

2009-10 **ANNUAL REPORT** 

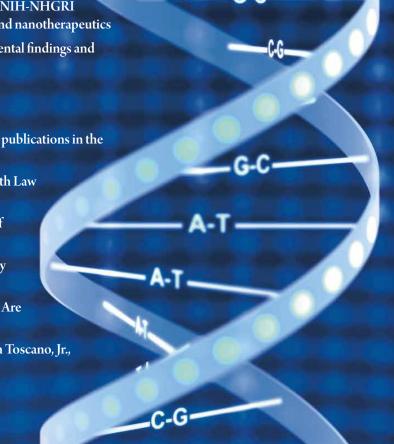


Joint Degree Program in Law, Health & the Life Sciences"

Consortium on Law and Values in Health, Environment & the Life Sciences"

#### 2009-10 HIGHLIGHTS:

- Consortium awarded ARRA Challenge Grant of \$900K from NIH-NHGRI on building research ethics and oversight for nanomedicine and nanotherapeutics
- Consortium receives NIH grant of \$900K on managing incidental findings and research results in genomic biobanks and archives
- Consortium is renewed as a University-wide center
- Prof. Susan Wolf elected to the Institute of Medicine (IOM)
- NSF-funded grant on oversight for nanobiotechnology yields publications in the Journal of Law, Medicine & Ethics and elsewhere
- University of Minnesota Law School named in top-10 of Health Law programs by U.S. News & World Report
- Joint Degree Program graduated 5 more students for a total of 33 alumni
- Deinard Memorial Lecture on Law and Medicine presented by Prof. Dorothy Roberts (Northwestern University)
- Lecture Series on "How the Internet and Computer Capacity Are Changing Policy Issues & Solutions in Biomedicine"
- Associate Director of the Joint Degree Program, Prof. William Toscano, Jr., PhD, appointed
- Associate Director of Law, Geography & Environment Prof. Hari Osofsky, JD, appointed





#### 2009-10 ANNUAL REPORT



# Consortium on Law and Values in Health, Environment & the Life Sciences"



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Our Consortium on Law and Values in Health, Environment & the Life Sciences is one of the University of Minnesota's most distinguished interdisciplinary programs. The Consortium's ability to bridge law, values, medicine, science, and policy is renowned and respected around the world. We are pleased that the Consortium continues to bring such remarkable faculty and students together to work, here on our campus, on some of the most pressing and profound issues of our times.

-E. Thomas Sullivan Senior Vice President for Academic Affairs and Provost University of Minnesota

#### 2009-10 Events & Co-Sponsored Activities

- **35** Annual Conference
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### **Message from the Director and Chair**



PROFESSOR SUSAN M. WOLF, JD

McKnight Presidential Professor of Law, Medicine & Public Policy

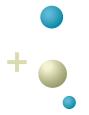
Faegre & Benson Professor of Law

Professor of Medicine

Faculty Member, Center for Bioethics

Director, Joint Degree Program in Law, Health & the Life Sciences

Chair, Consortium on Law and Values in Health, Environment & the Life Sciences





The Consortium on Law and Values in Health, Environment & the Life Sciences and the Joint Degree Program in Law, Health & the Life Sciences are proud to present our 2009-10 Annual Report. In this report we summarize our 2009-10 accomplishments, and offer a glimpse of our plans for the upcoming year, including two major conferences resulting from our NIH-funded work on "Nanodiagnostics and Nanotherapeutics: Building Research Ethics and Oversight" (on April 28, 2011, at the University of Minnesota) and "Managing Incidental Findings and Research Results in Genomic Biobanks and Archives" (on May 19, 2011, in Washington, DC). We give thanks to the many scholars, students, leaders, and funders who have enabled us to accomplish so much.

In 2009-10 the University of Minnesota's Consortium on Law and Values in Health, Environment & the Life Sciences and Joint Degree Program in Law, Health & the Life Sciences have achieved unprecedented success. The Consortium was awarded a highly competitive American Recovery and Reinvestment Act of 2009 (ARRA) Challenge Grant from the National Human Genome Research Institute (NHGRI) at NIH for work on "Nanodiagnostics and Nanotherapeutics: Building Research Ethics and Oversight" and a renewal grant funded by NIH-NHGRI for work on "Managing Incidental Findings and Research Results in Genomic Biobanks and Archives." Additionally, the Consortium is in its 4<sup>th</sup> year of a four-year National Science Foundation (NSF) grant on "NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context," which has produced groundbreaking results and publications. We are gratified that our research projects have been federally funded by NIH, NSF, as well as private foundations.

In 2009-10, the Consortium and Joint Degree Program went through a year-long process of review and strategic planning. This process involved every major constituency, including faculty, students, administrators, and community leaders. A distinguished team of external reviewers visited in March. As a result of this process, Senior Vice President and Provost E. Thomas Sullivan has renewed the Consortium as a University-wide center and our important work continues. We have built a leading journal, the *Minnesota Journal on Law, Science & Technology. MJLST* is now ranked top-5 to top-15 in each major area in which we publish. We have established the country's foremost Joint Degree Program for students combining a law degree with one of 23 other professional and graduate degrees. In 2009-10 we had 13 new students and graduated 5, for a total of 33 alumni. *U.S. News and World Report* now ranks our Health Law Program among the top-10 in the nation. In 2009-10 we awarded over \$135,000 in intramural funds to catalyze University-wide work on the societal implications of the life sciences, bringing the total amount we have awarded since 2000 close to \$1,000,000. We have brought to campus the very top thinkers from around the country and beyond. We have established a national reputation for our programs and the University of Minnesota as the place to turn for incisive, honest debate on these crucial issues and cutting-edge solutions.

Under the leadership of President Robert Bruininks and Senior Vice President and Provost E. Thomas Sullivan, we have been able to forge new paths in interdisciplinary research and scholarship. We are pleased that the **Consortium** remains a **Presidential Interdisciplinary Academic Initiative** and delighted that Senior Vice President and Provost E. Thomas Sullivan continues to lead this Presidential Initiative.

The **Consortium** and the **Joint Degree Program** remain unique in the nation. They have grown into leading national programs. We are proud of our research, scholarship, policy work, community engagement, and student training. Please accept our thanks for being part of this effort. We look forward to continuing our collaboration in the years to come!

Appreciatively,

Susan M. Wolf

## Update on the Consortium on Law and Values

In 2009-10 the Consortium reached new milestones:

#### **Consortium News**

- The Consortium on Law and Values in Health, Environment & the Life Sciences renewed as a University-wide center.
- Prof. Susan M. Wolf, JD, elected to the Institute of Medicine of the National Academies.

#### **Grants and Publications**

- In 2009-10 the Consortium was awarded an American Recovery and Reinvestment Act of 2009 (ARRA) Challenge Grant from the National Institutes of Health (NIH), National Human Genome Research Institute (NHGRI) for work on "Nanodiagnostics and Nanotherapeutics: Building Research Ethics and Oversight" and a renewal grant funded by NIH-NHGRI to work on "Managing Incidental Findings and Research Results in Genomic Biobanks and Archives."
- We are completing the fourth year of work on our 4-year project funded by a National Science Foundation (NSF) grant on "NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in Societal Context"
- We've published widely as a result of this research, including a major symposium in the Journal of Law, Medicine & Ethics, and articles in journals including Nanoethics, Food and Drug Law Journal, Risk Analysis, Environmental Science & Technology, and others.

#### **Conferences and Lectures**

The Consortium and Joint Degree Program sponsored 5 events in 2009-10:

The Lecture Series on Law, Health & the Life Sciences on How the Internet and Computer Capacity Are Changing Policy Issues & Solutions in Biomedicine, including:

- "Computers, Patients, and the Health of Populations: Next Steps in Ethics and Informatics" by Prof. Kenneth Goodman, PhD (University of Miami)
- "How the Internet is Reshaping Assisted Reproduction: From Donor Offspring Registries to Direct-to-Consumer Genetic Testing" by Prof. Andrea M. Braverman, PhD (University of Medicine and Dentistry of New Jersey)
- "Cutting-Edge Issues in the Structure & Governance of U.S. and International Biobanks" by Prof. Alexander Capron, LLB (USC Gould School of Law)

- The 2009-10 Deinard Memorial Lecture on Law & Medicine featured Prof. Dorothy Roberts, JD (Northwestern University) speaking on "What's Wrong with Race-Based Medicine?"
- Our April 15 Conference on "Governing Nanobiotechnology: Reinventing Oversight in the 21st Century" presented the findings and recommendations from our NSF-funded project on "NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context."

#### **New Associate Directors**

The Consortium and Joint Degree Program welcomed three new Associate Directors to lead our programs:

- Adjunct Associate Prof. Ubaka Ogbogu, LLB, LLM, Associate Director of Research & Education
- Prof. Hari Osofsky, JD, Associate Director of Law, Geography & Environment
- Prof. William Toscano, PhD, Joint Degree Program Associate Director

#### **New Research Associate**

 Adjunct Associate Prof. Leili Fatehi, JD, Research Associate

#### **New Staff**

• Carrie Coslin, MPP, Student Support & Grants Specialist



# Minnesota Journal of Law, Science, & Technology (MJLST)

*MJLST* celebrated 5 years as a cutting-edge, multidisciplinary journal:

- MJLST published volume 11 in 2009-10, including a symposium on "Rising Stars: Recognizing Important New Voices in Law, Medicine, Science & Technology" with Guest Faculty Editor-in-Chief Prof. Michele B. Goodwin, ID, LLM.
- MJLST welcomed 13 new faculty editors to the Faculty
  Editorial Board, including: Profs. Kenneth Beckman, PhD;
  Jeffrey Bender, DVM, MS, DACVPM; Susanna Blumenthal,
  JD, PhD; Carl Elliot, PhD; Michael Georgieff, MD; Apostolos
  Georgopolus, MD, PhD; Shaun Kennedy, BSE-ChE; Mindy
  Kurzer, PhD; Steven Miles, MD; Amy Monahan, JD; Michael
  Sadowsky, PhD; Leigh Turner, PhD; and Brian Van Ness, PhD.
- MJLST continues to rise in the ranks. Each year, Washington and Lee University School of Law ranks law journals. MJLST is currently ranked 5 of 66 in the category of Health, Medicine, Psychology, and Psychiatry; 8 of 41 in Science, Technology, and Computing; 13 of 55 in Intellectual Property; and 11 of 75 in Environment, Natural Resources, and Land Use.

#### In 2010-11, the Consortium and JDP are presenting 5 events

- Lecture Series on Law, Health & the Life Sciences on "From Climate Change to the Gulf Oil Spill: Law and Science in Times of Crisis," featuring Prof. Daniel Farber, JD (University of California, Berkeley School of Law), and Prof. Daniel Bodansky, JD (Sandra Day O'Connor School of Law, Arizona State University)
- Deinard Memorial Lecture on Law & Medicine featuring Prof. R.
   Alta Charo, JD (University of Wisconsin and U.S. Food and Drug Administration) on "New Technologies and Old Statutes: Challenges for 21st Century Food and Medical Product Regulation"
- An April 28, 2011 conference on "Nanodiagnostics and Nanotherapeutics: Building Research Ethics & Oversight"
- A May 19, 2011 conference on "Managing Incidental Findings and Research Results in Genomic Biobanks & Archives"
- MJLST continued to offer open access to its articles, publishing
  articles online simultaneously with our print publication. For
  more information on MJLST, visit www.mjlst.umn.edu.

Further details on our 2009-10 accomplishments can be found on the Consortium's website **www.lifesci.consortium.umn.edu.** 



## Consortium on Law and Values in Health, Environment & the Life Sciences



#### **Consortium Members**

The Consortium on Law and Values in Health, Environment & the Life Sciences crosses almost all colleges at the University of Minnesota. The Consortium coordinates among and builds on the strengths of 19 University centers and programs, establishing a national identity for the University of Minnesota as a leading institution working on the societal implications of developments in health, environment, biomedicine, and the life sciences. The Consortium brings these programs together to address those interdisciplinary questions that are difficult for any one program to tackle alone. The 19 constituent programs are:



The BioTechnology Institute

- The Biomedical Genomics Center was created as a part of the University of Minnesota Genomics Initiative to advance genomics research as it applies to human and animal health and to foster intercollegiate programs. The Center is using the vast amounts of information provided by sequencing of human, animal, and microbial genomes to find new ways to treat and prevent disease. The Biomedical Genomics Center is directed by Prof. Kenneth Beckman, PhD. www.bmgc.umn.edu.
- The BioTechnology Institute (BTI) provides research, training, and university-industry interaction in biological process technology, a major area of biotechnology research. The Institute is the central University of Minnesota vehicle for coordinated research in the biological, chemical, and engineering aspects of biotechnology and home to the President's Initiative on Biocatalysis. The Institute is directed by Prof. Michael Sadowsky, PhD. www.bti.umn.edu.



The Institute of Human Genetics (IHG) is committed to educating and training students for
opportunities in biomedical research and clinical practice. Research areas at the Institute include behavioral
genetics, clinical genetics, gene therapy, genetic epidemiology, developmental biology, microchemical
facility, and molecular genetics. The Institute is co-directed by Profs. Brian Van Ness, PhD, and David
Largaespada, PhD. www.med.umn.edu/ihg.



• The Microbial and Plant Genomics Institute (MPGI) was established in 2006 when the University's Center for Microbial and Plant Genomics and Plant Molecular Genetics Institute merged. The Microbial and Plant Genomics Institute includes faculty who are interested in the successful development and application of genomics and resulting societal and environmental impact. The center is led by Prof. Nathan Springer, PhD, Department of Plant Biology. www.mpgi.umn.edu.



• The **Stem Cell Institute** works to further basic research in stem cell and developmental biology, translate basic research into novel therapies for genetic and degenerative disorders, apply new stem cell-based therapies in the clinic, advance and disseminate knowledge concerning stem cell biology, foster and increase public awareness of stem cells and their potential clinical applications, and address ethical issues in stem cell biology and therapeutics. The Institute is directed by Prof. Jonathan Slack, PhD, Tulloch Chair in Stem Cell Biology, Genetics and Genomics. It is represented in the Consortium by Prof. Slack and Associate Director, Prof. Dan Kaufman, MD, PhD. **www.stemcell.umn.edu.** 



• The Center for Environment & Health Policy (CEHP) is directed by Prof. William Toscano, PhD, Head of the School of Public Health's Division of Environmental Health Sciences. The Center is funded by grants from the U.S. Environmental Protection Agency, Legislative Commission on Minnesota Resources, Minnesota Pollution Control Agency, Minnesota Offices of Environmental Assistance, and the University of Minnesota. The Center focuses on improving assessment, management, and communication of environmental health risks and fostering environmental policy decisions. www.sph.umn.edu/enhs.



The Water Resources Center (WRC) conducts and funds research and outreach related to water resources in the state of Minnesota. The graduate program in Water Resources Science also is administered by the WRC. As the focal point for a broad range of research, education, and information exchange related to water resources, the WRC links faculty and student researchers with practicing professionals and citizens to address water resources issues. This facilitates effective delivery of research results to citizens and decision makers and opens new avenues for multidisciplinary and interagency partnerships. The Center is co-directed by Prof. Deborah L. Swackhamer, PhD, Environmental Health Sciences and Faye Sleeper, MA, College of Food, Agricultural and Natural Resource Sciences. www.wrc.umn.edu.

## ENVIRONMENT







# CENTER for COGNITIVE SCIENCES





- The Institute on the Environment (IonE) is led by Director Prof. Jonathan Foley, PhD. IonE is discovering solutions to Earth's biggest problems through cutting-edge research, partnerships, and leadership development. The Institute's research addresses today's grand environmental challenges, including the need to provide energy, food, and freshwater to the world in sustainable and economically viable ways. Through IonE's fellows program, research initiatives, and leadership courses, the Institute on the Environment brings together the brightest minds from the U of M and beyond.

  www.environment.umn.edu.
- The Center for Animal Health & Food Safety (CAHFS) is led by Director Prof. Jeffrey Bender, DVM, MS, Dipl. ACVPM; Associate Director Linda Valeri, MBA; Director of Education Prof. Scott Wells, DVM, PhD, Dipl. ACVPM; and Global Initiative Director Will Hueston, DVM, PhD, Dipl. ACVPM. Profs. Bender, Hueston, and Wells have appointments in the School of Public Health and the College of Veterinary Medicine. The Center and its affiliate, the Global Initiative for Food Systems Leadership (GIFSL), play a leadership role in assuring food safety and security from the farm to the consumer. CAHFS and GIFSL does this regionally, nationally, and internationally through risk communication, applied research, integrated animal and public health surveillance, expanded educational programs, leadership development, and facilitation of creative prevention and quality assurance strategies involving producers, processors, distributors, retailers, food service, and consumers. The Center also directs the Veterinary Public Health Residency Program and provides services to government, industry, and non-governmental organizations through its Public Practice service unit. www.cahfs.umn.edu.
- The Center for Bioethics' mission is to advance and disseminate knowledge concerning ethical issues in health care, biotechnology, and the life sciences. The Center conducts original interdisciplinary research, offers educational programs and courses, fosters public discussion and debate through community outreach activities, and assists in the formulation of public policy. The Center is directed by Prof. Jeffrey Kahn, PhD, MPH, Maas Family Chair in Bioethics. www.bioethics.umn.edu.
- The Center for Cognitive Sciences (CCS) is an interdisciplinary research center serving as the foundation for research in the cognitive sciences at the University of Minnesota. Its members represent 14 University departments and 6 colleges. The Center provides its members with opportunities to share their insights on recent advances and develop interdisciplinary research collaborations. The Center's primary mission continues to be the facilitation of interdisciplinary research and teaching in cognitive science. The Center is directed by Prof. Apostolos P. Georgopoulos, MD, PhD, Department of Neuroscience. www.cogsci.umn.edu.
- The Center for Infectious Disease Research & Policy (CIDRAP) is directed by Prof. Michael Osterholm, PhD, MPH, Division of Environmental Health Sciences, School of Public Health, Adjunct Professor, Medical School, and Director, NIH-supported Center of Excellence for Influenza Research Surveillance within CIDRAP; Associate Director Jill DeBoer, MPH; and Director of Operations Elaine Collison, MPA. The Center's mission is to prevent illness and death from infectious diseases through epidemiologic research and the rapid translation of scientific information into real-world practical applications and solutions. The Center's work supports the development of public policy reflecting current biomedical knowledge and promotes sound practices among both health care professionals and the public. A primary focus of the Center in the last several years has been enhancing pandemic influenza preparedness in the United States and internationally through avian influenza virus research, providing critical information to businesses, and identifying and sharing promising practices among public health authorities. www.cidrap.umn.edu.
- The Center for Neurobehavioral Development is directed by Prof. Michael Georgieff, MD, Department of Pediatrics, Division of Neonatology, and Institute of Child Development. The center's Associate Director is Prof. Megan Gunnar, PhD, Institute of Child Development. The Center studies the developing human brain and its relationship to normal and abnormal development. The Center trains graduate students, funds research projects, and serves as a site for non-medical developmental clinics. www.cehd.umn.edu/cnbd.

• The Center for Spirituality & Healing, established in 1995, is celebrating 15 years as a nationally recognized leader in integrative medicine, bringing together biomedical, complementary, cross-cultural, and spiritual care. The Center provides interdisciplinary education, clinical care, and outreach integrating evidence-based research to establish a new model of health care in the 21st century. The Center is led by founding Director Prof. Mary Jo Kreitzer, PhD, RN, FAAN, School of Nursing. www.csh.umn.edu.



The Healthy Foods, Healthy Lives Institute's (HFHL) mission is to increase and sustain the University's impact in the interdisciplinary arena of food, agriculture, and health by building the University's capacity in research, learning, and community engagement. The priority areas for focus are food safety, prevention of obesity and chronic disease, and food policy. Within these priority areas, of special importance is the integration of agriculture and medicine. The major goal of the HFHL Institute is to utilize and help build the strengths of the University of Minnesota in the area of food and health to advance scientific and public knowledge and influence public policy. The Institute's director is Prof. Mindy S. Kurzer, PhD. www.hfhl.umn.edu.



The National Center for Food Protection and Defense (NCFPD) is a University-based research center supported by the U.S. Department of Homeland Security bringing together national academic, industry, and public-sector partners to develop ways of enhancing our nation's capability to protect the food supply from intentional contamination. The Center is directed by Prof. Shaun Kennedy, BSE-ChE, College of Veterinary Medicine. www.ncfpd.umn.edu.



• The Center for Science, Technology & Public Policy (CSTPP) is directed by Senior Fellow Steve Kelley, JD. The Center aims to advance the application of science and technology to solve public problems. CSTPP explores the increasingly important role that science and technology play in our society and examines their implications for public policy at the international, national, and state level. The Center also supports research and teaching in the Humphrey Institute's MS degree in Science, Technology, and Environmental Policy, which is chaired by Prof. Deborah Swackhamer, PhD, Environmental Health Sciences. www.hhh.umn.edu/centers/stpp.



• The International Science & Technology Practice & Policy Center (InSTePP) undertakes economic research on strategic science and technology policies. The Center analyzes private and governmental behavior affecting the conduct, performance, and economic consequences of R&D worldwide. Prof. Philip G. Pardey, PhD, Department of Applied Economics, directs this Center. www.instepp.umn.edu.



The **Joint Degree Program** (**JDP**) is led by founding Director, Prof. Susan Wolf, JD, McKnight Presidential Professor of Law, Medicine & Public Policy, Faegre & Benson Professor of Law, and Professor of Medicine; Professor William Toscano, Jr., PhD, Environmental Health Sciences, School of Public Health; and Associate Director of Law, Geography & Environment Prof. Hari Osofsky, JD. The University of Minnesota's Joint Degree Program in Law, Health & the Life Sciences is training students to become experts in the legal, ethical, and policy problems posed by health, the sciences, and the environment in the 21st century. www.jointdegree.umn.edu.



For more information on Consortium members, visit www.lifesci.consortium.umn.edu.

### Consortium Members, Faculty Directors



Prof. Susan M. Wolf, JD

Prof. Jeffrey Kahn, PhD, MPH

Senior Fellow Steve Kelley, JD

#### Joint Degree Program in Law, Health & the Life Sciences

Prof. Susan M. Wolf, JD

McKnight Presidential Professor of Law, Medicine & **Public Policy** 

Faegre & Benson Professor of Law Professor of Medicine

Professor of Law

Chair, Consortium on Law and Values in Health, **Environment & the Life Sciences** 

Director, Joint Degree Program in Law, Health & the Life Sciences

For more information on Prof. Wolf, visit

www.lifesci.consortium.umn.edu/people/bio.susan.wolf.





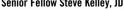
Maas Family Endowed Chair in Bioethics Director, Center for Bioethics Professor of Medicine, School of Public Health, and Philosophy

For more information on Prof. Kahn, visit

www.ahc.umn.edu/bioethics/facstaff/kahn\_j/home.html.

For more information on the Center for Bioethics Faculty, visit www.ahc.umn.edu/bioethics/facstaff/home.html.





Senior Fellow and Director, Center for Science, Technology & Public Policy Hubert H. Humphrey Institute of Public Affairs

For more information on CSTPP, visit



For more information on Steve Kelley, visit www.hhh.umn.edu/people/skelley/index.html.

www.hhh.umn.edu/centers/stpp.



#### Prof. Jonathan Slack, PhD

Tulloch Chair in Stem Cell Biology, Genetics & Genomics Director, Stem Cell Institute Professor of Genetics and Cell Biology For more information about Prof. Slack, visit www.stemcell.umn.edu/stemcell/faculty/Slack/ home.html.

Prof. Dan Kaufman, MD, PhD

Associate Director, Stem Cell Institute Assistant Professor of Medicine, Division of Hematology,

For more information on Prof. Kaufman, visit www.stemcell.umn.edu/stemcell/faculty/Kaufman\_D/ home.html.

For more information on the Stem Cell Institute, visit www.stemcell.umn.edu/.



Prof. Kenneth Beckman, PhD



Prof. Brian Van Ness, PhD



Prof. David Largaespada, PhD



Prof. Michael Sadowsky, PhD



Prof. Michael Osterholm, PhD, MPH



Prof. Jeffrey Bender, DVM, MS Dipl ACVPM

#### Biomedical Genomics Center Prof. Kenneth B. Beckman, PhD Director, Biomedical Genomics Center

Associate Professor, Department of Genetics, Cell Biology, and Developmental Biology

For more information on the Biomedical Genomics Center visit www.bmgc.umn.edu/.

#### Institute of Human Genetics (IHG)

Prof. Brian Van Ness, PhD

Co-Director, Institute of Human Genetics Professor and Department Head, Department of Genetics, Cell Biology, and Development For more information on Prof. Van Ness, visit www.cancer.umn.edu/research/profiles/vanness.html.

#### Prof. David Largaespada, PhD

Co-Director, Institute of Human Genetics Professor, Depts. of Genetic, Cell Biology, and **Developmental Biology and Pediatrics** 

For more information on Prof. Largaespada, visit www.cancer.umn.edu/research/profiles/largaespada.html.

For more information on IHG, visit www.med.umn.edu/ihg/home.html.

#### BioTechnology Institute

Prof. Michael Sadowsky, PhD

Director, The BioTechnology Institute Professor, Department of Soil, Water and Climate For more information about Prof. Sadowsky, visit www.bti.umn.edu/faculty\_bios/biosadowsky.html.

### Center for Infectious Disease Research & Policy

Prof. Michael Osterholm, PhD, MPH

Director, Center for Infectious Disease Research

Professor, Environmental Health Sciences, School of Public Health

Adjunct Professor, Medical School Director, NIH-supported Center of Excellence for Influenza Research Surveillance

For more information on Prof. Osterholm, visit www.cidrap.umn.edu/cidrap/center/about/staff/articles/ osterholm.html.

For more information on CIDRAP, visit www.cidrap.umn.edu/.

#### Center for Animal Health & Food Safety (CAHFS)

Prof. Jeffrey Bender, DVM, MS, Dipl. ACVPM Director, Center for Animal Health & Food Safety Professor, School of Public Health, College of Veterinary Medicine

For more information on Prof. Bender, visit www.cvm.umn.edu/vpm/faculty/jeffbender/home.html.

For more information on the CAHFS, visit www.cahfs.umn.edu.



Prof. Jonathan Slack, PhD

Prof. Dan Kaufman, MD, PhD

### Consortium Members, Faculty Directors



Prof. Shaun Kennedy, BSE-ChE

#### National Center for Food Protection & Defense Prof. Shaun Kennedy, BSE-ChE

Director, National Center for Food Protection and Defense (NCFPD)

Director of Partnerships and External Relations, College of Veterinary Medicine

Assistant Professor, Veterinary Population Medicine College of Veterinary Medicine For more information on Prof. Kennedy, visit

For more information on Prof. Kennedy, visit www.ncfpd.umn.edu/ncfpd/index.cfm/about/leadership/kennedy.

For more information on NCFPD, visit http://www.ncfpd.umn.edu/index.cfm.



Prof. Michael Georgieff, MD

### **Center for Neurobehavioral Development Prof. Michael Georgieff, MD**

Director and Founder, Center for Neurobehavioral Development

Professor, Department of Pediatrics, Medical School Professor, Institute of Child Development,

College of Education and Human Development For more information on Prof. Georgioff, visit www.med.umn.edu/peds/neonat/directory/ georgieffmichael/home.html.

For more information about the Center for Neurobehavioral Development, visit www.cehd.umn.edu/cnbd.



Prof. Apostolos P. Georgopoulos, MD. PhD

#### Center for Cognitive Sciences

Minnesota

Prof. Apostolos P. Georgopoulos, MD, PhD
Director, Brain Sciences Center
Regents Professor
American Legion Brain Sciences Chair
McKnight Presidential Chair in Cognitive Neuroscience
Professor of Neuroscience, Neurology and Psychiatry
Director, Center for Cognitive Sciences, University of

For more information on Prof. Georgopoulos, visit www.neurosci.umn.edu/faculty/georgopoulos.html.

For more information on the Center for Cognitive Sciences, visit **www.cogsci.umn.edu**.



Prof. William Toscano, Jr., PhD

#### Center for Environment & Health Policy Prof. William Toscano, Jr., PhD

Director, Center for Environment & Health Policy Professor of Molecular Toxicology Head, Division of Environmental Health Sciences Interim Head, Center for Environmental Health Policy Head, Global Health Initiative

Associate Director, Joint Degree Program in Law, Health & the Life Sciences

For more information on Prof. Toscano, visit www.sph.umn.edu/faculty/faculty.asp?x5=tosca001.

To learn more about the Center for Environment & Health Policy, visit www.enhs.umn.edu/research/centers.htm.



Prof. Phil Pardey, PhD



Prof. Nathan Springer, PhD



Prof. Deborah Swackhamer, PhD



Prof. Jonathan Foley, PhD



Prof. Mindy Kurzer, PhD



Prof. Mary Jo Kreitzer, PhD, RN, FAAN

### International Science & Technology Practice & Policy Center (InSTePP)

Prof. Phil Pardey, PhD
Professor of Science and Technology Policy,
Department of Applied Economics
For more information on Prof. Pardey, visit

www.apec.umn.edu/faculty/ppardey/.

View InSTePP's Research Fellows by visiting http://www.instepp.umn.edu/people/people.html.

#### Microbial and Plant Genomics Institute (MPGI)

Prof. Nathan Springer, PhD

Director, Microbial and Plant Genomics Institute Professor, Department of Plant Biology

For more information on the Microbial and Plant Genomics Institute, visit **www.mpgi.umn.edu**.

#### Water Resources Center

Prof. Deborah Swackhamer, PhD

Charles M. Denny Chair in Science, Technology, and Environmental Policy

Hubert H. Humphrey Institute of Public Affairs Professor, Environmental Health Sciences, School of Public Health

Co-Director, Water Resources Center For more information on Prof. Swackhamer, visit www.sph.umn.edu/faculty/faculty.asp?x5=dswack.

For more information about the Water Resources Center, visit www.wrc.umn.edu.

#### Institute on the Environment (IonE)

Prof. Jonathan Foley, PhD

Director, Institute on the Environment
Professor and McKnight Presidential Chair
Department of Ecology, Evolution and Behavior
For more information on Prof. Foley, visit
www.environment.umn.edu/about/ione\_bios/jon\_
foley.html.

To learn more about the Institute on the Environment, visit www.environment.umn.edu.

#### Healthy Foods, Healthy Lives Institute

Prof. Mindy Kurzer, PhD

Director, Healthy Food, Health Lives Institute Professor, Food Science and Nutrition For more information on Prof. Kurzer, visit www.cfans.umn.edu/Mindy\_Kurzer.

To learn more about the Healthy Food, Healthy Lives Institute, visit www.hfhl.umn.edu/.

#### Center for Spirituality & Healing

Prof. Mary Jo Kreitzer, PhD, RN, FAAN
Director, Center for Spirituality & Healing
Professor, School of Nursing
For more information on Prof. Keitzer, visit
www.csh.umn.edu/facultystaff/mjkreitzer/home.html

For more information on the Center for Spirituality & Healing, visit www.csh.umn.edu/.

### Presidential Interdisciplinary Initiative on Law and Values

University of Minnesota President Robert Bruininks named the Consortium on Law and Values in Health, Environment & the Life Sciences one of 8 Interdisciplinary Academic Initiatives in his October 2003 State of the University Address. In 2006 President Bruininks named Senior Vice President of Academic Affairs and Provost E. Thomas Sullivan as head of the Consortium's Initiative. We are delighted to have Provost Sullivan at the helm and benefit greatly from his guidance.

In 2009-10 Presidential Initiative funding allowed the Consortium to:

- publish the Minnesota Journal of Law, Science & Technology;
- offer intramural grant funding to further work on the societal implications of the life sciences by Consortium member centers, plus programs and departments participating in the Joint Degree Program;
- host our annual conference on "Governing Nanobiotechnology: Reinventing Oversight in the 21st Century"; and
- offer public events such as the Lecture Series on Law, Health & the Life Sciences.

The Consortium responds to the most challenging legal and ethical questions of the 21st century, questions posed by biomedicine and the life sciences. These are questions that require a new kind of cross-disciplinary work fully marrying legal, ethical, and scientific expertise. The University's commitment to grappling with these emerging and complex questions is part of its land-grant legacy of serving the people of Minnesota, the country, and the world.

The Consortium links 19 of the University's leading programs and centers, leveraging the University's strengths in the life sciences, biomedicine, law, bioethics, and public policy to do cutting-edge work on the societal implications of the life sciences. The Consortium's training program, the **Joint Degree Program in Law, Health** & the Life Sciences, offers 23 degree combinations, allowing exceptional students to combine a law degree with a wide range of graduate and professional degrees in the life sciences, biomedicine, and environmental studies.

The Presidential Initiative allowed the Consortium to launch the *Minnesota Journal of Law, Science & Technology*; increase our capacity to seek and manage externally funded grants; support work on the implications of the life sciences by Consortium members and Joint Degree Program partners; and continue extensive programming including a lecture series and an annual conference.

The Consortium is grateful to the Office of the President and the Office of the Senior Vice President for Academic Affairs and Provost for their support and confidence. More information on all of the Presidential Initiatives may be found at www1.umn.edu/pres/01 initiatives.html.

#### **Interdisciplinary Doctoral Fellowship**

Esther E. McGinnis, JD, MS (PhD candidate in Applied Plant Sciences), was awarded a 2009-10 Interdisciplinary Doctoral Fellowship for one-year with the Consortium on Law and Values and the Microbial and Plant Genomics Institute. In her project, Ms. McGinnis studied the legal and scientific ramifications of deregulating genetically engineered crops. She used the USDA's deregulation of genetically engineered sugar beets as a case study to evaluate the sufficiency of environmental assessment during the regulatory and legal processes.

The Interdisciplinary Doctoral
Fellowship gave me a valuable
opportunity to interact with faculty
across the University and to broaden
my perspectives beyond traditional
scientific analysis. Prof. Susan Wolf, JD,
was my mentor from the Consortium
and she brought a big-picture perspective to the project. I also worked
with Prof. Jennifer Kuzma, PhD, to
understand the challenges of regulating
emerging technologies. I am grateful
for their generous input. 9



Esther E. McGinnis, JD, MS 2009-10 Interdisciplinary Doctoral Fellow

This Fellowship is intended by the Graduate School to provide a unique study opportunity for top PhD students whose research and scholarly interests complement those of one of the University-wide, interdisciplinary research centers or institutes.

For more information on the Interdisciplinary Doctoral Fellowship, visit www.grad.umn.edu/.

More information about the University's commitment to interdisciplinary research and studies can be found at www.interdisciplinary.umn.edu/index.html.

### **Executive Committee**



Prof. William Toscano, Jr., PhD, Center for Environment and Health Policy



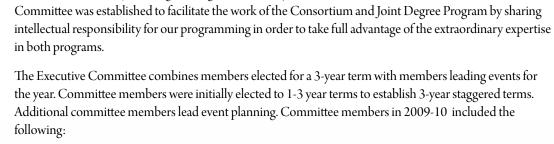
Prof. Michael A. Kilgore, PhD, Forest Resources



Prof. Shaun Kennedy, BSE-ChE, National Center for Food Protection and Defense

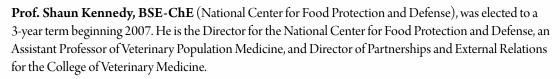


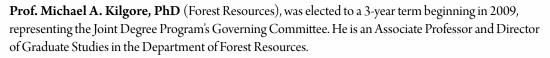
Prof. Jeffrey Kahn, PhD, MPH Center for Bioethics



**Prof. Jeffrey Kahn, PhD, MPH** (Center for Bioethics), elected to a 3-year term beginning 2009. He is the Maas Family Chair in Bioethics and Professor, Center for Bioethics; Department of Medicine, University of Minnesota Medical School; School of Public Health; and Department of Philosophy.

The Consortium and Joint Degree Program created a joint Executive Committee in 2003. The Executive





**Prof. Michael Sadowsky, PhD** (BioTechnology Institute), was elected to a 3-year term beginning in 2008. He is a Professor and Director of the BioTechnology Institute, and Co-Director of Graduate Studies in the Department of Soil, Water & Climate, in the College of Food, Agricultural, and Natural Resource Sciences.

**Prof. Deborah Swackhamer, PhD** (Water Resources Center; Hubert H. Humphrey Institute), was elected to a 3-year term beginning 2008. Prof. Swackhamer is a Professor of Environmental Chemistry in the Division of Environmental Health Sciences in the School of Public Health, a Co-Director of the Water Resources Center, and the Humphrey Institute's Charles M. Denny, Jr. Chair in Science, Technology, and Environmental Policy.





Prof. Deborah Swackhamer, PhD Water Resources Center



Prof. Michael Sadowsky, PhD BioTechnology Institute

### Minnesota Journal of Law, Science & Technology

The Minnesota Journal of Law, Science & Technology would like to thank the following individuals, law firms, and organizations for their generous support in 2009-10:

Blue Cross Blue Shield of Minnesota www.bluecrossmn.com

Fish & Richardson PC www.fr.com

The Phyllis and Donald Kahn Foundation www.jointdegree.umn.edu/people/adv\_bd#kahn

**Leonard Street and Deinard** www.leonard.com/index.aspx

**Oppenheimer Wolff & Donnelly LLP** www.oppenheimer.com

UnitedHealth Group
www.unitedhealthgroup.com/main/default.aspx

We also thank Senior Vice President for Academic Affairs and Provost E. Thomas Sullivan and Dean David Wippman for their support. In 2009-10 the *Minnesota Journal of Law, Science & Technology (MJLST)* celebrated its 5<sup>th</sup> year as a multidisciplinary journal. *MJLST* is published twice annually, edited by law students and faculty from across the University of Minnesota. *MJLST* is overseen by the Consortium on Law and Values in Health, Environment & the Life Sciences, but with editorial independence. *MJLST* addresses issues in intellectual property, technology policy and innovation, emerging technologies, health law, environmental law, bioethics, and law and science, while maintaining a rigorous grounding in law, values, and policy.

MJLST is made possible by support received from the University of Minnesota's Consortium on Law and Values in Health, Environment & the Life Sciences; Law School; Presidential Interdisciplinary Initiative on Law and Values; and Office of the Senior Vice President for Academic Affairs and Provost. MJLST is also supported by private donations from prominent law firms, businesses, and individuals with an interest in the intersection of law and science.

*MJLST* is committed to serving as an educational opportunity for law students and a venue for their scholarly publications. The student staff and board are chosen competitively by law students. The Faculty Editorial Board reviews and edits faculty-written articles. The Faculty Editorial Advisory Board includes representatives from Consortium member centers and programs as well as University departments working on the societal implications of scientific advancements.

*MJLST* publishes each issue in print and online. To download articles or learn more about *MJLST*, visit **www.mjlst.umn.edu**.

#### **MJLST** Ranks High Among Law Journals

Each year, Washington and Lee University School of Law ranks law journals. We are pleased that the *Minnesota Journal of Law, Science & Technology* continues to rank high among law journals in these categories:

Health, Medicine, Psychology, and Psychiatry: 5 out of 66

Science, Technology & Computing: 8 out of 41

Environment, Natural Resources, and Land Use: 11 out of 75

Intellectual Property: 13 out of 55

Full-volume subscriptions are \$20 (two issues per volume). Single issues are available for \$12 each. Please subscribe at www.mjlst.umn.edu or e-mail us at mjlst@umn.edu.

The website for the *Minnesota Journal of Law, Science and Technology* www.mjlst.umn.edu describes how *MJLST* evolved from the *Minnesota Intellectual Property Review* to become a premier journal on issues in law, science, and technology. The website also allows visitors to read biographies of authors and provides instructions for submitting articles to *MJLST* for review. *MJLST* provides instant online access to full-text articles simultaneously with the print publication.

#### **MJLST EDITORIAL MASTHEADS**

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Faculty Advisor Susan M. Wolf, JD

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\*Lead Editor

# Grants & Research

We are gratified that the National Institutes of Health's National Human Genome Research Institute, the National Science Foundation and private foundations including the Greenwall Foundation support our research.



The Consortium is leading efforts to study the ethical, legal, and social implications of scientific research in the areas of nanobiotechnology, nanomedicine and nanotherapeutics, neuroscience, and genomics. In 2009-10 the Consortium was awarded an American Recovery and Reinvestment Act of 2009 Challenge Grant from the National Institutes of Health (NIH)/National Human Genome Research Institute (NHGRI) for work on "Nanodiagnostics and Nanotherapeutics: Building Research Ethics & Oversight" and a renewal grant funded by NIH/NHGRI for work on "Managing Incidental Findings and Research Results in Genomic Biobanks & Archives."

In addition, the Consortium routinely supports the grant-seeking efforts of faculty throughout the University of Minnesota and beyond.

#### "NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context"

The Consortium is in the process of completing our 4<sup>th</sup> year of work on a project funded by the National Science Foundation (NSF). This project has resulted in groundbreaking publications and an April 15, 2010 conference on "Governing Nanobiotechnology: Reinventing Oversight in the 21<sup>st</sup> Century." This 4-year, \$1.22 million project has focused on developing oversight models for nanobiotechnology. The project began September 1, 2006 and involves a national Working Group. Prof. Susan Wolf, JD (Law School) is the Principal Investigator. Co-Principal Investigators are: Prof. Jennifer Kuzma, PhD (Humphrey Institute); Prof. Efrosini Kokkoli, PhD (Institute of Technology); Jordan Paradise, JD (Seton Hall Law School); and Prof. Gurumurthy Ramachandran, PhD (School of Public Health).

The Consortium website for our NSF-funded NIRT grant provides project members access to working bibliographies, drafts of papers, meeting agendas, and background information. Project members include:

#### Working Group:

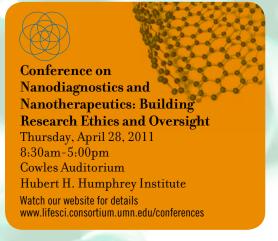
- Prof. Stephen Ekker, PhD, Mayo Clinic
- Prof. Susan Foote, JD, University of Minnesota
- Prof. Ralph Hall, JD, University of Minnesota
- Robert Hoerr, MD, PhD, President and CEO, Nanocopoeia. Inc.
- Prof. Terrance Hurley, PhD, University of Minnesota
- Robbin Johnson, President, Cargill Foundation
- Prof. Bradley Karkkainen, JD, University of Minnesota
- Prof. Jeffrey Kahn, PhD, MPH, University of Minnesota
- George Kimbrell, JD, The International Center for Technology Assessment & the Center for Food Safety
- Prof. Andrew Maynard, PhD, University of Michigan
- · Prof. Kristen Nelson, PhD, University of Minnesota
- Prof. David Norris, PhD, University of Minnesota
- Prof. David Y.H. Pui, PhD, University of Minnesota
- · Prof. T. Andrew Taton, PhD, University of Minnesota
- Prof. Elizabeth J. Wilson, PhD, University of Minnesota

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#### **Research Assistants:**

- Jae Young Choi (PhD candidate, School of Public Health)
- Leili Fatehi (JD candidate, Law School)
- Aliya Kuzhabekova (PhD candidate, Hubert H. Humphrey Institute of Public Affairs)
- Alison Tisdale (MS candidate, Chemical Engineering and Materials Science)
- Kelly Wilder (MS candidate, Hubert H. Humphrey Institute of Public Affairs)



# "Nanodiagnostics and Nanotherapeutics: Building Research Ethics and Oversight"

Principal Investigator: Prof. Susan M. Wolf, JD Co-Investigators: Profs. Jeffrey McCullough, MD; Ralph Hall, JD; and Jeffrey Kahn, PhD, MPH

This project will produce the first systematic and comprehensive recommendations on how to protect human participants in

research on nanodiagnostics and nanotherapeutics, including drugs, devices, and gene therapy using nano-vectors. Research in nanomedicine is burgeoning, with research on human participants under way, but current research ethics and oversight have not yet adequately addressed key concerns including uncertainty about how to assess risks. The project group will use normative, empirical, and policy analysis to evaluate current approaches to nanomedicine research ethics and oversight, generating much-needed recommendations on ethics standards and oversight processes.

#### **Working Group Members:**

- Prof. Steve Campbell, PhD, University of Minnesota
- Prof. Rebecca Dresser, JD, Washington University in St. Louis, Law School
- Prof. Arthur Erdman, PhD, University of Minnesota
- Prof. Mauro Ferrari, PhD, The Methodist Hospital and Research Institute
- · Prof. Christy Haynes, PhD, University of Minnesota
- Robert Hoerr, MD, PhD, Nanocopoeia, Inc
- Prof. Linda Hogle, PhD, University of Wisconsin-Madison
- Moira Keane, MA, University of Minnesota
- Prof. George Khushf, PhD, University of South Carolina
- Prof. Nancy MP King, JD, Wake Forest University Baptist Medical Center
- Prof. Efrosini Kokkoli, PhD, University of Minnesota
- Vice President for Research and Prof. Frances Lawrenz, PhD, University of Minnesota
- · Prof. Gary Marchant, PhD, JD, Arizona State University
- Prof. Andrew Maynard, PhD, University of Michigan
- Prof. Scott McIvor, PhD, University of Minnesota
- Associate Dean and Prof. Martin Philbert, PhD, University of Michigan
- Prof. Gurumurthy Ramachandran, PhD, University of Minnesota
- Prof. Ron Siegel, ScD, University of Minnesota
- Prof. Samuel A. Wickline, MD, Washington University in St. Louis

#### **Research Assistants:**

- Leili Fatehi (JD candidate, Law)
- Cortney Jones (JD candidate, Law)
- Andrea Mosher (Masters candidate, Bioethics)
- Michael Etheridge (Masters candidate, Mechanical Engineering)
- Laura Fleege (MPH candidate, Public Health Policy & Administration)

# "Managing Incidental Findings and Research Results in Genomic Biobanks & Archives"

Principal Investigator: Prof. Susan M. Wolf, JD Co-Investigators: Profs. Jeffrey Kahn, PhD; Frances Lawrenz, PhD; and Brian Van Ness, PhD

The 2-year project convenes a multidisciplinary working group of national experts in order to analyze and generate recommendations on managing incidental findings and individual research results in genomic research using biobanks and large archives. In order to understand the genetic contribution to a host of diseases and conditions of great importance to public health, scientists are increasingly assembling large biobanks, archiving many individuals' DNA and health information for scientific reanalysis over time. However, there is no clarity about what individual health information, if any, should be given back to those people generous enough to participate by contributing their DNA and health information. Some prominent biobanks are giving back none at all. This project will convene leading experts on bioethics, genomics, biobanking, and law to recommend policies and practices on return of both incidental findings and individual research results that may have importance for the donor.

#### **Working Group Members:**

- Prof. Mildred K. Cho, PhD, Stanford University Medical School
- · Prof. Ellen Wright Clayton, MD, JD, Vanderbilt University
- Prof. Robert C. Green, MD, MPH, Boston University
- · Prof. Ralph Hall, JD, University of Minnesota
- · Prof. Judy Illes, PhD, University of British Columbia
- Moira Keane, MA, University of Minnesota
- Prof. Bartha M. Knoppers, PhD, OC, University of Montreal
- Prof. Isaac Kohane, MD, PhD, Harvard Medical School
- Bonnie S. LeRoy, MS, CGC, University of Minnesota
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- Prof. Gloria M. Petersen, PhD, Mayo Clinic College of Medicine
- Prof. Henry S. Richardson, PhD, Georgetown University
- Prof. Joan A. Scott, MS, CGC, National Coalition for Health Professional Education in Genetics
- · Prof. Alan R. Shuldiner, MD, University of Maryland
- President & CEO Sharon F. Terry, MA, Genetic Alliance
- Prof. Benjamin S. Wilfond, MD, University of Washington School of Medicine
- Prof. Wendy Wolf, PhD, Northwestern University

#### **Research Assistants:**

- Heather Bemmels (PhD candidate, Genetic Counseling)
- Christian Krautkramer, MPH (JD candidate, Law)
- Gina Johnson, MA (PhD candidate, Educational Psychology)



#### "Cutting-Edge Policy Issues in Reprogenomics: Revamping the Law, Ethics & Policy Governing Genomic Biobanks and Assisted Reproductive Technology"

Professor Susan M. Wolf, JD, is Principal Investigator on this 2-year project funded by the University of Minnesota's Robina Research Fund for Law, Pubic Policy & Society (LaPPS).

#### "How Should Neuroscience Change Law? Lessons from the Impact of Genetics and Emerging Convergence of Genomics and Neuroscience"

Prof. Susan M. Wolf, JD, is Principal Investigator on this 1-year sub-award from the University of California, Santa Barbara, as part of the MacArthur Foundation's Law and Neuroscience Project.

To view publications and conference materials resulting from grants, visit www.lifesci.consortium.umn.edu/publications.

### Consortium Intramural Grants

#### 2009-10 Intramural Grant Awards

Since 2001 the Consortium has awarded close to \$1,000,000 in grants to encourage campus-wide work on the societal implications of problems in health, environment, and the life sciences. In 2009 we again issued an internal Request for Proposal (RFP) to Consortium members and Joint Degree Program partners and two intramural RFPs to University of Minnesota graduate/professional students.

The subcommittee recommending the intramural awards to the full Consortium, with recusals as appropriate, included Profs. Jeffrey Kahn, PhD, MPH; Shaun Kennedy, BSE-ChE; Michael Sadowsky, PhD; Deborah Swackhamer, PhD; William Toscano, Jr., PhD; and Susan Wolf, JD.

These grants are made possible by funds received through the Presidential Interdisciplinary Initiative Process. In October 2003, President Robert Bruininks named the Consortium on Law and Values in Health, Environment & the Life Sciences one of 8 Presidential Interdisciplinary Initiatives.



Consortium Intramural Grant recipient and Healthy Foods, Healthy Lives Institute Director Prof. Mindy Kurzer, PhD.

JDP student and Consortium Intramural Grant recipient Richard Weinmeyer, MPhil (JD, MA candidate in Bioethics).

#### **RFP for Consortium Members and JDP Partner Programs**

In November 2009, we issued a Request for Proposals to Consortium member centers and graduate or professional programs or departments participating in the Joint Degree Program in Law, Health & the Life Sciences seeking funding for research, projects, or colloquia in Summer 2010 or Academic Year 2010-11. Applicants were current University of Minnesota faculty members who (1) direct a program or center represented in the Consortium or (2) serve as the head or Director of Graduate Studies (DGS) of a department or graduate or professional program represented in the Joint Degree Program. For the first time, we welcomed two-year proposals with the provision that adequate progress must be demonstrated in the first year to warrant the second year of funding.

We made 2 awards, totaling \$65,806:

- Center for Science, Technology & Public Policy (Deborah Swackhamer), Reforming Risk Management of Toxic Chemicals: National Science and Policy Needs to Protect Public Health. Awarded \$28,828;
- 2. Healthy Foods, Healthy Lives Institute (Mindy Kurzer), **Creating** a Community of Practice to Address the Effects of our Food System on Human Health. Awarded \$36,978 for year 1 of a 2-year project.

#### **RFP for Graduate and Professional Students**

The RFP to graduate and professional students was intended to provide a stipend for research and writing in Summer 2010 or Academic Year 2010-11. We were delighted that the RFP stimulated 31 proposals from students in 21 programs around the University.

Ten awards were made, for a total of \$71,187:

 Mississippi River Basin Inter-Agency Coordination: Institutional Frameworks for Natural Resource Governance—Ryan Aylesworth, PhD candidate in Natural Resources Science and Management (\$5,000 awarded);

- Biomedicine Confronts Society: Congressional Hearings and the Development of Bioethics, 1960-1976—Frazier Benya, PhD candidate in History of Science, Technology & Medicine, and MA candidate in Bioethics (\$7,124 awarded);
- Competing Values in Carbon Accounting—Luke R. Bergmann, PhD candidate in Geography (\$7,810 awarded);
- Cloning Practice, Cloning Fear, A Fantastical Experiment for Biologists and Society, 1952-1982— Nathan Crowe, PhD candidate in History of Science, Technology & Medicine (\$8,782 awarded);
- Managing Harm, Envisioning Nature: The Role of Risk in the Wild Rice Genetic Engineering Issue—Adam Kokotovich, PhD candidate in Natural Resources Science and Management (\$9,388 awarded);
- The Role of Investigative Journalism in the History of Bioethics—Amy Snow Landa, PhD candidate in the School of Journalism and Mass Communication (\$6,457 awarded);
- 7. Paradox of Plenty: Hunger, Food Security, and the Making of India's Gene Revolution—Ilona Moore, PhD candidate in Geography (\$10,000 awarded);
- Compulsory Licensing: Assessing the Barriers and Secondary Effects on Global Public Health—Angela Morley, MPH candidate in the School of Public Health (\$3,000 awarded);
- Ordering Life and Land: Agriculture, Science and Environment in the West Bank—Omar Tesdell, PhD candidate in Geography (\$6,850 awarded);
- 10. Partners in Prevention: An Examination into the Creation, Operation and Regulation of Online HIV/STD Partner Notification Programs—Richard Weinmeyer, MPhil (JDP student), JD candidate in Law and MA candidate in Bioethics (\$6,776 awarded).

For more information, or to view proposals, visit www.lifesci.consortium.umn.edu/rfps/rfp2009-10.

# Update on the Joint Degree Program

#### In 2009-10 the Joint Degree Program:

- Welcomed 13 new students for a total of 37 in Fall 2009
- Graduated 5 students for a total of 33 alumni, including our second JD/PhD
- Appointed Prof. William Toscano Jr., PhD, Associate Director of the Joint Degree Program
- Appointed Prof. Hari Osofsky, JD, Associate Director of Law, Geography & Environment
- Ranked in the top-10 of health law programs according to U.S. News & World Report
- Conducted the first comprehensive student and alumni survey and began utilizing the resulting data to improve programming
- Saw 5 students complete the Concentration in Health Law & Bioethics
- Expanded programming for JDP students to include alumni panel, clerkship panel, and career services discussions
- Co-sponsored the Deinard Memorial Lecture Series on Law & Medicine, featuring Prof Dorothy Roberts, JD (Northwestern University) on "What's Wrong With Race-Based Medicine?" with the Center for Bioethics, and generous support from the law firm of Leonard Street and Deinard, and the Deinard family, in memory of Amos and Benedict Deinard.

The Joint Degree Program is unique in the nation and enables students to combine a JD with a PhD, MS, MA, MPH, MHA, or MD in less time, with more academic support, and with potentially more financial support than if the students were to pursue the two degrees separately. Students who show good cause may also create an *ad hoc* joint degree with a Graduate School program relating to health, environment, or the life sciences that is not formally part of the Joint Degree Program. Students pursuing Graduate School degrees have the option of completing graduate minors in Bioethics, Bioinformatics, or Human Genetics. The Joint Degree Program spans 8 collegiate units plus the Center for Bioethics and involves more than 400 faculty members. We partner with 15 graduate and professional programs on campus and offer the following degree combinations:

- a JD with an MS or PhD in Pharmacology
- a JD with an MS in Science, Technology & Environmental Policy
- a JD with an MS or PhD in Molecular, Cellular, Developmental Biology & Genetics (MCDB&G)
- a JD with an MD in Medicine
- a JD with an MA in Bioethics
- a JD with an MS or PhD in Health Services Research, Policy & Administration



#### 2009-10 Graduates

Jonathan Hareid, JD, PhD in Pharmacology

Lindsey Hopper, JD, MPH in Community Health Education

**Katherine Dick Krueger, JD, PhD** in Molecular, Cellular, Developmental Biology & Genetics

Crystal Liu, JD, MPH in Public Health Administration & Policy

Geeta Naidu, JD, MPH in Public Health Administration & Policy

- a JD with an MHA in Healthcare Administration
- a JD with an MPH in Public Health Administration & Policy
- a JD with an MPH in Epidemiology
- a JD with an MPH in Maternal and Child Health
- a JD with an MPH in Community Health Education
- a JD with an MS or PhD in Ecology, Evolution, and Behavior
- a JD with an MS or PhD in Conservation Biology
- a JD with an MS, PhD, or MPH in Environmental Health
- a JD with an MS or PhD in Natural Resources Science and Management

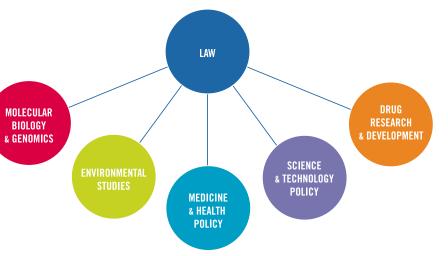
The Joint Degree Program's website **www.jointdegree.umn.edu** is the best resource for learning about the degree combinations offered by the program. Descriptions of each degree combination, application instructions, and links to our partner programs' websites are popular features, as is the "Careers" page, which profiles our alumni and others with joint degrees to show prospective students the myriad career options available to them.

# Joint Degree Program Options & Faculty

The Joint Degree Program's strength is in the exceptional quality of the individuals who teach and learn here. The Joint Degree Program currently spans 8 collegiate units, and offers 23 degree combinations with over 400 faculty members from across the University. Known for their cutting-edge scholarship and interdisciplinary thinking, our distinguished faculty members provide guidance to students in the Joint Degree Program. Discover more by visiting the websites listed below:

- Law School: www.law.umn.edu
   Law Faculty: www.law.umn.edu/faculty/index.html
   JD combined with one of the degree combinations listed below
- Pharmacology: www.pharmacology.med.umn.edu
   Pharmacology Faculty: www.pharmacology.med.umn.edu/faculty.html
   JD with an MS or PhD in Pharmacology
- Science, Technology & Environmental Policy (STEP):
   www.hhh.umn.edu/degrees/ms\_step/index.html
   STEP Faculty: www.hhh.umn.edu/people/faculty\_fellows.html
   JD with an MS in Science, Technology & Environmental Policy
- Molecular, Cellular, Developmental Biology & Genetics (MCDB&G):
   www.mcdbg.umn.edu
   MCDB&G Faculty: www.mcdbg.umn.edu/html/fac\_abc.html
   JD with an MS or PhD in Molecular, Cellular, Developmental Biology & Genetics (MCDB&G)
- Medical School: www.med.umn.edu
   Medical School Faculty: www.med.umn.edu
   JD with an MD in Medicine
- Center for Bioethics: www.ahc.umn.edu/bioethics
   Center for Bioethics Faculty: www.ahc.umn.edu/bioethics/facstaff/home.html
   JD with an MA in Bioethics
- Health Services Research, Policy & Administration (HSRPA): www.sph.umn.edu/programs/hsrpaphd/index.asp HSRPA Faculty: www.sph.umn.edu/facstaff/ourfaculty JD with an MS or PhD in Health Services Research, Policy & Administration
- Healthcare Administration: http://www.sph.umn.edu/programs/MHA/index.asp Healthcare Administration Faculty: www.sph.umn.edu/facstaff/ourfaculty
   JD with an MHA in Healthcare Administration
- Public Health Administration & Policy (PHAP): www.sph.umn.edu/programs/phap/index.asp PHAP Faculty: www.sph.umn.edu/facstaff/ourfaculty JD with an MPH in Public Health Administration & Policy
- Epidemiology: www.sph.umn.edu/programs/epi/index.asp Epidemiology Faculty: www.sph.umn.edu/facstaff/ourfaculty JD with an MPH in Epidemiology
- Maternal and Child Health: www.sph.umn.edu/programs/mch/index.asp Maternal and Child Health Faculty: www.sph.umn.edu/facstaff/ourfaculty JD with an MPH in Maternal and Child Health

- Community Health Education: www.sph.umn.edu/programs/che/index.asp
   Community Health Education Faculty: www.sph.umn.edu/facstaff/ourfaculty
   JD with an MPH in Community Health Education
- Ecology, Evolution, and Behavior (EEB): www.cbs.umn.edu/eeb
   EEB Faculty: www.cbs.umn.edu/eeb/faculty
   JD with an MS or PhD in Ecology, Evolution, and Behavior
- Conservation Biology: www.consbio.umn.edu
   Conservation Biology Faculty: www.consbio.umn.edu/findfaculty.php
   JD with an MS or PhD in Conservation Biology
- Environmental Health Sciences (EnHS): www.sph.umn.edu/programs/ehs/index.asp
   EnHS Faculty: http://www.sph.umn.edu/facstaff/ourfaculty
   JD with an MS, PhD, or MPH in Environmental Health Sciences
- Natural Resources Science & Management (NRSM): www.nrsm.umn.edu
   NRSM Faculty: www.nrsm.umn.edu/people/index.htm
   JD with an MS or PhD in Natural Resources Science and Management
- Ad Hoc Degree Option: www.jointdegree.umn.edu/degrees Students who show good cause may also create an ad hoc joint degree with a Graduate School program relating to health, environment, or the life sciences that is not formally part of the Joint Degree Program. JD with an Ad Hoc degree







JDP student Catherine Pfender (JD, MS candidate in Natural Resources Science and Management) with Governing Committee member Prof. Michael Kilgore, PhD, and JDP Advisory Board member Martha Brand, JD, at the Fall 2009 Welcome Reception.

JDP Advisory Board member Mark Ellinger, JD, PhD, with JDP student David Hanna (JD, MS candidate in Chemistry) at the Fall 2009 Advisory Board Reception.

JDP student Sarah Koehring (JD, MPH candidate in Public Health Administration & Policy) with JDP Advisory Board Member Kim Otte, JD, at the Fall 2009 Advisory Board Reception.

# Student Recruitment & Scholarships

The Joint Degree Program welcomed **13 new students** in Fall 2009 and had **37 students** pursuing the following degree combinations:

- JD/PhD in MCDB&G (Lauren Beach, Rachel Herder, Keli Holzapfel, Katherine Dick Krueger, Sarita Mutha, Stephanie Westcot)
- JD/MS in Molecular, Cellular, Developmental Biology & Genetics (MCDB&G) (Michael Schubert)
- JD/PhD in Conservation Biology (Collette Adkins Giese)
- JD/MS in Conservation Biology (Chris Harvey)
- JD/MS in Natural Resources Science and Management (Catherine Pfender)
- JD/MD (Tchao-Hou Thao, Lindsey Yock)
- JD/MS in Health Services Research, Policy & Administration (Michelle Dawson)
- JD/MPH in Public Health Administration & Policy (Heather Baird, Mollie Gurian, Sally Holthouse, Mia Hunt, Elizabeth Karan, Sara Koehring, Crystal Liu, Catherine London, Alissa Lyons, Pari McGarraugh, Geeta Naidu, Britta Orr, Kristin Paulson, Taylor Pierce, Amber Thomas, Ashley Zborowsky)
- JD/MPH in Epidemiology (Christopher Walker)
- JD/MPH in Community Health Education (Lindsey Hopper, Anne McNamara)
- JD/PhD in Pharmacology (Jon Hareid)
- JD/MS in Pharmacology (Jamie Kurtz)
- JD/MS in Plant Biological Sciences (Christopher Pinahs)
- JD/MS in Chemistry (David Hanna)
- JD/MS in Bioethics (Richard Weinmeyer)

Five students were awarded a partial Joint Degree Program Scholarship in Fall 2009; one JDP student was awarded the 2009-10 Minnesota Intellectual Property Law Association Scholarship in the Law School; one student received a one-year Harold M. Fredrikson Memorial Scholarship; one student received the 2009-10 Wolf Scholarship in Law, Health & the Life Sciences; and three students received a partial Law School Scholarship. One student received a guaranteed Graduate Research or Teaching Assistantship.

Applications to the Joint Degree Program for Fall 2010 again showed impressive strength and geographic diversity. We received applications from students with undergraduate degrees from distinguished institutions across the country including the University of California at Berkeley, Case Western, Columbia University, Georgetown, Johns Hopkins, University of North Carolina at Chapel Hill, Wellesley, University of Wisconsin at Madison, and Vanderbilt.

Scholarship contributions have a tremendous impact on our ability to recruit the best and the brightest students nationally. You can learn more about our scholarships and how you can contribute by visiting www.lifesci.consortium.umn.edu/giving.

In the Fall of 2010 we will welcome **5 new students** pursuing the following degree combinations: JD/MA in Bioethics, JD/MPH in Public Health Administration & Policy (3), and JD/MS in Science, Technology & Environmental Policy. We have worked closely with the Joint Degree Program graduate programs to recruit these impressive applicants and arrange financial support. One incoming JDP student has been awarded the 2010-11 **Wolf Scholarship in Law, Health & the Life Sciences**; one student received a one-year **Harold M. Fredrikson Memorial Scholarship**; three students received a partial **JDP Scholarship**; two received a partial **Law School Scholarship**; and one received a partial **School of Public Health Scholarship**.

Graduate School students are also eligible to apply for the Mark and Judy Yudof Fellowship. This award is for graduate students (Master's or PhD) pursuing interdisciplinary work whose content is focused in the areas of science policy and ethics. One award is made annually, granting full resident tuition plus a stipend of \$22,000 for the academic year. For more information, see www.grad.umn.edu/fellowships/endowed/.



### Student Honors & Achievements

Students in the Joint Degree Program are talented, innovative, and committed. They are pursuing cutting-edge fields of study. We are proud to list their selected accomplishments in 2009-10:

Lauren Beach, JD, PhD candidate in Molecular, Cellular, Developmental Biology & Genetics, presented her PhD research about the human innate immune response to HIV at two major scientific conferences, the Tenth Annual Symposium on Antiviral Drug Resistance and Cold Spring Harbor, Retroviruses. She was elected Chairperson of the Board of Directors of the Bisexual Organizing Project in 2010. She was re-elected to the Board of Directors of the Minnesota GLBTA Campus Alliance, the China AIDS Orphan Fund, and the Queer Student Cultural Center. In April 2010, Ms. Beach won both the University of Minnesota's President's Student Leadership and Service Award and the Mary A. McEvoy Award for Public Engagement and Leadership in recognition of her academic achievements and her service benefiting GLBTA communities.

**Sally Holthouse, JD, MPH** candidate in Public Health Administration & Policy, completed her first year of Law School in 2009-10. She received an Minnesota Justice Foundation grant to clerk at the Minnesota Disability Law Center in Summer 2010.

Keli Holzapfel, JD, PhD candidate in Molecular, Cellular, Developmental Biology & Genetics, completed her first year of the MCDB&G PhD program. During 2009-10 she joined the lab of Dr. Kristin Hogquist, PhD, in the Department of Laboratory Medicine and Pathology and is conducting research focusing on T cell and Natural Killer T cell development.

Elizabeth Karan, JD, MPH candidate in Public Health
Administration & Policy, is entering her third year of the Joint Degree
Program. In 2009-10 she served as a Research Assistant to Prof. Ralph
Hall. She also worked as a staff member for the Minnesota Law Review
and served on the Executive Board of the Women Law Student's
Association as the Community Service Coordinator. During Spring
2010, Ms. Karan worked as a law clerk in the Legal Management Office
of the Minnesota Department of Health and Human Services. She
currently works as an Executive Pathways intern with the Licensing
Division of DHHS. Ms. Karan also worked with Professor Lynn Blewett
to produce a comparative health systems article which was published
in Minnesota Medicine magazine. In 2010-11 she will be a Managing and
Research Editor for the Minnesota Law Review and will spend Spring
Semester studying at Tilburg University in the Netherlands.

Catherine London, JD, MPH candidate in Public Health Administration & Policy, spent Summer 2010 as a Law Clerk in Mayo Clinic's Legal Department. She also served as a 2009-10 staff member for Law and Inequality: A Journal of Theory and Practice. Her article, "Racial Impact Statements: A Proactive Approach to Addressing Racial Disparities in Prison Populations," will be published in Volume 29 of Law and Inequality.

Pari McGarraugh, JD, MPH candidate in Public Health Administration & Policy, completed her first year of law school in 2009-10. Ms. McGarraugh received a Robina Public Policy Fellowship in Summer 2010 to work at the Minnesota Disability Law Center researching and making policy recommendations on the interaction between special education programs and Vocational Rehabilitation Services for transition-aged consumers. Ms. McGarraugh was also a Research Assistant for Professor Susan Wolf.

Kristin Paulson, JD, MPH candidate in Public Health Administration & Policy, was awarded a fellowship from the Upper Midwest Human Rights Foundation to study health care systems and policy development in Nepal for Summer 2010. She will be spending four weeks in various locations across Nepal working with state-run programs and foreign NGO's evaluating the provision and availability of care for different populations across the nation. Since 2008, she has been employed through the Center for Bioethics and the Medical School as a Research Assistant for Prof. Maryam Valapour working on transplantation policies and ethics.

**Taylor Pierce, JD, MPH** candidate in Public Health Administration & Policy, completed her third year in the Joint Degree Program. During the 2009-10 academic year, she served as a Managing Editor for the *Minnesota Law Review* and a Teaching Assistant for a graduate public health course. She also worked as a Research Assistant for Prof. Marsha Freeman at the Law School and conducted research focusing on international women's human rights issues. During the Summer of 2010, Ms. Pierce worked as a Summer Associate for the Cleveland Clinic Law Department.

Christopher Pinahs, JD, MS candidate in Plant Biological Sciences, joined the Joint Degree Program in 2008. He has worked in the Plant Biological Sciences Graduate Program where he conducted research in collaboration with Prof. Peter Reich and Prof. Rebecca Montgomery. He also co-authored an article published in the *American Midland Naturalist*.

**Michael Schubert, JD, MS** candidate in Molecular, Cellular, Developmental Biology & Genetics, will be enrolled in the Graduate School in 2010-11. He currently works as a Research Assistant for Professor Susan Wolf. He is treasurer of the Student Intellectual Property Law Association (SIPLA).

Christopher Walker, JD, MPH candidate in Epidemiology, has been a student worker at the Minnesota Department of Health since October 2008. He was involved in developing, implementing, and working on novel H1N1 surveillance during the 2009 outbreak. He also worked as a Research Assistant to Professor Ralph Hall during Spring 2010. Mr. Walker is currently working as a Legal Assistant in the Office of Chief Counsel at the Food and Drug Administration. In 2009-10 he served as a staff member on the Minnesota Journal of Law, Science and Technology and will be the Lead Articles Editor in 2010-11.

Richard Weinmeyer, MPhil – JD, MA candidate in Bioethics, oversaw data collection on a National Institute of Mental Health grant in the Division of Epidemiology and Community Health. He will begin Law School in Fall 2010. Mr. Weinmeyer received a Center for Bioethics Scholarship to support his studies, and was the recipient of a competitive Consortium Student Grant to begin his Master's thesis research investigating the development and regulation of HIV/STD online partner notification systems in the U.S.

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### Joint Degree Program Proseminar

Since 2000 the Joint Degree Program has offered a Proseminar course required of all Joint Degree Program students each Fall. Entitled "Law, Health & the Life Sciences: Joint Degree Program Proseminar," Law 6875 is a one-credit pass/fail seminar that meets Wednesdays over lunch and provides a supportive and collegial forum in which students can explore the interdisciplinary issues that our Joint Degree Program addresses with faculty from the cooperating programs and other experts.

In recent years, the Proseminar has been divided into two sections. The first section, required for students in the first two years of the Joint Degree Program, invites guest speakers to present to the group on the legal, ethical, and policy implications of their work, followed by discussion with students. The roster of speakers for this section changes every year and includes University of Minnesota faculty and researchers, as well as lawyers and other law or science professionals in the community. This section is open to non-Joint Degree Program students with advanced degrees in health or the life sciences by consent of the instructors if space permits.

In Fall 2009, Section 1 of the Proseminar was led by  $\mbox{\bf Prof.}$  Susan Wolf, JD. The schedule included:

Michael Osterholm, PhD, MPH, Director, Center for Infectious Disease
Research and Policy; Director, Minnesota Center of Excellence for Influenza
Research and Surveillance; Professor, Division of Environmental Health
Sciences; Adjunct Professor, Medical School, University of Minnesota on
"Flu Pandemics":

- Steve Miles, MD, Professor, Center for Bioethics, Medical School; Affiliate Faculty, Center for Holocaust and Genocide Studies; Concentration in Health Law and Bioethics, Law School; Practicing Physician in Internal Medicine, University of Minnesota on "Physician Accountability for Torture: International Practices 1975-2009";
- Art Erdman, PhD, Richard C. Jordan Professor and Morse Alumni Distinguished Teaching Professor, Department of Mechanical Engineering; Director, Medical Devices Center, University of Minnesota on "Medical Device Patents";
- Kim Otte, JD, MA, Legal Counsel, Mayo Clinic on "Conflicts of Interest Rules: Protecting Patients or Stifling Innovation?":
- Keith Halleland, JD, Founder and shareholder of Halleland Habicht PA.; Founder, Halleland Health Consulting; General
  Counsel, Health Care Compliance Associate (HCCA) and Society of Corporate Compliance and Ethics (SCCE) on
  "The Evolving Role of the Compliance Officer in Health Care Organizations: Past, Present, and Future";
- James Cloyd III, Pharm.D, Professor and Lawrence C. Weaver Endowed-Chair, Orphan Drug Development; Director, Center for Orphan Drug Research; Co-Director, Epilepsy Research and Education Program; Morse Alumni Distinguished Teaching Professor, Department of Experimental and Clinical Pharmacology, University of Minnesota on "Orphan Drugs and Rare Diseases: Policy, Regulatory and Development Issues";
- Gurumurthy Ramachandran, PhD, Professor, School of Public Health, University of Minnesota on "OSHA & NIOSH"; and
- William A. Toscano, PhD, Professor and Division Head, School of Public Health, University of Minnesota on "Globalization and Health."





Prof. Susan M. Wolf, JD, moderates the Lecture Series on Law, Health & the Life Sciences. Section 2 was led by Prof. Colin Campbell, PhD, Professor of Pharmacology and former Associate Director of the Joint Degree Program. In Section 2, Joint Degree Program students with more than 2 years of experience make presentations to their peers. Each student is responsible for making one presentation per term. Students are given broad latitude in choosing topics to present. Presentation options include results from their own research (either lab- or literature-based), a published article, or an overview of a developing topic within their general field of study. This 2-section format was designed to meet the needs of all Joint Degree Program students and to prepare advanced students to meet the challenges ahead.

The Joint Degree Program gave me a way to customize my education in a way not possible through other programs. I was encouraged to pursue my interests in law and public health, and to design both degrees to



fit my prospective career needs. The Program provides support and mentoring that I would not have received anywhere else. Moving back and forth between degree programs could create a feeling of isolation, but the Program works to make sure that everyone feels connected. I was able to complete both my degrees in less than four years instead of five, and I credit the Joint Degree Program with making this possible.

-Lindsey Hopper, JD, MPH Clerk, Montana Supreme Court Section 1 Fall 2010 schedule includes:

- Ubaka Ogbogu, LLB, LLM, on "The History of Legal Intervention in Biomedical Controversies: A Case Study of Compulsory Vaccination Laws in 19th Century England";
- Lynn Blewett, PhD, on "Health Care Reform and Access Issues: Overview
  of the Health Care and Education Reconciliation Act of 2010 and
  Associated Controversy";
- Bill McGeveren, JD, on "Privacy Considerations in the Development of Health Information Technology";
- Carl Elliott, MD, PhD, on "Impact of Commercialization on the Integrity
  of Biomedical Research: Examining Recent Cases of Academic Fraud or
  Dishonesty";
- Ruth Okediji, LLB, LLM, SJD, on "Recouping Public Investment in Co-Funded Scientific Research: Making a Case for Compulsory Government Royalties";
- Joint Degree Alumni Career Panel with JDP Alumni Erin Furlong, JD, MPH, and Andrew Gibbons, JD, MS;
- Jeff Bender, DVM, MS, on "Assessing the Global (or U.S.) Response to the Veterinary and Zoonotic Infectious Disease";
- Russell Luepker, MD, MS on "Ethics & Policy Issues Raised by Large-Scale Epidemiological Studies";
- **Keith Halleland, JD**, on "Evolution of Health System Reform and Payment Methodologies";
- Doris Taylor, PhD, on "Induced Pluripotent Stem Cells (iPS): Impact on the Scientific and Regulatory Landscape of Stem Cell Research, and on the Associated Ethical Debate";
- Ruth Mickelsen, JD, MPH, on "Democratic Deliberation and Bioethics: What Are We Learning?"; and
- Susanna Blumenthal, JD, PhD, on "History of the Relationship between Law and Psychiatry."

For more information, visit www.jointdegree.umn.edu.



### **Concentration in**

# Health Law & Bioethics

*Top:* Geeta Naidu (JD, MPH in Public Health Administration & Policy).

Bottom: Crystal Liu (JD, MPH in Public Health Administration & Policy).

In 2009-10, the University of Minnesota Law School was ranked in the top-10 for Health Law Programs by *U.S. News & World Report*. The University of Minnesota Law School offers Concentrations, enabling law students to specialize in fields such as Health Law & Bioethics, Human Rights Law, Business Law, and Labor & Employment Law.



The **Concentration in Health Law & Bioethics** continues to grow. In Spring 2010, 5 Law students completed the requirements of the Concentration: Brittney Crock, Crystal Liu, Bryce Meyer, Geeta Naidu, and Adosh Unni. An additional 25 law students have declared and are completing the Concentration requirements.

The Health Law & Bioethics Concentration allows students to focus their studies on health care delivery, public health law and ethics, international health, or issues in bioethics. Concentrations are available to all JD and LLM students, including those pursuing dual degrees. Students who have successfully completed the Concentration will receive a certificate of completion upon graduation and a notation will be added to their transcript stating that the requirements of the Concentration have been fulfilled.



Concentrations build upon and complement the Law School's rigorous standard curriculum and give students access to the expertise of faculty throughout the University. Interested students confer early in their legal education with the Faculty Chair and the Concentration Coordinator to discuss their intended course of study and how a Concentration can enhance their career development.

Prof. Susan Wolf is the Faculty Chair of the Concentration in Health Law & Bioethics and Carol Rachac coordinates the program. The Health Law & Bioethics concentration requires 12 credits, including a combination of required and recommended courses in the Law School, Graduate School, School of Public Health, and Center for Bioethics.

### **Health Law & Bioethics Concentration Faculty**

Concentration faculty are drawn from across the University, including faculty from the Law School, School of Public Health, Medical School, and Center for Bioethics. As students immerse themselves in a wide range of interdisciplinary courses they will begin to address the legal implications of law, bioethics, health care delivery, health care reform, genetics and assisted reproduction, mental health issues, insurances, and food and drug law. The following faculty represent a cross-section of nationally distinguished scholars who teach in health law and bioethics:

It would be difficult for me to overstate the positive impacts the Joint Degree Program have made on me. The rigorous program and unfailing support from staff and students provided me with the foundation on which to build my career in health policy.

-Ilina Chaudhuri, JD, MPH Health Insurance Specialist, United States Department of Health and Human Services



#### Concentration Core Faculty—Law School:

Prof. Stephen F. Befort, JD (Law)

Prof. Brian Bix, DPhil, JD (Law; Philosophy)

Prof. Dale Carpenter, JD (Law)

Prof. Michelle B. Goodwin, JD, LLM (Law; Medicine; Public Health)

Prof. Ralph Hall, JD (Law)

Prof. Jill Hasday, JD (Law)

Prof. Amy Monahan, JD (Law)

Prof. Ruth Okediji, LLB, LLM, SJD (Law)

Prof. Daniel Schwarcz, JD (Law)

Prof. Kathryn J. Sedo, JD (Law)



Prof. David S. Weissbrodt, JD (Law)

Prof. Susan M. Wolf, JD (Law; Medicine; Bioethics)

Prof. Judith T. Younger, JD, LLD (Law)

#### Concentration Core Faculty—Outside the Law School:

Prof. Dianne Bartels, RN, MA, PhD (Bioethics)

Prof. Muriel Bebeau, PhD (Dentistry; Bioethics; Educational Psychology)

Prof. Debra DeBruin, PhD (Bioethics; Medicine)

Prof. Carl Elliott, MD, PhD (Bioethics; Pediatrics; Philosophy)

Prof. John Eyler, PhD (History of Medicine)

Prof. Jennifer L. Gunn, PhD (History of Medicine)

Prof. Sarah Holtman, PhD, JD (Philosophy)

Prof. William D. Hueston, DVM, PhD (Veterinary Population Medicine; Public Health)

Prof. Susan D. Jones, PhD, DVM (Ecology, Evolution, and Behavior)

Prof. Jeffrey P. Kahn, PhD, MPH (Bioethics; Medicine; Public Health; Philosophy)

Prof. Rosalie Kane, DSW (Public Health; Social Work; Bioethics)

Prof. Barbara Koenig, PhD (Mayo Clinic & University of Minnesota; Bioethics)

Prof. Joan Liaschenko, RN, PhD (Bioethics; Nursing)

Prof. Mary Faith Marshall, PhD (Bioethics; Medicine)

Prof. Michelle Mason, PhD (Philosophy)

Prof. Steven H. Miles, MD (Bioethics; Medicine)

Prof. Michael T. Osterholm, PhD, MPH (Public Health)

Prof. Gregory A. Plotnikoff, MD, MTS (Clinical Medicine, Pediatrics)

Prof. Ed Ratner, MD (Bioethics; Medicine)

Prof. John Song, MD, MPH, MAT (Bioethics; Medicine)

Prof. Valerie Tiberius, PhD (Philosophy)

Prof. Leigh Turner, PhD (Bioethics)

Prof. Maryam Valapour, MD (Medicine; Bioethics)

Prof. Beth A. Virnig, PhD, MPH (Public Health; Bioethics)

For a complete list of Health Law & Bioethics Concentration faculty, visit www.jointdegree.umn.edu/people/core faculty.

### **Law School Student Organizations**

The Joint Degree Program encourages students to get involved in relevant student organizations such as the Health Law & Bioethics Association (HLBA), the Student Intellectual Property Law Association (SIPLA), and the Environmental Law Society.

#### **Health Law & Bioethics Association**

The Health Law & Bioethics Association (HLBA) is a student organization dedicated to providing students with practical career guidance in the field of health law and fostering awareness, critical thought, and debate about topics in bioethics. HLBA embraces interdisciplinary discourse and collaborates with students and organizations from other colleges at the University of Minnesota.

#### **Student Intellectual Property Law Association**

The Student Intellectual Property Law Association (SIPLA) strives to promote the study of and pursuit of careers in all aspects of intellectual property law for students with or without technical backgrounds, including careers in patent, copyright, and trademark law. SIPLA provides a forum for communication between students and intellectual property law practitioners and functions as a student network that encourages students to learn from the past experiences of others while formulating their personal career strategies.

#### **Environmental Law Society**

The Environmental Law Society (ELS) works to improve the opportunities at the Law School for studying and embarking on the practice of environmental law, and to apply legal skills to current environmental problems.

For more information on student organizations, visit www.law.umn.edu/prospective/studentorgs.html.



### Joint Degree Program Student Fellows

The JDP Fellows Program, established in 2008-09 in consultation with the JDP Advisory Board, provides the opportunity for students to get involved in the program who already hold a relevant graduate or professional degree and are not enrolled as joint degree students. Each Fall, law students who hold an advanced degree in a health or life science field and graduate students in a health or life science field who already have a JD are invited to be Joint Degree Program Student Fellows while enrolled in the Law School or the Graduate School.

In 2009-10, we had 10 Fellows participating in the program, two of whom also serve as legal Research Assistants on Consortium grants.

#### **CURRENT FELLOWS**

Laura Arneson, PhD Christian Krautkramer, MPH Tommy Noh, PhD Elizabeth Sanberg, MS Eva Stensvad, MD Xinghao Wang, MA, PhD Xuelin Wang, PhD Trevor Woodage, PhD

#### **ALUMNI**

Timothy Christman, JD ('09), MS Matthew Easterday JD ('09), PhD Rebecca Hays, JD ('10), PhD Laurie Kellogg, JD ('10), MS, PhD

#### JDP Fellow Profile

JDP Student Fellow Eva Stensvad, MD (JD candidate), is a third-year law student at the University of Minnesota Law School. She graduated from Northwestern University in 2003 with a BA in Psychology and received her MD from Northwestern University's Feinberg School of Medicine. She is a Managing Editor of the *Minnesota Law Review* and her Note, "Immunity for Vaccine Manufacturers: The Vaccine Act and Preemption of Design Defect Claims," will be





# 2009-10 Joint Degree Program Graduates

The Joint Degree Program graduated 5 students in 2009-10 for a total of 33 alumni to date:



JON HAREID JD/PhD in Pharmacology

#### **Jon Hareid,** *JD/PhD in Pharmacology*

Jon Hareid received his BA in Physiology from the University of Minnesota and began the Joint Degree Program in 2001, starting in the Law School. He served on the staff of the Minnesota Journal of Law, Science & Technology (MJLST) in 2005-06 and was an Articles Editor in 2006-07. His article on "Testing Drugs and Testing Limits: Merck KGaA v. Integra Lifesciences I, Ltd. and the Scope of the Hatch-Waxman Safe Harbor Provision" was published in Volume 7 of MJLST. He also published, "In Search of an Elixir: What Ails the Pharmaceutical Industry in Europe and How to Use the Competition of Laws to Cure It," in MJLST. In 2007, he worked as a Minnesota Justice Foundation volunteer for the Elder Care Rights Alliance, doing legal research on state-by-state regulation of assisted living facilities. In Summer 2008, he completed his thesis research on factors governing cell surface expression of opioid receptors, the class of receptors that mediate the effects of opiates such as morphine. Dr. Hareid received his JD in December 2008 and his PhD in December 2009.



LINDSEY HOPPER JD/MPH in Community Health Education

#### **Lindsey Hopper,** *JD/MPH* in Community Health Education

Lindsey Hopper joined the Joint Degree Program in 2006. She graduated from Montana State University with a BS in Cell Biology and Neuroscience with a minor in Public Administration and Biochemistry and received a University Honors Program Diploma with Highest Distinction. She served as a 2007-08 staff member for the Minnesota Law Review and published a Note in the 2008 edition of that journal entitled, "Striking a Balance: An Open Court Analysis of Uniform Emergency Volunteer Health Practitioners Act." She received several awards including the Law Review Citecheck Award, FDA Law Book Award, Civil Procedure Book Award, and the School of Public Health Dean's Award Scholarship. She clerked with Justice James C. Nelson of the Montana Supreme Court and held a legal internship with the Public Health and Safety Division of the Montana Department of Public Health and Human Services. Lindsey received her JD in May 2009 and her MPH in December 2009. In 2009-10 she served as a clerk for Justice Patricia O. Cotter of the Montana Supreme Court and will join Sherman and Howard (Denver) in October 2010.



KATHERINE DICK KRUEGER JD/PhD in Molecular, Cellular, Developmental Biology & Genetics

**Katherine Dick Krueger,** JD/PhD in Molecular, Cellular, Developmental Biology & Genetics

After receiving her BA in Biology and Economics from St. Olaf College, Katherine Krueger joined the Joint Degree Program in 2002 to pursue both a PhD in Molecular, Cellular, Developmental Biology and Genetics (MCDB&G) and a JD. She joined the lab of Dr. Laura P. W. Ranum in the Department of Genetics, Cell Biology and Development and became part of a research team focused on determining the gene responsible for spinocerebellar ataxia type 5 (SCAS), an incurable degenerative disease that affects the brain. In 2006, the group discovered that mutations in beta-III spectrin cause SCA5 and published their findings in Nature Genetics. In 2007-08, Dr. Krueger was awarded a Graduate School Doctoral Dissertation Fellowship and was recently published in PLoS One. She received her PhD from the MCDB&G program in September 2008 and her JD in December 2009. She recently joined Viksnins Harris and Padys, PLLP and will focus on patent prosecution.



**CRYSTAL LIU** JD/MPH in Public Health Administration & Policy

#### **Crystal Liu**, *JD/MPH* in Public Health Administration & Policy

Crystal Liu joined the Joint Degree Program in 2006, after spending a year in Australia, studying the regulation of assisted reproductive technologies as a Fulbright Postgraduate Scholar. She also received a postgraduate certificate from the Centre for Applied Philosophy and Public Ethics at the University of Melbourne. In 2007, Ms. Liu received two Book Awards, one for Civil Procedure and another for Criminal Law. In Summer 2007, she received an OIP International Internship Award to work with the World Health Organization's Ethics and Health Department. Her article on HLA tissue typing and PGD was published by the Journal of Bioethical Inquiry. Ms. Liu also worked as a Research Assistant for Professor Susan Wolf. Her article, "Limiting Access to Infertility Services: Using a Historical Analysis and the Victorian Experience to Shed Light on What Is a Justified Limitation on Reproductive Freedom," was published in the Minnesota Journal of Law, Science & Technology. She received a Consortium Student Grant to return to Australia to study the legislation surrounding donor conception, anonymity, and access to identifying information. In Fall 2010, she began working as an associate for Hogan Lovells in Washington, DC.



**GEETA NAIDU** JD/MPH in Public Health Administration & Policy

#### **Geeta Naidu**, *JD/MPH* in Public Health Administration & Policy

Ms. Naidu joined the Joint Degree Program in 2006. While earning her Joint Degree, she worked as a Minnesota AIDS Project policy intern from 2007-08. In Summer 2007, she completed a clerkship with Prairie State Legal Service in Waukegan, Illinois. Ms. Naidu served as Student Representative to the Governing Committee in 2007-08. In Summer 2008, she was an Executive Pathways Intern with the Minnesota Department of Human Services in Health Care Administration. She was a student worker with Department of Human Services Health Care Administration Budget and Legislative group. In Summer 2009, she was a law clerk at the U.S. Department of Health and Human Services Office of Counsel to the Inspector General specializing in health care fraud. She received a Consortium Student Grant to complete her Public Health Master's project, which is focused on using civil rights litigation to improve access to dental care for Medicaid-enrolled children. After graduation, she joined the U.S. Department of Health and Human Services Office of Counsel to the Inspector General.

# Joint Degree Program Alumni & Careers

#### Joint Degree Program Alumni

Post-graduation career options for students with joint degrees are diverse. Law firms, educational institutions, state and federal agencies, nonprofit organizations, and private corporations are all looking for talented individuals with degree combinations that we offer through the JDP. Our 33 alumni are working in careers in private practice, business & industry, government, and academia.

#### 53% of JDP alumni are in Minnesota, with 46% in cities including:

- San Diego, CA
- San Francisco, CA
- Chicago, IL
- Boston, MA
- Seattle, WA
- Washington, DC

#### Past and current alumni have gone on to judicial clerkships including for:

- Hon. Robert R. Beezer, 9th Circuit Court of **Appeals**
- Clerkship in 9th Circuit Court of Appeals
- Hon. David S. Doty, U.S. District Court, District of Minnesota
- Hon. Patricia O. Cotter, Montana Supreme

Our alumni currently hold positions with the following firms and organizations:

#### Private firms:

- Brinks Hofer Gilson & Lione (IL)
- Casimir Jones (WI)
- Covington & Burling (CA)
- Dorsey Whitney (MN)
- Faegre & Benson (MN)
- Fulbright & Jaworski (DC)
- Goodwin Proctor (CA)

#### Halleland Habicht (MN)

- Hogan Lovells (DC)
- K&L Gates (WA)
- Leonard Street & Deinard (MN)
- Patterson Thuente (MN)
- Proskauer Rose (MA)
- Robins Kaplan Miller & Ciresi (MN)
- Sterne Kessler Goldstein & Fox (DC)
- Stoel Rives (MN)
- Viksnins Harris Padvs (MN)
- Wilson Sonsini Goodrich & Rosati (CA)
- Winthrop & Weinstine (MN)

#### **Public interest and advocacy organizations:**

- BioBusiness Alliance (MN)
- MN Medical Association

#### **Government agencies:**

- MN Attorney General, Department of Human
- MN Office of the Legislative Auditor, Program **Evaluation Division**
- US Department of Agriculture (DC)
- US Department of Health and Human Services, Office of Counsel to the Inspector General (DC)

- American Medical Systems (MN)
- St. Luke's Episcopol Health System (MN)

#### Joint Degree Program Alumni

- Robert Berlin, JD, MPH
- Melanie E. Kleiss Boerger, JD, MS Kari Bomash, JD, MPH
- Kelsey Brodsho, JD, MS
- Ilina Chaudhuri, JD, MPH
- Benjamin Coler, JD, MS
- Trevor K. Copeland, JD, MS
- Jill Dabrowski, JD, MPH
- Sharada Devarasetty, JD, MS
- Lilly Ewing, JD, MS
- Erin Furlong, JD, MPH
- Lesli Rawles Gallagher, JD, MS
- Andrew Gibbons, JD, MS
- Glenna Gilbert, JD, MS
- Robert Goetz, JD, MS
- Jonathan Hareid, JD, PhD
- Lindsey Hopper, JD, MPH
- Margaret Jacot, JD, MS
- Stephanie Johnson, JD, MS
- Rebekah Kent, JD, MS
- Laurel Kilgour, JD, MS
- Ji Eun Kim, JD, MS
- Katherine Dick Krueger, JD, PhD
- Crystal Liu, JD, MPH
- Geeta Naidu, JD, MPH
- Garret Olson, JD, MS
- Jenny Cooner Patten, JD, MHA
- Susan Pribyl Perera, JD, MS
- Sarah Johnson Phillips, JD, MS
- Marie Quasius, JD, MPH
- Lisbeth Robinson, JD. PhD
- KJ Starr, JD, MPH
- Jeannine J. Thiele, JD, MS

### **Joint Degree Program Careers**

Joint Degree Program students have held a wide variety of summer internships and fellowships. The majority of our students are pursuing a JD with a Master's degree, which can be completed in 4 years. As a result, these students have 3 summers to intern, rather than the 2 typical for law students. Our students are encouraged to use the third summer to pursue a wide variety of summer experiences. Summer placements have included:

#### **Private firms:**

- Chadbourne & Parke (NY)
- Dorsey & Whitney (MN)
- Faegre & Benson (MN)
- Fulbright & Jaworski (DC)
- Hogan Lovells (DC)
- K&L Gates (WA)
- Merchant & Gould (MN)
- Nilan Johnson Lewis (MN)
- Stoel Rives (MN)
- Wilson Sonsini Goodrich & Rosati (CA)

#### **Judges and government agencies:**

- U.S. District Court Judge Joan Erickson (Minneapolis, MN)
- U.S. District Court Judge Richard H. Kyle (St. Paul. MN)
- U.S. District Court Judge Patrick J. Schultz (IL)
- U.S. District Court Judge John R. Tunheim (MN)

- Justice James C. Nelson, Montana Supreme
- Magistrate Judge Holly Fitzsimmons (CT)
- MN Department of Health
- MN Department of Human Services
- Office of the Judge Advocate General (DC)

#### **Public interest and advocacy organizations:**

- AARP (DC)
- Center for Public Interest Law
- Defenders of Wildlife
- Earthjustice (CO)
- Families USA Foundation
- Farmers Legal Action Group
- HIV Alliance (OR)
- Legal Aid Society
- MN Center for Environmental Advocacy
- MN Aids Project
- National Business Group on Health (DC)
- World Health Organization (Geneva)

- Excelsior Energy (MN)
- Mayo Clinic (MN)
- Children's Hospital (CO)

#### **Research organizations:**

- HIV/STI Intervention & Prevention Studies Program, Div. of Epidemiology, UMN
- Research Subjects' Protection Programs & Office of Regulatory Affairs, UMN
- Centre for Environmental Economics, Central Queensland Univ., Australia

#### **Fellowships:**

- First-Year Fellowship, Graduate School, UMN
- Dissertation Fellowship, Graduate School, UMN
- Midwest Human Rights Fellowship, Human Rights Center, Law School
- Robina Public Policy Fellowship, Law School

# Joint Degree Program Faculty & Governing Committee

The Joint Degree Program is led by a faculty Director and Associate Director with the help of a Governing Committee comprised mainly of the Director of Graduate Studies (DGS) or equivalent in each cooperating program plus a Joint Degree Program student elected by his or her peers.



Susan M. Wolf, JI

Susan M. Wolf, JD, is the McKnight
Presidential Professor of Law, Medicine &
Public Policy at the University of Minnesota;
the Faegre & Benson Professor of Law at
the University of Minnesota Law School;
Professor of Medicine at the University of
Minnesota Medical School; and a Faculty
Member in the University's Center for
Bioethics. She is also founding Director of the

University's Joint Degree Program in Law, Health & the Life Sciences and founding Chair of the University's Consortium on Law and Values in Health, Environment & the Life Sciences.

Professor Wolf is an elected Member of the National Academy of Sciences' Institute of Medicine (IOM), an elected Fellow of the American Association for the Advancement of Science (AAAS), and an elected Fellow of The Hastings Center as well as a past-member of the Fellows' Council. She has received numerous grants to support her research, including from the National Institutes of Health (NIH), National Science Foundation (NSF), and The Greenwall Foundation. She currently serves as a member of the Law & Neuroscience Project funded by the MacArthur Foundation and as a senior consultant to The Hastings Center on its project on guidelines for end-of-life care, funded by the Donaghue Foundation and Sussman Trust. She received her AB summa cum laude from Princeton University and her JD from Yale Law School, with graduate work at Harvard University.

She is the author or coauthor of numerous articles and book chapters that have appeared in *Science, Nature Genetics, New England Journal of Medicine, Journal of the American Medical Association (JAMA), American Journal of Public Health, Hastings Center Report, Kennedy Institute of Ethics Journal, American Journal of Law & Medicine, Journal of Law, Medicine & Ethics,* various law reviews, and other publications. She is a past member of the Board of Directors of the American Society for Bioethics & Humanities (ASBH), and past-chair of the Association of American Law Schools' (AALS) Section on Law, Medicine, and Health Care. She writes frequently on genetics and genomics, assisted reproduction, death and dying, women's health care, human subjects research, and other topics in health law and bioethics. Prof. Wolf's biography and bibliography may be found at www.law.umn.edu/facultyprofiles/wolfs.html.



William Toscano, Jr., PhD

William Toscano, Jr., PhD, is Professor and Head of the Division of Environmental Health Sciences and Head of Global Programs at the University of Minnesota School of Public Health. He is also Director of the Center for Environment & Health Policy. He was elected Fellow of the American Association for the Advancement of Science (AAAS) in 2006. He serves on

numerous editorial boards, including the Faculty editorial board of

the *Minnesota Journal of Law, Science & Technology*. He joined the Joint Degree Program as Associate Director July 1, 2009.

Prof. Toscano received a PhD in Biochemistry at the University of Illinois, Urbana-Champaign in 1978. He was a post-doctoral fellow in pharmacology at the University of Washington Medical Center, Seattle, WA from 1978-80. In 1980 he joined the faculty at the Harvard University School of Public Health, where he was an assistant and associate professor of toxicology. In 1989 he joined the faculty of the Division of Environmental and Occupational Health at the School of Public Health at the University of Minnesota. Prof. Toscano's biography and bibliography may be found at www.sph.umn.edu/facstaff/ourfaculty/faculty.asp?x5=tosca001.



Hari Osofsky, JD

Hari Osofsky, JD, became Associate Director of Law, Geography & Environment for the Consortium in July 2010, when she joined the faculty as Associate Professor at the University of Minnesota Law School. Prof. Osofsky received her BA and JD from Yale University. She is a PhD candidate in the Department of Geography at the University of Oregon. After clerking for Judge Dorothy

Nelson of the Ninth Circuit Court of Appeals, she worked as a Fellow at Center for the Law in the Public Interest, with a focus on environmental justice advocacy. She also has been a faculty member at Washington and Lee University School of Law, University of Oregon School of Law, and Whittier Law School, and has taught courses at Loyola Law School-Los Angeles and Vermont Law School. For her biography and bibliography, visit www.law.umn.edu/facultyprofiles/osofskyh.html.



Ubaka Ogbogu, LLB, LLM

**Ubaka Ogbogu, LLB, LLM**, served as Associate Director of Research & Education for the Consortium and Joint Degree Program from April-September 2010. He was also an Adjunct Associate Professor of Law at the University of Minnesota Law School; Affiliate Faculty Member at the Center for Bioethics, University of Minnesota; Faculty

Editor-in-Chief, Minnesota Journal of Law, Science & Technology; an Adjunct Research Associate with the Health Law Institute, Faculty of Law, University of Alberta, and a barrister and solicitor of the Supreme Court of Nigeria. He holds a LLM from the University of Alberta, and a LLB from the University of Benin, Nigeria. He is currently completing a doctorate degree (SJD) in law at the University of Toronto. Prior to commencing doctoral studies, Ubaka held various academic/research positions at the University of Alberta and University of Nigeria, and has done significant research on the ethical, legal, and social issues associated with emerging biotechnologies. For more information, visit www.lifesci.consortium.umn.edu/people/bio.ubaka.ogbogu.

#### **GOVERNING COMMITTEE**



Kathleen Thiede Call, PhD

Kathleen Thiede Call, PhD, is Associate Professor and Director of Graduate Programs in Health Services Research, Policy, and Administration in the School of Public Health. Prof. Call is an Investigator at the State Health Access Data Assistance Center (SHADAC) funded by the Robert Wood Johnson Foundation, which assists states in monitoring rates of

coverage and using data to inform policy and improve access. She also co-chairs the Health Disparities Work Group in the School of Public Health, and is co-chair of the community engagement core for the Center for Health Equity. For more information, visit www.sph.umn.edu/facstaff/ourfaculty/faculty.asp?x5=callx001.



Kathleen Conklin, PhD

Kathleen Conklin, PhD, is Associate Professor in the Department of Genetics, Cell Biology and Development and the Director of Graduate Studies of the Molecular, Cellular, Developmental Biology and Genetics Graduate Program. Prof. Conklin received her BA from Barnard College, Columbia University in 1974 and her PhD in 1987 at the Tufts University

Medical School's Sackler School of Graduate Biomedical Sciences. For more information, visit www.gcd.umn.edu/html/faculty\_pages/conklin.html.



Debra DeBruin, PhD

**Debra DeBruin, PhD**, is Associate Professor and Associate Director in the Center for Bioethics at the University of Minnesota. Prof. DeBruin has served as a Health Policy Fellow for the United States Senate. She has worked as a consultant to the National Academy of Science's Institute of Medicine and the National Bioethics Advisory Commission. In addition to her

work in public health policy, she teaches and conducts research on the ethics of research. For more information, visit www.ahc.umn.edu/bioethics/facstaff/debruin\_d/home.html.



Judith Garrard, PhD

Judith Garrard, PhD, is a research psychologist with postgraduate training in epidemiology. She is a Professor, Division of Health Policy and Management, and Senior Associate Dean of Academic Affairs and Research in the School of Public Health. Her research specialty is pharmacoepidemiology and patient outcomes. She has been principal

investigator on research grants from the National Institutes of Health, AHRQ, HCFA, and private foundations including the AARP-Andrus Foundation, Retirement Research Foundation, and the American Society for Consultant Pharmacists. For more information, visit www.sph.umn.edu/facstaff/ourfaculty/faculty.asp?x5=jgarrard.



George D. Green, PhD



Sharon Jansa, PhD

**George D. Green, PhD**, is the Morse-Alumni Distinguished Teaching Associate Professor of History and Associate Dean of the University of Minnesota's Graduate School. His scholarly specialty is American economic and business history. He earned his PhD in Economics and History at Stanford University.

**Sharon Jansa, PhD**, is Associate Professor and Director of Graduate Admissions in the Department of Ecology, Evolution, and Behavior. Her research is primarily concerned with the systematics and biogeography of localized mammalian radiations. She is currently focusing on three isolated groups of mammals: the native rodents of Madagascar, the indigenous

rodents of the Philippines, and South American didelphid marsupials. She received her PhD from the University of Michigan. For more information, visit www.cbs.umn.edu/eeb/faculty/JansaSharon/.



Erin Keyes, JD

Erin Keyes, JD, is Assistant Dean of Students at the University of Minnesota Law School. She oversees student services for all of the 850 JD and LLM students and advises student groups on public service programs. She previously worked as an attorney for Central Minnesota Legal Services, handling family and housing law issues for low-income clients. She received

her JD *cum laude* from the University of Minnesota and was awarded the Excellence in Public Service Award.



Michael A. Kilgore, PhD

Michael A. Kilgore, PhD, is Associate Professor and Director of Graduate Studies in the Department of Forest Resources. He teaches courses on environmental and on natural resource policy and economics and on natural resources management. Specific research interests include consequences of alternative timber harvesting and forest

management, and the use and effectiveness of various policy tools to promote sustainable natural resources management. He received his PhD in Natural Resources Economics, Policy, and Administration from the University of Minnesota. For more information, visit www.forestry.umn.edu/people/kilgore/index.htm.



Greg Lindsey, PhD

Greg Lindsey, PhD, is Associate Dean of the Humphrey Institute of Public Affairs. He previously served as Associate Dean of the Indiana University School of Public and Environmental Affairs (SPEA) at IUPUI in Indianapolis. As Associate Dean, he oversees all academic and research operations of the Humphrey Institute. Dean Lindsey specializes in environmental planning, policy,

and management at the state and local levels. For more information, visit www.hhh.umn.edu/people/glindsey/.



Jonathan Marchant, PhD

Jonathan Marchant, PhD, is
Associate Professor in the Department
of Pharmacology and is the Director of
Graduate Studies for the Pharmacology
Graduate Training Program. His laboratory
is interested in the application of cellular
imaging technologies to study how cells
behave in response to stimulation. In
particular, a focus is on the regulation

of cell activity by calcium signals evoked by the second messenger inositol trisphosphate. For more information, visit http://www.pharmacology.med.umn.edu/staffmarchant.html.



Karen Oberhauser, PhD

Karen Oberhauser, PhD, is an Associate Professor in the Department of Fisheries, Wildlife and Conservation Biology at the University of Minnesota, the Director of the Monarchs in the Classroom Program and the Monarch Larva Monitoring Project, and the Director of Graduate Studies in the Conservation Biology Program. She teaches Conservation Biology to graduate

and undergraduate students from September through May, and during the summer teaches ecology courses to K-12 teachers, focusing on monarchs and their environment. She and her outstanding students have studied monarch reproduction, natural enemies, population dynamics, interactions with milkweed, responses to climate change and pesticides, and migration. For more information, visit http://fwcb.cfans.umn.edu/personnel/faculty/oberhauser/index.htm.



Carol Rachac, MA

Carol Rachac, MA, is the Associate Program Director for the Consortium and the Joint Degree Program. She has worked in academic administration at the University of Minnesota since 1988, spending 8 years in the Department of Sociology prior to joining the Consortium and the Joint Degree Program. She earned a BA in Political Science and an MA in Higher Education Administration

from the University of Minnesota. Her duties include management and administration, coordination of admissions, student advising, development, and grants management. For more information, visit www.lifesci.consortium.umn.edu/people/bio.carol.rachac.



Amber Thomas, JD, MPH

Amber Thomas, JD, MPH candidate in Public Health Administration & Policy, served as the 2009-10 student representative to the Governing Committee. Ms. Thomas joined the Joint Degree Program in Fall 2007,

beginning her studies in the Law School. During Summer 2008, she was an intern with Judge Advocate General (JAG)

where she worked on a high-profile capital case involving modern DNA analysis. She graduated from the University of Missouri-Kansas City where she majored in Public Communication and minored in Healing and Humanities.



Beth Virnig, PhD, MPH

Beth Virnig, PhD, MPH, is Professor in the Division of Health Policy and Management in the University of Minnesota School of Public Health and co-directs the University of Minnesota Masonic Cancer Center's Cancer Outcomes and Survivorship program. Dr. Virnig is the Chair of the Public Health Administration and Policy major. She was lead author of the recently

published AHRQ-commissioned study on the incidence, staging, treatment, and outcomes of Ductal Carcinoma In Situ of the breast and a member of a recent NIH-sponsored State-of-the-Science conference on increasing colorectal cancer screening. For more information, visit <a href="http://www.sph.umn.edu/facstaff/ourfaculty/faculty.asp?x5=virni001">http://www.sph.umn.edu/facstaff/ourfaculty/faculty.asp?x5=virni001</a>.



Kathleen Watson, MD

Kathleen Watson, MD, is the Associate Dean for Students and Student Learning at the University of Minnesota Medical School since December 2004. She has been honored to receive the University of Minnesota All-University Distinguished Teaching Award and the Parker J. Palmer Courage to Teach Award from ACGME. Her recent grants and educational scholar-

ship are in bridging education and quality improvement (ACT II, ACT III), promoting improvement of chronic illness care education (AAMC/Macy Chronic Illness Care Education), professionalism in medical education (Relationship Centered Care Initiative), and development of the Faculty Advising Program at the University of Minnesota Medical School. For more information, visit http://www.med.umn.edu/gim/faculty/watsonk/home.html.



Elizabeth V. Wattenberg, PhD

Elizabeth V. Wattenberg, PhD, is Associate Professor and Director of Graduate Studies in the Division of Environmental Health Science in the School of Public Health. Her laboratory investigates the molecular mechanisms by which carcinogenic agents interfere with the signaling pathways that control cell fate and function. Prior to her appointment at

the University of Minnesota, she worked at the Minnesota Department of Health on issues concerning health risk assessment and environmental regulation. She received her doctorate from the Massachusetts Institute of Technology. For more information, visit www.sph.umn.edu/facstaff/ourfaculty/faculty.asp?x5=watte004.

For more information about our Governing Committee members, visit www.jointdegree.umn.edu/people/governing\_committee2.

# Joint Degree Program Advisory Board

The Joint Degree Program is indebted to an active and growing Advisory Board. The Board consists of prominent community members whose own work is at the intersection of law, policy, science, and health. Board members meet twice annually to advise Program faculty and staff and serve as mentors to Joint Degree Program students. Each Fall the Board hosts a reception for the students. Fredrikson & Byron hosted the Advisory Board Reception in 2009. The law firm of Lindquist & Vennum will host the Fall 2010 Advisory Board Reception.



The 2009-10 Advisory Board includes:

Joint Degree Program students and Advisory Board Members at the Fall 2009 Advisory Board Reception.



Martha Brand, JD



Amos S. Deinard, Jr., MD, MPH



Brian Dorn, JD, PhD



Mark Ellinger, JD. PhD

Martha Brand, JD, now retired, was most recently Executive Director of the Minnesota Center for Environmental Advocacy (MCEA), a nonprofit organization working to protect Minnesota's natural resources, wildlife, and the health of its people. Prior to being selected as Executive Director of the MCEA, she completed a Bush Foundation Leadership Fellowship and served as an environmental consultant, after having been a partner at the Minneapolis-based law firm of Leonard, Street and Deinard practicing environmental law from 1981 to 1998. She earned her JD at Boston University.

Amos S. Deinard, Jr., MD, MPH, is Associate Professor in the Department of Pediatrics, University of Minnesota Medical School, and School of Public Health. His long career has focused on aiding underserved communities in the Twin Cities. He worked for 15 years (1969-84) as the Pediatric Consultant to the Minneapolis Health Department's Maternal and Child Health program, followed by 15 years as Director of the Community-University Health Care Center (CUHCC). Prof. Deinard has received numerous awards, including the 2008 Distinguished Service Award of the Minnesota Chapter of the American Academy of Pediatrics, the University of Minnesota's Award for Outstanding Community Service, the Minneapolis Award for Contributions to the City of Minneapolis, and the Minnesota Department of Health Betty Hubbard Maternal and Child Health Leadership Certificate of Recognition. He received his MD and MPH from the University of Minnesota.

**Brian Dorn, JD, PhD**, Merchant & Gould, PC, practices patent law with an emphasis on patent prosecution and client counseling (U.S. and foreign). His practice is concentrated in biotechnology and pharmaceuticals. Recently, he has been a CLE speaker on the topics of gene patenting and biosimilars. Dr. Dorn has also authored multiple, peer-reviewed scientific publications relating to his research in microbiology, human and microbial genetics, and cell biology. He received his PhD in Biomedical Sciences with a concentration in Microbiology/Immunology and his JD *magna cum laude* from the University of Florida.

Mark Ellinger, JD, PhD, is Senior Principal at the Twin Cities office of Fish & Richardson. Fish & Richardson is a leading global law firm with 400 attorneys and technology specialists practicing intellectual property strategy and counseling, intellectual property litigation, and business litigation. Dr. Ellinger is a frequent speaker on intellectual property aspects of biotechnology and is a treatise co-author and lecturer for the Patent Resources Group's course, "Pharma and Biotech Strategies for Patent Prosecution, Hatch-Waxman, Litigation and Licensing." Dr. Ellinger received a PhD in developmental biology from the University of Minnesota and a JD from Harvard Law School. Prior to law school, Dr. Ellinger was a tenured Associate Professor at Southern Illinois University and a Visiting Scientist at Merck Sharp & Dohme Research Laboratories.

**Keith J. Halleland, JD**, is a founder and shareholder of Halleland Habicht, where he co-chairs the health law practice. Mr. Halleland focuses his practice in the areas of regulatory compliance, business transactions, and health care policy. He serves as general counsel for the Health Care Compliance Association and chairs the Advisory Council of the Humphrey Institute of Public Affairs, University of Minnesota. He serves as general counsel to the largest high-risk insurance pool in the country, and previously created an integrated health system involving seventeen hospitals and a health plan with over one million members, as well as an integrated network of community clinics. Prior to HH, Keith co-founded Halleland Lewis Nilan Sipkins & Johnson PA in 1996.

**Hubert (Skip) H. Humphrey, III, JD**, is a Senior Fellow in Public Health Policy and Law in the Division of Epidemiology and Community Health at the University's School of Public Health, and Of Counsel ACE Panel member at Tunheim Partners. He currently serves on the national Board of Directors of AARP, and the Advocates for Human Rights, and Board of Trustees of Shattuck-St. Mary's schools. He is a former State Senator and Minnesota Attorney General. As a longtime advocate for non-smoking, Mr. Humphrey was the first attorney general in the nation to bring an antitrust and consumer fraud lawsuit against the tobacco industry, reaching a landmark settlement. In 1999, he was awarded the Tobacco-Free World Prize by the World Health Organization. Mr. Humphrey holds a BA degree from American University and a JD from the University of Minnesota.

**Ryan Johnson, JD**, is a member of Fredrikson & Byron's Health Law, Life Sciences, Corporate, and Medicare Fraud and Abuse Groups. Among his clients are hospitals, physician groups, medical device companies, physician management companies, and other health care professionals and businesses. He has been an Adjunct Professor at the University of Minnesota Law School. Mr. Johnson received his JD at the University of Minnesota.

**Rep. Phyllis Kahn, PhD, MPA**, is a member of the Minnesota legislature serving her 19th term. Her legislative interests include pension and investment policy, science and technology (most recently, DNA testing and the role of biotechnology in agriculture), information policy, natural resources, and women's rights. She has served on many national committees, particularly in the field of science and public policy. She has been elected a Fellow of the American Association for the Advancement of Science (AAAS) and the Chair of the AAAS section on "General Interest in Science and Engineering." Rep. Kahn received a PhD in Biophysics from Yale and a MPA from the J.F.K. School of Government at Harvard University.

Vanessa Laird, MA, JD, is currently General Counsel, Enterprise Services, United HealthGroup. She was previously Vice President and Senior Counsel for Medtronic's Cardiac Rhythm Disease Management and Neuromodulation businesses, as well as Senior Legal Counsel (based in Tolochenaz, Switzerland) for Medtronic Europe, Middle East, and Africa. Ms. Laird holds a BA in English and political science from Williams College, *magna cum laude* with Highest Honors in English; a BA and MA in politics, philosophy, and economics from Oxford University (Worcester College); and a JD from Stanford University.

Kenneth A. Liebman, JD, Faegre & Benson LLP, is chair of the firm's Medical Technology Industry Team and a member of the firm's management committee. Mr. Liebman was recognized among the world's best life sciences patent litigators in the first-ever publication of "IAM Life Sciences 250: The World's Leading Life Sciences Patent Litigators." He has also been an Adjunct Professor at the University of Minnesota Law School and William Mitchell Law School. Mr. Liebman received his JD from Yale Law School. For more information, visit http://www.faegre.com/showbio.aspx?Show=1361

**David R. Melloh, JD**, chairs Lindquist & Vennum's Health Law practice group. He has advised healthcare providers such as hospitals and integrated delivery systems, physician group practices, pharmacies, and long-term care organizations for his entire career. He earned an BA from Carleton College, an MA in Political Science at the University of Minnesota, and received his JD from Vanderbilt University, where he was an editor of the *Vanderbilt Law Review*.

Ruth A. Mickelsen JD, MPH, MA, is currently an Affiliate Faculty Member of the Center for Bioethics at the University of Minnesota. Ruth recently obtained a MA in Bioethics and Health Policy from the Neiswanger Institute, Stritch School of Medicine, Loyola University Chicago. She is also member of the Adjunct Faculty at William Mitchell College of Law where she teaches a seminar in Bioethics and the Law. Previously she was Vice President and Ethics Advisor for Allina Hospitals and Clinics, a non-profit hospital and clinic organization. She received her Masters of Public Health in 1986, *cum laude*, from the Harvard School of Public Health, and her JD in 1981, *cum laude*, from William Mitchell College of Law.



Keith Halleland, JD



Hubert (Skip) H. Humphrey, III, JD



Ryan Johnson, JD



Rep. Phyllis Kahn, PhD, MPA



Vanessa Laird, MA, JD



Kenneth A. Liebman, JD



David R. Melloh, JD



Ruth A. Mickelsen, JD, MPH, MA



Kim Otte, JD, MA



Winthrop A. Rockwell, JD



Mark Rotenberg, JD, MA, MPhil



Ann L. Russell, JD, MSW

**Kim Otte, JD, MA**, has been Legal Counsel at Mayo Clinic Rochester since 2002. Ms. Otte focuses her practice on regulatory compliance issues, including HIPAA, Medicare, and fraud and abuse. She is also a member of the Mayo Ethics Consult Service and the Mayo Reproductive Medicine Advisory Board. Ms. Otte participates in education of the medical school students, residents, and nurses at Mayo. Ms. Otte has been an Adjunct Professor of Health Law at the University of Minnesota, William Mitchell College of Law, and Hamline University School of Law. Ms. Otte holds a JD from the University of Minnesota and a Masters in Philosophy from the University of Minnesota, with areas of expertise in biomedical ethics and feminist philosophy.

Winthrop A. Rockwell, JD, Faegre & Benson LLP, concentrates on commercial and product liability litigation. He is a member of Faegre & Benson's Management Committee, where his responsibilities include practice development, strategy, and international matters. Mr. Rockwell is a Fellow of the British-American Project founded by the Royal Institute of International Affairs and the Johns Hopkins University School of Advanced International Studies. Before law school, he worked on the foreign desk of the New York Times and as an Assistant to the President of Dartmouth College. Mr. Rockwell received his JD from New York University.

Mark Rotenberg, JD, MA, MPhil, has served as the University of Minnesota's General Counsel since 1992. Previously he was a partner at Dorsey & Whitney, specializing in employment litigation and labor law. He served in the U.S. Department of Justice's Office of Legal Counsel, which provides legal counsel to the President, White House staff, and heads of the Executive Departments. Mr. Rotenberg also served as a law clerk to the Honorable Patricia M. Wald, U.S. Court of Appeals, District of Columbia Circuit. He earned his BA, magna cum laude, from Brandeis University, and his MA, MPhil, and JD degrees from Columbia University, where he also served as an Editor of the Columbia Law Review. He is a member of the American Law Institute (ALI), and is an Adjunct Professor in both the Law School and the College of Liberal Arts at the University of Minnesota.

Ann L. Russell, JD, MSW, is a lawyer with 25 years of experience in advising health care entities. Now retired, she was most recently an Associate Counsel for Catholic Health Initiatives, a national nonprofit organization with over 78 hospitals, clinics, and skilled nursing facilities. She has also represented the University of Minnesota Hospital and Clinic and Hennepin County's Medical Center and Community Health Department. She is currently a member of the Ethics Committees of the University of Minnesota Medical Center, Fairview, and Hennepin County Medical Center, and serves on the Ethics Advisory Committee to the Archbishop of St. Paul, MN. She served for 10 years on the Advisory Board to the University of Minnesota Center for Bioethics. Ms. Russell teaches biomedical ethics at William Mitchell College of Law. Prior to practicing law, Ms. Russell was a psychiatric social worker in Hennepin County's Mental Health Center.

**Paul Savereide, JD, PhD**, earned his JD and PhD in Cell and Developmental Biology from the University of Minnesota. Dr. Savereide is Of Counsel with Viksnins, Harris & Padys PLLP and was recently a Senior Associate at Patterson, Thuente, Skaar, and Christensen, a Minneapolis law firm specializing in intellectual property law. Previously, he was a Senior Intellectual Property Attorney at Cargill, Inc. and Corporate Patent Counsel for Chiron Corporation in Emeryville, CA. He also worked as an Associate with the Minneapolis office of the Dorsey & Whitney law firm. He is a member of the Minnesota Bar and is registered to practice before the U.S. Patent and Trademark Office as a Patent Attorney.

**Debra A. Shetka, JD**, is Of Counsel to Fish & Richardson. She is a frequent speaker on biotechnology patent issues and has lectured on patent interference law at Stanford University, Santa Clara University School of Law, and the University of Washington. Ms. Shetka received her law degree at the University of Minnesota where she was Editor-in-Chief of the *Journal of Law & Inequality*. After law school, she clerked for the Honorable Daniel M. Friedman, U.S. Court of Appeals for the Federal Circuit.

Byron E. Starns, JD, is a shareholder and partner at the firm of Leonard, Street and Deinard, practicing in the areas of environmental and public law, energy, and regulated industries. He chaired the firm's Litigation Division from 2002-08. Mr. Starns served as Minnesota Chief Deputy Attorney General (1974-79) and Deputy Attorney General for the Minnesota Pollution Control Agency (1973-74). He is admitted to practice in the State of Minnesota, the State of Illinois, before the U.S. District Court for the District of Minnesota, before the Eighth Circuit Court of Appeals, and before the U.S. Supreme Court. He earned his JD at the University of Chicago and his BA at Duke University.

Martin Stillman, JD, MD, practices internal medicine at Hennepin County Medical Center and is Assistant Professor of Medicine at the University of Minnesota Medical School. He is both a Fellow and elected Board Member of the American College of Legal Medicine and is currently serving a second term as President of the Minnesota Medical Alumni Society. Dr. Stillman graduated from the University of Minnesota Law School in 1993 and the University of Minnesota Medical School in 1997. He completed his training in internal medicine at Hennepin County Medical Center in 2000 and then served one year as Chief Resident. During his residency, he was recognized as an outstanding teacher, winning a Minnesota Medical Foundation Distinguished Teaching Award.

Margo S. Struthers, JD, Oppenheimer Wolff & Donnelly LLP, is Chair of the firm's Health Law Practice Group. She represents a variety of health care clients, including hospitals and other health care providers, provider associations, managed care and other insurance companies, and medical manufacturers. In addition to being an active member and past-Chair of the Minnesota State Bar Association Health Law Section, she is a member of the American Health Lawyers Association and is a past-President of the Minnesota chapter of the former American Academy of Healthcare Attorneys. Ms. Struthers has also written and lectured extensively on a variety of health care, third-party payment, tax exemption, and other nonprofit organization issues. She is currently an Adjunct Professor at the University of Minnesota Law School teaching a seminar on Health Care Fraud and Abuse. She received her JD at the University of Minnesota.

**Robert L. Thompson, JD, LLM**, joined Lindquist & Vennum in 2006 and focuses his practice on corporate and business law, mergers and acquisitions, and antitrust law, with particular emphasis on the life sciences industries. Mr. Thompson chairs Lindquist & Vennum's life sciences group and serves on the Board of Directors of LifeScience Alley. He earned an LLM at New York University School of Law and received his JD from the University of Oregon School of Law.

**Judith Walker, JD**, is Vice President of Regulatory Affairs and Chief Compliance and Ethics Officer for Blue Cross and Blue Shield of Minnesota. Ms. Walker is accountable for providing leadership on regulatory compliance issues and for maintaining the company's compliance and ethics program. Ms. Walker serves on the Advisory Board of the Health Law Institute of Hamline University School of Law. She has participated in the mentoring programs of the University of St. Thomas Law School and the University of Minnesota School of Public Health. Ms. Walker received her undergraduate degree from St. Mary's University in Winona, MN and her law degree from Hamline University School of Law.

For more information on our distinguished
Joint Degree Program Advisory Board, visit
www.jointdegree.umn.edu/people/adv\_bd.



Paul Savereide, JD, PhD



Byron E. Starns, JD



Martin Stillman, JD, MD



Margo S. Struthers, JD



Robert L. Thompson, JD, LLM



Judith Walker, JD



# 2009-10 Events & Co-Sponsored Activities

The University of Minnesota's Consortium on Law and Values in Health, Environment & the Life Sciences and the Joint Degree Program in Law, Health & the Life Sciences sponsor numerous events each year to create a community of interdisciplinary thinkers on law and science. We welcome students, faculty, legislators, policymakers, attorneys, researchers, healthcare professionals, and community members. For video of past events, visit www.lifesci.consortium.umn.edu.

Profs. Gloria Petersen, PhD (Mayo Clinic College of Medicine); Alexander Capron, LLB (USC Gould School of Law); and Brian Van Ness, PhD (University of Minnesota) at the 2009-10 Lecture Series on Law, Health & the Life Sciences.





Prof. Andrea Braverman, PhD (University of Medicine and Dentistry of New Jersey), speaks at the 2009-10 Lecture Series on Law, Health & the Life Sciences.

# Annual Conference



Prof. Susan M. Wolf, JD (University of Minnesota), introduces Prof. Andrew Maynard, PhD (University of Michigan), at the 2010 Annual Conference on "Governing Nanobiotechnology: Reinventing Oversight in the 21st Century."

Prof. Gurumurthy Ramachandran, PhD (University of Minnesota), at the 2010 Annual Conference on "Governing Nanobiotechnology: Reinventing Oversight in the 21st Century."

On April 15, 2010 the University of Minnesota's Consortium on Law and Values in Health, Environment & the Life Sciences held an Annual Conference on "Governing Nanobiotechnolgy: Reinventing Oversight in the 21st Century." This conference was part of our National Science Foundation (NSF) grant on "NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context."

The NIRT project has assessed 5 historical oversight models: for drugs, devices, gene transfer, genetically engineered organisms in the food supply, and chemicals in the workplace using a comparative approach, in order to develop recommendations for future nanobiotechnology oversight. The conference assembled a multidisciplinary group of thinkers and policymakers with strengths in nanotechnology research and development, public policy, law, health, environment, economics, and bioethics to debate project findings and recommendations.

The conference included sessions that provided background information in nanobiotechnology and existing oversight systems. The project investigators presented their recommendations and an expert panel provided input before the discussion was opened to the public audience. Break-out sessions focused on nanoethics, risk assessment, public engagement, and legal and regulatory approaches.

The conference opened with an introductory address by Vice President for Research R. Timothy Mulcahy, PhD (University of Minnesota). The first presentation was on "**The Science of Nanobiotechnology & Oversight Challenges.**" presented by Prof. Mauro Ferrari, PhD (Professor and Director, Division of Nanomedicine, Department of Biomedical Engineering, University of Texas).

"Oversight Developments & Proposals" was presented by Prof. Andrew Maynard, PhD (University of Michigan).

Project investigators then presented the "Consensus Recommendations from Project" which was moderated by Adjunct Assoc. Prof. Ubaka Ogbogu, LLD, LLM (Consortium on Law and Values and Joint Degree Program, University of Minnesota). Panelists were Profs. Jordan Paradise, JD (Seton Hall Law School); Jennifer Kuzma, PhD (Humphrey Institute of Public Affairs, University of Minnesota); PhD (Chemistry and Materials Sciences, University of Minnesota); Gurumurthy Ramachandran, PhD (School of Public Health, University of Minnesota); and Susan M. Wolf, JD (Consortium on Law and Values and Joint Degree Program, University of Minnesota).

An invited panel of experts then provided their reaction to the consensus recommendations. The panel included John Howard, MD, MPH, JD, LLM (National Institute for Occupational Safety & Health); Carlos L. Peña, PhD, MS (U.S. Food and Drug Administration); Jeff Morris, PhD (U.S. Environmental Protection Agency); Terry L. Medley, JD (DuPont Environment and Sustainable Growth Center); Steve Suppan, PhD (Institute for Agriculture and Trade Policy (IATP); and Prof. Gary Marchant, JD, MPP, PhD (Arizona State University).



Vice President for Research R. Timothy Mulcahy, PhD (University of Minnesota), provides opening remarks at the conference on "Governing Nanobiotechnology."



Prof. Jennifer Kuzma, PhD (University of Minnesota), presents at the conference on "Governing Nanobiotechnology: Reinventing Oversight in the 21st Century."

The afternoon sessions of the conference included 5 concurrent workshops, with each workshop moderated by a project investigator:

"Session A: Public Engagement" was moderated by Prof. Jennifer Kuzma, PhD (University of Minnesota), and included panelists Prof. Michael Cobb, PhD (North Carolina State University); Maria C. Powell, PhD (Madison Environmental Justice Organization); and David Chittenden, MS (Science Museum of Minnesota).

"Session B: Nanoethics: Bioethics for Emerging Technologies" was moderated by Prof. Susan M. Wolf, JD (University of Minnesota), and included panelists Profs. George Khushf, PhD (University of South Carolina); Jeffrey Kahn, PhD, MPH (University of Minnesota); and Susan Foote, JD (University of Minnesota emerita).



Prof. Mauro Ferrari, PhD (University of Texas) presents at the conference on "Governing Nanobiotechnology: Reinventing Oversight in the 21st Century."

"Session C: Creative Legal & Regulatory Approaches" was moderated by Prof. Jordan Paradise, JD (Seton Hall Law School); and included panelists George Kimbrell, JD (The International Center for Technology Assessment and The Center for Food Safety); Profs. Brad Karkkainen, JD (University of Minnesota); and Kristen Nelson, PhD (University of Minnesota).

"Session D: How Can Oversight Advance Science and Industry?" was moderated by Prof. Efrosini Kokkoli, PhD (University of Minnesota), and included panelists Robbin Johnson (Cargill Foundation); Profs. Christy Haynes, PhD (University of Minnesota); and David Pui, PhD (University of Minnesota).

"Session E: Challenges in Risk Assessment" was moderated by Prof. Gurumurthy Ramachandran, PhD (University of Minnesota), and included panelists Robert Hoerr, MD, PhD (Nanocopoeia, Inc.); Profs. Ralph Hall, JD (University of Minnesota); and Milind Kandlikar, PhD (University of British Colombia).

The final session was "Reports from the Concurrent Workshops."

Project Investigators then discussed the next steps in the project. This session was moderated by Prof. Jennifer Kuzma, PhD (University of Minnesota); and included Profs. Susan M. Wolf, JD (University of

Minnesota); Jordan Paradise, JD (Seton Hall Law School); Efrosini Kokkoli, PhD (University of Minnesota); and Gurumurthy Ramachandran, PhD (University of Minnesota).

This event provided 7.25 hours of continuing legal education credit (CLE) for attorneys. This conference can be viewed at www.lifesci.consortium.umn. edu/conferences/2010 challenge.

In 2011 the Consortium will host twogrant related conferences:





Watch our website for details: www.lifesci.consortium.umn.edu.



Life Sciences.

# Lecture Series on Law, Health & the Life Sciences



The Lecture Series has sponsored 3 lectures per year since 2000. Each lecture brings to campus an eminent scholar examining the societal implications of the life sciences, features faculty and others providing interdisciplinary commentary, and is followed by an invitational lunch discussion involving selected faculty members, community members, and government leaders as well as Joint Degree Program students and fellows. The 2009-10 Lecture Series focused on "How the Internet and Computer Capacity Are Changing Policy Issues & Solutions in Biomedicine."

#### Wednesday, October 28, 2009

Prof. Kenneth Goodman, PhD (University of Miami), spoke on "Computers, Patients, and the Health of Populations: Next Steps in Ethics and Informatics." Prof. Julie Jacko, PhD (University of Minnesota) and Prof. Joe Konstan, PhD (University of Minnesota), provided commentary.



Prof. Kenneth W. Goodman, PhD

Prof. Kenneth W. Goodman, PhD, is co-director of the University of Miami's Ethics Programs, including its Business Ethics Program, and founder and director of the Bioethics Program and its Pan American Bioethics Initiative. These initiatives are devoted to education, research, and community service. He directs the Ethics

Programs' World Health Organization Collaborating Center in Ethics and Global Health Policy. Dr. Goodman is a Professor in the University of Miami's Department of Medicine with appointments in the Department of Philosophy, School of Nursing and Health Studies, Department of Epidemiology and Public Health, and Department of Anesthesiology.

#### Wednesday, November 18, 2009

Prof. Andrea Braverman, PhD (University of Medicine and Dentistry of New Jersey and Reproductive Medicine Associates of New Jersey), presented "How the Internet Is Reshaping Assisted Reproduction: From Donor Offspring Registries to Direct-to-Consumer Genetic Testing." Commentary was provided by Prof. Mark Damario, MD (University of Minnesota) and Prof. Michele B. Goodwin, JD, LLM (University of Minnesota).



Prof. Andrea M. Braverman, PhD

Prof. Andrea M. Braverman, PhD, is Clinical Assistant Professor, Department of Obstetrics and Gynecology, Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey. Braverman is the Director of Psychological and Complementary Services at Reproductive Medicine Associates of New

Jersey. Braverman received both Master's and Doctorate degrees in Psychology at the University of Pennsylvania in addition to earning her Master's in English Literature, and completed an internship in Clinical Psychology at the Hospital of the University of Pennsylvania. She is a licensed psychologist, practicing in Pennsylvania. Her article on this topic appeared in Volume 10, Issue 2 of the *Minnesota Journal of Law, Science & Technology*.

#### Thursday, February 18, 2010

Prof. Alexander Capron, LLB, (University of Southern California, Gould School of Law), lectured on "Cutting-Edge Issues in the Structure & Governance of U.S. and International Biobanks." Commentary was provided by Prof. Brian Van Ness, PhD (University of Minnesota) and Prof. Gloria Peterson, PhD (Mayo Clinic College of Medicine).



Prof. Alexander Capron, LLB

Prof. Alexander Capron, LLB, Professor and Scott H. Bice Chair in Healthcare Law; Policy and Ethics; President of the Faculty; Professor of Law and Medicine, Keck School of Medicine; and Co-Director, Pacific Center for Health Policy and Ethics, University of Southern California, is a globally-recognized expert in health

policy and medical ethics. He teaches Torts and Law, Science, and Medicine. He also teaches at the USC School of Medicine and is Co-Director of the Pacific Center for Health Policy and Ethics, a campus- wide interdisciplinary research and education center. He returned to USC Law in Fall 2006 after four years on leave as Director of Ethics, Trade, Human Rights and Health Law at the World Health Organization in Geneva. Professor Capron received a BA from Swarthmore College and an LLB from Yale University, where he was an editor of the *Yale Law Journal*. He was appointed by President Bill Clinton to the National Bioethics Advisory Commission, where he served for five years; is a Trustee of The Century Foundation and President of the International Association of Bioethics; and is a Member of the Institute of Medicine.

The 2010-11 Lecture Series on Law, Health & the Life Sciences will focus on "From Climate Change to the Gulf Oil Spill: Law and Science in Times of Crisis." All lectures begin at 11:30 a.m. and conclude at 1:00 p.m. These events are free and open to the public. The Lecture Series will apply for 1.5 credits of Continuing Legal Education (CLE) credits for each lecture.

Videos from all of our lectures are available at www.lifesci.consortium.umn.edu/video.

# Deinard Memorial Lecture Series on Law & Medicine

The Joint Degree Program and the Center for Bioethics launched the Deinard Memorial Lecture Series on Law & Medicine in the Spring of 2004. This annual lecture series is supported by generous donations from the family of Amos S. Deinard, Sr. (1898-1985) and the law firm of Leonard, Street and Deinard in honor of Amos Deinard, Sr. and his brother, Benedict S. Deinard (1899-1969). The Deinard brothers were founding partners of the Minneapolis-based law firm of Leonard, Street and Deinard. Both attended the University of Minnesota



Law School and Harvard Law School. Amos Deinard was a distinguished attorney widely known for his persistent work to eliminate discrimination in hiring. Appointed to the Minneapolis Fair Employment Practices Commission in 1945 by Mayor Hubert H. Humphrey, he served on the Commission for 17 years, 15 of them as chairman. Benedict Deinard was a successful trial lawyer, an Adjunct Professor of Law at the University of Minnesota, a Deputy Attorney General in the U.S. Department of Justice during World War II, and one of 4 civilians asked to participate in the Nuremberg war crimes trials.

**Prof. Dorothy Roberts, JD** (Northwestern University), presented the 2009-10 Deinard Memorial Lecture on "What's Wrong with Race-Based Medicine?" on Wednesday,

February 3, 2010. Commentary was provided by **Prof. Jay Cohn, MD** (University of Minnesota) and **Prof. Joycelyn Doerscher, MD** (University of Minnesota, Duluth).

Professor Roberts discussed how the FDA's approval of Bidil as the first race-specific drug has generated a heated debate about the science and politics of race-based medicine. She placed this debate in the context of health disparities and concepts of race and explained why marketing pharmaceuticals on the basis of race could worsen racial inequities. Recognizing that race-based medicine raises both medical and political questions, Roberts rejected the claim that we must put aside social justice concerns in the name of minority health. Roberts also appeared on Mid-Morning with Kerri Miller, on Minnesota Public Radio. To listen to this interview, visit www.lifesci.consortium.umn.edu/conferences/dorothy\_roberts\_2010.

**Prof. Dorothy Roberts, JD** is the Kirkland & Ellis Professor; Professor, Department of African-American Studies and Sociology; and Faculty Fellow, Institute for Policy Research, Northwestern University Law School. She has written and lectured extensively on the interplay of gender, race, and class in legal issues concerning reproduction, bioethics, and child welfare.

Roberts is the author of *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (Pantheon, 1997), which received a 1998 Myers Center Award for the Study of Human Rights in North America, and *Shattered Bonds: The Color of Child Welfare* (Basic Books, 2002), which received research awards from the Institute on Domestic Violence in the African American Community and the American Professional Society on the Abuse of Children. She is also the co-author of casebooks on constitutional law and women and the law and has published more than 60 articles and essays in books and scholarly journals, including the *Harvard Law Review, Yale Law Journal, Stanford Law Review*, and *Social Text*.

The Deinard Memorial Lecture provided 1.5 credits of continuing legal education (CLE) and 1.5 AMA PRA Category 1 Credit(s) (CME) for physicians and health care providers. Further information and video of all the Deinard Memorial Lectures is available on our website at www.lifesci.consortium.umn.edu/conferences/dorothy\_roberts\_2010.

The 2010-11 Deinard Memorial Lecture in Law & Medicine will feature Prof. R. Alta Charo, JD (University of Wisconsin Law School and U.S. Food and Drug Administration).

R. Alta Charo, JD, is the Warren P. Knowles Professor of Law and Bioethics, University of Wisconsin Law School and School of Medicine & Public Health. She is also Senior Advisor, Office of the Commissioner, U.S. Food and Drug Administration. The Deinard Memorial Lecture on Law & Medicine will be presented Wednesday, February 2, 2011. Watch our website for details. www.lifesci.consortium.umn.edu.



Prof. Jay Cohn, MD (University of Minnesota), provides commentary at the 2009-10 Deinard Memorial Lecture on Law & Medicine.



Prof. Joycelyn Dorscher, MD (University of Minnesota, Duluth), provides commentary at the 2009-10 Deinard Memorial Lecture on Law & Medicine.



Left: Amos S. Deinard Sr. (1898-1985).
Right: Benedict S. Deinard (1899-1969).

### **Recent Publications**

In 2009-10, the Consortium published a wide range of articles and symposia including those resulting from work on our grants.

"NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context"

A project symposium on "**Developing Oversight Approaches to Nanobiotechnology: The Lessons of History**" in the *Journal of Law, Medicine & Ethics* (Winter 2009). Symposium guest editors are Susan M. Wolf, JD; Gurumurthy Ramachandran, PhD; Jennifer Kuzma, PhD; and Jordan Paradise, JD.

#### Introduction

Paradise J, Wolf SM, Kuzma J, Ramachandran G, Kokkoli
E. Symposium Introduction: The Challenge of Developing
Oversight Approaches to Nanobiotechnology. *Journal of Law, Medicine & Ethics.* 2009;37(4):543-545.

#### I. Case Studies of Oversight Systems

- Kuzma J, Najmaie P, Larson J. Evaluating Oversight Systems for Emerging Technologies: A Case Study of Genetically Engineered Organisms. *Journal of Law, Medicine & Ethics*. 2009;37(4): 546-586.
- Johnson R. Commentary: Emerging Technologies Oversight: Research, Regulation and Commercialization. *Journal of Law, Medicine & Ethics.* 2009;37(4): 587-593.
- Hurley T. Commentary: Using Expert Elicitation to Evaluate Oversight of Genetically Engineered Organisms: Is It Possible to Determine the Extent to Which Informational Asymmetries and Prejudice Bias Responses? *Journal of Law, Medicine & Ethics*. 2009;37(4): 594-597.
- Paradise J, Tisdale AW, Hall R, Kokkoli E. Evaluating Oversight of Human Drugs and Medical Devices: A Case Study of the FDA and Implications for Nanobiotechnology. *Journal of Law, Medicine* & Ethics. 2009;37(4): 598-624.
- Frankel MS. Commentary: Public Outreach by the FDA. *Journal of Law, Medicine & Ethics*. 2009;37(4): 625-628.
- Foote SB. Commentary on Evaluating Oversight of Human Drugs and Medical Devices. *Journal of Law, Medicine & Ethics*. 2009;37(4): 629-632.
- Choi JY, Ramachandran G. Review of the OSHA Framework for Oversight of Occupational Environments. *Journal of Law, Medicine* & Ethics. 2009;37(4): 633-650.
- Maynard AD. Commentary: Oversight of Engineered Nanomaterials in the Workplace. *Journal of Law, Medicine & Ethics*. 2009;37(4): 651-658.
- Wolf SM, Gupta R, Kohlhepp P. Gene Therapy Oversight: Lessons for Nanobiotechnology. *Journal of Law, Medicine & Ethics*. 2009;37(4): 659-684.

 Kahn JP. Commentary: Who's Afraid of the RAC? Lessons from the Oversight of Controversial Science. Journal of Law, Medicine & Ethics. 2009;37(4): 685-687.

#### II. Comparing Across Case Studies

 Paradise J, Wolf SM, Kuzma J, Kuzhabekova A, Tisdale AW, Kokkoli E. Developing U.S. Oversight Strategies for Nanobiotechnology: Learning from Past Oversight Experiences. *Journal of Law, Medicine & Ethics*. 2009;37(4): 688-705.

#### **III. Cross-Cutting Ideas**

- Kimbrell G. Governance of Nanobiotechnology and Nanomaterials: Principles, Regulation, and Renegotiating the Social Contract. *Journal of Law, Medicine & Ethics*. 2009;37(4): 706-723.
- Marchant G. What Does the History of Technology Regulation Teach Us About Nano Oversight? *Journal of Law, Medicine & Ethics*. 2009;37(4): 724-731.
- Nelson KC, Andow DA, Banker MJ. Problem Formulation and Option Assessment (PFOA) Linking Governance and Environmental Risk Assessment for Technologies: A Methodology for Problem Analysis of Nanotechnologies and Genetically Engineered Organisms. *Journal of Law, Medicine & Ethics*. 2009;37(4): 732-748.
- Hogle L. Science, Ethics and the "Problems" of Governing Nanotechnologies. *Journal of Law, Medicine & Ethics*. 2009;37(4): 749-758.
- Priest SH. Risk Communication for Nanobiotechnology: To Whom, About What, and Why? *Journal of Law, Medicine & Ethics*. 2009;37(4):759-769.
- Fauss E, Gorman ME, Swami N. Using Expert Elicitation to Prioritize Resource Allocation for Risk Identification for Nanosilver. *Journal of Law, Medicine & Ethics*. 2009;37(4): 770-780.
- Liao N. Combining Instrumental and Contextual Approaches: Nanotechnology and Sustainable Development. *Journal of Law, Medicine & Ethics*. 2009;37(4): 781-790.

A project symposium on "Governing Nanobiotechnology: Reinventing Oversight in the 21st Century" is forthcoming in the *Journal of Nanoparticle Research* (Winter 2011). Symposium guest editors include Susan M. Wolf, JD; Gurumurthy Ramachandran, PhD; Jennifer Kuzma, PhD; and Leili Fatehi, JD.

"Managing Incidental Findings and Research Results in Genomic Biobanks & Archives"

#### Works in Progress:

 Fabsitz RR,..., Wolf SM et al. Ethical and Practical Guidelines for Reporting Genetic Research Results to Study Participants: Updated Guidelines from an NHLBI Working Group (in prep).

- Wolf SM. Incidental Findings in Neuroscience Research: A Fundamental Challenge to the Structure of Bioethics and Health Law, in Oxford Handbook of Neuroethics (Judy Illes & Barbara Sahakian, eds., forthcoming).
- Orme NM, Fletcher JG, Siddiki HA, Harmsen WS, O'Byrne MM, Port JD, Tremaine WJ, Pitot HC, McFarland B, Robinson ME, Koenig BA, King BF, Wolf SM. Incidental Findings in Imaging Research: Evaluating Incidence, Benefit and Burden. Archives of Internal Medicine. 2010. (In press).
- Wolf SM, Joly Y, Kato K, Kaye J, Kohane I. Returning Research Results to Participants in Large-Scale Genomic Studies [Published Abstract] Biology of Genomes, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, May 13, 2010.

#### THE JOURNAL OF LAW, MEDICINE & ETHICS

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SYMPOSIUM

#### Comparative Health Law and Policy: What, If Anything, Can We Learn from Other Countries?

GUEST EDITED BY DIANE E. HOFFMANN

Why Patients Sue Doctors: The Japanese Experience Eric A. Feldman

Between Public Op-Policy: Human Embryonic Stena-Research and Path-Dependency Stephen R. Latham

Realization of the International Human Right to Health in an onomically Integrated North America Eleanor D. Kinney

#### Developing Oversight Approaches to Nanobiotechnology: The Lessons of

GUEST EDITED BY SUSAN M. WOLF, GURUMURTHY RAMACHANDRAN, JENNIFER KUZMA, AND JORDAN PARADISE

- 543 Introduction: The Challenge of Developing Oversigh Approaches to Nanobiotechnology Jordan Puradise, Susan M. Wolf, Jennifer Kuzma, Gurumurthy Ramachandran, and Efrosini Kokkoli
- Evaluating Oversight Systems for Emerging Technologies: A Case Study of Genetically Eng celnologies: A Case Study of Genetically Engine organisms Jennifer Kuzma, Pouya Najmaie, and
- 587 Commentary: Emerging Technologies Oversight: Research, Regulation, and Commercialization Robbin Johnson
- Commentary: Is It Possible to Determine the Extent to Which Informational Asymmetries and Prejudice Bias Responses? Terrance Hurley
- Evaluating Oversight of Human Drugs and Medical Devices: A Case Study of the FDA and Implications for Nanohiotechnology Jordan Paradise, Alison W. Tisdale, Ralph Hall, and Efrosini Kokkoli
- Commentary: Public Outreach by the FDA Mark S. Frankel
- 629 Commentary: Evaluating Oversight of Human Drugs and Medical Devices Susan Bartlett Foote
- Review of the OSHA Framework for Oversight of Occupational Environments Jae-Young Chai and Gurumurthy Ramachandran
- 651 Commentary: Oversight of Engineers the Workplace Andrew D. Maynard
- Gene Therapy Oversight: Lessons for Nanobiotechnology Susan M. Wolf, Rishi Gupta, and Peter Kohlhepp
- 685 Commentary: Who's Afraid of the RAC? Lessons from the Oversight of Controversial Science Jeffrey P. Kalın

Plus more inside.

The Consortium and Joint Degree Program also publish a range of program materials each year including a periodic electronic update, this report, program catalogs and brochures, and a variety of conference and promotional materials. For more information, visit www.lifesci.consortium.umn.edu/publications/program pubs.

#### Minnesota Journal of Law, Science & Technology

In 2009-10, the Minnesota Journal of Law, Science & Technology celebrated its 5th year as a cutting-edge multidisciplinary journal. MJLST published Volume 11 with articles, essays, recent developments, a symposium, and student notes, including:

#### **VOLUME 11, ISSUE 1:**

#### Introduction

• "Introduction: MJLST at 5 Years, the Consortium at 10," by Susan M. Wolf

- "Why Neuroscience Matters for Rational Drug Policy," by Jyotpal Singh, Mark A. Correro & David M. Eagleman
- "Blaming the Brain," by Steven K. Erickson
- "Imaging Genetics for Our Neurogentic Future," by Daniel Z. Buchman & Judy Illes

#### **Biology & Genetics**

- "Advancing Research on Stored Biological Materials: Reconciling Law, Ethics, and Practice," by Leslie E. Wolf
- "Gene Concepts, Gene Talk, and Gene Patents," by Andrew W. Torrance

#### **Health Care & Pharmaceuticals**

- "Health Care Reform and the Logic of Emergence," by Sujata M. Jhaveri & M. Gregg Bloche
- "Open Source Drug Development: A Path to More Accessible Drugs and Diagnostics?," by Emily Marden

#### **Information Technology**

- "Why the Fair Use Defense of Free Speech or Parody Under the Anticybersquatting Consumer Protection Act Needs Judicial Review by the United States Supreme Court," by Monique Bradley Lampke
- "Sea Change or Status Quo: Has the Rule 37(e) Safe Harbor Advanced Best Practices for Records Management?," by Philip J. Favro

#### **Regulatory Frontiers**

"Integrating Social and Ethical Concerns Into Regulatory Decision-Making for Emerging Technologies," by Gary Marchant, Megan Scanlon & Ann Meyer

"A Burkean Perspective on Patent Eligibility, Part II: Reflections on the (Counter) Revolution in Patent Law," by Thomas F. Cotter

#### **Recent Developments**

"The O'Neill Institute for National and Global Health Law: Discovering Innovative Solutions for the Most Pressing Health Problems Facing the Nation and the World," by Susan C. Kim, Oscar A. Cabrera & Lawrence O. Gostin

#### **VOLUME 11, ISSUE 2:**

#### **ARTICLES**

- "How the Internet is Reshaping Assisted Reproduction: From Donor Offspring Registries to Direct-to-Consumer Genetic Testing," by Andrea Braverman
- "Bridging the Accountability Gap: Rights for New Entities in the Information Society?," by Bert-Jaap Koops, David-Olivier Jaquet-Chiffelle & Mireille Hildebrandt

#### **Symposium**

- "Introduction Rising Stars: Recognizing Important New Voices in Law, Medicine, Science & Technology," by Michele B. Goodwin
- "Corporate Cyborgs and Technology Risks," by Andrea M. Matwyshyn
- "Global Legal Triage in Response to the 2009 H1N1 Outbreak," by James G.
- "Synthesizing Law for Synthetic Biology," by Andrew W. Torrance
- "'Knowing Where You Come From': The Rights of Donor-Conceived Individuals and the Meaning of Genetic Relatedness," by Vardit Ravitsky
- "Marking the Fine Line: Ethics and the Regulation of Innovative Technologies in Human Reproduction," by Anne Drapkin Lyerly
- "Why Not Take All of Me? Reflections on The Immortal Life of Henrietta Lacks and the Status of Participants in Research Using Human Specimens," by Gail Javitt

- "Maintaining Incentives for Healthcare Innovation: A Response to the FTC's Report on Follow-On Biologics," by Christopher M. Holman
- "Solving the Procedural Quagmire for Testing Reverse Payment Settlements," by Richard McMillan, Jr., Mary Bram & M. Brinkley Tappan 41

# Giving

Especially in these difficult economic times, we are ever more dependent on gifts from our friends and alumni. Private contributions are critical to ensure that the Consortium stays at the leading-edge of research and training, and to expand the Joint Degree Program's ability to recruit the best and brightest students to Minnesota.

Currently, the Joint Degree Program offers 23 degree combinations and boasts 34 gifted students for 2010-11. The Consortium has expanded to 19 member centers, including the Center for Bioethics, Stem Cell Institute, Biomedical Genomics Center, Institute on the Environment, and Center for Infectious Disease Research & Policy. We have received grants from the National Institutes of Health (NIH), the National Science Foundation (NSF), and private foundations including The

JDP Advisory Board Member and donor, Margo Struthers, JD.

Greenwall Foundation. We continue to publish groundbreaking research findings and recommendations. The *Minnesota Journal of Law, Science & Technology* continues to rise in the rankings as we publish top scholars writing on law, science, and technology. We have awarded nearly \$1 million in intramural grants to promote interdisciplinary research.

We are grateful for the leadership and targeted financial support from the University of Minnesota's President Robert H. Bruininks and Senior Vice President for Academic Affairs and Provost E. Thomas Sullivan. Especially in these times of financial stringency, we depend on private gifts so that we may continue to grow our extraordinary programs.

The Consortium and Joint Degree Program's continued success and future strength depend on increased private investment. Gifts allow us to continue to expand our unique programming and promote groundbreaking research and original scholarship in law and the life sciences.

Thanks in part to private gifts, the University of Minnesota has become the leading institution pioneering interdisciplinary training and research on the societal implications of the life sciences. We invite you to participate in this effort.

In 2009-10 we received gifts for the *Minnesota Journal of Law, Science & Technology*, the Wolf Scholarship Fund, the JDP Student Scholarship Fund, and a Consortium Fund for Conferences and Lectures. We are grateful to JDP Advisory Board members Ruth Mickelsen, JD, MPH, MA; Winthrop Rockwell, JD; Margo Struthers, JD; and JDP Alumnus Robert Goetz, JD, MS, for their generous gifts to the JDP Student Scholarship Fund.

For more information, visit <a href="http://www.lifesci.consortium.umn.edu/giving.">http://www.lifesci.consortium.umn.edu/giving.</a>



# Support & Acknowledgements







#### **Grants**

# "Nanodiagnostics and Nanotherapeutics: Building Research Ethics & Oversight"

Sponsor: National Institutes of Health (NIH)/National Human

Genome Research Institute (NHGRI) (2009-11)

Award #1RC1HG005338-01

Principal Investigator: Prof. Susan M. Wolf, JD

Co-Investigators: Profs. Jeffrey McCullough, MD; Ralph Hall, JD;

and Jeffrey Kahn, PhD, MPH

www.nih.gov

#### "Managing Incidental Findings and Research Results in Genomic Biobanks & Archives"

Sponsor: National Institutes of Health (NIH) / National Human

Genome Research Institute (NHGRI) (2009-11)

Award #2R01HG003178-03

Principal Investigator: Prof. Susan M. Wolf, JD

Co-Investigators: Profs. Jeffrey Kahn, PhD, MPH; Frances Lawrenz,

PhD; and Brian Van Ness, PhD

www.nih.gov

#### "NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context"

Sponsor: National Science Foundation (NSF) (2006-10)

Award #SES 0608791

Principal Investigator: Susan M. Wolf, JD

Co-Principal Investigators: Efronsini Kokkoli, PhD; Jennifer Kuzma, PhD; Jordan Paradise, JD; and Gurumurthy Ramachandran, PhD

www.nsf.gov

#### "Cutting-Edge Policy Issues in Reprogenomics: Revamping the Law, Ethics & Policy Governing Genomic Biobanks and Assisted Reproductive Technology"

Sponsor: Robina LaPPS Research Funding (2009-11)

Principal Investigator: Susan M. Wolf, JD

www.law.umn.edu/news/robina-grant-12-16-2008.html

#### "How Should Neuroscience Change Law? Lessons from the Impact of Genetics and Emerging Convergence of Genomics and Neuroscience"

Sponsor: Sub-award from the University of California, Santa Barbara (MacArthur Foundation, Law and Neuroscience Project) (2008-09) Principal Investigator: Susan M. Wolf, JD

www.macfound.org

The *Minnesota Journal of Law, Science & Technology* also thanks donors for their contributions. Donors are listed in each issue and on page 12 of this publication. For more information, visit www.mjlst.umn.edu.

#### 2009-10

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- President Robert H. Bruininks
- Senior Vice President for Academic Affairs and Provost E. Thomas Sullivan
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- Professor Amos Deinard, Jr., Miriam Kelen, and the law firm of Leonard, Street and Deinard for the Deinard Memorial Lecture Series on Law & Medicine
- The law firm of Fredrikson & Byron for the Harold M. Fredrikson Memorial Scholarship
- The Minnesota Intellectual Property Law Association (MIPLA) for a MIPLA Scholarship for 2009-10
- JDP Alumnus Robert Goetz, JD, MS, for his contribution to the Joint Degree Program Scholarship Fund
- Joint Degree Program Advisory Board Member Ruth Mickelsen, JD, MPH, MA, for her contribution to the Joint Degree Program Scholarship Fund
- Joint Degree Program Advisory Board Member Winthrop Rockwell, JD (Faegre & Benson), for his gift to the Joint Degree Program Scholarship Fund
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- Professor Susan M. Wolf, JD, for creating the Wolf Scholarship for Joint Degree Program students

For more information on support and giving, visit **www.lifesci.consortium.umn.edu.** 

# Staff



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SUE MINOR Information Technology Professional

CAROL RACHAC
Associate Program Director
Communic

MONICA WITTSTOCK Communications Specialist

The Joint Degree Program and Consortium share staff and offices. Our staff members include:

**Audrey Boyle** is the Project Manager for the Joint Degree Program and Consortium. She is responsible for managing all of the Consortium's and Joint Degree Program's federal and foundation grants and research projects, administering the Consortium's intramural grants, and assisting with the programs' daily financial management, annual budgeting, and events. Audrey's previous work experience has primarily been in health care administration including 13 years in the Hennepin Care System. She attended Western Michigan University and the University of Arizona.

**Carrie Coslin, MPP**, is the Student Support & Grant Specialist. Prior to joining the Consortium and JDP, Carrie worked as a Principal Office and Executive Specialist for the University of Minnesota's Institute on Community Integration. Carrie holds a BA in Global Studies and an MPP from the Humphrey Institute at the University of Minnesota.

**Leili Fatehi, JD**, is now Associate Director of Research & Education for the Consortium on Law and Values and Joint Degree Program. She is also an Adjunct Professor of Law at the University of Minnesota Law School and Faculty Editor-in-Chief for the *Minnesota Journal of Law, Science & Technology*. She received her JD from the University of Minnesota in 2010 and her BS from Cornell University in 2005. While in law school, Ms. Fatehi was Editor-in-Chief of the *Minnesota Journal of Law, Science & Technology* and served as a Research Assistant to Prof. Susan Wolf on the NSF-funded Nanostructure Interdisciplinary Research Team (NIRT) project on "Evaluating Oversight Models for Active Nanostructures and Nanosystems" and the NIH-funded project on "Nanodiagnostics and Nanotherapeutics: Building Research Ethics and Oversight."

**David Hanbury, MFA**, joined the Consortium and Joint Degree Program as a temporary staff member in February 2009 and as the Program Assistant in June 2009. Prior to coming to the Consortium David worked as an Executive Assistant with Amerprise Financial and American Express. He holds a BA from the University of Massachusetts, and an MFA from Brown University.

Sue Minor is the Consortium's Information Technological Professional. She began working with the Consortium in August 2007. Sue is also a sign language interpreter and holds a degree in Anthropology from New Mexico State University. Sue's primary duties are to update and support the websites for the Consortium, Joint Degree Program, and the Minnesota Journal of Law, Science & Technology.

Carol Rachac, MA, is the Associate Program Director for the Consortium and the Joint Degree Program. She has worked in academic administration at the University of Minnesota since 1988, including 8 years in the Department of Sociology and 10 years in the Carlson School of Management. Carol serves on the Disabilities Issues Senate Sub-committee and has been active with various task teams and process improvement initiatives. She earned a BA in Political Science and an MA in Higher Education Administration from the University of Minnesota. Her duties include management and administration, coordination of admissions, student advising, development, and grants management.

**Monica Wittstock** is the Program Associate and Communications Specialist for the Consortium and Joint Degree Program and the Executive Administrator of the *Minnesota Journal of Law, Science & Technology*. Her duties include managing print publications and communications, e-communications, production of the *Minnesota Journal of Law, Science & Technology*, and work on the websites for the Consortium, Joint Degree Program and the *Minnesota Journal of Law, Science & Technology*.

The Joint Degree Program and Consortium are indebted to the following Research Assistants in 2009-10: Leili Fatehi (Law), Cortney Jones (Law), Christian Krautkramer (Law), Pari McGarraugh (Law), Michael Schubert (Law), Eva Stensvad (Law), and Amber Thomas (Law).

# Looking Forward to 2010-11



In 2010-11 we will host two national conferences in addition to the Lecture Series on Law, Health & the Life Sciences and the Deinard Memorial Lecture on Law & Medicine. These events bring top experts in law and the life sciences to the University of Minnesota campus. In addition to our events, we will continue to publish original research, with a forthcoming symposium in the *Journal of Nanoparticle Research*. The *Minnesota Journal of Law, Science & Technology* will publish Volume 12, and we will again offer Consortium intramural grants.



PROF. DANIEL FARBER, JD University of California, Berkeley School of Law



PROF. R. ALTA CHARO, JD
University of Wisconsin and
U.S. Food and Drug Administration



PROF. DANIEL BODANSKY, JD Sandra Day O'Connor College of Law, Arizona State University

#### **Upcoming Events: 2010-11**

#### 2010-11 Lectures and Conferences:

#### Lecture Series on Law, Health & the Life Sciences

The Consortium and Joint Degree Program will present 2 lectures in this series in 2010-11 on "From Climate Change to the Gulf Oil Spill: Law and Science in Times of Crisis."

Prof. Daniel Farber, JD (University of California, Berkeley School of Law)
"Blue Bayou: The BP Deepwater Horizon Blowout and the Social and
Environmental Erosion of the Louisiana Coast"

Date: Thursday, October 7, 2010 Time: 11:30am-1:00pm

Location: Cowles Auditorium, Hubert H. Humphrey Institute of Public Affairs

Prof. Daniel Bodansky, JD (Arizona State University School of Law) "The International Climate Change Negotiations:

The Road from Copenhagen"

Date: Wednesday, November 17, 2010

Time: 11:30am-1:00pm

Location: Mississippi Room, Coffman Memorial Union

Watch our website for details. www.lifesci.consortium.umn.edu/lectures

#### Deinard Memorial Lecture on Law & Medicine

Prof. R. Alta Charo (University of Wisconsin and U.S. Food and Drug Administration)

"New Technologies and Old Statutes: Challenges for 21st Century Food and Medical Product Regulation"

Date: Wednesday, February 2, 2011

Time: 11:30am-1:00pm

Location: Mississippi Room, Coffman Memorial Union

Watch our website for details:

www.lifesci.consortium.umn.edu/conferences/

#### **Conferences**

"Nanodiagnostics and Nanotherapeutics: Building Research Ethics & Oversight"

Date: April 28, 2011 Time: 8:30am-5:00pm

Location: Cowles Auditorium, Hubert H. Humphrey Institute

"Managing Incidental Findings and Research Results in Genomic Biobanks & Archives"

Date: Thursday, May 19, 2011 Time: 8:30am-5:00pm Location: Washington, DC

Watch our website for details: www.lifesci.consortium.umn.edu/conferences

#### **Forthcoming Publications**

December 2010

Symposium to be published in the *Journal of Nanoparticle Research* (forthcoming 2011) on "Developing Oversight Approaches to Nanobiotechnology: The Lessons of History." Guest Editors: Susan M. Wolf, JD; Efrosini Kokkoli, PhD; Jennifer Kuzma, PhD; and Gurumurthy Ramachandran, PhD.

#### Minnesota Journal of Law, Science & Technology

MJLST, Volume 12, issue 1 will publish articles from:

Prof. Dorothy Roberts, JD (Northwestern University), on "What's Wrong With Race-Based Medicine?"

Jorge L. Contreras (Washington University in St. Louis), on "Bermuda's Legacy: Policy, Timing and the Genome Commons"

For more information on *MJLST*, visit www.mjlst.umn.edu.

#### **Consortium Intramural Grants**

The Consortium is pleased to issue a Request for Proposal (RFP) for competitive intramural grants in November 2010, with awards announced February and March 2011.

More information is available on our website www.lifesci.consortium.umn.edu/rfps/rfp2009-10.

