

GREGORY D. GRAFF, PH.D.
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Associate Professor, Department of Agricultural & Resource Economics
B306 Clark Hall, Colorado State University
Fort Collins, Colorado 80523, USA

EDUCATION

Ph.D., University of California at Berkeley, Agricultural and Resource Economics, December 2002.
Thesis title: “Innovating and Trading Biotechnologies for Agriculture”
Advisors: David Zilberman, Brian Wright

M.S., University of California at Berkeley, Agricultural and Resource Economics, June 1999.
Thesis title: “Agricultural Biotechnology’s Complementary Intellectual Assets”
Advisor: Gordon Rausser

M.A., Ohio State University, Russian Area Studies, major field in Economics, June 1995.
Thesis title: “Financial Intermediary Institutions in Russia’s Transition Economy”
Advisor: Warren Eason
Study abroad: Graduate School of International Studies, Yonsei University, Seoul, Korea, Fall 1995.

B.A., Cornell University, major in Biological Sciences and minor in Russian Language, May 1992.
Graduated with honors “Excellence in All Subjects”
Study abroad: Puskin Institute of Russian Language, Moscow, USSR, Fall 1990.
L’Abri Institute, Huemoz, Switzerland, Spring 1991.

AREAS OF SPECIALIZATION

Management of technological innovation and R&D; Intellectual property rights; Entrepreneurship; Agricultural and natural resource economics: R&D and agricultural technologies; Science and technology policy.

RESEARCH AND PROFESSIONAL APPOINTMENTS

Associate Professor, Department of Agricultural and Resource Economics, Colorado State University, July 2011 – present.

Assistant Professor, Department of Agricultural and Resource Economics, Colorado State University, August 2007 – June 2011.

Research Economist and Program Director, Public Intellectual Property Resource for Agriculture (PIPRA), University of California at Davis, June 2004 - August 2007.

Visiting Research Fellow, Department of Agricultural and Resource Economics, University of California at Berkeley, February 2004 - August 2007.

Director of Research, Bio Economic Research Associates LLC (bio-era), Cambridge, Massachusetts, March 2003 - February 2004.

Senior Analyst, Office of Technology Transfer, University of California Office of the President, Oakland, CA, July 2001 - February 2003.

Graduate Student Researcher, Agricultural and Resource Economics, University of California at Berkeley, January 1999 - June 2001.

Graduate Student Researcher, Agricultural and Resource Economics, University of California at Berkeley, September 1996 - December 1997.

Research Fellow, Institute of East-West Studies, Yonsei University, Seoul, Korea, August 1995 - June 1996.

Intern Editor, Eurasia Environmental Publications, Moscow, Russia, September 1992 - August 1993.

Summer Analytical Chemistry Research Intern, Proctor & Gamble Co., Miami Valley Laboratories, Cincinnati, Ohio, June - August 1990 and May - August 1991.

TEACHING

Contemporary Issues in Developing Economies, Agricultural and Resource Economics 566, co-taught masters level course, Colorado State University, January 2011-May 2011.

Economics of Innovation, course module for Ph.D. level Agricultural and Resource Economics 770
Advanced Topics in Agricultural Economics, Colorado State University, August 2010 - present

Sustainable Technology Entrepreneurship for Scientists and Engineers, Agricultural and Resource Economics 581A2 (cross listed as Mechanical Engineering 581A2), elective course at Masters level, Colorado State University, January 2010 - present

World Interdependence: Food and Population, Agriculture 270 (cross listed as International Education 270), undergraduate survey course, Colorado State University, January 2009 - present

Agricultural and Natural Resource Policy, Agricultural and Resource Economics 478, upper division undergraduate course, Colorado State University, August 2007 - present.

Plants, Agriculture, and Society, Plant and Microbial Biology 10, lower division undergraduate survey course, University of California at Berkeley, October 2006 - December 2006 and August 2002 - December 2002.

Technology Management, Management 250, Business Development Program and Professional MBA Program, Graduate School of Management, University of California, Davis, April 2005 - June 2005.

Technology, Innovation, and Entrepreneurship, course module for Beahrs Environmental Leadership Program, University of California Berkeley, July 2001 and July 2002.

Industrial Organization of Agricultural and Food Markets, Environmental Economics and Policy 141, Graduate Student Instructor with Professor Jerry Siebert, University of California at Berkeley, August 1998 - December 1998.

Economics of Natural Resources and the Environment, Environmental Economics and Policy 101/Economics 125, Graduate Student Instructor with Professor David Zilberman, University of California at Berkeley, January 1998 - May 1998.

CONFERENCES/MEETINGS ORGANIZED

The Venture Engine: How a School of Entrepreneurship can Bridge the Gap from Invention to Marketplace, Colorado State University, August 15, 2008. Organized and hosted workshop/conference.

Institutional Landscapes in Stem Cell Research and Development: Problems and Solutions, sponsored by Berkeley Stem Cell Center and UC Berkeley Science, Technology, and Society Center, February 6, 2008, Mission Bay Conference Center, San Francisco, CA. Organized and hosted conference.

Economic Opportunities for Information Technology in Agriculture, Resources, and the Environment: Linking University Research and Commercial Application, UC Berkeley, May 27, 2004. Organized and hosted conference.

Sharing the Flame: Excellence in Licensing Practices, 2003 Winter Meeting, Licensing Executives' Society, February 12-15, 2003, Salt Lake City. Served as a member of conference organizing committee.

R&D Policies and Impact Assessments, UC Berkeley, March 30-31, 2001. Organized and hosted conference.

Intellectual Property Clearinghouse Mechanisms for Agriculture, UC Berkeley, February 16, 2001. Organized and hosted conference.

GRANTS and FELLOWSHIPS

The Political Economy of Agricultural Biotechnology Policies in Adopting and Non-Adopting Countries, with David Zilberman (UC Berkeley) and Gal Hochman (UC Berkeley), National Science Foundation (NSF), Science of Science and Innovation Policy (SciSIP), \$256,500 (application submitted).

Designing a Technology-Neutral Benefit Pricing Policy for the Electric Power Sector in Colorado, with co-PI Terry Iverson (CSU) and Catherine Keske (CSU), Governor's Energy Office, State of Colorado, \$93,177.

Developing a Technology-Neutral, Benefit-Pricing Policy for the Colorado Electricity Sector, with co-PI Terry Iverson (CSU), CSU Clean Energy Supercluster, \$17,952

Legal Context of University Intellectual Property (IP) and Technology Transfer, with co-PIs Sean O'Connor (University of Washington) and David Winickoff (UC Berkeley), National Academies of Science, Science Technology Economics and Policy (STEP) Board, \$4,500.

International Assessments of Patenting in Genetics, with co-PIs Philip Pardey (University of Minnesota), Brian Wright (UC Berkeley), Carol Nottenberg (Cougar Law), and Bonwoo Koo (University of Waterloo), National Institutes of Health (NIH), \$1.357 million.

Intellectual Property Protection and Contractual Relations for Biofuels Innovations, with co-PI Brian Wright (UC Berkeley), Energy Bioscience Institute (EBI) at UC Berkeley, \$318,000.

Economics of Biofuel Adoption and Impacts, with co-PI David Zilberman (UC Berkeley), Energy Bioscience Institute (EBI) at UC Berkeley, \$345,000.

The Intellectual Property Landscape of Alternative Biofuel Technologies, CSU Clean Energy Supercluster, \$14,775.

Rockefeller Foundation, co-investigator on service grant, Public Intellectual Property Resource for Agriculture (PIPRA), UC Davis, with Management of Intellectual Property for Health Research (MIHR), Oxford, UK, January 2006 - December 2007.

Rockefeller Foundation, co-investigator on research and service grant, Public Intellectual Property Resource for Agriculture (PIPRA), UC Davis, with Management of Intellectual Property for Health Research (MIHR), Oxford, UK, January 2005 - June 2006.

Council on Biotechnology Information, co-investigator on research grant, Public Intellectual Property Resource for Agriculture, UC Davis, June 2004 - May 2005.

Rockefeller Foundation, co-investigator on research grant, UC Office of Technology Transfer, July 2001 - June 2003.

Giannini Foundation, co-investigator on research grant, UC Berkeley, July 2000 - June 2001.

National Security Education Program (NSEP) Fellowship, for studies and research at Yonsei University, Korea, 1995 - 1996.

Foreign Language and Area Studies (FLAS) Summer Fellowship, for study of Korean language at Indiana University, June - August 1995; for study of Russian language at Ohio State University, 1994-1995.

HONORS and AWARDS

Outstanding Graduate Student Instructor, teaching award, UC Berkeley, May 1999.

Phi Kappa Phi Honor Society, excellence in graduate studies, Ohio State University, June 1995.

Dobroe Slovo Honor Society, excellence in Russian Area Studies, Ohio State University, June 1994.

Excellence in All Subjects, degree honors, Cornell University, May 1992.

PROFESSIONAL ASSOCIATION MEMBERSHIPS

American Agricultural Economics Association (AAEA)

American Economics Association (AEA)

Association of University Technology Managers (AUTM)

Licensing Executives' Society (LES)

American Association for the Advancement of Science (AAAS)

REVIEWER

Grants:

National Collegiate Inventors and Innovators Association (NCIIA)

National Science Foundation (NSF)

Journals:

American Journal of Agricultural Economics

World Development

Contemporary Economic Policy

Management Science

PUBLICATIONS

Edited Volumes:

Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices, Anatole Krattiger, Richard Mahoney, Lita Nelson, Jennifer Thompson, Alan Bennett, Kanikaram Satyanarayana, **Gregory Graff**, Carlos Fernandez, and Stanley Kowalski, Eds., Vol. 1 & 2, Oxford, UK: MIHR and Davis, CA: PIPRA, May 2007. Available online at www.iphandbook.org.

Books:

Mats Lundqvist, Niklas Bruun, Henry Etzkowitz, **Gregory Graff**, Karen Hersey, and Ulf Petrusson, *Commercializing University Knowledge: New Dimensions for the 21st Century*, Cambridge University Press, forthcoming.

Peer-Reviewed Articles/Papers:

Debra Mathews, **Gregory Graff**, Krishanu Saha, and David Winickoff, "Access to Stem Cells and Data: Persons, Property Rights, and Scientific Progress," *Science*, Vol. 331. (11 February 2011), pp. 725-727.

Gregory Graff, David Zilberman, and Alan Bennett, "The Commercialization of Biotechnology Traits," *Plant Science*, 179, (2010) pp. 635-644.

Sean O'Connor, **Gregory Graff**, and David Winickoff, "Legal Context of University Intellectual Property and Technology Transfer," *National Academies of Science, Science Technology Economics and Policy (STEP) Board*, (September 2010), 101 pages.

Gregory Graff, David Zilberman, and Alan Bennett, "The Contraction of Agbiotech Product Quality Innovation," *Nature Biotechnology*, Vol. 27, No. 8 (August 2009), pp. 702-704.

Gregory Graff, Gal Hochman, and David Zilberman, "The Political Economy of Agricultural Biotechnology Policies," *AgBioForum*, Vol. 12, No. 1 (2009), pp. 34-46.

David Winickoff, Kris Saha, and **Gregory Graff**, "Opening Stem Cell Research: A Policy Proposal for the Management of Data, Intellectual Property, and Ethics," *Yale Journal of Health Law, Policy and Ethics*, Vol. IX, No. 1 (Winter 2009), pp. 52-127.

Karl Bergman and **Gregory Graff**, "The Global Stem Cell Patent Landscape: Implications for Efficient Technology Transfer and Commercial Development" *Nature Biotechnology*, Vol. 25, No. 4 (April 2007), pp. 419-425.

Gregory Graff, David Roland-Holst, and David Zilberman, "Biotechnology and Poverty Reduction in Low-Income Countries," *World Development*, Vol. 34, No. 8 (2006): 1430-1445.

David Zilberman and **Gregory Graff** "Intellectual Property Rights, Innovation, and the Evolution of Biotechnology in Developing Countries," *Quarterly Journal of International Agriculture*, Vol. 44, No. 3 (2005): 247-266.

David Zilberman, Holly Ameden, **Gregory Graff**, and Matin Qaim, "Agricultural Biotechnology: Productivity, Biodiversity, and Intellectual Property Rights," *Journal of Agricultural & Food Industrial Organization*, Vol. 2, No. 2 (2004): Article 3.

Gregory Graff, Brian Wright, Alan Bennett, and David Zilberman, "Access to Intellectual Property: an Obstacle to Developing Transgenic Horticultural Crops," *California Agriculture*, (April-June 2004), pp. 121-126.

Gregory Graff, "Observing Technological Trajectories in Patent Data: Empirical Methods to Study the Emergence and Growth of New Technologies," *American Journal of Agricultural Economics*, Vol. 85, No. 5 (2003): 1266-1274.

Deborah Delmer, Carol Nottenburg, **Gregory Graff**, and Alan Bennett, "Intellectual Property Resources for International Development in Agriculture," *Plant Physiology*, Vol. 133 (2003), pp. 1666-1670.

Gregory Graff, Susan Cullen, Kent Bradford, David Zilberman, and Alan Bennett, "The Public-Private Structure of Intellectual Property Ownership in Agricultural Biotechnology," *Nature Biotechnology*, Vol. 21, No. 9 (September 2003), pp. 989-995.

Gregory Graff, Gordon Rausser, and Arthur Small, "Agricultural Biotechnology's Complementary Intellectual Assets," *The Review of Economics and Statistics*, Vol. 85, No.2, (May 2003), pp. 349-363.

Gregory Graff, Amir Heiman, and David Zilberman, "University Research and Offices of Technology Transfer," *California Management Review*, Vol. 45, No. 1 (Fall 2002), pp. 89-115.

Gregory Graff and David Zilberman, "An Intellectual Property Clearinghouse for Agricultural Biotechnology," *Nature Biotechnology*, Vol. 19 (December 2001), pp. 1179-1180.

Conference Papers/Outreach Journal Articles:

Anthony J. Marchese, **Gregory D. Graff**, and Paul Hudnut, "Development of a new graduate course in sustainable technology entrepreneurship for scientists and engineers," Paper prepared for American Society for Engineering Education (ASEE) annual conference, Vancouver, British Columbia, June 26-29, 2011

Gregory D. Graff and Brian D. Wright, "Structuring Public-Private Research Alliances: Allocating Intellectual Property and Control Rights to Optimize Collaborative R&D in Biofuels," paper prepared for the Multi-state Research Project NC-1034, *Biotechnology, Bioenergy, and Food Security*, University of California, Berkeley, March 24-26, 2011

Gregory Graff, Gal Hochman, and David Zilberman, "What role for socio-economic assessments? Economic theory of regulation and implications for bio-safety assessment" paper presented at the *4th World Congress of Environmental and Resource Economists*, Montreal, Canada, 28 June-2 July, 2010

Gregory Graff, Karl Bergman, Alan Bennett, and David Zilberman, "Intellectual property clearinghouses as an institutional response to the privatization of innovation in agriculture" *African Technology Development Foundation Journal*, Vol. 3, No. 3 (Fall 2006)

Gregory Graff and GianCarlo Moschini, "Pharmaceutical and Industrial Products in Crops: Economic Prospects and Impacts," *Iowa Ag Review*, Vol. 10, No. 4. (Fall 2004), pp. 4-5, 11.

Gregory Graff and David Zilberman, "Explaining Europe's Resistance to Agricultural Biotechnology," *Agricultural and Resource Economics Update*, Vol. 7, No. 5 (May-June 2004), pp. 1-4.

Gregory Graff, Amir Heiman, Cherisa Yarkin, and David Zilberman, "Privatization and Innovation in Agricultural Biotechnology," *Agricultural and Resource Economics Update*, Vol. 6, No. 4 (March-April 2003), pp. 5-7.

Gregory Graff and David Zilberman. "Towards an Intellectual Property Clearinghouse for Agricultural Biotechnology." *IP Strategy Today*, No. 3, (2001), pp 1-13.

Book Chapters:

Gregory D. Graff, Gal Hochman, and David Zilberman, "The research, development, commercialization, and adoption of drought and stress tolerant crops," in N. Tuteja and S. Gill, *Crop Improvement Under Adverse Conditions*, Springer Science + Business Media, (forthcoming 2012)

Gregory D. Graff and David Zilberman, "Agricultural Biotechnology: Equity and Prosperity," Chapter 15 in J.S. Popp, M.M. Jahn, M.D. Matlock and N.P. Kemper Eds., *The Role of Biotechnology in a Sustainable Food Supply*, Cambridge University Press, (forthcoming 2012), pp. 252-266.

Alan B. Bennett, Cecilia Chi-Ham, **Gregory Graff**, and Sarah Boettiger, "Intellectual Property in Agricultural Biotechnology: Strategies for Open Access" in Neal Stewart, Ed., *Plant Biotechnology and Genetics: Principles, Techniques, and Applications*, (J. Wiley & Sons: New York, 2008) pp. 325-342.

Gregory Graff and David Zilberman, “The Political Economy of Intellectual Property: Re-Examining European Policy on Plant Biotechnology” in J. Kesan, Ed., *Seeds of Change: Intellectual Property Protection for Agricultural Biotechnologies*, (Wallingford, UK: CABI Press, 2007)

Karl Bergman and **Gregory Graff**, “Collaborative IP Management for Stem Cell R&D: Lessons from Agricultural Biotechnology” in *Intellectual Property and Bioscience* (Steinbeis: Stuttgart, 2007), pp. 110-127.

Gregory Graff, “Echoes of Bayh-Dole: A Survey of Intellectual Property and Technology Transfer Policies in Emerging and Developing Economies” in A. Krattiger, R. Mahoney, L. Nelsen, et al, Eds., *Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices*. (MIHR: Oxford, UK and PIPRA: Davis, CA. 2007), pp. 169-196.

Martha Mutschler and **Gregory Graff**, “Introduction to Intellectual Property Issues in the University Setting: A Primer for Scientists” in A. Krattiger, R. Mahoney, L. Nelsen, et al, Eds., *Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices*. (MIHR: Oxford, UK and PIPRA: Davis, CA. 2007), pp. 747-762.

Gregory Graff, “Intellectual Property and Technology Transfer by the University of California Agricultural Experiment Station” in A. Krattiger, R. Mahoney, L. Nelsen, et al, Eds., *Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices*. (MIHR: Oxford, UK and PIPRA: Davis, CA. 2007), pp. 1739-1746.

Gregory Graff, “Regulation of Transgenic Crops Intended for Pharmaceutical and Industrial Uses” in J. Alston, R. Just, and D. Zilberman, Eds., *Regulating Agricultural Biotechnology: Economics and Policy*, (New York: Springer, 2006), pp. 647-662.

Gregory Graff, David Roland-Holst, and David Zilberman, “Agricultural Biotechnology and Globalization: U.S. Experience with Public and Private Sector Research” in J.H.H. Wesseler, Ed., *Environmental Costs and Benefits of Transgenic Crops*, (Dordrecht, Netherlands: Springer, 2005), pp. 225-245.

Gregory Graff and David Zilberman, “Towards an Intellectual Property Clearinghouse for Agricultural Biotechnology,” in J. Cooper, L. Lipper, and D. Zilberman, Eds., *Agricultural Biodiversity and Biotechnology in Economic Development*, (New York: Springer, 2005), pp. 361-386.

Alain de Janvry, **Gregory Graff**, Elisabeth Sadoulet, and David Zilberman, “Technological Change in Agriculture and Poverty Reduction: The Potential Role of Biotechnology” in J. Cooper, L. Lipper, and D. Zilberman, Eds., *Agricultural Biodiversity and Biotechnology in Economic Development*, (New York: Springer, 2005), pp 387-404.

Gregory Graff, Matin Qaim, Cherisa Yarkin, and David Zilberman, “Agricultural Biotechnology in Developing Countries,” in C.G. Scanes and J.A. Miranowski, Eds., *Perspectives in World Food and Agriculture 2004*, (Ames, Iowa: Iowa State Press, 2004), pp. 417-438.

Sara Boettiger, **Gregory Graff**, Philip Pardey, Eric Van Dusen, and Brian Wright, “Intellectual Property Rights for Plant Biotechnology: International Aspects,” in P. Christou and H. Klee, Eds., *The Handbook of Plant Biotechnology*, (Chichester: John Wiley & Sons Ltd., 2004),

Gregory Gaff, Amir Heiman, David Zilberman, Federico Castillo, and Douglas Parker, “Universities, Technology Transfer, and Industrial R&D,” in R.E. Evenson, V. Santaniello, and D. Zilberman, Eds., *Economic and Social Issues in Agricultural Biotechnology*, (Wallingford, Oxon, UK: CABI International, 2002), pp. 93-118.

Consulting/Analyst Reports

Catherine Keske, Terry Iverson, and **Gregory Graff**, *Designing a Technology-Neutral, Benefit-Pricing Policy for the Electric Power Sector in Colorado*, Prepared for the Colorado Governor’s Energy Office (GEO), Colorado State University, (December 2010), 49 pages.

Karl Bergman and **Gregory Graff**, *Collaborative IP Management for Stem Cell Research and Development*, the Center of Intellectual Property Studies (CIP), Gothenberg, Sweden, and the Public Intellectual Property Resource for Agriculture (PIPRA), Davis, CA (December 2006), 46 pages.

Gregory Graff, David Zilberman, and Alan Bennett, *Nutritional and Product Quality Innovation in the Agricultural R&D Pipeline: New Crop Biotechnologies and their Potential Economic Impacts*, Public Intellectual Property Resource for Agriculture (PIPRA), Davis, CA (November 2005), 151 pages.

Gregory Graff, *The Impact of Blocking Patents on Innovation in Soy Genetics*, report for the United Soybean Board /American Soybean Association, St. Louis, MO (July 2005), 62 pages.

Ann Bublitz and **Gregory Graff**, *Crop Biomanufacturing Part II: Implications for the Farm Sector*, Bio Economic Research Associates (bio-era), Cambridge, MA (January 2004), 14 pages.

Gregory Graff, *Crop Biomanufacturing Part I: Economic Opportunities for the Biotechnology Industry*, Bio Economic Research Associates (bio-era), Cambridge, MA (January 2004), 36 pages.

Gregory Graff and James Newcomb, *Agricultural Biotechnology at the Crossroads: the Changing Structure of Industry*, Bio Economic Research Associates (bio-era), Cambridge, MA (February 2003), 26 pages.

Gregory Graff, Susan Cullen, Kent Bradford, David Zilberman, and Alan Bennett, *Public Sector Intellectual Property Management for Agricultural R&D*, Office of Research Administration and Technology Transfer, University of California Office of the President (UCOP), Oakland, CA, (May 2002), 55 pages.

Gregory Graff and Alan Bennett, *Intellectual Property and Technology Transfer by the University of California Agricultural Experiment Station*, Office of Research Administration and Technology Transfer, University of California Office of the President (UCOP), Oakland, CA (October 2001), 12 pages.

Invited Presentations

“How the 'IP- Regulatory' complex affects incentives for developing socially beneficial products from agricultural genomics,” invited presentation for conference *Changing Goals of Governance for Agricultural Genomics: An Examination of Current Regulatory and Intellectual Property Regimes*, University of British Columbia, November 17-18, 2011

“Why R&D efforts increasingly span traditional organizational boundaries” presentation for workshop *Developing University R&D Platforms* at the 2011 CIP FORUM, University of Gothenberg and Chalmers Institute of Technology, Gothenberg, Sweden, May 28-June 1, 2011

“The Economics, Law, and Ethics of Patenting Genes,” Francis Bacon Conference, California Institute of Technology, May 7, 2011

“Patent pending: the Economics, Law, and Ethics of Intellectual Property Rights (IPRs) in Agricultural Genetics,” M. E. John Seminar, Pennsylvania State University, April 15, 2011

“Sustainable Agriculture: Fad, Fiction, or the Future?” invited luncheon speaker, Loveland Rotary Club, Loveland, Colorado, March 22, 2011.

“Universities as strategic managers of intellectual property on behalf of the public good: the origins and evolution of PIPRA,” invited presentation at *Intellectual Property in the Agricultural Biotechnology Commercial World*, VALGEN/Genome Canada, Banff, Alberta, January 20-21, 2011

“What is ‘Sustainability’ According to Economists? Considerations for Agriculture,” invited presentation for the Farm Foundation Round Table, Winnipeg, Manitoba, June 3, 2010.

“Assessing Intellectual Property Risks in the Stem Cell Patent Landscape” invited presentation to the 2010 Annual Meeting of the Scientific & Medical Accountability Standards Working Group, California Institute of Regenerative Medicine (CIRM), San Francisco, May 26, 2010.

“Developing a Technology Neutral Benefit-Pricing Policy to Stimulate Innovation in the Colorado Electricity Sector” invited presentation at the Cynergy Clean Energy Expo, Colorado State University, April 19, 2010.

“The Legal Context of University Intellectual Property and Technology Transfer” presented at Association of University Technology Managers (AUTM) annual meetings, New Orleans, LA, March 19, 2010.

“Global Hunger, Sustainable Development, and Politics” invited talk for Plymouth Congregational Church, Fort Collins, CO, January 29, 2010.

“Global R&D Pipeline in Transgenic Nutritional and Output Quality Traits” invited presentation for Plant Super Group seminar, Colorado State University, December 11, 2009

“Intellectual Property and the Global Agricultural Genetics R&D Pipeline” invited presentation for annual meeting of the Canadian Agricultural Innovation Research Network (CAIRN), Banff, Alberta, Canada, December 5, 2009.

“University Open-Innovation Platforms” invited keynote talk for CIP Forum 2009 Summit, Island of Hönö, Sweden, September 6, 2009.

“How do Economists Define Sustainability? Considerations for Biofuels Policy” invited presentation for the Biofuels for Aviation Summit, National Center for Food and Agricultural Policy, Washington, DC, September 1-2, 2009.

“How European Resistance to Biotechnology Has Hurt the Developing World,” invited presentation for conference *Biotechnology in Developing Countries*, University of California, Berkeley, January 23, 2009.

“Agricultural Biotechnology: Achieving Equity and Prosperity in Sustainable Agriculture,” invited paper for conference *The Role of Biotechnology in a Sustainable Food Supply*, University of Arkansas Center for Agricultural and Rural Sustainability and University of Wisconsin College of Agricultural and Life Sciences. Rogers, AK, November 18-19, 2008.

“Co-Evolution of the ‘Public Domain’ and Intellectual Property Rights Regimes for the Commercialization of University Technologies,” presented at workshop on *Commercializing University Technologies*, sponsored by Vinnova (Swedish Ministry of Innovation), Stockholm, Sweden, September 25-26, 2008.

“Enabling Stem Cell R&D: A Proposal for Navigating the Technical, Intellectual Property, and Ethical Domains of a Complex and Controversial Field,” poster presentation at Gordon Research Conference on Science Policy, *Governance of Emerging Technologies*, Big Sky, Montana, August 17-22, 2008.

“Issues and Innovations in Intellectual Property for Crop Biotechnology,” invited presentation for conference *The Second Decade of Crop Biotechnology: Opportunities and Challenges for the Food System*, Farm Foundation, Washington DC, January 16-17, 2008.

“Managing University and Government Intellectual Property in Emerging and Developing Economies,” invited keynote talk for *Commercialization and Technology Transfer Workshop*, Kuala Lumpur, Malaysia, December 3-4, 2007.

“Freedom to Operate, IPRs, and Alternative Structures for Financing and Research,” invited presentation for *Food and Fuel: The Implications for Agricultural Research Policy*, Canadian Agriculture Innovation Research Network (CAIRN) conference, Saskatoon, Saskatchewan, June 4-6, 2007.

“An Intellectual Property Clearinghouse: Facilitating Access to Public Sector IP for Product Development of Drugs for Neglected Diseases,” presentation for session *Product Development Partnerships for Global Health*, Association of University Technology Managers (AUTM) 2007 annual meetings, Orlando, FL, March 3, 2006.

“Intellectual Property Access for Agricultural Research and Commercialization,” invited presentation at the workshop *Public Institutions and Management of Intellectual Property Rights*, Canadian Agriculture Innovation Research Network (CAIRN), Toronto, ON, December 13th-14th, 2005.

“New Waves of Technology in Agriculture,” invited presentation in the *Extreme Technology Workshop*, Western Growers’ Association 80th Annual Meetings, San Diego, CA, November 15, 2005.

“The Impact of Blocking Patents on Innovation in Soy Genetics,” report presented to the United Soybean Board Competitiveness Committee, Fiscal Year 2006 Planning Meeting, L’Enfant Plaza Hotel, Washington DC, July 25-26, 2005.

“Regulation of Biotechnology for Non-Food Crop Products: Keeping Prescription Drugs Out of the Cornflakes,” paper presented at the conference *Economics of Regulation of Agricultural Biotechnology*, Washington DC, March 10-12, 2005.

“The Division of Innovative Labor among Universities, Entrepreneurs, and Corporate R&D in the Evolution of Agricultural Biotechnology,” paper presented at *CIP Symposium 2004*, Center for Intellectual Property (CIP), Chalmers Institute of Technology and Göteborg University, Göteborg, Sweden, June 1-3, 2004.

“The Political Economy of Intellectual Property: Reexamining the European Position on GMOs,” paper prepared for conference *Intellectual Property Protection for Agricultural Biotechnology*, University of Illinois School of Law, Urbana, IL, April 8-10, 2004.

“Observing Technological Trajectories in Patent Data: Empirical Methods to Study the Emergence and Growth of New Technologies,” principal paper session at the American Agricultural Economics Association annual meetings, Montreal, Quebec, July 29, 2003.

“Empirical Views of Public Sector Patenting and Technology Transfer in Agriculture: the Case for the Public Sector Intellectual Property Resource for Agriculture (PIPRA),” presentation to the interim-Science Council of the CGIAR (Consultative Group on International Agricultural Research), meeting at University of California, Berkeley, August 30, 2003.

“Intellectual Property Management for Agricultural R&D,” Licensing Executives’ Society 2003 Winter Meetings *Excellence in Licensing: Sharing the Flame*, Salt Lake City, February 14, 2003 (workshop chair and presenter).

“The Sources of Biological Innovation for Agriculture: the Comparative Advantages of Universities, Entrepreneurs, and Corporate R&D,” paper presented at the 6th annual International Consortium on Agricultural Biotechnology Research (ICABR) conference, Ravello, Italy, July 12, 2002.

“Public Sector Intellectual Property Management for Agricultural R&D,” invited presentation at the *Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)* and *Institut National de la Recherche Agronomique (INRA)*, Paris, France, July 8, 2002.

“Public Sector Intellectual Property Management for Agricultural R&D,” invited presentation at the Rockefeller Foundation, New York City, May 20, 2002.

“University Research, Technology Transfer, and Commercial R&D,” paper presented at 4th annual International Consortium on Agricultural Biotechnology Research (ICABR) conference, Ravello, Italy, June 15, 2001.

“The Sources of Biological Innovation for Agriculture,” paper presented at American Agricultural Economics Association NC208 multi-state conference “*R&D Policies and Impact Assessment*,” University of California, Berkeley, March 31, 2001.

“Agricultural Biotechnology’s Complementary Intellectual Assets,” paper presented at the 2nd annual International Consortium on Agricultural Biotechnology Research (ICABR) conference, University of Rome, Tor Vergata, Italy, June 9, 1999.