

Annual Report
2005–2006

UNIVERSITY OF MINNESOTA

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

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



Highlights from 2005–2006

- Progress on NIH-funded project on research ethics
- Proposal on nanotechnology funded by NSF
- Law School ranked in top 10 in Healthcare Law by *U.S. News & World Report*
- 11 new JDP enrollees for a total of 31 students
- First JD/MD students starting
- 5 new JDP graduates
- New Concentration in Health Law & Bioethics
- New gifts for Deinand Memorial Lecture Series on Law & Medicine
- 2006 Deinand Memorial Lecture on science in the courtroom
- Lecture Series on the implications of neuroscience
- Lunch Series on energy and the environment
- Conference on terrorist threats to the food supply
- Symposium on risks posed by new biomedical technologies
- MJLST volume 7 published
- 12 intramural grants awarded
- First Consortium Visiting Professor named
- 2 new Advisory Board members
- Provost Sullivan named leader of Consortium Presidential Initiative
- New Project Manager appointed

2005–2006 Events

Tuesday, October 18, 2005

Lunch Series on the Societal Implications
of the Life Sciences

Prof. Daniel Kammen
(University of California, Berkeley)
“Changing Energy Policy to Benefit
the Environment and Human Health”

Wednesday, November 2, 2005

Lecture Series on Law, Health
& the Life Sciences

Prof. Michael Gazzaniga
(Dartmouth College)
“The Ethical Brain”

Commentators: Profs. Lawrence Charnas,
Carl Elliott (University of Minnesota)

Thursday, November 10, 2005

Lunch Series on the Societal Implications
of the Life Sciences

**Donald Brown, Esq. (Pennsylvania
Consortium for Interdisciplinary
Environmental Policy)**
“An Ethical Framework for Analyzing
Global Warming”

Wednesday, December 7, 2005

Lecture Series on Law, Health
& the Life Sciences

Prof. Owen Jones
(Vanderbilt University)
“The Implications of Behavioral Biology
for Law: Evolutionary Perspectives”

Commentators: Profs. David Stephens,
Susan Wolf (University of Minnesota)

Tuesday, January 31, 2006

Deinard Memorial Lecture
on Law & Medicine

Prof. David Kaye
(Arizona State University)
“The Science of Human Identification:
From the Laboratory to the Courtroom”

Commentators: Prof. Barbara Koenig
(Mayo College of Medicine),
Prof. William Iacono
(University of Minnesota)

Tuesday, February 7, 2006

Lunch Series on the Societal Implications
of the Life Sciences

Prof. Richard Howarth
(Dartmouth College)
“Climate Change and Intergenerational
Fairness: Reconciling Ethics
and Economics”

Wednesday, March 1, 2006

Lecture Series on Law, Health
& the Life Sciences

Prof. Martha Farah
(University of Pennsylvania)
“Developmental Neuroethics:
Neuroscience, Childhood and Society”

Commentators: Donald Brunquell
(Children’s Hospitals and Clinics
of Minneapolis/St. Paul),
Prof. Dana Johnson
(University of Minnesota)

Tuesday, April 11, 2006

Lunch Series on the Societal Implications
of the Life Sciences

Richard Sandor
(Chicago Climate Exchange)
“The Convergence of Environmental
and Capital Markets”

Friday, April 21, 2006

Annual Conference

**“Terrorist Threats to Our Food Supply:
Food Protection and Defense —
Science, Ethics & Law”**

Friday, May 19, 2006

Annual Symposium

**“The Risks Posed by New Biomedical
Technologies: How Do We Analyze,
Communicate & Regulate Risk?”**

Annual Report 2005 – 2006

Joint Degree Program in Law, Health & the Life Sciences
Consortium on Law and Values in Health, Environment & the Life Sciences

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*Audience at Prof. Daniel Kammen's
Lunch Series presentation.*



*Dr. Phil Noguchi, Amgen, Inc. speaking
at the symposium on "Risks Posed by
Biomedical Technologies."*

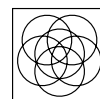


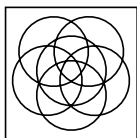
*Joint Degree Program students
in the Proseminar class.*

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*Consortium on Law and Values in Health, Environment
& the Life Sciences and Joint Degree Program in Law,
Health & the Life Sciences, University of Minnesota.*

Photography by Tim Rummelhoff and Mike Habermann.





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

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

Letter From The Director 2005–06

Dear Colleagues:



*Prof. Susan Wolf,
Director and Chair.*


The Consortium and Joint Degree Program had a spectacular year in 2005–06. Our first proposal to the National Science Foundation was funded; we began work on “NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context” in September 2006. We completed the first year of work on our grant project funded by the National Institutes of Health on “Managing Incidental Findings in Human Subjects Research.” We feel gratified that our work is now funded by both NIH and NSF. We also joined with the Center for Bioethics and the Mayo College of Medicine to successfully seek funding from the Greenwall Foundation to host a 2007 Oscar M. Reubhausen Visiting Professor. Two new generous gifts from Prof. Amos S. Deinard, Jr. and Miriam Kelen, as well as the law firm of Leonard, Street and Deinard allowed us to offer the Deinard Memorial Lecture again in 2006 and will allow us to offer the lecture annually in the future. We are pleased that the Consortium remains a Presidential Interdisciplinary Academic Initiative and delighted that Senior Vice President and Provost E. Thomas Sullivan is now leading this Initiative. Funding from the Initiative has been critical in growing our programs, allowing us to launch the *Minnesota Journal of Law, Science & Technology (MJLST)*, offer 10 events per year including 2 conferences, and award intramural grants totaling nearly \$100,000. *The Journal of Law, Medicine & Ethics* published a symposium from our 2005 conference on “Proposals for the Responsible Use of Racial & Ethnic Categories in Biomedical Research.” *Nature Genetics* carried a report of that same conference. *MJLST* ran articles from our symposia on “Environmental Threats to Children’s Health” and “Where Are Law, Ethics & the Life Sciences Headed?” We placed 2 other symposia slated for publication in 2006–07: “The Risks Posed by New Biomedical Technologies: How Do We Analyze, Communicate & Regulate Risk?” and “Terrorist Threats to Our Food Supply: Food Protection and Defense—Science, Ethics & Law,” both in *MJLST*.

The Joint Degree Program had its most successful year to date. *U.S. News & World Report* ranked the University of Minnesota Law School in the top 10 healthcare law programs in the nation. We welcomed 6 new students in Fall 2005 and saw 5 students graduate. Applications for Fall 2006 were again of exceptional quality and we successfully recruited 100% of the students who were admitted to both the Law School and one of our partner programs. We welcomed 11 new students in Fall 2006 for a total of 31, including our first 2 JD/MD students. Our unique program is offering the best multidisciplinary training in the country for students who want to lead on cutting-edge issues in law, medicine, and science.

Our programming was again first-rate. In 2005–06 speakers in our Lecture Series on Law, Health & the Life Sciences focused on the implications of neuroscience. Our Lunch Series on the Societal Implications of the Life Sciences tackled “Energy and the Environment: Science, Ethics & Policy.” We offered the national conference mentioned above on “Terrorist Threats to Our Food Supply.” Our annual symposium was a full-day event on “The Risks Posed by New Biomedical Technologies.”

In 2006–07 we will present 10 events: 3 presentations in the Lecture Series on nutrigenomics, nutraceuticals, and direct-to-consumer marketing of genomic nutritional profiling; 4 presentations in the Lunch Series on “Science and Politics: Controversies in Regulation and National Security;” a conference on “Creating Stem Cells by Research Cloning: Scientific, Ethical, Legal & Policy Challenges;” a symposium presenting findings from our project on “Managing Incidental Findings in Human Subjects Research;” and the Deinard Memorial Lecture on Law & Medicine. We will also welcome our inaugural Consortium Visiting Professor, Thomas Greaney (St. Louis University), a national authority on health law and antitrust.

The Consortium and Joint Degree Program are now clearly recognized as leading national programs. Thanks to Presidential Initiative funding, we have moved to a new level of productivity, tackling what remain the most challenging issues of our time, those issues at the intersection of law, ethics, policy, and the life sciences.


Susan M. Wolf

McKnight Presidential Professor of Law, Medicine & Public Policy
Faegre & Benson Professor of Law, Professor of Medicine
Director, Joint Degree Program in Law, Health & the Life Sciences
Chair, Consortium on Law and Values in Health, Environment & the Life Sciences



Update on the Consortium and Joint Degree Program

Update on the Consortium on Law and Values

In 2005–06 the Consortium on Law and Values in Health, Environment & the Life Sciences received NIH funding for our project on “Managing Incidental Findings in Human Subjects Research;” work began in September 2005. We submitted our first applications to the National Science Foundation (NSF) and the Minnesota Partnership for Biotechnology and Medical Genomics. This was our second year of Presidential Initiative funding. We were delighted that Senior Vice President and Provost E. Thomas Sullivan was named the leader of the Consortium’s Presidential Initiative. Through its Request for Proposals (RFP) process, the Consortium awarded 2 faculty grants, 5 student grants, and 3 grants to centers. With funds from the Presidential Initiative, the Consortium issued an RFP to Consortium members and JDP partner programs resulting in two awards. The Consortium thus awarded a total \$99,819 in **RFP funding** for 2005–06. We hired a new Project Manager, **Audrey Boyle**. The Joint Degree Program and Consortium together sponsored 10 events: 4 lectures in the Lunch Series on the Societal Implication of the Life Science focusing on energy and the environment; 3 lectures in the Lecture Series on Law, Health & the Life Sciences focusing on implication in neurosciences; the Deindard Memorial Lecture on Law & Medicine; a national conference on **“Terrorist Threats to Our Food Supply: Food Protection and Defense — Science, Ethics & Law;”** and a symposium on **“The Risks Posed by New Biomedical Technologies: How Do We Analyze, Communicate & Regulate Risk?”** The Consortium also oversaw the publication of volume 7 of the *Minnesota Journal of Law, Science & Technology* and named the first **Visiting Consortium Professor**, Prof. Thomas L. Greaney of St. Louis University, who will visit in Fall 2006.

The Consortium crosses 11 colleges and administrative units plus coordinates among and builds on the strengths of 17 University centers and programs, establishing a national identity for the University of Minnesota as a leading institution working on law and values in health, environment, and the life sciences. The Consortium brings these programs together to address interdisciplinary questions that are difficult for any one program to tackle alone. The 17 constituent programs are:

- **Joint Degree Program in Law, Health & the Life Sciences** led by Profs. Susan Wolf (law, medicine, bioethics) and Colin Campbell (pharmacology);
- **Center for Bioethics** led by Prof. Jeffrey Kahn (medicine, philosophy, public health);
- **Biomedical Genomics Center** led by Prof. Vivek Kapur (veterinary pathobiology, microbiology);
- **Center for Microbial and Plant Genomics** led by Prof. Ronald Phillips in 2005–06 (agronomy and plant genetics);
- **Stem Cell Institute** led by Prof. Catherine Verfaillie in 2005–06 and represented by Prof. Dan Kaufman (medicine);
- **Institute of Human Genetics** led by Profs. Harry Orr (laboratory medicine, pathology) and Bonnie LeRoy (genetic counseling);
- **Center for Infectious Disease Research & Policy** led by Prof. Michael Osterholm (epidemiology) and Jill DeBoer;
- **Center for Animal Health & Food Safety** led by Prof. William Hueston (epidemiology, clinical and population sciences) and Shaun Kennedy;
- **National Center for Food Protection and Defense** led by Profs. Francis Busta (food science and nutrition, food microbiology) and Michael Osterholm (epidemiology) and Shaun Kennedy;
- **Center for Neurobehavioral Development** led by Prof. Michael Georgieff (pediatrics, child psychology);
- **Center for Environment and Health Policy** led by Prof. William Toscano (environmental health);



Members of the Consortium

Front row, L to R: Julie Ostrowsky, Prof. Dan Philippon, Prof. Susan Wolf, Prof. Mary Jo Kreitzer, Prof. Philip Pardey.

Back Row, L to R: Jordan Paradise, Prof. Deborah Swackhamer, Prof. Jeffrey Kahn, Prof. Gary Gardner, Prof. Frank Busta, Prof. Ronald Phillips, Shaun Kennedy, Prof. Jennifer Kuzma, Prof. Bonnie LeRoy, Dean Gail Dubrow.

Not pictured: Prof. Vivek Kapur, Prof. Will Hueston, Prof. William Toscano, Prof. Michael Osterholm, Prof. Michael Georgieff, Prof. Kenneth Keller, Prof. Catherine Verfaillie.



Consortium members meet twice per year.





Prof. Barbara Koenig, Mayo College of Medicine, commenting on the Deinard Lecture by Prof. David Kaye.

- **Center for Plants and Human Health** led by Prof. Gary Gardner (horticultural science);
- **Program in Agricultural, Food, and Environmental Ethics** led by Prof. Dan Philippon (rhetoric);
- **Center for Science, Technology, and Public Policy** led by Profs. Kenneth Keller (Humphrey Institute, chemical engineering and materials science) and Jennifer Kuzma (Humphrey Institute);
- **International Science and Technology Practice and Policy Center** led by Prof. Philip Pardey (applied economics);
- **Water Resources Center** led by Profs. James L. Anderson (soil, water, and climate) and Deborah Swackhamer (environmental health); and
- **Center for Spirituality and Healing** led by Prof. Mary Jo Kreitzer (nursing).

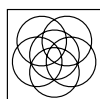
Update on the Joint Degree Program

In 2005–06, the Joint Degree Program welcomed 6 new students for a total of 26 and graduated 5 students. We added two Advisory Board members: **Donald Lewis, Esq.** (Halleland Lewis Nilan & Johnson) and **Ryan Johnson, Esq.** (Fredrikson & Byron). We continued the Deinard Memorial Lecture Series on Law & Medicine with the Center for Bioethics and were grateful to receive generous new support for the Deinard Lecture Series from **Prof. Amos S. Deinard, Jr., Miriam Kelen**, and the law firm of **Leonard, Street and Deinard**. *U.S. News & World Report* ranked the University of Minnesota Law School 10th in its national survey of health law programs. We worked with the Law School to create a new Concentration in Health Law & Bioethics for JD students. The Joint Degree Program remains unique in the nation and enables students to combine a JD with a PhD, MS, MPH, or MD in one of 13 graduate and professional programs in less time, with more academic support, and with potentially more financial support than if the students were to pursue the 2 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. The *ad hoc* option is increasingly attractive to applicants. In Fall 2006 we will have 2 students pursuing *ad hoc* options with Computer Science/Bioinformatics and Water Resources Science. 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 13 graduate and professional programs on campus and offer the following degree combinations:

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



Dr. Donald Brunnquell, Children's Hospital and Clinics, commenting on the Lecture Series presentation by Prof. Martha Farah.





Joint Degree Program in Law, Health & the Life Sciences[™]

UNIVERSITY OF MINNESOTA

Students, Recruitment, and Scholarships

The Joint Degree Program graduated 5 students in 2005–06 for a total of 10 alumni. **Jill Dabrowski** earned a JD and MPH in Public Health Administration. She is now employed at the law offices of Michelle C. Rivero, Esq. in St. Paul. **Erin Furlong** earned a JD and MPH in Public Health Administration. She is now employed as an Associate General Counsel I at Medica, Inc. in Minnetonka, MN. **Margaret Jacot** earned a JD and MS in Science, Technology, and Environmental Policy. **Rebekah Kent** earned a JD and MS in Health Services Research, Policy, and Administration. She is now a lecturer in Public Health and Social Policy at Anglia Ruskin University in Chelmsford, U.K. **Ji Eun Kim** earned a JD and MS in Pharmacology. She is now an associate at the law firm of Sterne, Kessler, Goldstein, and Fox PLLC in Washington, DC.

In 2005–06, we had **26 students** pursuing the following degree combinations:

- JD/PhD in MCDB&G (Katherine Dick, Alex Galaitsis)
- JD/MS in MCDB&G (Sharada Devarasetty, Laurel Kilgour, Stephanie Westcot)
- JD/PhD in Pharmacology (Jonathan Hareid, Lisbeth Robinson)
- JD/MS in Pharmacology (Ji Eun Kim, James Zak)
- JD/MS in Science, Technology, and Environmental Policy (Samantha Bohrman, Andrew Gibbons, Margaret Jacot, Lesli Rawles)
- JD/PhD in Conservation Biology (Collette Adkins Giese)
- JD/MPH in Public Health Administration (Kari Bomash, Jill Dabrowski, Erin Furlong, Britta Orr)
- JD/MS in Health Services Research, Policy and Administration (Kelsey Brodsho, Michelle Dawson, Rebekah Kent)
- JD/MPH in Epidemiology (Robert Berlin)
- JD/MPH in Community Health Education (K.J. Starr)
- JD/MPH in Environmental Health (Marie Quasius)
- JD/MS in Comparative Molecular Biosciences (Garret Olson)
- JD/MS in Water Resources Science (Stephanie Johnson)

Britta McNair and Marie Quasius were awarded partial **Joint Degree Program Scholarships** in Fall 2005.

Britta Orr also received the School of Public Health's annual **JD/MPH Scholarship**. Laurel Kilgour was awarded the 2005–06 **Minnesota Intellectual Property Law Association Scholarship** in the Law School.

Applications to the Joint Degree Program for Fall 2006 again showed impressive strength and geographic diversity. We received 25 applications from students with undergraduate degrees from distinguished institutions including Harvard University, University of California at Berkeley, Amherst College, Dartmouth College, Michigan State University, and University of Notre Dame.

In the Fall of 2006 we are welcoming **10 more students** pursuing the following degree combinations: JD/PhD in MCDB&G, JD/MPH in Public Health Administration (3), JD/MPH in Community Health Education (2), JD/MS in MCDB&G (2), and our first JD/MD students (2). We have worked closely with the Joint Degree Program graduate programs to recruit these impressive applicants and arrange financial support. One incoming student seeking the JD/MS in MCDB&G has been awarded a scholarship from the **Minnesota Intellectual Property Law Association**. One incoming JD/MPH student in Public Health Administration has been awarded a partial **JDP Scholarship**, a partial **Law School Scholarship**, a partial **Harold M. Fredrikson Memorial Scholarship** in the Law School, plus a research assistantship in the School of Public Health. The other incoming JD/MPH student in Public Health Administration has been awarded

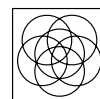


2005-06 Joint Degree Program Students

Front Row L to R: Jon Hareid, Jill Dabrowski, Lisbeth Robinson, Kari Bomash, Bekah Kent, Sharada Devarasetty, Sam Bohrman, Stephanie Johnson.

Second Row L to R: KJ Starr, Marie Quasius, Erin Furlong, Laurel Kilgour, Kelsey Brodsho, Lesli Rawles, Michelle Dawson, Ji Eun Kim.

Back Row L to R: Britta Orr, Garret Olson, Stephanie Westcot, Rob Berlin, Meg Jacot, Katie Dick, Alex Galaitsis, Andrew Gibbons.



the School of Public Health's annual **JD/MPH Scholarship**. One incoming student seeking the JD/MPH in Community Health Education has been awarded a **School of Public Health's Dean's Scholarship** as well as a partial **JDP Scholarship** in the Law School. The other JD/MPH student in Community Health Education was awarded a partial **Harold M. Fredrikson Memorial Scholarship** in the Law School. Both JD/MD students have been awarded partial **JDP Scholarships** in the Law School, partial **Law School Scholarships**, and partial **Medical School Scholarships**.

Joint Degree Program students are thus eligible for several targeted scholarships in addition to being eligible for the full range of Law School, Graduate School, School of Public Health, and Medical School scholarships and support otherwise offered. We are working to expand even further the support available to our students.

Student Honors & Achievements

Students in the Joint Degree Program continue to excel. Below is a partial list of their accomplishments in 2005–06:



Robert Berlin.

Robert Berlin, JD/MPH in Epidemiology, won 1st place in the American Bar Association's 2006 TIPS Law Student Writing Contest. The Tort Trial & Insurance Practice Section (TIPS) established the Law Student Writing Competition in 2002 to attract law students to the civil trial, tort and insurance fields, and to encourage and reward scholarship in these areas. Mr. Berlin's winning paper is titled "Epidemiology as More Than Statistics: A Revised Tool for Products Liability" and will be considered for publication in the *Tort Trial & Insurance Law Journal*. In addition, he will receive \$1,500 and round-trip airfare and hotel accommodations to attend the ABA Annual Meeting in Waikiki, Hawaii. Mr. Berlin also held a 2006 summer associate position at Hogan & Hartson in Washington, DC and served on the staff of the *Minnesota Law Review* in 2005–06. He is a Managing Editor of the journal in 2006–07.

Kari Bomash, JD/MPH in Public Health Administration worked as legal intern in Summer 2006 for the Office of Counsel to the Inspector General at the Department of Health and Human Services in Washington, DC. She served on the staff of the *Minnesota Journal of Law, Science & Technology* in 2005–06 and will be an Articles Editor for the journal in 2006–07.

Sharada Devarasetty, JD/MS in MCDB&G, was Secretary of the Student Intellectual Property Law Association (SIPLA) in 2005–06 and was elected President of SIPLA for 2006–07. In summer 2006 she was a Summer Associate at Proskauer Rose LLP in New York where she worked on patent litigation and environmental recovery cases.



Katie Dick.

Katie Dick, JD/PhD in MCDB&G, was part of the research team that discovered the gene responsible for spinocerebellar ataxia type 5 (SCA5), an incurable degenerative disease that affects the brain. This is the first neurodegenerative disease shown to be caused by mutations in β -III spectrin, a protein that plays an important role in maintaining the health of nerve cells. The finding has historical implications—the gene was identified in an 11-generation family descended from the grandparents of President Abraham Lincoln, with the president having had a 25 percent risk of inheriting the mutation. The research was published in *Nature Genetics*. Ikeda I, Dick KA, Weatherspoon, MR, Gincel D, Armbrust KR, Dalton JC, Stevanin G, Durr A, Zuhlke C, Burk K, Clark HB, Brice A, Rothsein JD, Schut LJ, Day JW, Ranum LPW. Spectrin mutations cause spinocerebellar ataxia type 5. *Nature Genetics*. 2006;38:184-90.

Jon Hareid, JD/PhD in Pharmacology, published an article on "Testing Drugs and Testing Limits: *Merck KGaA v. Integra Lifesciences I, Ltd.* and the Scope of the Hatch-Waxman Safe Harbor Provision" in Volume 7 of the *Minnesota Journal of Law Science & Technology (MJLST)*. He served on the staff of *MJLST* in 2005–06 and will be one of the journal's Articles Editors in 2006–07.



Laurel Kilgour, JD/MS in MCDB&G, was awarded a Joint Degree Program student research award as well as a Consortium grant for her project on “Public Sector Agricultural Research in Vietnam: A Model for Building Public Intellectual Property Management Capacity in Developing Countries.” The grants funded a portion of her Summer 2006 internship with the Public Intellectual Property Resource for Agriculture (PIPRA). Her work will assess the intellectual property management capacity of public agricultural research institutions in Vietnam.

Marie Quasius, JD/MPH in Environmental Health, was awarded a Joint Degree Program student research award for her project on “Water Quality Rights of the Mapuche in Southern Chile.” She spent Summer 2006 in the cities of Valdivia and Concepcion studying the complex issues concerning indigenous Chilean populations and environmental policy.

K.J. Starr, JD/MPH in Community Health Education, was one of three Law students awarded a fellowship from the Albert and Anne Mansfield Foundation for Summer 2006. The fellowship funded a 10-week internship at the Legal Aid Society of Minneapolis, where K.J. worked in the government benefits division. Mansfield Fellowships are highly competitive and were established to encourage qualified law students to consider careers in legal services.



Marie Quasius.

Graduates

We graduated 5 students in 2005–06 for a total of 10 alumni. Alumni accomplishments include:

Erin Furlong received her JD and MPH in Public Health Administration in December 2005. She held a 2005 summer internship at the American Bar Association’s Commission on Law and Aging in Washington, DC. Ms. Furlong is now employed at Medica as an Associate General Counsel I.

Glenna L. Gilbert is a August 2005 graduate of the Joint Degree Program, earning a JD and MS in Pharmacology. She is an Associate at the law firm of Schiff Hardin in Chicago. Her practice concentrates on environmental law, with a particular focus on issues related to the Clean Air Act and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Ms. Gilbert also has experience in intellectual property law, including both patent prosecution and litigation support for biotechnology and pharmaceutical industry clients.

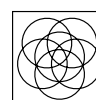
Rebekah Kent completed her JD and MS in Health Services Research, Policy & Administration in December 2005. She is now employed as Lecturer in the Department of Primary Care, Public Health & Social Policy at Anglia Ruskin University in Chelmsford, U.K.

Ji Eun Kim graduated in December 2005 with a JD and MS in Pharmacology. She is now an Associate at the law firm of Sterne, Kessler, Fox & Goldstein in Washington, D.C. Her practice areas include patents and biotechnology. She assists in the preparation and prosecution of U.S. and foreign patent applications in the areas of biotechnology, pharmacology, and cellular and molecular biology. She also prepares patentability, infringement, and invalidity opinions.

Melanie E. Kleiss graduated in 2004 with a JD and an MS in Science, Technology & Environmental Policy. She recently completed a clerkship with the Honorable David S. Doty of the United States District Court for the District of Minnesota. In Fall 2006 she will begin a one-year clerkship with the Ninth Circuit Court of Appeals in Seattle, WA. After completing these clerkships, she intends to pursue public interest environmental law.



Bekah Kent in Proseminar.



Joint Degree Program Proseminar



*Britta Orr listens to Stephanie Westcott
in Proseminar.*

The Joint Degree Program Proseminar is a 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 our Joint Degree Program addresses with faculty from the cooperating programs and beyond.

In 2005–06, the Proseminar was divided into 2 sections. The first section, required for students in the first two years of the Joint Degree Program, invited guest speakers to present to the group on the legal, ethical, and policy implications of their work, followed by discussion led by 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 the second section, 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.

In the Fall of 2005, section 1 of the Proseminar was led by Prof. Susan Wolf and Adjunct Prof. Jordan Paradise. The schedule featured:

- **Prof. Jordan Paradise** (Law School) on gene patents
- **Prof. Steve Miles** (Center for Bioethics) on physicians and torture at Abu Ghraib
- **Prof. Jay Cohn** (Medical School) on pharmacogenomics and the use of racial categories
- **Martha Brand, Esq.** (Minnesota Center for Environmental Advocacy) on legal and ethical challenges in regulating toxins
- **Prof. Ken Keller** (Center for Science, Technology, and Public Policy) on nanotechnology
- **Prof. Apostolos Georgopoulos** (Neuroscience) on social implications of neuroscience
- **Prof. Doris Taylor** (Biomedical Engineering Institute and Stem Cell Institute) on science and politics of developing cardiovascular therapies using stem cells
- **Prof. William Payne** (Medical School) on controversies in organ transplantation
- **Susan Stokes, Esq.** (Farmers' Legal Action Group) on agriculture and farm law
- **Prof. Dorothy Hatsukami** (Psychiatry) on tobacco and addiction policy

Section 2 was led by Prof. Colin Campbell, Associate Director of the Joint Degree Program. Student presenters discussed topics such as issues in end-of-life decision-making, challenges posed by incidental findings in human subjects research, and conscientious objection refusals by pharmacists to fill prescriptions for emergency contraception.



*Kari Bomash makes
a point in Proseminar.*



*Joint Degree Program student
Erin Furlong leads discussion
in the Proseminar.*



Joint Degree Program Faculty + Governing Committee

The Joint Degree Program is run 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, JD, is the McKnight Presidential Professor Law, Medicine & Public Policy; Faegre & Benson Professor of Law; and Professor of Law and Medicine at the University of Minnesota Law School. She is also a Professor of Medicine in the University's Medical School and a Faculty Member in the University's Center for Bioethics. She teaches in the areas of health law, law and science, and bioethics. She is founding Director of the University's Joint Degree Program in Law, Health & the Life Sciences and founding Chair of the Consortium on Law and Values in Health, Environment & the Life Sciences. She is also Faculty Chair of the Law School's Concentration in Health Law & Bioethics and Executive Editor of the *Minnesota Journal of Law, Science & Technology*. She received her AB *summa cum laude* from Princeton University in 1975 and her JD from Yale Law School in 1980, with graduate work at Harvard University.

After clerking for a federal judge and practicing law for several years, in 1984 she became a National Endowment for the Humanities Fellow and then Associate for Law at The Hastings Center, a nonprofit research institute now in Garrison, NY, specializing in bioethics. She also taught law and medicine at New York University Law School for 6 years as an Adjunct Associate Professor. She was a Fellow in the Program in Ethics and the Professions at Harvard University in 1992–93, before joining the Minnesota faculty in the Fall of 1993.

Prof. Wolf's research has most recently been funded by the National Human Genome Research Institute at the National Institutes of Health. She is the author or coauthor of numerous articles and book chapters that have appeared in the *New England Journal of Medicine*, *Journal of the American Medical Association (JAMA)*, *Science*, *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 editor of *Feminism & Bioethics: Beyond Reproduction* (Oxford University Press, 1996) and directed the Hastings Center project that produced *Guidelines on the Termination of Life-Sustaining Treatment and the Care of the Dying* (Indiana University Press, 1987). She has served on advisory bodies for the American Bar Association (ABA), American Medical Association (AMA), and the American Society for Reproductive Medicine (ASRM), among others. She is a Fellow of The Hastings Center, a past member of the Board of Directors of the American Society for Bioethics and 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, assisted reproduction, death and dying, women's health care, managed care, and other topics in health law, law and science, and bioethics. Prof. Wolf's bibliography may be found at www.law.umn.edu/FacultyProfiles/WolfS.htm.

Colin R. Campbell, PhD, is Associate Professor and Director of Graduate Studies in the Department of Pharmacology at the University of Minnesota Medical School and Associate Director of the Joint Degree Program. Prof. Campbell is also co-Director of the University of Minnesota's Life Sciences Summer Undergraduate Research Program.

Prof. Campbell received his BS in Biology from Fairfield University in Connecticut in 1981, and his PhD in Biochemistry from Boston University in 1987. He pursued post-doctoral studies in molecular genetics at the University of Illinois at Chicago and the Albert Einstein College of Medicine in New York, where he was also appointed an Instructor of Molecular Genetics. Prof. Campbell joined the University of Minnesota Pharmacology faculty as an Assistant Professor in 1992, and was promoted to his current rank in 1998.

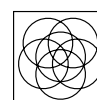
Prof. Campbell's laboratory focuses on the relationship between nuclear and mitochondrial DNA instability and human pathologies including cancer and aging. Their research has been published in *the Journal of Biological Chemistry*, *Molecular and Cellular Biology*, *Nucleic Acids Research*, and other journals, and has been presented at a numerous national and international scientific meetings. Prof. Campbell's research has most recently been funded by the National Institutes of Health, the American Heart Association, and the American Cancer Society. More information on his research and publications may be found at www.pharmacology.med.umn.edu/staffcampbell.html.



Prof. Susan Wolf introducing the Lecture Series presentation by Prof. Martha Farah.



Prof. Colin Campbell, Associate Director, Joint Degree Program.





Prof. Jim Chen,
Director of Special Projects.

Jim Chen, JD, is an Associate Dean and the James L. Krusemark Professor of Law at the University of Minnesota Law School. He also serves as the Director of Special Projects for the Joint Degree Program and Consortium and is a member of the graduate faculty of the University of Minnesota's Conservation Biology Program. Prof. Chen is an editor of *Constitutional Commentary*, the University of Minnesota's faculty-edited journal on constitutional law, and the founding Faculty Editor-in-Chief of the *Minnesota Journal of Law, Science & Technology*. In 1998, he was designated a Vance K. Opperman Research Scholar. He was appointed the Julius E. Davis Professor of Law in 2000 and the James L. Krusemark Professor of Law in 2001. He has served as an Associate Dean since 2004.

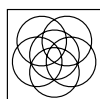
A member of the Law School faculty since 1993, Prof. Chen teaches and writes in the areas of administrative law, agricultural law, constitutional law, economic regulation, environmental law, natural resources law, criminal law, food and drug law, industrial policy, and legislation. A prolific scholar, he has written several dozen scholarly articles. Prof. Chen's bibliography may be found at <www.law.umn.edu/FacultyProfiles/ChenJ.htm>. He has lectured on agricultural subjects for the University of Minnesota's Center for International Food and Agricultural Policy, the University of Arkansas, the Université de Nantes, the American Agricultural Law Association, the Union Mondiale des Agraristes Universitaires, and the Comité Européen de Droit Rural. In 1995, he held a *chaire départementale* at the Faculté de Droit et des Sciences Politiques of the Université de Nantes. In 1999, he became the first American to teach law as a visiting professor at Heinrich-Heine-Universität in Düsseldorf. He taught in 2000 at Slovenská Pol'nohospodárska Univerzita v Nitre (the Slovak Agricultural University in Nitra).

Prof. Chen received his BA degree *summa cum laude* and his MA degree from Emory University. After studying as a Fulbright Scholar at the University of Iceland, he earned his JD degree *magna cum laude* from Harvard Law School, where he served as an Executive Editor of the *Harvard Law Review*. He clerked for Judge J. Michael Luttig of the U.S. Court of Appeals for the Fourth Circuit and for Justice Clarence Thomas of the U.S. Supreme Court.

Jordan Paradise, JD, is the Associate Director of Research & Education for the Consortium and Joint Degree Program. She is also an Adjunct Associate Professor in the Law School, a Research Associate in the Center for Bioethics, and the Faculty Managing Editor for the *Minnesota Journal of Law, Science & Technology*. Ms. Paradise received a JD and Intellectual Property Law Certificate from Chicago-Kent College of Law in 2003. Prior to joining the Consortium and JDP in June 2005, she was a Legal Fellow with the Institute for Science, Law and Technology at the Illinois Institute of Technology in Chicago. She earned her BS in Biological Psychology & Cognitive Science from the University of Michigan. Ms. Paradise's current research focuses on the legal and policy implications of emerging technologies such as genetics, stem cell research, and nanotechnology. Her recent publications include: "Decoding the Research Exemption" (*Nature Reviews Genetics*, 2006, co-authored with Christopher Janson); "Patents on Human Genes: An Analysis of Scope and Claims" (*Science*, 2005, co-authored with Lori Andrews and Timothy Holbrook); and "Gene Patents: The Need for Bioethics Scrutiny and Legal Change" (*Yale Journal of Health Policy, Law & Ethics*, 2005, co-authored with Lori Andrews).



Jordan Paradise, the Consortium's
Associate Director of Research
& Education, moderating the
May 19 symposium.



Governing Committee

Robert Berlin was elected the Fall 2005 student representative to the Governing Committee. He joined the Joint Degree Program in 2003 and is pursuing a JD and MPH in Epidemiology. He graduated with a BA in Anthropology from the University of Oregon. Prior to attending the University of Minnesota, he worked at Antigenics, Inc. in Massachusetts as the leader of the company's Tuberculosis Vaccine Project. He held a 2005 summer fellowship with the Committee on Science, Technology and Law, which is part of the Global Affairs Division of the National Academy of Sciences. He served on the staff of the *Minnesota Law Review* in 2005–06 and is a Student Managing Editor of that journal in 2006–07. In Summer 2006, he served as a Summer Associate for the law firm of Hogan & Hartson in Washington, DC, focusing his work on FDA law, and won first place in the American Bar Association's 2006 TIPS Law Student Writing Contest. He intends to pursue a career working with products spanning food, FDA, and device law. Mr. Berlin was awarded a 3-year partial Law School Scholarship to help defray Law School tuition. He will graduate in May 2007.

Kenneth N. Brooks, PhD, is Professor in the Department of Forest Resources and Director of Graduate Studies in Natural Resources Science and Management. His teaching and research focus on forest hydrology, wetland and riparian hydrology, agroforestry, and watershed management. He is also Co-Director of the Center for Integrated Natural Resources and Agricultural Management at the University of Minnesota. He is a recipient of the University of Minnesota Distinguished Teaching Award for Graduate-Professional Teaching (2000–01). He received his doctorate from the University of Arizona.

Francesca J. Cuthbert, PhD, was a Professor and Director of Graduate Studies in the Department of Fisheries, Wildlife, and Conservation Biology in 2005–06. Her research interests include conservation and biology of birds focusing on colonial waterbirds and shorebirds and recovery of endangered populations using an ecosystem perspective. She received her doctorate at the University of Minnesota.

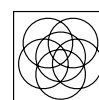
Sharada Devarasetty was elected the Spring 2006 student representative to the Governing Committee. She joined the Joint Degree Program in 2004 and is pursuing a JD and MS in Molecular, Cellular, Developmental Biology & Genetics. She received bachelor's degrees in Biology and Chemistry from Cornell University. Prior to attending the University of Minnesota, she worked as a paralegal at Varum, Riddering, Schmidt, and Howlett in Grand Rapids, MI. She studied international intellectual property law in Munich, Germany in Summer 2005. In Summer 2006 she was a Summer Associate at the law firm of Proskauer Rose in New York. She is interested in a career in bioethics, science policy, and intellectual property law, specializing in biotechnology and molecular biology. Ms. Devarasetty was awarded a partial Joint Degree Program Scholarship for her Law School tuition and a 2004–05 scholarship from the Minnesota Intellectual Property Law Association (MIPLA).

Bryan E. Dowd, PhD, is Professor and Director of Graduate Studies in the Division of Health Services Research & Policy in the School of Public Health. His primary research interests are markets for health insurance and health care services and the evaluation of non-experimental data. Recently he has directed studies of biased selection, health plan choice, and employers' health insurance purchasing strategies. He received his PhD in Public Policy Analysis from the University of Pennsylvania.

Judith McKinnon Garrard, PhD, is the Senior Associate Dean of Academic Affairs and Research at the School of Public Health. She is an experienced health services researcher with publications about prescription drug use by elderly people in the community, nursing homes, and assisted living facilities. Her research specialty is pharmacoepidemiology and patient outcomes. She teaches graduate courses in research methods, program evaluation, and epidemiological applications to health services research. She received the Leonard M. Schuman Excellence in Teaching Award in 1989 and in 1991, a Career Research Award in social and behavioral geriatrics from the National Institute on Aging, NIH. She received her PhD from the University of Minnesota.



*Audience at the conference on
"Terrorist Threats to Our Food Supply."*





Prof. Michael Osterholm, Director of the Center for Infectious Disease Research & Policy, speaking at the conference on "Terrorist Threats to Our Food Supply."



Assistant Dean Erin Keyes, Law School, talks with Joint Degree Program student Britta Orr at the Advisory Board reception.

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.

Maria Hanratty, PhD, is Associate Professor and Director of Graduate Studies in Hubert H. Humphrey Institute of Public Affairs. She specializes in health economics, the economics of poverty, and comparative social welfare institutions. She received her doctorate in economics from Harvard University and a master of public policy from Harvard University's John F. Kennedy School of Government.

Sarah H. Hobbie, PhD, is Associate Professor and Director of Graduate Admissions in Ecology, Evolution, and Behavior. Her research interests include ecosystem ecology, carbon and nutrient cycling, decomposition, species effect on ecosystem processes, and plant-soil interactions. She received her doctorate at the University of California, Berkeley.

Helene Horwitz, PhD, is the Associate Dean for Student Affairs in the Medical School. Dean Horwitz oversees student services, student counseling including academic and career counseling, the residency application process, coordination of dual and joint degree programs, and related matters. She worked as an academic advisor and career counselor for several years before completing her PhD in Higher Education, with an emphasis on Academic Administration and Planning, at Southern Illinois University. Dean Horwitz has served as chair of the Central Region Group on Student Affairs of the Association of American Medical Colleges (AAMC) and as a member of the national Committee on Student Affairs of the AAMC.

Jeffrey P. Kahn, PhD, MPH, holds the Maas Family Chair in Bioethics and is Director of the University of Minnesota's Center for Bioethics. He is also Professor in the Medical School's Department of Medicine and holds graduate faculty appointments in the School of Public Health and Department of Philosophy. Prof. Kahn works in a variety of areas of bioethics including research ethics, ethics and genetics, ethics and organ transplantation, and ethical issues in public health. In addition to numerous scholarly publications, he wrote the bi-weekly column "Ethics Matters" on CNN.com from 1998–2002. During 1994–95, he was Associate Director of the White House Advisory Committee on Human Radiation Experiments and continues to serve on numerous state and federal advisory panels. He earned his MPH at Johns Hopkins University and PhD in philosophy and bioethics at Georgetown University.

Kenneth H. Keller, PhD, is the Charles M. Denny, Jr. Professor of Science, Technology, and Public Policy in the Hubert H. Humphrey Institute of Public Affairs, where he directs the Center for Science, Technology, and Public Policy. He also holds an appointment in the Department of Chemical Engineering and Materials Science. His current research examines the intersection of science and technology with international affairs. His recent writings have dealt with information technology and national sovereignty, the environment, the globalization of research and development, and policy issues in high-technology medicine. He has spent most of his career at the University of Minnesota where he joined the faculty in 1964, became Vice President for Academic Affairs in 1980, and University President in 1985. From 1990 to 1996, he was Senior Fellow for science and technology at the Council on Foreign Relations and, for 2 of those years, the Council's Senior Vice President for Programs. He earned a master's degree and doctorate in Chemical Engineering from Johns Hopkins University.

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.

Meredith M. McQuaid, JD, is Associate Dean of Administration and Director of International and Graduate Programs at the University of Minnesota Law School. She is primarily responsible for policy implementation and day-to-day operations. Additionally, she administers and supervises the LLM program for foreign lawyers and oversees exchange programs for Law School students. Dean McQuaid teaches Introduction to American Law and the LLM legal writing course. She currently serves on the University of Minnesota China Advisory Board. She is Chair of the ABA Section of Graduate Programs for Foreign Lawyers for 2005. She received JD *cum laude* from the University of Minnesota.

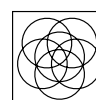
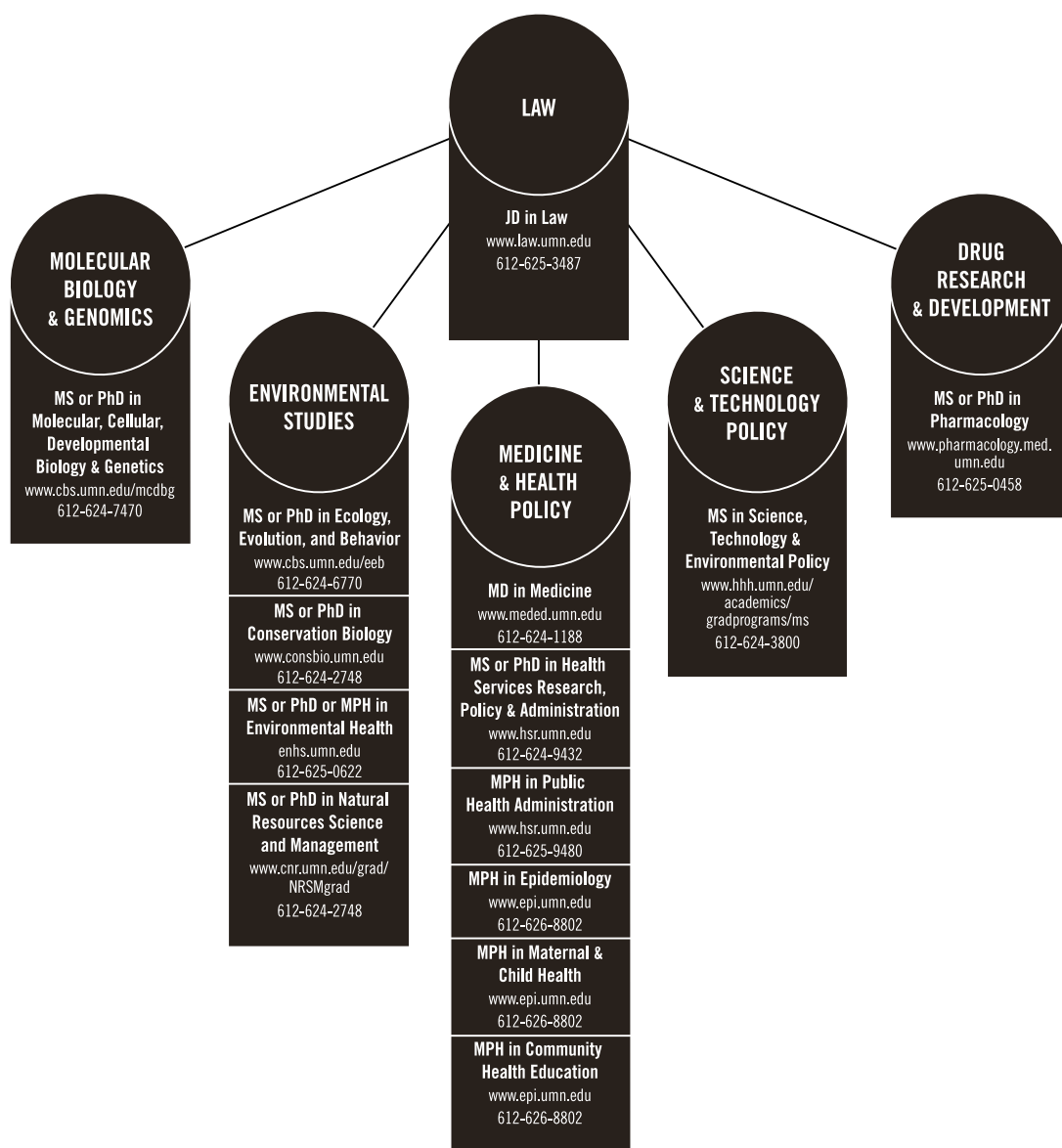


Thomas Neufeld, PhD, is Associate Professor in the Department of Genetics, Cell Biology and Development and Co-Director of Graduate Studies in Molecular, Cellular, Developmental Biology and Genetics. His research focuses on the basic mechanisms of cell growth control using the fruit fly *Drosophila* as a model system to investigate signaling pathways and cellular functions that regulate growth. He received his doctorate from the University of California, Berkeley.

Jocelyn Shaw, PhD, is Associate Professor and Co-Director of Graduate Studies in Genetics, Cell Biology, and Development. Her current research examines the role gap junctional communication plays in animal embryogenesis. She received her doctorate from the University of Toronto.

Elizabeth V. Wattenberg, PhD, is Associate Professor and Director of Graduate Studies in the Division of Environmental Health Sciences 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. Understanding this may help predict how environmental chemicals affect carcinogenesis and lead to methods for preventing and treating cancer. 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.

Structure of the Joint Degree Program.



Faculty Roster

Beyond the core group of faculty members directly involved in Joint Degree Program governance, a larger roster of faculty members is available to work with our students:

Law

Befort, Stephen F.
Bix, Brian H.
Burk, Dan L.
Byrn, Mary Pat
Carpenter II, Dale A.
Charles, Guy-Uriel E.
Chen, Jim
Gifford, Daniel J.
Hall, Ralph
Hasday, Jill
Karkkainen, Brad
Okediji, Ruth L.
Paradise, Jordan
Sedo, Kathryn J.
Weissbrodt, David
Wolf, Susan M.
Younger, Judith T.

Molecular, Cellular, Developmental Biology & Genetics (MCDB&G)

Ahrens, Mary Ellen J.
Bardwell, Vivian J.
Behrens, Timothy W.
Berman, Judith G.
Berry, Susan A.
Brambl, Robert M.
Brooker, Robert J.
Chen, Lihsia
Clarke, Duncan J.
Conklin, Kathleen F.
Conner, Sean
Davis, Dana
Ekker, Stephen C.
Elde, Robert P.
Goldstein, Stuart F.
Gray, William M.
Hackett, Perry B.
Hamilton, David W.
Hays, Tom S.
Herman, Robert K.
Hirsch, Betsy A.
Hogquist, Kristin A.
Iwanij, Victoria
Jameson, Stephen C.
Johnson, Ross G.
Kikyo, Nobuaki J.
King, Richard A.
Kirkpatrick, David T.
Koepp, Deanna
Koob, Michael D
Kuriyama, Ryoko

Lanier, Lorene M.
Largaespada, David A.
Lefebvre, Paul A.
LeRoy, Bonnie S.
Letourneau, Paul C.
Linck, Richard W.
Livingston, Dennis M.
Magee, Paul T.
Mansky, Louis M.
Mariash, Cary N.
Marker, Paul C.
Marks, M. David
McCarthy, James B.
McIvor, R. Scott
McLoon, Linda K.
McLoon, Steven C.
Mescher, Matthew F.
Miller, Jeffrey R.
Moser, Kathy L.
Nakato, Hiroshi
Neufeld, Thomas P.
O'Connor, Michael B.
Olszewski, Neil E.
Orr, Harry T.
Phillips, Ronald L.
Porter, Mary E.
Ranum, Laura P.
Rougvie, Ann E.
Sanderfoot, Anton
Schimmenti, Lisa A.
Schottel, Janet L.
Selleck, Scott B.
Shaw, Jocelyn E.
Shawlot, William
Shimizu, Yoji
Silflow, Carolyn D.
Simmons, Michael J.
Simon, Jeffrey A.
Skubitz, Amy P.
Somia, Nikunj V.
Sorenson, Robert L.
Steer, Clifford J.
Titus, Margaret A.
Towle, Howard
Van Ness, Brian G.
Verfaillie, Catherine M.
Vernick, Kenneth D.
Whitley, Chester B.
Wick, Susan M.
Wright, Robin L.
Zarkower, David A.

Ecology, Evolution and Behavior

Alstad, Donald N.
Andow, David
Barker, Fredrick K.
Barnwell, Franklin H.
Bee, Mark A.
Borrello, Mark E.
Brezonik, Patrick L.
Cavender Bares, Jeannine M.
Cotner, James B.
Curtisinger, James W.
Cushing, Edward J.
Davis, Margaret
Dean, Antony M.
Denison, Robert F.
Finlay, Jacques C.
Frelich, Lee E.
Galatowitsch, Susan M.
Heimpel, George E.
Hobbie, Sarah E.
Jansa, Sharon A.
Johnson, Thomas C.
Jones, Susan D.
King, Jennifer Y.
Kinkel, Linda L.
Lanyon, Scott M.
Larson, Diane
Lehman, Clarence L.
May, Georgiana
McFadden, Joseph P.
Mech, L. David
Megard, Robert O.
Montgomery, Rebecca A.
Morrow, Patrice A.
Muller-Landau, Helene
Neuhauser, Claudia
Newman, Raymond M.
Oberhauser, Karen S.
Packer, Craig
Pastor, John J.
Polasky, Stephen
Pusey, Anne
Regal, Philip J.
Reich, Peter B.
Sadowsky, Michael J.
Shaw, Ruth G.
Simmons, Michael J.
Simons, Andrew
Sorensen, Peter W.
Spivak, Maria



Prof. Dana Johnson, Director of the International Adoption Clinic, commenting on the Lecture Series presentation by Prof. Martha Farah.



Starfield, Anthony M.
 Stephens, David W.
 Sterner, Robert W.
 Stromberg, Bert E., Jr.
 Sugita, Shinya
 Tiffin, Peter L.
 Tilman, G. David
 Weiblen, George D.
 Weller, Susan J.
 Zink, Robert M.

Conservation Biology

Adelman, Ira R.
 Allan, Deborah L.
 Alstad, Donald N.
 Andersen, David E.
 Anderson, Charles S.
 Anderson, Dorothy H.
 Anderson, Neil O.
 Andow, David
 Ankley, Gerald T.
 Arnold, Todd W.
 Barnwell, Franklin H.
 Bauer, Marvin E.
 Becker, Dennis R.
 Bell, Jay
 Bengston, David
 Blair, Robert B.
 Blinn, Charles R.
 Bolstad, Paul V.
 Bowyer, Jim L.
 Broadbent, Jeffrey
 Burk, Thomas E.
 Cardwell, Vernon B.
 Chen, Jim
 Coggins, Jay S.
 Cohen, Yosef
 Cornett, Meredith W.
 Curtsinger, James W.
 Cushing, Edward J.
 Cuthbert, Francesca J.
 Easter, K. William
 El Halawani, Mohamed E.
 Finlay, Jacques C.
 Fiutak, Thomas R.
 Frellich, Lee E.
 Fulton, David C.
 Galatowitsch, Susan M.
 Garshelis, David L.
 Giles-Vernick, Tamara L.
 Haight, Robert G.
 Hatch, Jay T.
 Hobbie, Sarah E.
 Homans, Frances R.

Jannett, Frederick J.
 Jansa, Sharon A.
 Johnson, Douglas H.
 Jones, Susan D.
 Jordan, Nicholas R.
 Jordan, Peter A.
 Kapuscinski, Anne R.
 Karanth, K Ullas
 Kilgore, Mike
 Klink, Katherine
 Kuzma, Jennifer
 Lang, Jeffrey W.
 Lanyon, Scott M.
 Larson, Diane
 Lehman, Clarence L.
 Loegering, John P.
 Manson, Steven M.
 Mc Master, Robert B.
 Mech, L. David
 Miller, Loren M.
 Moen, Ron
 Morrow, Patrice A.
 Murray, Helene
 Musacchio, Laura R.
 Nagar, Richa
 Nelson, Kristen C.
 Neuhauser, Claudia
 Newman, Raymond M.
 Niemi, Gerald J.
 O'Brien, Stephen J.
 Oberhauser, Karen S.
 Packer, Craig
 Pastor, John J.
 Pereira, Donald L.
 Perry, James A.
 Philippon, Daniel J.
 Polasky, Alan S.
 Pusey, Anne E.
 Redig, Patrick T.
 Regal, Philip J.
 Reich, Peter B.
 Runge, C. Ford
 Samatar, Abdi Ismail
 Schneider, Ingrid E.
 Shaw, Ruth G.
 Simons, Andrew
 Siniff, Donald B.
 Smith, James L.
 Snider, Anthony G.
 Sorensen, Peter W.
 Spangler, George R.
 Squires, Roderick H.
 Starfield, Anthony M.
 Sterner, Robert W.

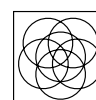
Sugita, Shinya
 Swain, Edward B.
 Taff, Steven J.
 Tilman, G. David
 Tilson, Ronald L.
 Vondracek, Bruce
 Weiblen, George D.
 Western, David
 Zeitouni, Naomi
 Ziegler, Susy S.
 Zink, Robert M.

Environmental Health

Adgate, John L.
 Alexander, Bruce H.
 Baker, Beth A.
 Bender, Alan
 Bender, Jeff B.
 Boyle, Debora Jo
 Brosseau, Lisa M.
 Campbell, Colin R.
 Carpenter, Hillary M.
 Church, Timothy R.
 French, Lewis R.
 Gerberich, Susan G.
 Goyal, Sagar M.
 Greaves, Ian A.
 Hedberg, Craig W.
 Holtzman, Jordan L.
 Lungu, Claudiu T.
 Maldonado, George
 Mandel, Jeffrey H.
 McCullough, Nicole V.
 McGovern, Patricia M.
 Messing, Rita B.
 Nachreiner, Nancy M.
 O'Boyle, Carol Ann
 Olson, Debra K.
 Peterson, Lisa A.
 Ramachandran, Gurumurthy
 Raynor, Peter C.
 Roy, Robert R.
 Simcik, Matt F.
 Singer, Randall
 Skoglund, Robert S.
 Smith, Kirk E.
 Sparber, Sheldon B.
 Swackhamer, Deborah L.
 Toscano Jr, William A.
 Vesley, Donald
 Wattenberg, Elizabeth V.
 Williams, Allan N.



Prof. Lawrence Charnas, Department of Pediatrics, Clinical Neuroscience Division, commenting on Prof. Michael Gazzaniga's Lecture Series presentation.





Prof. Jennifer Kuzma, Associate Director of the Center for Science, Technology & Public Policy, welcomes the audience to Prof. Daniel Kammen's Lunch Series presentation.



Prof. David W. Stephens, Department of Ecology, Evolution, and Behavior, commenting on Prof. Owen Jones's Lecture Series presentation.

Natural Resources Science & Management

Anderson, Dorothy H.
 Ascerno, Mark E.
 Bauer, Marvin E.
 Baughman, Melvin J.
 Becker, Dennis R.
 Befort, William A.
 Bengston, David
 Berglund, Erwin R.
 Blair, Robert B.
 Blanchette, Robert A.
 Blickenderfer, Mary M.
 Blinn, Charles R.
 Bolstad, Paul V.
 Bowyer, Jim L.
 Bratkovich, Stephen M.
 Brooks, Kenneth N.
 Burk, Thomas E.
 Carlson, Stephan P.
 Cogan, John J.
 Cornett, Meredith W.
 Current, Dean A.
 Cushing, Edward J.
 David, Andrew J.
 Demchik, Michael C.
 Dodds, Kevin J.
 Eckman, Karlyn
 Ek, Alan R.
 Erikkila, Daniel L.
 Finley, Fred N.
 Frelich, Lee E.
 Fulton, David C.
 Gartner, Bill
 Gilmore, Daniel W.
 Grimsrud, David T.
 Haight, Robert G.
 Hansen, Mark H.
 Hendrickson, William A.
 Hobbie, Sarah E.
 Hoganson, Howard M.
 Huelman, Patrick H.
 Hupples, Gjal
 Jakes, Pamela
 Johnson, Gary R.
 Kilgore, Mike
 Kolka, Randy
 Massey, Joe G.
 Mc Avoy, Leo H.
 McRoberts, Ronald E.
 Miller, Kristine F.
 Montgomery, Rebecca A.
 Moser, W. Keith
 Nelson, Kristen C.
 Nieber, John L.
 O'Brien, Joseph G.

Oberhauser, Karen S.
 Oleksyn, Jacek
 Ostry, Michael E.
 Palik, Brian J.
 Perry, Charles H.
 Perry, Jim A.
 Petersen, Harlan D.
 Phillips, Michael J.
 Polasky, Alan S.
 Ramaswamy, Shri
 Reich, Peter B.
 Reichenbach, Mike
 Riemenschneider, Don E.
 Runge, Carlisle F.
 Sarkanen, Simo
 Schmidt, Elmer L.
 Schmidt, Thomas L.
 Schneider, Ingrid E.
 Schomaker, John H.
 Schurman,, Rachel
 Seavey, Robert T.
 Severtson, Steve J.
 Shmulsky, Rubin
 Smith, James L.D.
 Smith, Timothy M.
 Snyder, Stephanie A.
 Stafford, Susan G.
 Stine, Robert A.
 Suh, Sangwon
 Sullivan, Alfred D.
 Taff, Steven J.
 Thompson, Jerilyn L.
 Tschimer, Ulrike W.
 Tze, William T.Y.
 Verry, Elon S.
 Winandy, Jerry
 Worry, Gary L.
 Yin, K. Karen
 Yin, Xiwei
 Zasada, John C.
 Zenner, Eric K.

Medicine

A complete list of Medical School Faculty may be found in the Medical School Catalog on-line at
www.catalogs.umn.edu/tcmed/.

Health Policy & Management

Abraham, Jean M.
 Begun, James W.
 Bershadsky, Boris
 Blewett, Lynn A.
 Call, Kathleen Thiede
 Christianson, Jon B.
 Connor, Robert A.
 Dahl, Tor
 Davern, Michael E.
 Dowd, Bryan E.
 Feldman, Roger D.
 Finch, Michael D.
 Foote, Susan Bartlett
 Garrard, Judith M.
 Grant, Leslie Alan
 Holtzman, Jeremy L.
 Johnson, Pamela Jo
 Jonk, Yvonne Catharin M.
 Kane, Robert L.
 Kane, Rosalie A.
 Kralewski, John E.
 McAlpine, Donna D.
 McBean, A. Marshall
 Moscovice, Ira S.
 Nyman, John A.
 Parente, Stephen T.
 Potthoff, Sandra J.
 Radosevich, David M.
 Riley, William J.
 Rockwood, Todd H.
 Speedie, Stuart M.
 Town, Robert J.
 Virnig, Beth A.
 Weckwerth, Vernon E.
 Wholey, Douglas R.
 Wilson, Amy Reed

Public Health Administration

Baizerman, Michael L.
 Bender, Jeff B.
 Garrard, Judith
 Garwick, Ann E.
 Gerberich, Susan G.
 Grant, Leslie A.
 Hellerstedt, Wendy L.
 Jeffery, Robert W.
 Leonard, Barbara J.
 McBean, A. Marshall
 McGovern, Patricia M.
 Patterson, Joan
 Resnick, Michael D.
 Veninga, Robert L.



Epidemiology, Maternal & Child Health, and Community Health Education

Alexander, Bruce H.
Anderson, Kristin E.
Bender, Alan
Bender, Jeff B.
Blackburn, Henry
Bushhouse, Sally
Church, Timothy R.
Crow, Richard S.
Danila, Richard N.
Duval, Susan J.
Elsenberg, Maria E.
Erickson, Darin J.
Finnegan, John R., Jr.
Flood, Andrew
Folsom, Aaron R.
Forster, Jean L.
French, Simone
Gatewood, Lael
Grimm, Richard H.
Gross, Myron D.
Hannan, Peter J.
Harlow, Bernard L.
Harnack, Lisa J.
Harwood, Eileen M.
Hedberg, Craig W.
Hellerstedt, Wendy L.
Hennrikus, Deborah J.
Himes, John H.
Hull, Harry F.
Jacobs Jr., David R.
Jeffery, Robert W.
Jones-Webb, Rhonda J.
Kane, Robert L.
Komro, Kelli A.
Lando, Harry A.
Lazovich, DeAnn
Leon, Arthur S.
Lifson, Alan R.
Luepker, Russell V.
Lytle, Leslie A.
Maldonado, George
McBean, Alexander M.
Mertens, Ann C.
Miller, Michael
Moser, Kathy L.
Neglia, Joseph P.
Nelson, Melissa
Neumark-Sztainer, Dianne
Oakes, J. Michael
Oberg, Charles N.
Osterholm, Michael T.
Oswald, John W.

Pankow, James S.
Pappaioanou, Marguerite
Pereira, Mark
Perry, Cheryl
Robien, Kimberly
Ross, Julie
Rosser, B.R. Simon
Schmitz, M. Kathryn
Schreiner, Pamela J.
Shahar, Eyal
Sirard, John R.
Spector, Logan G.
Steffen, Lyn
Stigler, Melissa H.
Story, Mary T.
Toomey, Traci L.
van Ryn, Michelle
Virnig, Beth A.
Yuan, Jian-Min

Science, Technology, and Environmental Policy

Abrahamson, Dean E.
Assaad, Ragui A.
Atwood, J. Brian
Barnett, Michael N.
Bochniarz, Zbigniew
Bolan, Richard S.
Boyte, Harry C.
Brandi, John E.
Bryson, John M.
Connor, Robert A.
Copeland-Carson, Jacqueline
Craig, William J.
Crosby, Barbara C.
DeCramer, Gary M.
Easter, K. William
Eustis, Nancy N.
Fennelly, Katherine
Forsyth, Ann
Galaydh, Ali K.
Goetz, Edward G.
Hanratty, Maria J.
Hoenack, Stephen A.
Hollister, C. David
Jacobs, Lawrence R.
Kapuscinski, Anne R.
Keller, Kenneth H.
Kenney, Sally J.
Kiedrowski, P. Jay
Kleiner, Morris M.
Krizek, Kevin J.
Kudrie, Robert T.
Kuzma, Jennifer
Levinson, David M.

Levison, Deborah
Lukermann, Barbara L.
Markusen, Ann R.
Munnich, Lee W.
Myers, Samuel L.
Nathan, Joe
Noponen, Helzi T.
Pardey, Philip G.
Penny, Timothy J.
Pitt, David G.
Ritter, Joseph A.
Runge, Carlisle F.
Sandfort, Jodi R.
Sayles Belton, Sharon L.
Schively, Carissa A.
Schuh, G. Edward
Stone, Melissa M.
Stone, Paul C.
Wilson, Elizabeth J.
Wright, Karen

Pharmacology

Bitterman, Peter B.
Burton, Frank H.
Campbell, Colin R.
Connell, Gregory J.
Conti-Fine, Bianca M.
Dunham, Earl W.
Einat, Haim
Eisenberg, Richard M.
El-Fakahany, Esam E.
Elde, Robert P.
Fairbanks, Carolyn A.
Fitzakerley, Janet L.
Gewirtz, Jonathan C.
Hanna, Patrick E.
Hecht, Stephen S.
Hiasa, Hiroshi
Holtzman, Jordan L.
Hunninghake, Donald B.
Knych Jr., Edward T.
Kofujui, Paulo
Lange, Carol A.
Law, Ping-Yee
Lee, Hon Cheung
Loh, Horace H.
Mansky, Louis M.
Marchant, Jonathan S.
Martemyanov, Kirill
Messing, Rita B.
Pei, Duanqing
Pentel, Paul R.
Portoghese, Philip S.
Potter, Lincoln R.
Regal, Jean F.

Romero, Daniel P.
Roy, Sabita
Seybold, Virginia S.
Shebuski, Ronald J.
Sinaiko, Alan R.
Sladek, Norman Elmer
Sparber, Sheldon B.
Sundaram, Ramakrishnan
Thayer, Stanley A.
Trachte, George J.
Wallace, Kendall B.
Walseth, Timothy F.
Wattenberg, Elizabeth V.
Wei, Li-Na
Wickman, Kevin D.
Wilcox, George L.
Wood, W. Gibson
Yee, Douglas
Yuan, LiLian
Zeng, Yan
Zimmerman, Ben G.

Center for Bioethics

Bartels, Dianne
Bebeau, Muriel
Burk, Dan
DeBruin, Debra A.
Elliot, Barbara
Elliot, Carl
Kahn, Jeffrey P.
Kane, Rosalie
Koenig, Barbara
Liaschenko, Joan
Marshall, Mary Faith
Miles, Steven H.
Plotnikoff, Gregory A.
Ratner, Edward
Song, John Y.
Tauer, Carol
Taussig, Karen-Sue
Valapour, Maryann
Virnig, Beth A.
Wolf, Susan M.



Joint Degree Program Advisory Board



Margo Struthers, Esq., host of the Advisory Board reception at Oppenheimer Wolff & Donnelly.



Advisory Board member Martha Brand, Esq. with Joint Degree Program student Sam Bohrmann at the Fall 2005 Advisory Board reception.



Joint Degree Program student Sharada Devarasetty with Board member Prof. Amos S. Deinard at the Fall 2005 Advisory Board reception.

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 the Joint Degree Program students. Each Fall the Board hosts a reception for the students. Margo Struthers, Esq. and the law firm of Oppenheimer Wolff & Donnelly were our hosts in 2005. The 2005–06 Board members were:

Martha Brand, JD, is 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. Currently, along with her executive directorship of the MCEA, Ms. Brand serves as Chair of the Board of Directors of American Rivers in Washington, DC. In Minnesota, she is active in the local community as a member of organizations including the Minnesota State Bar Association and the Citizen's League. She earned her JD at Boston University.

Amos S. Deinard, Jr., MD, MPH, is an Associate Professor in the Department of Pediatrics at the University of Minnesota Medical School. 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 Clinic (CUHCC). CUHCC serves uninsured or underinsured children in the Phillips neighborhood. The neighborhood is one of the poorest in the state, and consists of a highly diverse community of Native American, Hispanic, Southeast Asian, Somali, and white residents. Prof. Deinard has received numerous awards for his efforts, including 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.

Mark Ellinger, JD, PhD, is the Managing Principal in the Twin Cities office of Fish & Richardson, one of the country's largest firms practicing intellectual property, litigation, and corporate law. Dr. Ellinger's practice emphasizes patent prosecution, opinions, due diligence investigations, and licensing and counseling in the medical biotechnology, agricultural biotechnology, diagnostic, pharmaceutical, and medical science fields. His practice has involved subject matter such as genomics, proteomics, gene therapy, xenotransplantation, transgenic animals, transgenic plants, metabolic engineering, immunoassays, nucleic acid-based assays, antisense technology, nucleic acid analogues, microarrays, vaccines, peptide therapeutics, stem cells, medical devices, food science, and potential treatments for diseases such as cardiovascular disease, cancer, allergy, arthritis, diabetes, and Alzheimer disease. Dr. Ellinger received his JD from Harvard University and his PhD in Developmental Biology from the University of Minnesota.

Hubert (Skip) H. Humphrey, III, JD, is a Senior Fellow in Public Health Policy and Law in the Division of Epidemiology at the University's School of Public Health, Senior Vice President at Tunheim Partners, and currently serves as President of AARP-Minnesota. 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 for his efforts. Mr. Humphrey holds a JD from the University of Minnesota.

Ryan Johnson, JD, is a member of Fredrikson & Byron's Health Law, 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. Mr. Johnson's experience includes representation of buyers and sellers in health care mergers and acquisitions; representation of health care providers in structuring joint ventures and strategic alliances; representation of physician groups and hospitals in civil and criminal investigations; analysis of physician self-referral (Stark), fraud and abuse, and other federal and state regulatory issues in operational matters affecting health care providers; and advising health care providers, health plans, and device manufacturers regarding patient privacy issues, including compliance with HIPAA. Mr. Johnson received his JD at the University of Minnesota.



Rep. Phyllis Kahn, PhD, MPA, is a member of the Minnesota legislature serving her 17th term. Her legislative interests include issues dealing with 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 been the chief author of the Minnesota Clean Indoor Air Act (controlling smoking in public places), the computer crime and computer virus laws, and legislation on nuclear safety, radioactive waste disposal, field tests of genetically modified crops, and infectious waste disposal. She has also authored laws to require gender equity in athletics and laws prohibiting discrimination based on age or disability. She has been instrumental in obtaining funding for parks, trails, historic preservation, art-enhancement of state buildings, and the expansion of community and urban forests. 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." She received a PhD in Biophysics from Yale and MPA from the J.F.K. School of Government at Harvard University.

Donald Lewis, Esq. is a founding shareholder of the law firm of Halleland Lewis Nilan & Johnson. His practice includes employment and commercial litigation. His clients include ANC Rental Corp., Ford Motor Company, Home Depot USA, JP Morgan Chase, the Metropolitan Council, the City of Minneapolis, Minneapolis Public Schools, and Target Stores. Prior to entering private practice, Mr. Lewis served for 6 years as an Assistant U.S. Attorney for the District of Minnesota, working as a federal criminal prosecutor focusing on economic and tax crimes. He was formerly employed as a trial attorney in the Civil Rights Division for the U.S. Department of Justice in Washington, DC. He has served on boards of directors of several non-profit organizations, and is Chair of AMICUS. He is a former member of the Board of Governors of the National Bar Association, and has served as President of the Minnesota Minority Lawyers Association. He has been a legal writing instructor and tutor at the William Mitchell College of Law. He is a Fellow of the American College of Trial Lawyers, the American Bar Foundation, and the American Law Institute. Mr. Lewis received his undergraduate journalism degree with distinction from Northwestern University and is a graduate of Harvard Law School.

Kenneth A. Liebman, JD, Faegre & Benson LLP, is Chair of Faegre & Benson's Intellectual Property Group. He served as lead counsel for the University of Minnesota in its patent licensing litigation with Glaxo Wellcome over the AIDS drug Ziagen. The case settled with the defendant recognizing the validity of the University's patents and agreeing to pay royalties estimated to be \$300 million over the life of the patents. The settlement is reported to be the largest ever obtained by any public university in patent license litigation. 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.

Ruth A. Mickelsen, JD, MPH, is Vice President & Ethics Advisor in the Office of Clinical Excellence for Allina Hospitals and Clinics, a nonprofit health care organization headquartered in Minneapolis that includes community and tertiary care hospitals and a multi-clinic physician organization. She has been an Adjunct Professor of Health Law at the University of Minnesota Law School and William Mitchell College of Law. She was appointed a Distinguished Practitioner in Residence at William Mitchell College of Law during the 1999–2000 academic year. She was a member of the Board of Directors of the American Society of Law, Medicine & Ethics (ASLME) (1997–2003) and a past-President of ASLME (2002). She is also a legal advisor to the Minnesota Center for Healthcare Ethics. Ms. Mickelsen is co-author of *Law and Mental Health Professionals* (revised 1998) and a writer and lecturer on issues of health law, policy, and ethics. Ms. Mickelsen was awarded a Bush Leadership Fellowship in 1985 and has been named a leading health law lawyer by the *Minnesota Business Guidebook to Law and Leading Attorneys*. Ms. Mickelsen received her JD from William Mitchell College of Law and her MPH from Harvard University.

Adonis A. Neblett, JD, is a shareholder in Fredrikson & Byron's Intellectual Property Group. His practice focuses on prosecution of U.S. and international patent applications in a variety of technologies, including chemical, environmental, medical devices, aerospace, films, coatings, biochemical, and mechanical. Mr. Neblett advises clients on all aspects of intellectual property assets protection as well as technology development and transfer agreements, including licensing and joint ventures. His practice includes product clearance/freedom to operate and due diligence analyses and related opinion work. Prior to joining Fredrikson & Byron, he practiced environmental law and intellectual property law in both the private and public sectors and served most recently in the Minnesota Attorney General's Office. He has litigated in state and federal courts at both the trial and appellate levels. Mr. Neblett received his JD from the University of Washington School of Law.



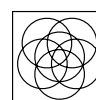
Joint Degree Program student Lesli Rawles with Advisory Board member Rep. Phyllis Kahn at the Fall 2005 Advisory Board reception.



Joint Degree Program student Rob Berlin with Advisory Board member Don Lewis, Esq. at the Fall 2005 Advisory Board reception.



Joint Degree Program student Erin Furlong with Board member Ruth Mickelsen, Esq. at the Fall 2005 Advisory Board reception.





*Joint Degree Program alumna
Melanie Kleiss, Esq. with the
Honorable David S. Doty
at the Advisory Board reception.*



*Joint Degree Program student Laurel
Kilgour with Advisory Board member
Paul Savereide, Esq. at the Fall 2005
Advisory Board reception.*

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 oversight of the firm's international operations and practice development. Mr. Rockwell served for 6 months in 1979 as Associate General Counsel of President Carter's Commission on the Accident at Three Mile Island. He has served as a board member of various Minnesota nonprofit organizations and is a recent past member of the Board of Directors of the Minnesota Center for Book Arts. 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 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 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 of the University of Minnesota.

Ann L. Russell, JD, MSW, is a lawyer with 23 years of experience in advising health care entities. Currently an Associate Counsel for Catholic Health Initiatives, a national nonprofit organization with over 60 hospitals, clinics, and skilled nursing facilities, she has also represented the University of Minnesota Hospital and Clinic and Hennepin County Medical Center and Community Health Department. Ms. Russell has extensive experience in advising health care providers on transactional, operational, regulatory, and patient care matters as well as ethical dilemmas. 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 has taught biomedical ethics at William Mitchell College of Law. Prior to practicing law, Ms. Russell was a psychiatric social worker in the Hennepin County Mental Health Center.

Paul Savereide, JD, PhD, is 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 and Whitney law firm. Mr. Savereide earned his JD and PhD in Cell and Developmental Biology from the University of Minnesota. 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 a solo practitioner in Granite Bay, CA. 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. Her practice focuses on life science patent law with a special emphasis on patent interferences and appeals to the Court of Appeals for the Federal Circuit. Ms. Shetka was involved in 2 especially important Federal Circuit appeals addressing the patentability of DNA sequences as principal author in an appeal on behalf of Chiron Corporation and as *amicus curiae* on behalf of the Biotechnology Industry Organization and the Bay Area Bioscience Center. 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.



Mark T. Skoog, JD, PhD, is a partner at Merchant & Gould PC. He practices general intellectual property law with an emphasis on client counseling and patent prosecution. He also has concentrated on infringement and validity analyses of patents in biotechnology, chemistry, and pharmaceuticals. He has drafted and prosecuted patents in the areas of chemistry, biotechnology, pharmaceuticals, medical devices, and power tools. Before becoming a patent attorney, Dr. Skoog spent a decade as a researcher and research manager in the pharmaceutical industry. His research experience includes design, discovery, and evaluation of enzyme inhibitors as therapies for inflammatory, autoimmune, and viral diseases. He received his PhD in Biochemistry at Indiana University and his JD at the University of Minnesota.

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 is chair of the firm's Litigation Division. 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 Minnesota and Illinois, as well as before the U.S. District Court for the District of Minnesota, the Eighth Circuit Court of Appeals, and the U.S. Supreme Court. He earned his JD at the University of Chicago.

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. Her practice involves organizational structure and other issues affecting nonprofit, professional, and business organizations in health care. She also has substantial experience related to health care contracts, institutional and professional licensure, HMO and insurance regulation, fraud and abuse and other compliance issues, director and officer liability, conflict of interest and tax exemption issues, medical staff bylaws and credentialing, bioethical issues, and health information and confidentiality issues. 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 received her JD at the University of Minnesota.



Joint Degree Program Advisory Board member Byron Starns.

Concentration in Health Law & Bioethics

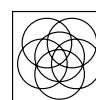
In 2005–06, the University of Minnesota Law School faculty created concentrations, enabling Law students to specialize in fields such as Health Law and Bioethics, International Human Rights, and Labor and Employment Law.

Prof. Susan Wolf is the Faculty Chair of the new Concentration in Health Law & Bioethics, which allows students to focus their studies on health care delivery, public health law and ethics, international health, or issues in bioethics. The Health Law & Bioethics concentration requires 12 credits and a combination of required and recommended courses in the Law School, Graduate School, School of Public Health, and Center for Bioethics. Ann Hagen is the Coordinator for the Concentration; she works with interested students to complete requirements.

These 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 of a given Concentration to discuss their intended course of study and how a Concentration could enhance their career development. Concentrations are available to all JD and LLM students, including those pursuing dual degrees. Students who have successfully completed the Concentration receive a special certificate and a statement on their transcript saying that the requirements of the Concentration have been fulfilled. More information on all of the Law School's concentrations may be found at www.law.umn.edu/current/degrees/concentrations.html.



Prof. Susan Wolf moderating a question-and-answer session with Prof. Neil Weinstein at the Food Safety Conference.



Deinard Memorial Lecture Series on Law & Medicine



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



Prof. David Kaye, Arizona State University.

The Joint Degree Program and Center for Bioethics launched the Deinard Memorial Lecture Series on Law & Medicine in the Spring of 2004. This lecture series is supported by a generous donation 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. A fund has been created in their memory to establish this lecture series on law and medicine.

On January 31, 2006, **Prof. David H. Kaye, MD, MA** of Arizona State University presented the third Deinard Memorial Lecture on “**The Science of Human Identification: From the Laboratory to the Courtroom.**” Prof. Kaye is Regents’ Professor of Law and Faculty Fellow at the Center for the Study of Law, Science & Technology at Arizona State University. He is also Editor of *Jurimetrics: The Journal of Law, Science, and Technology* and is widely regarded as one of the nation’s leading experts on scientific evidence and statistical methods in law.

In his talk, Prof. Kaye described the process by which a biometric test or theory moves from the laboratory into the courtroom or the broader society. He speculated on the future of the rapidly growing DNA databases for criminal investigations and the implications of genetic-identification technologies for personal privacy. **Prof. Barbara A. Koenig, PhD**, Mayo College of Medicine, and **Prof. William G. Iacono, PhD**, of the Department of Psychology provided commentary following Prof. Kaye’s lecture.

The event provided 1.5 credits of continuing legal education (CLE) and 1.5 credits of continuing medical education (CME). Video of the third Deinard Memorial Lecture is available on our websites at www.lifesci.consortium.umn.edu/conferences/david_kaye_2006.php and www.jointdegree.umn.edu/conferences/david_kaye_2006.php.

Two New Gifts for Deinard Memorial Lecture Series

In December 2005, **Prof. Amos S. Deinard, Jr.** (Department of Pediatrics) and his sister, **Miriam Kelen**, together contributed \$25,000 increase the endowment of the Deinard Memorial Lecture Series on Law & Medicine at the University of Minnesota. The law firm of **Leonard, Street and Deinard** also contributed \$25,000 to the lecture series endowment. The new gifts will allow the Deinard Lecture to be offered annually. The Joint Degree Program and Center for Bioethics are grateful for this generous support and look forward to planning future lectures.

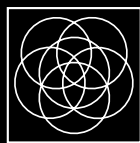
Past Deinard Lecturers include **Prof. Ellen Wright Clayton, JD, MD** (Vanderbilt University) in 2005 and **Prof. Troyen Brennan, JD, MD, MPH** (Harvard University) in 2004. Videos of the past Deinard Memorial Lectures are available at www.jointdegree.umn.edu/conferences/deinard_series.php and www.lifesci.consortium.umn.edu/conferences/deinard_series.php.

Leonard, Street and Deinard also supports the University of Minnesota Law School in numerous ways. Past major gifts from the firm include the Leonard, Street and Deinard Scholarship (established 1969), a major gift to Campaign Minnesota which supported the creation of the Law School’s Wireless Network, and the Leonard, Street and Deinard Foundation Scholarship (established 2001).



Ms. Miriam Kelen and Prof. Amos S. Deinard, Jr. with Prof. David Kaye, center.





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

UNIVERSITY OF MINNESOTA

Consortium Members

As the Joint Degree Program recruits and trains gifted students to tackle interdisciplinary problems in health and the life sciences, the Consortium links leading centers and programs at the University of Minnesota to do the same. Our 17 member centers and programs are described below.

The **Joint Degree Program** <www.jointdegree.umn.edu> is represented by its founding Director, Prof. Susan Wolf, McKnight Presidential Professor of Law, Medicine & Public Policy; Faegre & Benson Professor of Law; and Professor of Medicine, and Associate Director Prof. Colin Campbell, Associate Professor and Director of Graduate Studies in the Department of Pharmacology.

The **Center for Bioethics** <www.bioethics.umn.edu> strives to advance and disseminate knowledge concerning ethical issues in health care, biomedicine, 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, Maas Family Chair in Bioethics and Professor of Medicine, Philosophy, and Health Services Research & Policy.

The **Biomedical Genomics Center** <www.bmgc.umn.edu> 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. Directed by Prof. Vivek Kapur, Professor of Veterinary Pathobiology and Microbiology, 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 **Center for Microbial and Plant Genomics** <www.cmpg.umn.edu> aims to make the University of Minnesota a world leader in microbial and plant genomics by fostering research and education while building public awareness of genomics and its applications in a societal and ethical context. The Center was led in 2005–06 by Prof. Ronald Phillips, Regents' Professor and McKnight Presidential Chair in Genomics. The Center merged with the University's Plant Molecular Genetics Institute in 2006 and will become the Microbial and Plant Genomics Institute in 2006–07, led by Profs. Neil Olszewski, Department of Plant Biology, and Michael Sadowsky, Department of Soil, Water, and Climate.

The **Stem Cell Institute** <www.stemcell.umn.edu> works to further basic research in genetics and genomics, 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 the biology and physiology of stem cells, foster and increase public awareness of stem cells and their potential clinical applications, and address ethical issues in stem cell biology and therapies. The Center is directed by Prof. Catherine Verfaillie, McKnight Presidential Chair in Stem Cell Biology and represented in the Consortium by Prof. Dan Kaufman.

The **Institute of Human Genetics** <www.ihg.med.umn.edu> 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 directed by Prof. Harry Orr, Professor of Laboratory Medicine and Pathology. Prof. Bonnie LeRoy, Director of the Graduate Program in Genetic Counseling, and Prof. Richard King, Director of Graduate Studies for the Human Genetics Minor, represent the Institute at Consortium meetings and events.

The **Center for Infectious Disease Research & Policy** <www1.umn.edu/cidrap/> is led by Prof. Michael Osterholm, Professor in the University's School of Public Health, and Jill DeBoer, MPH, Associate Director. The Center's mission is to support the development of public policy relating to the prevention, control, and treatment of infectious diseases. The Center works to ensure that such policy reflects the most current biomedical knowledge. The Center also strives to promote sound practices among both healthcare professionals and the public to reduce illness and death from infectious diseases.

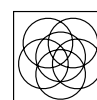


**Joint Degree Program
in Law, Health & the Life Sciences™**

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The **Center for Animal Health & Food Safety** <www.cahfs.umn.edu> is led by Prof. William Hueston, Director, and Shaun Kennedy, Associate Director. Prof. Hueston has appointments in the School of Public Health's Division of Epidemiology and the College of Veterinary Medicine's Department of Veterinary Population Medicine. The Center plays a leadership role in assuring food safety from the farm to the consumer. It does this regionally and nationally through aggressive risk communication, applied research, integrated animal and public health surveillance, expanded educational programs, and facilitation of creative prevention and quality assurance strategies involving producers, processors, distributors, retailers, food service, and consumers.



The **National Center for Food Protection and Defense** <www.fpd.umn.edu/> 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. Francis (Frank) Busta, Department of Food Science & Nutrition; Prof. Michael Osterholm, Epidemiology; and Shaun Kennedy.



The **Center for Neurobehavioral Development** <www1.umn.edu/cnbd> is directed by Prof. Michael Georgieff, Professor of Pediatrics and Child Psychology. 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.



The **Center for Environment & Health Policy** <enhs.umn.edu/files/research.html> 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. Prof. William Toscano, Head of the School of Public Health's Division of Environmental Health Sciences, is the Center's director.



The **Center for Plants and Human Health** <cphh.coafes.umn.edu> is coordinated by Prof. Gary Gardner, Professor of Horticultural Science. The Center takes advantage of the fact that the University of Minnesota Twin Cities campus is one of the few major research universities in the country that has both an Academic Health Center and a College of Agricultural, Food, and Environmental Sciences. The Center provides a forum for the development and exchange of information relevant to plants and human health and serves as a stimulant for interdisciplinary collaboration leading to new research opportunities and funding in this vital area.



The **Program in Agricultural, Food, and Environmental Ethics** <www.agricola.umn.edu/ethics> aims to offer educational programs and courses, conduct original interdisciplinary research, and foster public discussion and debate about food consumption, the human relationship to the nonhuman environment, and the ethics of agricultural research, production, and distribution. The goals of the Program are to formulate and identify questions of ethical significance to Midwestern residents concerning agriculture, food, and the environment; to develop and evaluate moral theories and principles related to these questions; and to explore the application of these moral theories and principles by individuals and groups. The Program is directed by Prof. Dan Philippon, Department of Rhetoric.



The **Center for Science, Technology, and Public Policy** <www.hhh.umn.edu/centers/stpp> fosters understanding of the role of science and technology in our society, especially in relation to economic growth, health, the environment, education, and national security. The Center also supports research and teaching in the Humphrey Institute's MS degree in Science, Technology, and Environmental Policy. The Center is led by Profs. Kenneth Keller, Humphrey Institute and Department of Chemical Engineering and Materials Science, and Jennifer Kuzma, PhD, Humphrey Institute.



The **International Science and Technology Practice and 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 Pardey, Department of Applied Economics, directs this center.



The **Water Resources Center (WRC)** <wrc.coafes.umn.edu> 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 decisionmakers and opens new avenues for multi-disciplinary and interagency partnerships. The Center is directed by Profs. Deborah Swackhamer, Division of Environmental Health Sciences, and James L. Anderson, Department of Soil, Water, and Climate.

The **Center for Spirituality and Healing** <www.csh.umn.edu>, established in 1995, is 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 directed by Prof. Mary Jo Kreitzer, School of Nursing.



CENTER FOR SPIRITUALITY AND HEALING

AcademicHealthCenter

UNIVERSITY OF MINNESOTA

Presidential Interdisciplinary Academic Initiative

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 2, 2003 State of the University Address. Given the Consortium's growth in the past year and its breadth across 12 collegiate units, President Bruininks named Senior Vice President and Provost E. Thomas Sullivan as head of the Consortium's Initiative in 2006. We are delighted to have Provost Sullivan at the helm and benefiting greatly from his guidance.

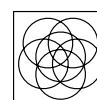
In 2005–06, the Presidential Initiative allowed the Consortium to:

- publish the *Minnesota Journal of Law, Science & Technology*;
- offer intramural grant funding to further the work of constituent departments, programs, and centers on the societal implications of the life sciences;
- offer 10 successful public events;
- hire a Project Manager to increase our ability to seek funding for and manage original research; and
- name the inaugural Visiting Consortium Professor.

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 Initiatives may be found at <www1.umn.edu/pres/01_initiatives.html>.



Senior Vice President and Provost E. Thomas Sullivan welcomes attendees to the May 19, 2006 symposium on "Risks Posed by New Biomedical Technologies."



Minnesota Journal of Law, Science & Technology



MJLST Student Editor-in-Chief Sarah Bunce, center, with Joint Degree Program Robert Berlin and Law School Professor Ralph Hall, contributing authors to MJLST.

The Consortium, together with the University of Minnesota Law School, inaugurated this unique journal in 2004–05. The *Minnesota Journal of Law, Science & Technology (MJLST)* is a multidisciplinary faculty-reviewed journal published twice annually, edited by faculty from across the University of Minnesota as well as by law students. *MJLST* is based in the Law School and staffed by law students, but is overseen and managed by the Consortium. The journal is made possible by support received from the Presidential Initiative on Law and Values. The journal was formerly known as the *Minnesota Intellectual Property Review (MIPR)*.

MJLST addresses issues in intellectual property, technology policy and innovation, bioethics, and law and science, while maintaining a rigorous grounding in law, values, and policy. Full text for each volume is available on-line with a one-year delay.

The journal features a dual masthead, one for the faculty editors and another for the student editors. *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 the students. **Prof. Jim Chen** is the Faculty Editor-in-Chief, **Prof. Susan Wolf** is the Faculty Executive Editor, and **Profs. Jeffrey Kahn** and **Ruth Okediji** are the Faculty Associate Editors. **Sarah Bunce** was the 2005–06 Student Editor-in-Chief; **Kristin Fiumefreddo** was the Student Executive Editor. **Jennifer Bolos** and **Benjamin Hendrick** are the 2006–07 Student Editor-in-Chief and Student Executive Editor, respectively. A Faculty Editorial Board helps review and edit faculty-written articles for *MJLST*. 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. The complete faculty and student masthead plus the Faculty Editorial Advisory Board roster may be found at <www.mjlst.umn.edu>.

The first issue in 2005–06 (December 2005) featured a colloquy on medical device safety as well as articles looking at environmental health and adaptive environmental management. The second issue (May 2006) featured articles on access to and control over plant genetic resources in South and Southern Africa, biotech patents and indigenous peoples, and comparisons between “neuroethics” and ethical, legal, and social issues (ELSI) of genetics.

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.

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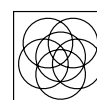
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RECENT DEVELOPMENTS



Visiting Consortium Professor



*Prof. Thomas (Tim) Greaney, JD,
St. Louis University.*

Thanks to funding from the President's Interdisciplinary Academic Initiative in support of the Consortium, we will inaugurate the Visiting Consortium Professorship in 2006. **Prof. Thomas (Tim) Greaney, JD**, St. Louis University School of Law, will visit for one week in Fall semester. From October 30–November 3, Prof. Greaney will deliver a public lecture on Tuesday, October 31, 2006 at 11:30am in the Mississippi Room at Coffman Memorial Union, participate in the Law School's Faculty Works in Progress series, and meet with Joint Degree Program students and faculty from all across the campus.

Prof. Greaney is the Chester A. Myers Professor of Law and Co-Director of the Center for Health Law Studies at St. Louis University. He also holds an appointment as Associate Professor of Hospital and Health Care Administration at the St. Louis University School of Public Health. His current research focuses on the Medicare Modernization Act's attempt to inject competition into Medicare and analysis of how consumer-directed health plans affect antitrust analyses of markets. A full bio and list of publications may be found at law.slu.edu/faculty/profiles/profile.asp?username=greaneyt.

Consortium Requests for Proposals (RFPs)

To encourage campus-wide work on the societal implications of problems in health, environment, and the life sciences, the Consortium awards intramural grants. In 2005–06 we issued 4 RFPs and made 12 awards totaling \$99,814. The 2005–06 subcommittee recommending the intramural awards for faculty, students, and departments to the full Consortium was Profs. Bonnie LeRoy, Deborah Swackhamer, Mary Jo Kreitzer, and Susan Wolf. The subcommittee for the 2005–06 RFP to Consortium members and JDP partners included Profs. Jim Chen, Jeffrey Kahn, Deborah Swackhamer, Catherine Verfaillie, and Susan Wolf. Committee members recused themselves from consideration of applications as appropriate.



*An audience member asks a question
at Prof. Michael Gazzaniga's Lecture
Series presentation.*

Consortium Members and JDP Partners

In Summer 2005, we issued an internal 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. 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. These grants are made possible by funds received through the Presidential Interdisciplinary Initiative Process. The Consortium made 2 awards:

- **"Eating Right? The Rhetoric and Ethics of Organic, Local, and Slow Food"** – Program in Agricultural, Food, and Environmental Ethics (Prof. Dan Philippon, Director) (\$22,000 awarded);
- **"Survey and Assessment of Agrifood Technology"** – Center for Science, Technology, and Public Policy (Profs. Ken Keller and Jennifer Kuzma, Director and Associate Director) (\$11,612 awarded).



Intramural RFPs

Each year, the Consortium issues 3 intramural RFPs. In Spring 2006, we again issued RFPs for University of Minnesota faculty, for departments/programs/centers, and for graduate and professional students.

Faculty

The RFP for faculty invited proposals to fund research, projects, or curricular innovation on the societal implications of problems in health, environment, or the life sciences. The Consortium made 2 awards:

- **“Tuberculosis within Somali Immigrant Communities in the Twin Cities”** — Profs. Susan Craddock (Women’s Studies & Institute for Global Studies) and John Song (Center for Bioethics) (\$9,913 awarded); and
- **“Reassessing the 1918 Flu Pandemic: Environments, Social Relations, and Public Health”** — Profs. Susan Craddock (Women’s Studies & Institute for Global Studies), Tamara Giles-Vernick (History, History of Medicine, Conservation Biology), and Jennifer Gunn (History of Medicine) (\$9,995 awarded).

Graduate and Professional Students

The RFP to graduate and professional students was intended to provide a stipend for research and writing in the Summer 2006 or academic year 2006–07. We were delighted that the RFP stimulated 38 proposals from students in 28 programs around the University. Five awards were made:

- **“A Collaborative Exploration of Environmental Change and Alaska Native Fishing Communities”** — Laurie Richmond, PhD student, Conservation Biology (\$7,000 awarded);
- **“Holding the World Bank Accountable: Physician Responsibility in an Era of Renewed Global Health Commitment”** — Stephanie Smith, Medical student (\$4,295 awarded);
- **“Public Sector Agricultural Research in Vietnam: A Model for Building Public Intellectual Property Management Capacity in Developing Countries”** — Laurel Kilgour, Law student (\$6,500 awarded);
- **“Specters of Waste in India’s ‘Silicon Valley’: The Underside of Bangalore’s Hi-Tech Economy”** — Rajyashree Reddy, PhD student, Geography (\$7,000 awarded); and
- **“Decentralizing Forest Management in Cameroon: A Conceptual Look at the Perception of Procedural Justice in Community Forest Management Process”** — Beatrice Muton, PhD student, Natural Resource Science and Management (\$6,499 awarded).

Programs/Departments/Centers

The RFP for programs/departments/centers invited proposals seeking matching funds for colloquia addressing the societal implications of problems in health, environment, or the life sciences. The Consortium made 3 awards:

- Minnesota Center for Philosophy of Science and Studies of Science and Technology Program, **“Studies of Science and Technology Program Colloquia,”** Prof. C. Kenneth Waters (\$5,000 awarded);
- Food Industry Center, **“Food, Technology and Individual Privacy,”** Prof. Ben Senauer and Koel Ghosh (\$5,000 awarded); and
- Water Resources Center, **“The Power of Water” Colloquia,** Prof. Deborah Swackhamer (\$5,000 awarded).

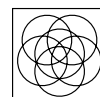
All awards are contingent on getting IRB and all other necessary approvals. The Consortium will again issue the RFP to Consortium members and JDP Partners as well as the other intramural RFPs in early 2007. RFPs and reports on the winning projects may be found at <www.lifesci.consortium.umn.edu/rfps>.



Prof. Deborah Swackhamer listens to a colleague at a Consortium meeting.



Prof. Carl Elliot, Center for Bioethics, commenting on Prof. Michael Gazzaniga’s Lecture Series presentation.



Grants and Research



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health

Working Group for NIH-funded “Managing Incidental Findings on Human Subjects Research”

Prof. Mildred Cho, PhD, *Stanford University*

Prof. Ellen Wright Clayton, JD, MD,
Vanderbilt University

Prof. Joel (JG) Fletcher, MD, *Mayo Clinic*

Prof. Michael Georgieff, MD,
University of Minnesota

Prof. Dale Hammerschmidt, MD,
University of Minnesota

Prof. Kathy Hudson, PhD,
Johns Hopkins University

Judy Illes, PhD, Senior Research Scholar,
Stanford University

Prof. Vivek Kapur, PhD,
University of Minnesota

Prof. Richard King, MD, PhD,
University of Minnesota

Prof. Barbara Koenig, PhD,
Mayo College of Medicine

Prof. Bonnie LeRoy, MS,
University of Minnesota

Prof. Elizabeth McFarland, MD,
Washington University in St. Louis

Prof. Lisa Parker, PhD,
University of Pittsburgh

Prof. Jordan Paradise, JD,
University of Minnesota

Sharon Terry, MA, *Executive Director,*
Genetic Alliance and PXE International

Prof. Brian Van Ness, PhD,
University of Minnesota

Prof. Benjamin Wilfond, MD,
University of Washington

Since the Consortium was founded in 2000, one of our primary goals has been to compete for grants to produce original intellectual work on the societal implications of the life sciences. 2005–06 saw great growth in the Consortium’s and Joint Degree Program’s work in this area. Our research is now funded by both the National Institutes of Health (NIH) and the National Science Foundation (NSF).

The Consortium’s first proposal to the National Science Foundation (NSF), submitted in November 2005, has been funded. This 4-year, \$1.22 million project will examine oversight models for nanotechnology. The project, entitled “NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context,” will begin September 1, 2006 and include investigators from 4 colleges plus a Working Group spanning 6 colleges and involving national experts. 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 (Law School), and Prof. Gurumurthy Ramachandran, PhD (School of Public Health)

The Consortium completed the first year of a 2-year project funded by the National Human Genome Research Institute at NIH entitled “Managing Incidental Findings in Human Subjects Research.” Prof. Susan Wolf, JD is the Principal Investigator. Co-Investigators are Profs. Jeffrey P. Kahn, PhD, MPH (Center for Bioethics), Frances Lawrenz, PhD (Educational Psychology), and Charles A. Nelson, PhD (Harvard Medical School and Children’s Hospital Boston). In collaboration with a Working Group of prominent national scholars (see sidebar), the investigators are studying how researchers should handle incidental findings identified in imaging and genomic research. Incidental findings are unexpected findings of potential clinical significance that are beyond the domain of key interest in the research. The project will result in publication of empirical analyses, a consensus report, and model consent form language. A May 1, 2007 conference will present empirical and normative work, papers on incidental findings management in targeted research areas, and analysis of the legal implications of incidental findings. We will produce a published symposium collecting the empirical and narrative reports and targeted papers plus a website offering tools such as model consent form language and an annotated bibliography with web links.

The Consortium and Center for Bioethics, together with the Biomedical Ethics Research Program at the Mayo Clinic and Mayo College of Medicine, were awarded an inaugural Ruebhausen Visiting Professorship grant from the Greenwall Foundation. Zach W. Hall, PhD, President of the California Institute for Regenerative Medicine (CIRM) will visit the University of Minnesota and Mayo Clinic in Fall 2007 and deliver a major public lecture.

The Consortium and Center for Bioethics worked with Prof. Barbara Koenig, PhD at the Mayo College of Medicine to submit a collaborative proposal on DNA biobanking to the Minnesota Partnership for Biotechnology and Medical Genomics. The Consortium also worked with the Prof. Dorothy Hatsukami, PhD at the University’s Transdisciplinary Tobacco Use Research Center on a pre-proposal to NIH. The Consortium worked with the Law School of efforts to conceptualize a proposal to the Robina Foundation.



National Science Foundation
WHERE DISCOVERIES BEGIN

Working Group for NSF-funded nanotechnology project:

Prof. Dan Burk, JD, MS, *University of Minnesota*

Prof. Stephen Ekker, PhD, *University of Minnesota*

Prof. Susan Foote, JD, *University of Minnesota*

Prof. Ralph Hall, JD, *University of Minnesota*

Robert Hoerr, MD, PhD, *President and CEO,*
Nanocorpoeia, Inc

Prof. Terrance Hurley, PhD, *University of Minnesota*

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Prof. Kenneth Keller, PhD, *University of Minnesota*

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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*





Executive Committee

The Consortium and Joint Degree Program created an Executive Committee in 2003 under the direction of Prof. Susan Wolf, Chair and Director. The Executive Committee is a joint Consortium/Joint Degree Program Committee because nearly all of our events are jointly sponsored, staffed, and funded. The Executive Committee was established to facilitate the work of the Consortium and Joint Degree Program by spreading the intellectual responsibility for our programming in order to take full advantage of the extraordinary expertise in both programs.

Committee members were each responsible for planning a conference or lecture series, providing input and advice regarding the Presidential Interdisciplinary Academic Initiative on Law and Values, and generally guiding the programs.

The members of the Executive Committee for 2005–06 were:

Prof. Frank Busta (National Center for Food Protection and Defense) took the lead on the annual conference on “Terrorist Threats to our Food Supply: Food Protection and Defense — Science, Ethics & Law” with the assistance of **Shaun Kennedy** (National Center for Food Protection and Defense, Center for Animal Health & Food Safety) and **Julie Ostrowsky** (National Center for Food Protection and Defense). Prof. Busta is the director of the National Center for Food Protection and Defense, professor emeritus of food microbiology, and former head of the Department of Food Science and Human Nutrition.

Prof. Michael Georgieff (Center for Neurobehavioral Development) focused the Lecture Series on Law, Health & the Life Sciences on the ethical, legal, and social issues emerging from neuroscience. He is the Director and co-founder of the Center for Neurobehavioral Development and also directs the University’s Newborn Intensive Care Follow-Up Program as well as the Neonatal Nutrition Support Service.

Profs. Kenneth Keller and **Jennifer Kuzma** (Center for Science, Technology, and Public Policy) and **Prof. Dan Philippon** (Program in Agricultural, Food, and Environmental Ethics) led the Lunch Series on the Societal Implications of the Life Sciences, which focused on “Energy and the Environment: Science, Ethics & Policy.” Prof. Keller is the Charles M. Denny, Jr., Professor of Science, Technology, and Public Policy and Director of the Center for Science, Technology, and Public Policy. Prof. Kuzma is Associate Director for the Center for Science, Technology, and Public Policy and an Assistant Professor in the Humphrey Institute. Prof. Philippon is Director of the Program in Agricultural, Food, and Environmental Ethics and an Associate Professor in the Department of Rhetoric.

Prof. Jeffrey Kahn, PhD, MPH (Center for Bioethics) collaborated with Prof. Wolf on the Deinard Memorial Lecture on Law & Medicine. Prof. Kahn holds the Maas Family Chair in Bioethics and is Director of the University of Minnesota’s Center for Bioethics and Professor in the Department of Medicine, Medical School; Division of Health Policy & Management, School of Public Health; and Department of Philosophy.

For 2006–07, the Executive Committee has been restructured to allow for more continuity by combining elected members with members leading events that year. Committee members have been elected to 1–3 year terms. Additional committee members will lead event planning. 2006–07 Committee members include:

- **Prof. Jeffrey Kahn** (Center for Bioethics), 3-year term beginning 2006, co-directing the annual symposium with Prof. Wolf and co-leading the Lunch Series;
- **Prof. Dan Kaufman** (Stem Cell Institute), leading the annual conference;
- **Shaun Kennedy** (National Center for Food Protection and Defense, Center for Animal Health & Food Safety), 1-year term beginning 2006;
- **Prof. Bonnie LeRoy** (Institute of Human Genetics), 1-year term beginning 2006;
- **Prof. Deborah Swackhamer** (Water Resources Center), 2-year term beginning 2006 and co-leading the Lunch Series; and
- **Prof. Elizabeth Wattenberg** (Joint Degree Program), 3-year term beginning 2006.



Prof. Frank Busta, Director of the National Center for Food Protection and Defense, speaking at the roundtable discussion at the annual conference.



Prof. Michael Georgieff, Director of the Center for Neurobehavioral Development, welcomes attendees to Prof. Owen Jones’s Lecture Series presentation.



Prof. Kenneth Keller, Director of the Center for Science, Technology, and Public Policy, moderating Prof. Richard Howarth’s Lunch Series presentation.



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 highly selected faculty members, community members, and government leaders as well as our Joint Degree Program students. The 2005–06 Lecture Series focused on the societal implications of new developments in neuroscience.



*Prof. Michael Gazzaniga,
Dartmouth College.*

Wednesday, November 2, 2005

Prof. Michael Gazzaniga, PhD of Dartmouth College presented “**The Ethical Brain.**” Prof. Gazzaniga is the David T. McLaughlin Distinguished University Professor and Director of the Center for Cognitive Neuroscience at Dartmouth College. He is a member of the U.S. President’s Council on Bioethics. He argued that neuroscience should not be used to think about everyday ethical issues but can suggest universal morals possessed by all humans. **Prof. Lawrence Charnas, MD, PhD**, Department of Pediatrics’ Clinical Neuroscience Division, and **Prof. Carl Elliott, MD, PhD**, Center for Bioethics, provided commentary.

Wednesday, December 7, 2005

Prof. Owen Jones, JD of Vanderbilt University presented “**The Implications of Behavioral Biology for Law: Evolutionary Perspectives.**” Prof. Jones holds a dual appointment in Law and Biological Sciences at Vanderbilt University. He specializes in issues at the intersection of law and human behavioral biology. In this lecture, Prof. Jones argued that many long-held understandings about where behavior comes from are rapidly becoming obsolete as a consequence of developments in the various fields constituting behavioral biology. By helping to refine understanding of behavior’s causes, behavioral biology can help to improve law’s effectiveness and efficiency. **Prof. David W. Stephens, PhD**, Department of Ecology, Evolution, and Behavior, and **Prof. Susan M. Wolf, JD**, Law School, Medical School, Center for Bioethics, provided commentary.



Prof. Owen Jones, Vanderbilt University.

Wednesday, March 1, 2006

Prof. Martha Farah, PhD, University of Pennsylvania presented “**Developmental Neuroethics: Neuroscience, Childhood and Society.**” Prof. Farah is Professor of Psychology and Director of the Center for Cognitive Neuroscience at the University of Pennsylvania. In her lecture, she stated that advances in the study of brain development, along with the growing demands that society places on children and adolescents, present us with a host of neuroethical issues. She analyzed specific issues regarding the use of psychopharmacology for children, as well as child and adolescent culpability in the criminal justice system. Commentators were **Donald Brunquell, PhD**, Director of the Office of Ethics at Children’s Hospitals and Clinics of Minneapolis/St. Paul, and **Prof. Dana Ernest Johnson, MD, PhD**, Director of the International Adoption Clinic and Director of the Division of Neonatology at the University of Minnesota.

Our Lecture Series in 2006–07 will focus on the issues raised by nutraceuticals and nutrigenomics. **Jordan Paradise**, the Consortium’s Associate Director of Research & Education, is taking the lead in planning. The lecturers will be **Mark Blumenthal** (American Botanical Council) on October 4, 2006; **Prof. David Castle, PhD** (University of Ottawa) on February 2, 2007, and **Prof. Jose Ordovas, PhD** (Tufts University) on March 7, 2007. All lectures begin at 11:30am and conclude at 1:00pm when the invited lunch begins. The October lecture will be held in Coffman Memorial Union and the February and March lectures will be held in the St. Paul Student Center. All lectures will be free and open to the public. Credit for Continuing Medical Education (CME), Continuing Nursing Education (CNE), and Continuing Legal Education (CLE) will be requested for each lecture.

Videos from all of the 2005–06 lectures are available on our websites at www.lifesci.consortium.umn.edu/conferences/lecture_series.php and www.jointdegree.umn.edu/conferences/lecture_series.php.



*Prof. Martha Farah,
University of Pennsylvania.*



Lunch Series on the Societal Implications of the Life Sciences

The Joint Degree Program and the Consortium inaugurated the Lunch Series on the Societal Implications of the Life Sciences in the Fall of 2001. The Series sponsored 4 lectures in 2005–06. Each lecture brings to campus an eminent scholar examining the societal implications of the life sciences, who lectures to and meets with faculty, students, and community members. The focus for the 2005–06 Lunch Series was “Energy and the Environment: Science, Ethics & Policy.” The Lunch Series speakers were:

Tuesday, October 18, 2005

Prof. Daniel M. Kammen, PhD, University of California, Berkeley, presented “**Changing Energy Policy to Benefit the Environment and Human Health.**” Prof. Kammen holds multiple appointments at UC, Berkeley and is the founding director of the Renewable and Appropriate Energy Laboratory (RAEL). In this lecture, he argued that the energy industry is highly capable of change and relatively simple policy changes may go a long way. The needed catalyst for progress may simply be our interest in changing the *status quo*.

Thursday, November 10, 2005

Donald A. Brown, JD, Director of the Pennsylvania Consortium for Interdisciplinary Environmental Policy, presented “**An Ethical Framework for Analyzing Global Warming.**” Mr. Brown is also Senior Counsel for Sustainable Development for the Pennsylvania Department of Environmental Protection. His lecture identified the major ethical questions raised by climate change policy-making and explained why we should integrate express ethical reflection on climate change policy options into the scientific and economic discussion that is currently framing climate change debate.

Tuesday, February 7, 2006

Prof. Richard B. Howarth, PhD, Dartmouth College, presented “**Climate Change and Intergenerational Fairness: Reconciling Ethics and Economics.**” Prof. Howarth is Professor of Environmental Studies at Dartmouth College. He is an environmental economist who studies issues of energy use, climate change, and ecological conservation. His lecture explored and sought to resolve the tensions that exist between moral theories emphasizing the importance of stabilizing the Earth’s climate to protect the rights or interests of future generations and economic models that imply that comparatively little weight is attached to the benefits of climate change mitigation to future generations.

Tuesday, April 11, 2006

Richard L. Sandor, PhD, Chairman and CEO of the Chicago Climate Exchange, presented “**The Convergence of Environmental and Capital Markets.**” Dr. Sandor discussed the development of market-based self-regulatory mechanisms, with special emphasis on emissions trading as a tool to address global climate change. He focused chiefly on the activities of the Chicago Climate Exchange as a self-regulatory rules-based emission registry and exchange that administers a voluntary greenhouse gas reduction and trading program for North America.

In 2006–07 the Lunch Series will focus on “Science and Politics: Controversies in Regulation and National Security.”

Prof. Deborah Swackhamer, Co-Director of the Water Resources Center, **Prof. William Hueston**, Director of the Center for Animal Health & Food Safety, and **Prof. Jeffrey Kahn**, Director of the Center for Bioethics, are planning this series. The lecturers will be **Prof. Kurt Gottfried, PhD** (Cornell University) on September 19, 2006; **Prof. Holly Doremus, JD, PhD** (University of California, Davis) on November 14, 2006; **Prof. David Relman, MD** (Stanford University) on January 25, 2007; and **Scott Gottlieb, MD** (Food and Drug Administration) on April 12, 2007. All lectures are held from 12:15pm–1:30pm in Coffman Memorial Union’s Theater and will be free and open to the public. Continuing Legal Education (CLE) credit will be requested for each lecture.

Videos from all of the 2005–06 lectures are available on our websites at <www.lifesci.consortium.umn.edu/conferences/lunch_series.php> and <www.jointdegree.umn.edu/conferences/lunch_series.php>.



*Prof. Daniel Kammen,
University of California, Berkeley.*



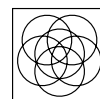
*Donald Brown, Esq., Pennsylvania
Department of Environmental Protection.*



Prof. Richard Howarth, Dartmouth College.



*Dr. Richard Sandor,
Chicago Climate Exchange.*





Gale Prince, Kroger, Inc. participating in the roundtable discussion at the annual conference.



Dr. Robert Buchanan, Food & Drug Administration, speaking at the conference on "Terrorist Threats to Our Food Supply."



Shaun Kennedy, Deputy Director of the National Center for Food Protection and Defense, moderating the roundtable discussion at the annual conference.

Annual Conference

Each year the Consortium and Joint Degree Program sponsor a full-day conference. This year's topic was **"Terrorist Threats to Our Food Supply: Food Protection and Defense — Science, Ethics & Law."** This April 21, 2006 conference was co-sponsored by the University of Minnesota's National Center for Food Protection and Defense, Center for Animal Health & Food Safety, and Center for Infectious Disease Research & Policy.

This event addressed pressing issues posed by the challenge of protecting our food supply from terrorist threats. National experts addressed public health responses, industry concerns, consumer perspectives, risk analysis, and defense. An expert roundtable discussed the future of food protection and defense.

Senior Vice President for Health Sciences Frank B. Cerra, MD (Academic Health Center) offered opening remarks. **Robert L. Buchanan, PhD** (Food and Drug Administration) then presented the history of the Food and Drug Administration (FDA) response to the issue of food defense, specifically addressing FDA efforts and related regulatory measures. Other morning sessions featured **Prof. Michael T. Roberts, JD, LL.M.** (University of Arkansas) on the role of regulation in minimizing terrorist threats to the food supply; **Clay Detlefsen, JD, MBA** (International Dairy Foods Association) on food industry concerns; and **Caroline Smith De Waal, JD** (Center for Science in the Public Interest) on consumer perspectives. At lunch, **Asha M. George, DrPH, MSPH** (DFI Government Services) discussed public health responses to threats to the food supply. In the afternoon, **Prof. Donald W. Schaffner, PhD** (Rutgers University) discussed how risks are analyzed and a roundtable of speakers discussed "Moving Forward in Food Protection and Defense." The roundtable discussion was moderated by **Shaun Kennedy** (University of Minnesota) and panelists were **Gale Prince** (The Kroger Co.), **Prof. Francis F. Busta, PhD** (University of Minnesota), **Arthur P. Liang, MD, MPH** (Centers for Disease Control), **Mark Wilson, PhD** (Federal Bureau of Investigation), **Col. John Hoffman** (University of Minnesota), and **Prof. Jeffrey P. Kahn, PhD, MPH** (University of Minnesota). To conclude the event, **Prof. Michael Osterholm, PhD, MPH** (University of Minnesota) outlined the next steps in addressing food protection issues. **Prof. Susan Wolf, JD** (Law School, Medical School, Center for Bioethics) and **Shaun Kennedy** (National Center for Food Protection & Defense, Center for Animal Health & Food Safety) acted as moderators for the day.

Videos of all presentations may be found at <www.lifesci.consortium.umn.edu/conferences/foodsafety.php>. An article about this event will appear in an 2006 issue of the *Lahey Clinical Medical Ethics Journal* and the full symposium will appear in the *Minnesota Journal of Law, Science & Technology* in 2006.

This event provided 6.0 hours of continuing legal education credit (CLE) for attorneys, 6.5 hours of continuing medical education credit (CME) for physicians, and 7.8 hours in continuing nursing education (CNE) for nurses, and 7 Certified Health Education Specialist (CHES) contact hours.

In 2006–07, the annual conference will be held on Monday, February 26, 2007 and will address legal and ethical issues surrounding somatic cell nuclear transfer in therapeutic cloning. The event will take place in the Coffman Memorial Union's Theater. **Prof. Dan Kaufman, Prof. Meri Firpo, and Jordan Paradise** are taking the lead in planning this event. The Consortium will request CME and CLE credit for the conference.



Annual Symposium

Each year since 2001 the Consortium has sponsored an annual symposium. On May 19, 2006, the Consortium, with the Joint Degree Program, Center for Bioethics, and Center for Environment & Health Policy sponsored a national full-day symposium on **"The Risks Posed by New Biomedical Technologies: How Do We Analyze, Communicate & Regulate Risk?"** This symposium focused on how we understand and perceive risk, our past approaches to risk, and emerging approaches to risk. Case studies included gene therapy, assisted reproductive technologies, drugs and devices, nanotechnology, human enhancement technologies, stem cells, and genomic medicine.

Senior Vice President and Provost E. Thomas Sullivan, JD (University of Minnesota) offered opening remarks. **Prof. Neil D. Weinstein, PhD** (Rutgers University and Arizona Cancer Center) then discussed how the public thinks about risk. The rest of the morning's presentations focused on past approaches to risk and featured **Philip Noguchi, MD** (Amgen, Inc.) looking at gene therapy research; **Prof. George J. Annas** (Boston University) on assisted reproductive technologies; and **Arthur Levine, Esq.** (Arnold & Porter, LLP) on drugs, vaccines, and devices. University of Minnesota **Profs. Jeffrey P. Kahn, PhD, MPH; Susan M. Wolf, JD; and Ralph Hall, JD** provided commentary following these presentations. Afternoon sessions addressed emerging approaches to risk. **Prof. Mauro Ferrari, PhD** (University of Texas) addressed biomedical nanotechnology; **Prof. Eric T. Juengst, PhD** (Case Western Reserve University) looked at human enhancement technologies; **Prof. R. Alta Charo, JD** (University of Wisconsin) focused on stem cells and regenerative medicine, and **Prof. Edward R. B. McCabe, MD, PhD** (University of California, Los Angeles) discussed genomic medicine. **Prof. Susan Wolf, JD** (Law School, Medical School), **Prof. Jeffery P. Kahn, PhD, MPH** (Center for Bioethics), and **Jordan Paradise, JD** (Consortium) served as moderators for the day.

Video of the presentations may be found on-line at www.lifesci.consortium.umn.edu/conferences/risks.php.

Articles from this event will be featured in Volume 8 of the *Minnesota Journal of Law, Science & Technology*.

This event provided 6.5 hours of continuing legal education credit (CLE) for attorneys and 6.5 hours of continuing medical education credit (CME) for physicians.

In 2006–07, the annual symposium will focus on the work from our NIH grant on "Managing Incidental Findings in Human Subjects Research." The event will be held on May 1, 2007 on the University of Minnesota campus. The Consortium will again request CME and CLE credit for the symposium.



Audience at the symposium on "The Risks Posed by New Biomedical Technologies: How Do We Analyze, Communicate & Regulate Risk?"



Prof. Mauro Ferrari, University of Texas Health Science Center, speaking at the symposium on "Risks Posed by Biomedical Technologies."



Prof. Neil Weinstein, Rutgers University, speaking at the symposium on risk.

May 19, 2006
 UNIVERSITY OF MINNESOTA
 Room 25, Walter F. Mondale Hall
 University of Minnesota Law School
 Minneapolis, Minnesota
 8:15 a.m.–5:00 p.m.

**The Risks Posed by
 NEW BIOMEDICAL TECHNOLOGIES:**
How Do We Analyze, Communicate & Regulate Risk?

SPACE IS LIMITED. ADVANCE REGISTRATION IS STRONGLY ENCOURAGED.
 Online registration, full agenda, and further information available at: <http://www.lifesci.consortium.umn.edu/conferences/risks.php>
 Or register by Phone: 612-625-0855, Fax 612-624-9143, E-mail lawvalues@umn.edu
 REGISTRATION FEE: \$35 (\$10 for students)

register
NOW



Publications

In 2005–06, the Consortium published widely. Highlights include:

Articles from the April 18, 2005 conference on “Proposals for the Responsible Use of Racial & Ethnic Categories in Biomedical Research: Where Do We Go From Here?” appeared in the *Journal of Law, Medicine & Ethics* in August 2006 and an overview of the conference appeared in *Nature Genetics* in August 2005.

- Wolf SM. Are we making progress in the debate over racial and ethnic categories in biomedical research? *Nature Genetics*. 2005;37:789–90. <www.nature.com/ng/journal/v37/n8/full/ng0805-789.html>.
- Wolf SM, ed. Symposium on “The Responsible Use of Racial and Ethnic Categories in Biomedical Research: Where Do We Go From Here?,” *Journal of Law, Medicine & Ethics*. 2006;34(3):483–558.

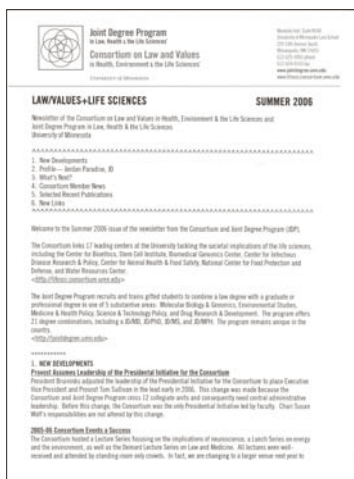
The *Minnesota Journal of Law, Science & Technology* published articles from our April 2, 2004 conference on “Environmental Threats to Children’s Health: Legal and Policy Challenges” and our May 20, 2005 symposium on “Where are Law, Ethics & the Life Sciences Headed? Frontier Issues.”

“Environmental Threats to Children’s Health: Legal and Policy Challenges” at <mjlst.umn.edu/issues.php?vid=3>:

- Klass AB. Pesticides, Children’s Health Policy, and Common Law Tort Reforms. *MJLST*. 2005;7(1):89–146.
- Orfield M. Segregation and Environmental Justice. *MJLST*. 2005;7(1):147–160.

“Where are Law, Ethics & the Life Sciences Headed? Frontier Issues” at <mjlst.umn.edu/issues.php?vid=3> and <mjlst.umn.edu/issues.php?vid=4>:

- Collier D. Access to and Control over Plant Genetic Resources for Food and Agriculture in South and Southern Africa: How Many Wrongs Before a Right? *MJLST*. 2006;7(2):529–564.
- Foote SB. Frontiers of Medical Technology: Reflections on the Intersection of Innovation and the Health Care System. *MJLST*. 2005;7(1):79–88.
- Greely HT. Neuroethics and ELSI: Similarities and Differences. *MJLST*. 2006;7(2):599–638.
- Herring DJ. Foster Care Safety and the Kinship Cue of Attitude Similarity. *MJLST*. 2006;7(2):355–392.
- Holling CS. From Complex Regions to Complex Worlds. *MJLST*. 2005;7(1):1–20.
- Karkkainen BK. Panarchy and Adaptive Change: Around the Loop and Back Again. *MJLST*. 2005;7(1):59–78.
- Millen R, Burdett CL. Critical Habitat in the Balance: Science, Economics, and Other Relevant Factors. *MJLST*. 2005;7(1):227–300.
- Ruhl JB. Regulation by Adaptive Management — Is it Possible? *MJLST*. 2005;7(1):21–58.



LAW/VALUES + LIFE SCIENCES



Report in Nature Genetics.



Consortium symposium in the Journal of Law, Medicine & Ethics.



The July-August 2005 issue of *The Hastings Center Report* featured a report on the May 5, 2005 meeting to discuss the future of bioethics as an academic discipline, as hosted by the Center for Bioethics together with the Consortium.

- Wolf SM, Kahn JP. Bioethics Matures: The Field Faces the Future. *Hastings Center Report*. 2005; 35(4):22–24.

In 2006–07, the *Minnesota Journal of Law, Science & Technology* will feature symposia from our 2006 conferences on “Terrorist Threats to Our Food Supply: Food Protection and Defense — Science, Ethics & Law” and “The Risks Posed by New Biomedical Technologies: How Do We Analyze, Communicate & Regulate Risk?” Other publications in progress include a symposium on genetics and disability insurance (with the Center for Bioethics) for the *Journal of Law, Medicine & Ethics*.

The Consortium and Joint Degree Program also offer a variety of program publications each year including a newsletter, this annual report, and a variety of conference and promotional materials.

In Fall 2001 the Consortium and Joint Degree Program inaugurated their newsletter, LAW/VALUES+LIFE SCIENCES. The newsletter is distributed via e-mail and is also available on the “Newsletter” page on both the Consortium and Joint Degree websites at www.lifesci.consortium.umn.edu/newsletter/ and www.jointdegree.umn.edu/newsletter/. Each issue highlights recent developments in ethical, legal, and social issues relating to health or the life sciences at the University of Minnesota; profiles a University of Minnesota faculty member making significant contributions in these areas; and describes selected research and publications by Consortium members and Joint Degree Program faculty. The newsletter also provides program-related news and updates, announces upcoming events throughout the University, and offers links to websites of interest to readers. Readers can subscribe by filling out the form on the “Newsletter” page of either website or sending an e-mail to lawvalue@umn.edu or jointdgr@umn.edu.

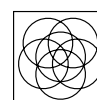
In 2005–06, the Consortium also published a handsome new Consortium brochure and worked with the Law School on brochures emphasizing health law and environmental law offerings at the University. The Joint Degree Program created a flyer outlining requirements for the Concentration on Health Law & Bioethics. Both the annual conference and annual symposium provided attendees with lengthy handouts including speakers’ outlines, slides, and background articles, as well as relevant articles by other authors.



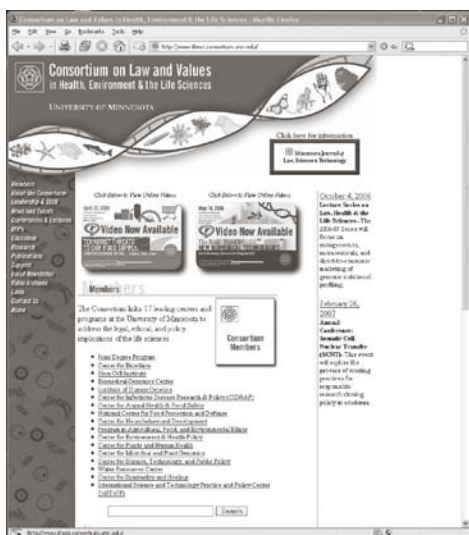
Article in the *Hastings Center Report*.



Audience at the conference on “Terrorist Threats to Our Food Supply.” Prof. Michael T. Roberts, University of Arkansas, speaking at the annual conference.



Websites and Technology



www.lifesci.consortium.umn.edu

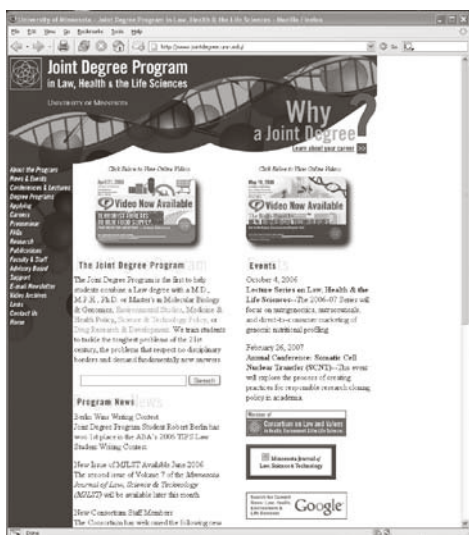
The Consortium's website <www.lifesci.consortium.umn.edu> serves as a gateway to the members of the Consortium and provides central access to information, news, and events relating to the University of Minnesota's work on societal implications of problems in health, environment, and the life sciences. The site provides information about each of the member centers and programs, including their research and publications. The RFPs page includes a catalog of 67 RFP winners and reports on their projects.

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.

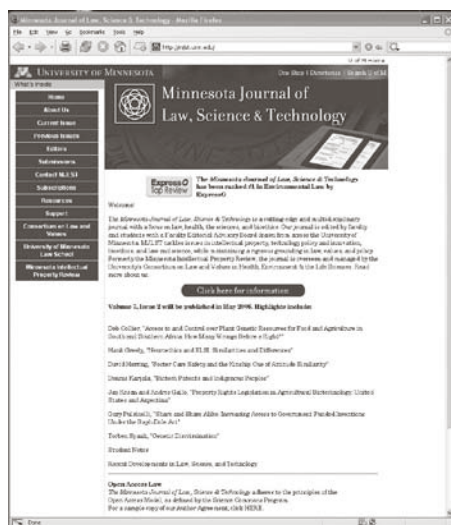
Both the Consortium and Joint Degree Program sites utilize the Google news search feature, which allows users to search for current world news on law and science. Videos from all of the years' lectures, conferences, and symposia are available through portals on the "Conference & Lectures" page. Videos from all of our events held in previous years may be found on the "Video Archives" pages. User comments are always welcome — e-mail us at lawvalue@umn.edu or jointdgr@umn.edu with your thoughts and suggestions.

The website for the *Minnesota Journal of Law, Science and Technology* <www.mjlst.umn.edu> allows visitors to read abstracts and biographies of authors. Full text articles are available on the site one year after their original publication. The website also features a behind-the-scenes forum for student and faculty editors to share articles, comments, edits, and other information pertaining to their work. The forum has become an invaluable tool for the journal staff.

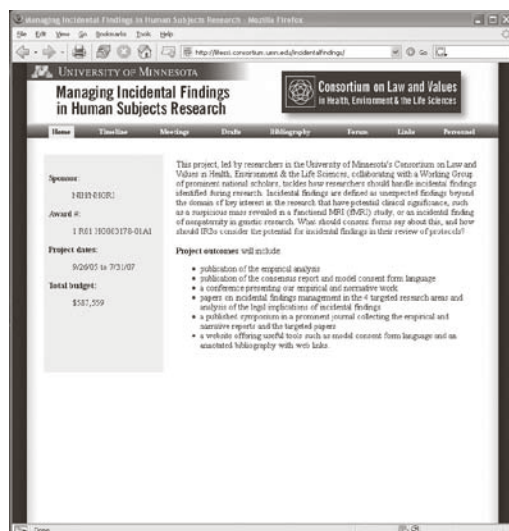
In 2005–06, the Consortium also created a website for its project on "Managing Incidental Findings in Human Subjects Research." Currently available only to the project's Working Group, the website provides access to the working bibliography, drafts of papers, meeting agenda, and background information. Upon completion of the project, the site will be transformed into a public site offering the complete annotated bibliography, model consent form language, and information about the project's process and publications.



www.jointdegree.umn.edu



www.mjlst.umn.edu



www.lifesci.consortium.umn.edu/incidentalfindings.com



Staff

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

Glen Anderson, Information Technology Professional, joined the Consortium and Joint Degree Program in 2005. Glen maintains the programs' websites and oversees technology use. Glen previously worked as a Web Consultant and Programmer specializing in web/database integration for educational institutions and museums. He has a BS in Education from Concordia University.

Audrey Boyle joined the Consortium and Joint Degree Program in 2005 as Project Manager. She is responsible for managing all of the programs' grants and research projects, administering the Consortium's Request for Proposals (RFPs), and assisting with the programs' daily financial management and annual budgeting. Audrey's previous work experience has primarily been in health care administration. She has degrees from Western Michigan University and the University of Arizona.

Ann Hagen, Senior Administrative Director, joined the Joint Degree Program and Consortium in June 2000 as Program Associate. She was appointed Senior Administrative Director in December 2001. Her duties include management and administration of both programs, coordinating student applications to the Joint Degree Program, and assisting current and potential students. Ann previously worked as a legal assistant at a Chicago law firm specializing in family law litigation. She has degrees from the University of Michigan and the University of Minnesota.

Sabrina Martel worked as the Consortium's Executive Administrative Specialist in 2005–06. She administered the *Minnesota Journal of Law, Science and Technology* and provided general administrative support for all Joint Degree Program and Consortium activities. Ms. Martel previously worked in New York City as an Executive Assistant and Consulting Associate in Business Development and Organizational Development Consulting. She received her BA in English Literature and the Life Sciences from the University of Minnesota in May 2006.

Sara Zetervall was the Consortium's and Joint Degree Program's Program Associate in 2005–06. She planned all Consortium and Joint Degree Program events, including lectures, meetings, conferences, and student events. Sara previously worked as in the University's Center for Early Education and Development. She obtained her BA in English from the University of Virginia and her MFA from the University of Michigan.

New staff for 2006–07 include **Cathy Kostka**, Program Associate, and **Monica Wittstock**, Executive Administrator.

The Joint Degree Program and Consortium are indebted to the following Research Assistants in 2005–06:

Aaron Chapin (Law), **Barbara Figari** (Law), and **Suzanne Sobotka** (Epidemiology).



Glen Anderson.



Audrey Boyle.



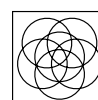
Ann Hagen.



Sabrina Martel.



Sara Zetervall.



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“Managing Incidental Findings in Human Subjects Research”
1 R01 HG003178-01A1 (NHGRI – NIH) 9/26/05–7/31/07

Susan M. Wolf, JD, Principal Investigator
Jeffrey P. Kahn, PhD, MPH, Co-Investigator
Frances Lawrenz, PhD, Co-Investigator
Charles A. Nelson, PhD, Co-Investigator

“NIRT: Evaluating Oversight Models for Active Nanostructures and Nanosystems: Learning from Past Technologies in a Societal Context”
SES 0608791 (NSF) 9/1/06–8/31/10

Susan M. Wolf, JD, Principal Investigator
Efrosini Kokkoli, PhD, Co-Principal Investigator
Jennifer Kuzma, PhD, Co-Principal Investigator
Jordan Paradise, JD, Co-Principal Investigator
Gurumurthy Ramachandran, PhD, Co-Principal Investigator

The Greenwall Foundation granted funds to the Consortium, together with the Center for Bioethics and Mayo Clinic, to host the Oscar M. Ruebhausen Visiting Professorship in 2007.

The Consortium and Joint Degree Program are deeply gratified by the funding provided through the Presidential Interdisciplinary Academic Initiative on Law and Values in Health, Environment & the Life Sciences. This Initiative is led by Senior Vice President for Academic Affairs and Provost E. Thomas Sullivan. We are indebted to everyone involved in the Initiative, especially:

- President Robert Bruininks
- Senior Vice President for Academic Affairs and Provost E. Thomas Sullivan
- Executive Associate Vice President Alfred Sullivan
- H. Jeanie Taylor, Associate for Presidential Initiatives

In addition, the Joint Degree Program and Consortium were indebted to the following for major support in 2005–06:

- Senior Vice President for Academic Affairs and Provost E. Thomas Sullivan
- Senior Vice President Frank Cerra, Academic Health Center
- Dean Gail Dubrow, Graduate School
- Dean Alex Johnson, Jr., Law School
- Dean Robert Elde, College of Biological Sciences
- Dean John Finnegan, School of Public Health
- Dean Charles Muscoplat, College of Agricultural, Food, and Environmental Sciences

We also gratefully acknowledge the following targeted support:

- 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 2005–06

We also thank Dean Alex Johnson of the Law School for support we received for the *Minnesota Journal of Law, Science & Technology*.



Senior Vice President Frank Cerra welcomes attendees to the conference on “Terrorist Threats to Our Food Supply.”



Prof. William Iacono, Department of Psychology, commenting on the Deinard Lecture by Prof. David Kaye.



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

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