory agencies gathered for the program. Over two days, they explored the relationship between emerging clinical and commercial applications of predictive genetic testing and theories of legal liability, regulatory initiatives and professional standards.

The first day focused on liability issues in health care areas: theories of tort liability, pressures on health care providers to make testing available, issues of provider competency, tensions between provider obligations of confidentiality and their protective responsibilities to others, the evolving role of institutional review boards (IRBs), and the peculiarities of identifying an applicable "standard of care."

The second day examined how predictive testing might affect liability for environmental, occupational and product risks. It keyed upon the double edge of genetic testing: plaintiffs may offer genetic evidence to show that their genetic changes are evidence of exposure to the defendant's product, even though there is not yet a manifest disease or disability; defendants may use genetic evidence to demonstrate that the plaintiff's injury was caused by another product and/or that the plaintiff has a special genetic susceptibility to that other product.

This year's conference was coordinated by SB Research Fellows Michael Malinowski and Gary Marchant, and by Center Director Daniel Strouse.

"We succeeded in creating a forum of multi-disciplinary and international expertise. Although all participants are renowned experts in the field of genetics policy, many had never been brought together before," said Malinowski. "The end result was a problem-solving atmosphere with plenty of 'real world' insight, which invited honesty and openness. The mix of participants generated a great deal of fresh thinking, even from experts who have remained committed to particular positions for some time."

A lengthier description of the conference and a list of the participants and their credentials is available at the Center's website, [www.law.asu.edu/programs/sci-tech](http://www.law.asu.edu/programs/sci-tech). The papers and commentaries presented at the conference will be published in a future edition of *Jurimetrics: The Journal of Law, Science, and Technology*.

# Center Speaker Series

**Raphael Cohen-Almagor**, an Israeli scholar visiting at the UCLA School of Law as the Fulbright-Yitzhak Rabin Scholar for 1999-2000, presented his paper *A Circumscribed Plea for Physician Assisted Suicide*, part of his forthcoming book **THE RIGHT TO DIE IN DIGNITY: AN ARGUMENT IN ETHICS, MEDICINE AND THE LAW**.

**David Faigman**, Professor of Law at Hastings College of Law, *Scientific Shenanigans: How (and Why) Courts, Agencies and Congress Use and Abuse Science*, which drew upon his book **LEGAL ALCHEMY: THE USE AND ABUSE OF SCIENCE IN THE LAW**.

**Neil M. Malamuth**, Professor of Communications, Psychology and Women's Studies at UCLA, *Media Violence and Multiple Interactive Influences on Aggressive Behavior*.

**Michael Malinowski**, SB Research Fellow at ASU and a faculty member at Widener School of Law, *Separating Predictive Genetic Testing from Snake Oil: Regulation, Liabilities and Delayed Opportunities*, which elaborated upon material in his book **THE LAW, BUSINESS AND REGULATION OF BIOTECHNOLOGY**.

**Lars Noah**, Professor of Law at the University of Florida, presented on two topics, *Scientific "Republicanism:" Expert Peer Review and the Quest for Regulatory Deliberation* and *Divining Regulatory Intent: The Place for a "Legislative History" of Agency Rules*.

**Lionel Tiger**, Charles Darwin Professor of Anthropology at Rutgers University, presented on *Males and the Law* (derived from his book **THE DECLINE OF MALES**) and on *Biology as Precedent*.

## Center Faculty News

**Ira Ellman** published *Divorce Rates, Marriage Rates and the Problematic Persistence of Traditional Marital Roles* in *Family Law Quarterly* and the divorce law chapter for *Crossroads: Family Law in England and the United States since World World II* (Oxford).

**Joseph Feller** published *From Old Growth Forests to Old Growth Grasslands: Managing Rangelands for Structure and Function*, co-authored with Biology Professor David E. Brown, in the *Arizona Law Journal*. He also filed an *amicus curiae* brief with the U.S. Supreme Court in *Public Lands Council v. Babbitt*, concerning livestock grazing on public lands.

**Owen Jones** published *Sex, Culture, and the Biology of Rape: Toward Explanation and Prevention* in the *California Law Review and Law, Emotion, and Behavioral Biology* in *Jurimetrics*. He presented *Law, Biology, and Rape* at Yale Law School and *Law, Behavioral Economics and Evolution* to the Society for Evolutionary Analysis in Law (SEAL).

**Dennis Karjala** published *Copyright Protection of Operating Systems, Copyright Misuse, and Antitrust* in a symposium issue of the *Cornell Journal of Law and Public Policy*. He and Gary Marchant submitted a consortium funding proposal to the USDA, along with the Harvard Center for Risk Analysis and Decision Research, entitled *Law, Science, and Public Perception in the Regulation of Genetically Modified Foods*.

**David Kaye** published *How Good is Good Enough? Expert Evidence under Daubert and Kumho* in *Case Western Reserve Law Review*. He also addressed the National Commission on the Future of DNA Evidence on *Forensic DNA Typing: Selected Legal Issues* and the Arizona-Southwest Conference on Genetics in the Courtroom, sponsored by the Arizona Supreme Court, on *The Evolving Field of DNA Forensics*.

**Gary Marchant** presented his paper, *Liability Considerations for Biomaterials Suppliers*, at a conference at Boston University School of Law entitled *Biotech Materials and Medical Devices in the New Millennium*.

**Dan Strouse** presented a paper on *Predictive Genetic Testing and Provider Tort Liability: An Overview* at the ASU/SB conference on Legal Liabilities at the Frontier of Predictive Genetic Testing and taught a new course on Public Health Law to ASU law and public health students.

**Patricia White** presented her paper, *What Digging Does and Does Not Do*, at a symposium at the University of Utah College of Law entitled *Legal Archaeology: Making Sense of the Law*. The paper will be published in the *Utah Law Review*.

**Larry Winer** filed an *amicus curiae* brief with the U.S. Supreme Court on behalf of The Media Institute in *U.S. v. Playboy Entertainment*, arguing for strict scrutiny of federal regulation of indecency on cable television. He also filed public comments with the FCC, arguing for deregulation of commercial television.

# LASSA

The Law and Science Student Association (LASSA) seeks to promote interest and learning in the legal and public policy issues that arise from the law's relationship with science and technology. Its membership includes students from the College of Law, as well as from other departments at ASU. Three 1L students served as presidents of LASSA this year: Stephanie Gliege, Linda Matson, and Todd Weaver. In addition to sponsoring speakers

throughout this past academic year, LASSA has efforts underway to arrange pro bono work for interested students with the Law and Water Fund of the Rockies.

Speakers who were sponsored by LASSA this year included:

- **Joanne Gabrynowicz**, Professor and Director of Graduate Studies, Department of Space Studies, University of North Dakota, *A Beginner's Guide to Space Law*

- **Gail Thackeray**, Special Counsel for Technology Crimes in the Arizona Attorney General's Office, *Prosecuting Technology Crimes*

- **Michael Arkfeld**, Assistant United States Attorney, *The Impact of Technology on the Practice of Law and the Justice System and the Future of Information Technology*

- ASU Regents' Professor **David Kaye**, *DNA Databanking*

- **Jennifer Wuamett**, Senior Intellectual Property Attorney, Motorola Law Department, *Career Opportunities in Intellectual Property*

- SmithKline Beecham Research Fellow **Michael Malinowski**, *Evolution of the U.S. Biotechnology Industry: Regulatory and Policy Considerations*

- ASU Associate Professor **Anupam Chander**, *Oklahoma Revisited: The Domain Rush in Cyberspace*

## SB Fellows for 2000-01

Two outstanding scholars have been selected to serve as SmithKline Beecham Research Fellows at the College of Law for the 2000-01 academic year.

Robert Trivers is a Professor of Anthropology at Rutgers University and the recent recipient of a Guggenheim Fellowship.

Dena S. Davis is an Associate Professor at Cleveland-Marshall College of Law and previously a visiting scholar at The Hastings Center and the National Human Genome Research Institute (NIH).

## CENTER PROFILE

When Gary Marchant was in the sixth grade, he watched a television show on genetics. It proved to be a life altering decision.

"That was when I decided I wanted to be a geneticist," he said. "I really liked science so I went in that direction."

It was while doing research on identifying fruit fly genes that Marchant began to realize he was more interested in the social and policy issues of genetics. So after receiving his Ph.D. from the University of British Columbia, he entered the joint law and public policy program at Harvard University. In 1990, he received his Masters of Public Policy and J.D. degrees. Graduating first in his law school class at Harvard, Marchant also served as the editor in chief of the Harvard Journal of Law and Technology, as editor of the Harvard Environmental Law Review and as vice-president of the Harvard Law and Technology Society.

Marchant has now completed his first year as an Associate Professor, during which he was a SmithKline

Beecham Resident Research Fellow at the Center for the Study of Law, Science, and Technology. He teaches environmental law, genetics and the law, a course on law, science and technology and a class on how society deals with risk.

A native of Canada, Marchant enjoys hiking, camping and observing nature. In his spare time, Marchant is an avid watcher of hockey games, a gourmet cook and a reader of non-fiction. He and his wife love to travel and have been to Thailand, Indonesia, France and Italy. This summer they will spend time in Austria.



Gary Marchant

So what will be the hot topics in genetics in the near future? According to Marchant, genetically engineered foods, which he thinks are safe, and genetic enhancement will be the topics to watch.

"We will be able to put genes into embryos to enhance certain characteristics, such as a person's height or intelligence level," he said. "It's a provocative topic and it'll be interesting to see what other countries do and how that area develops."

# Rape Reconsidered

by Owen D. Jones

Rape is about violence, we are daily reminded, not sex. If only it were that simple. Unfortunately, modern reforms of rape law score more points for symbolism than for prevention. The fact is that the multiple causes of rape remain insufficiently understood for the law to deter it effectively.

Enter scientists Randy Thornhill and Craig Palmer, whose recent book *A Natural History of Rape: Biological Bases of Sexual Coercion* explores the possible influences of evolutionary processes on human patterns of male rape behavior.

Contrary to popular belief, they show, forced copulation is in no way a uniquely human phenomenon. Patterns of sexual aggression in dozens of other species, including our primate relatives, are recurrent, consistent with predictions, and eerily familiar. The book argues, in short, that male sexual desire is far from irrelevant to rape.

Expected reactions ensued. For most commentators, however, the understandably passionate condemnation of rape behavior has obscured level-headed discussion of rape causation. And some have argued for rejecting bio-behavioral theories on the ground of potential misuse in rape trials, raising the specter of a genetic defense for rapists.

This is understandable, perhaps, but alarmist and unproductive. Everyone wants to eradicate rape. Yet it is obvious that most people to weigh in on the book haven't any clue about bio-behavioral theories of sexual aggression or what their implications might be.

The possible legal implications supposedly include this scenario: a) Mr. X rapes. b) Mr. X is apprehended. c) Mr. X is acquitted on the theory that his genes made him do it. But this genetic defense won't work. First, explanation is not justification. Even if biology influences rape patterns, nothing – simply nothing – automatically follows. We need not tolerate rape or blame victims. Biology alone provides no excuse.

Second, no one is saying there are rape genes that cause rape all by themselves. So an absolute genetic defense to rape makes no sense whatsoever. The biological perspective that Messrs. Thornhill and Palmer describe instead suggests male-wide commonalities in psychology that increase or decrease the probability of rape, as a function of variations in environmental circumstances.

Far from being genetically deterministic, therefore, bio-behavioral theories complement aspects of several theories of rape that emphasize cultural circumstances.

In addition, since the law's effectiveness in preventing rape depends partly on the accuracy of its assumptions about causes, bio-behavioral theories might improve the nontrial legal machinery we bring to bear.

Several states, for example, are debating chemical castration as a condition for the parole of rapists. The effectiveness of such libido suppression, however, depends partly on the extent to which rape is influenced by sexual desire.

The Violence Against Women Act is premised on the idea that much of this violence reflects hatred of women as a class, as lynching reflected racial hatred. It affords civil damages to rape victims who prove that their attack was "due, at least in part, to an animus based on the victim's gender." Some courts have concluded that in the case of rape this test is almost presumptively satisfied. But if it is wrong, as the bio-behavioral theories suggest, to consider most rape to be motivated by hatred, then hate crime legislation may not be the best weapon against it.

Rape is sufficiently serious to call forth all our most powerful tools, including biology. Messrs. Thornhill and Palmer, without justifying or excusing rape, argue compellingly for the relevance of biological insights to our efforts to eradicate rape. The theories are more subtle, nuanced and empirically supported than is commonly assumed. Only those more interested in politics than in women will dismiss them before understanding them, or jump to conclusions about how the legal system might use them.



Owen D. Jones

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# JURIMETRICS

*Jurimetrics: The Journal of Law, Science, and Technology* is the journal of the American Bar Association Section of Science and Technology and the ASU Center. It is the oldest (founded in 1959) and most widely circulated journal in the field of law and science.

*Jurimetrics* publishes scholarly articles by law faculty, academics from other disciplines, and law practitioners on subjects of national and international importance. It is a refereed journal that is edited on campus by a staff of professionals and law students.

At its Annual Awards Banquet on April 20th, 3L Jonathan Diehl received the Jennings, Strouss & Salmon Award for Best Student Note. Graduating Executive Editor Tracey Paulaukas and Production Editor Joseph D'Aguanno received awards as outstanding senior editors. Incoming Executive Editor Lucius Lockwood received an award as the outstanding associate editor.

In the past year *Jurimetrics* published the proceedings of the first Arizona State University-SmithKline Beecham Conference on Genetics and the Law, titled "Respecting Genetic Privacy", and the second installment of the proceedings of the Center's Symposium on Biology and Sexual Aggression.

Other highlights were articles by Michael Saks, *The Aftermath of Daubert: An Evolving Jurisprudence of Expert Evidence*, and by Michael Fried, *The Evolution of Legal Concepts: The Memetic Perspective*.

## Lee Loevinger Jurimetrics Research Award

The Lee Loevinger Jurimetrics Research Award was won by Oliver R. Goodenough, Professor of Law at Vermont Law School, for his essay, *Mapping Cortical Areas Associated with Legal Reasoning and with Moral Intuition*. Professor Goodenough, currently a Visiting Research Scholar at Cambridge University, received \$10,000.00 and his essay will be published in a future issue of *Jurimetrics*.

The award is sponsored by Loevinger, a longtime supporter of the Center and past chair of the American Bar Association Section of Science and Technology. Loevinger created and subsidized the award in the belief that the scientific study of law and legal institutions – "jurimetrics" – needs greater systematic attention than it has received to date.

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