

BORLAUG SUMMER INSTITUTE ON GLOBAL FOOD SECURITY

JUNE 8th – JUNE 20th, 2014

SPEAKER BIOGRAPHIES



Philip Abbott

Philip Abbott is a professor in the Department of Agricultural Economics at Purdue University. He teaches courses on mathematical programming, international trade, trade policy and agricultural development, macroeconomics and mathematical economics. His current research focuses on international trade and international agricultural development, and four of his students have won national awards for the quality of their dissertations.

Professor Abbott has consulted for several domestic and foreign government agencies, including the United Nations Food and Agriculture Organization, commissions on food policy issues as well as private agencies. He has been on the editorial boards of the *American Journal of Agricultural Economics* and the *Journal of Development Economics*. Professor Abbott served on the steering committees of the congressionally-mandated USDA study on Export Embargoes and Surplus Disposal of Agricultural Commodities, the International Agricultural Trade Research Consortium, regional research project NC-194--“Organization and Performance of World Food Systems,” and the USDA-ustr Agricultural Technical Advisory Committee for Trade in Grains, Feeds and Oilseeds. He is now conducting research on cocoa for IITA’s Small Tree Crops Program (STCP) and has authored numerous publications.

Adedayo Adeyanju

Adedayo Adeyanju is a post-doctoral research associate in Dr. Gebisa Ejeta’s lab at Purdue University. His research centers on the improvement of abiotic stress tolerance in sorghum. He was a member of the Haiti group that won the best presentation at the inaugural Borlaug Summer Institute on Global Food Security in 2012. He received his PhD in Agronomy from Kansas State University with his dissertation titled “Association Mapping of Stalk-Rot Resistance in Sorghum.”





Jay Akridge

Dr. Jay Akridge was appointed Dean of Agriculture in January 2009. As dean he is responsible for administering academic programs in the College of Agriculture, the Indiana Agricultural Experiment Station, the Purdue Cooperative Extension Service and a number of state regulatory services, including the State Chemist's Office and the Animal Disease Diagnostic Laboratory. Dr. Akridge was the James and Lois Ackerman Professor of Agricultural Economics and served as director of the Center for Food and Agricultural Business and the MS-MBA in food and agribusiness management (a partnership with the Kelley School of Business at Indiana University). He served as interim vice provost for engagement at Purdue in 2007–08. His research has examined the buying behavior of commercial agricultural producers, innovations in marketing strategies by agribusiness firms, and adoption of new technology by agribusiness. He has worked with agribusiness managers in the areas of strategy and marketing in more than 20 countries including Lithuania, Hungary, Australia, Argentina, Cameroon, and China.

Dr. Akridge received his doctorate in agricultural economics in 1986 from Purdue University specializing in marketing and finance. His master's degree is in agricultural economics with an emphasis in agribusiness management and finance is also from Purdue. Dr. Akridge earned his bachelor's degree — a double major in agriculture and business administration — in 1982 from Murray State University in Murray, KY.

Suresh Babu

Dr. Babu was educated at agricultural universities in Tamil Nadu, India (B.S. Agriculture; M.S. Agriculture) and at Iowa State University, Ames, Iowa (M.S. Economics and PhD Economics).

Before joining IFPRI in 1992 as a Research Fellow, Dr. Babu was a Research Economist at Cornell University, Ithaca, New York. Between 1989 and 1994 he spent 5 years in Malawi, Southern Africa on various capacities. He was Senior Food Policy Advisor to the Malawi Ministry of Agriculture on developing a national level Food and Nutrition Information System; an Evaluation Economist for the UNICEF-Malawi working on designing food and nutrition intervention programs; Coordinator of UNICEF/IFPRI food security program in Malawi; and a Senior Lecturer at the Bunda College of Agriculture, Malawi developing and teaching computer-based policy-oriented post graduate courses.





Julie Borlaug

Julie Borlaug is the granddaughter of Dr. Norman E. Borlaug and the Assistant Director of Partnerships at the Borlaug Institute for International Agriculture at Texas A&M. Since the passing of her grandfather, Julie has worked to continue his legacy through developing agricultural partnerships between public, private and philanthropic groups to further the Borlaug legacy and expand upon his mission to feed the world's hungry.

Julie received her B.A. from Texas A&M in International Studies and Political Science in 1997 and her M.B.A. in Nonprofit Management from the University of Dallas in 2004. She has spent her career in the nonprofit sector and has worked for organizations such as the Salvation Army and the American Cancer Society as Development of Director.

She has recently transitioned into her new role as Assistant Director of Partnerships in order to champion her grandfather's legacy and lend a voice to his desire to see more successful collaborative partnerships between the public and private partnerships in order to ensure the continuation of breakthroughs in international agriculture.

Vince Bralts

Vincent F. Bralts is a Professor of Agricultural and Biological Engineering at Purdue University. Dr. Bralts received his B.S. from Cornell University, M.S. from University of Hawaii and Ph.D. from Michigan State University. Since arriving at Purdue he has served as the Head of Agricultural and Biological Engineering, the Interim Head of Nuclear Engineering and the Associate Dean for Resource Planning and Management in the College of Engineering. Dr. Bralts' research interests include Water Resources Planning and Management, International Development, Irrigation Performance, Irrigation Systems Design and Management, Expert Systems for Environmental Decision Making, Hydraulic Network Analysis, Irrigation Scheduling, Engineering Education and Administration.



Dr. Bralts is internationally known for his expertise in the Hydraulic Design and Field Evaluation of Microirrigation Systems. He has given seminars and short courses on Microirrigation in India, Mexico, Zimbabwe, Spain, and Puerto Rico as well as many of the states of the USA.



Sylvie Brouder

Sylvie Brouder's research addresses implications of converging U.S. biofuel and food security agendas by developing field-to-landscape analyses of the potential for dedicated energy crops to provide renewable fuel on marginal lands while protecting natural resources and food or feed productivity. She directs Purdue's Water Quality Field Station and is responsible for developing and promoting agro-ecology programming campus-wide. A core theme of Brouder's research and the field station's research portfolio is quantitative assessment of synergies and tradeoffs among productivity and environmental objectives to inform development of policy that

promotes agricultural sustainability.

She specializes in crop mineral nutrition with an emphasis on crop ecology, water quality and agro-ecosystem nutrient balances and losses. In her research, she concentrates on nitrogen, carbon and potassium, evaluating the practicality of systems and management practices, and ecological viability and sustainability, including influences on water quality and greenhouse gas emissions from agricultural soils. Brouder earned a doctorate in ecology from the University of California, Davis, and a bachelor's degree in biology from Harvard University.

Betty Bugusu

Betty Bugusu became the Managing Director of the International Food Technology Center, Purdue University in August 2010. She is responsible for the day to day activities of the Center that leverage Purdue strength in research, technology adoption, and capacity building to address issues related to food security. Dr. Bugusu is leading efforts to increase value addition and market development in developing countries through advances and innovations in food processing. As of May 22, Dr. Bugusu will take part in a \$5 million, five-year effort to prevent post-harvest losses through The Feed the Future Innovation Lab for Food Processing and Post-Harvest Handling through USAID.



Prior to joining Purdue, Betty Bugusu worked as a research Scientist at the Institute of Food Technologists (IFT) in Washington, DC where she authored scientific reports for use in the food policy arena and served as a technical resource for IFT programs. She also oversaw IFT's initiatives on emerging sciences such as nanotechnology and served as a liaison to international food standards setting bodies such as Codex Alimentarius. She also worked as a Program Associate for SUSTAIN, a non-profit organization working in the areas of food science, health and nutrition for developing countries. Dr. Bugusu earned her B.Sc. degree in Agriculture for Egerton University, Kenya and an M.S. and Ph.D. in Food Science from Purdue University, USA. Her research focus was in cereal chemistry.



Andrea Burniske

Andrea Burniske works for International Programs in Agriculture as the International Extension Coordinator. In this position she promotes international opportunities for Purdue extension educators and faculty. She supports project design and proposal writing, and helps to implement programming. She is also a Purdue Delegate for the Extension Disaster Education Network (EDEN); and serves as a member of the College of Agriculture Diversity Committee. Her background includes 20 years' experience working overseas and in Washington DC for international development organizations. She has designed and led projects while living in Tajikistan, Colombia, Bulgaria, Peru, and Russia. Her skills include proposal writing; monitoring and evaluation; project management; community planning; small business development; primary market research; and focus group design.

Her sectoral experience and main interests comprise disaster risk reduction and disaster response (as a member of the Latin American Response Team for Mercy Corps); gender assessment; child protection; environmentally sustainable development; social enterprise development; and climate change adaptation. Andrea has a BA from UC Berkeley in Slavic Languages; an MA from University of Oregon in Journalism and Communication (thesis research on communication for development); and an MBA+ Certificate in Entrepreneurial Leadership from Portland State University.

Gary Burniske

Mr. Burniske is a specialist in international relief and development, with a technical focus on sustainable agriculture, forestry and natural resource management. He is the Managing Director of the Center for Global Food Security within Discovery Park at Purdue University. Mr. Burniske is responsible for the day to day management of the Center and networks with Purdue's faculty and scientists to take a multi-disciplinary approach to tackling global challenges affecting food security.

Prior to joining Purdue, Mr. Burniske held senior leadership positions with prominent international organizations such as Mercy Corps, CARE, Institute for Sustainable Communities, International Tropical Timber Organization and Rainforest Foundation International. Most recently, he led Mercy Corps flagship country offices for nearly 10 years, serving as Country Director in Tajikistan and Colombia. One of Mr. Burniske's most noted accomplishments include the transformation of a small local Tajik NGO, the National Association of Business Women into the largest microcredit provider in Tajikistan, IMON International with a \$30 million portfolio serving 27,000 borrowers.

Mr. Burniske holds an MS in Forest Economics and a BS in Natural Resources Management, both from the University of Massachusetts. He is fluent in Spanish, Russian, Thai and Arabic, and conversational in Portuguese





Nick Carpita

Cell biologist and biochemist Dr. Nicholas Carpita has advanced analytical capabilities to determine the linkage and sequence structure of cell wall polysaccharides, with particular emphasis on the unique cell walls of grasses. He received his B.Sc. at Purdue University and his Ph.D. at Colorado State University. He is one of but a few who has successfully synthesized cell wall polysaccharides in vitro with isolated Golgi membranes, and has established the function of several plant cell wall glycosyl transferases. He is currently working with Purdue's Structural Biology group to crystallize the catalytic domain of cellulose synthase. His models illustrating the differences in molecular architectures of cell walls of grasses and dicots are widely cited in journal articles and textbooks. He directed a multi-institutional consortium funded by the NSF Plant Genome

Research program to establish the maize and Arabidopsis cell wall gene networks.

Clara Cohen

Clara Cohen serves as senior science policy adviser with USAID's Bureau for Food Security, Office of Agricultural Research and Policy. She leads Office activities focusing on human and institutional capacity development and has contributed to the design and launch of several new programs emphasizing research and education system strengthening. Previously, she worked as a Research Scholar for the Health and Global Change Unit at the International Institute for Applied Systems Analysis (IIASA), in Vienna, Austria and at the US National Academy of Sciences, where she designed and implemented the Bill and Melinda Gates Foundation-funded African Science Academy Development Initiative, a 10-year effort to strengthen the capability of African science academies to inform national health policy. She also directed studies on agricultural research, including a Congressionally mandated review of the four research agencies under USDA's Research, Education, and Economics Mission Area (ERS, ARS, CSREES, and NASS). She served as an AAAS Diplomacy Fellow in USAID's Center for Economic Growth and Agricultural Development, Office of Agriculture and Food Security, from 1998–2000. She has conducted research on leguminous cover crops at the Rodale Institute Research Center and served as a Peace Corps aquaculture volunteer in Guatemala. She holds a BA in biology from Swarthmore College and a PhD in plant physiology, with minors in molecular biology and soil science, from Cornell University.





Melba Crawford

Melba Crawford is a Professor of Civil and Electrical Engineering and Agronomy at Purdue University, where she holds the Chair of Excellence in Earth Observation and serves as the Associate Dean for Research in the College of Engineering. Previously, she was a faculty member at the University of Texas at Austin, where she founded an interdisciplinary research and applications development program in remote sensing. Her current research program focuses on pattern recognition, active learning, and sensor fusion.

Dr. Crawford was a Jefferson Senior Science Fellow at the U.S. Department of State, a member of the NASA Earth System Science and Applications Advisory Committee, the NASA EO-1 Science Validation team, and an advisory committee for the IEEE Committee on Earth Observation to the South African Department of Science and Technology. Dr. Crawford is a Fellow of the IEEE.

Otto Doering

Dr. Otto Doering serves as the Interim Director of Purdue's Climate Change Research Center. He is a Professor of Agricultural Economics at Purdue University. His broader university responsibilities include undergraduate and graduate teaching, research, and public service on policy issues relating to agriculture, resources, and the environment. His experience with climate issues includes work assessing the impacts of climate change and climate variability on agriculture and service on national and international climate change assessments. He was director of Purdue University's Energy Policy Research and Information Program, directed Indiana's State Utility Forecasting Group, and works with the National Science Foundation's Power Systems Engineering Research Center. He serves on the National Academies' Water Science and Technology Board, the U.S. Environmental Protection Agency's Science Advisory Board, and he is Chair of EPA's Integrated Nitrogen Committee. He has held advisory positions with the U.S. Department of Agriculture for the '77, '90, and '96 farm bills, and works with the Natural Resources Conservation Service on the design and assessment of conservation programs. Dr. Doering has degrees from Cornell University and the London School of Economics. In previous lives he has been a wrangler in the Canadian Rockies, prepared cases in the New York City Municipal Courts, and worked in Southeast Asia for the Ford Foundation.





Gebisa Ejeta

Gebisa Ejeta is Distinguished Professor of Plant Breeding & Genetics and International Agriculture and serves as Executive Director of the Center for Global Food Security at Purdue University. Professor Ejeta has been a member of the faculty of Purdue University since 1984. His career has been devoted to education, research, and international development with contributions in human and institutional capacity building as well as in advocacy for science-based global development. Professor Ejeta has served in advisory roles to several global development organizations including the USAID, the Rockefeller Foundation, the Bill & Melinda Gates Foundation, the Food & Agricultural Organization of the UN, and the International Agricultural Research Centers (CGIAR). He currently serves on the boards of the Chicago Council for Global Affairs' Global Agricultural Development Initiative (GADI), the National Academy of Sciences Board on Agriculture and Natural Resources (BANR), and the Global Crop Diversity Trust (GCDT). Gebisa Ejeta is the 2009 World Food Prize Laureate and the recipient of a national medal of honor in science from the President of Ethiopia. He is a Fellow of the American Society of Agronomy, Fellow of the Crop Science Society of America, Fellow of the American Association for the Advancement of Sciences, and Fellow of the African Academy of Science. Professor Ejeta has served the United States government in several capacities, as Science Envoy of the U.S. State Department, as Special Advisor to the USAID Administrator Dr. Rajiv Shah before being appointed by President Obama as member of the Board for International Food and Agricultural Development (BIFAD) in 2010. More recently, Professor Ejeta was appointed by Secretary General Ban Ki Moon to the first U.N. Scientific Advisory Board.

Mario Ferruzzi

Dr. Mario G. Ferruzzi received his B.S. (1996) in Chemistry from Duke University and his M.S. (1998) and Ph.D. (2001) in Food Science and Nutrition from The Ohio State University. He is currently a Professor in the Departments of Food Science and Nutrition Science at Purdue University. Prior to joining Purdue University, Dr. Ferruzzi was a Development Scientist in the Coffee and Tea Beverage Development group at Nestlé Research & Development Center, Marysville, OH (2001-2003) and a Research Scientist the Nutrition & Health and Scientific & Nutritional Support Departments at the Nestlé Research Centre in Lausanne Switzerland (2003-2004). His research interests are in the area of botanical chemistry with emphasis on investigating the impact of the food matrix and processing on bioavailability and metabolism of health promoting phytochemicals. Dr. Ferruzzi is currently a scientific advisor to ILSI North America, Welch's and the Alliance for Potato Research and Education. He has additionally served as an advisor to several food manufacturers in the development and assessment of food products including translational nutrition efforts.





Joan R. Fulton

Dr. Fulton is a professor in the M.S./M.B.A. program. Dr. Fulton is active in Extension programming. She is Chair of Purdue's New Ventures Team and Director of Purdue's Agricultural Innovation and Commercialization Center (AICC) where she is active in the development and delivery of programs to assist individuals and groups evaluate new business opportunities. Her research focuses on problems related to marketing and business structure both in the United States and internationally. Her recent work examined word-of-mouth marketing among farmers in the United States. In West Africa she has explored the importance of alternative extension programming for technology transfer and adoption of improved technologies. She is currently examining the factors that contribute to successful entrepreneurship for women selling street food in West Africa and other developing countries. Dr. Joan Fulton joined the Purdue Agricultural Economics faculty in July 1997.

Suresh Garimella

Suresh Garimella is Purdue University's Chief Global Affairs Officer, and the Goodson Distinguished Professor of Mechanical Engineering. He is also Director of the National Science Foundation Cooling Technologies Research Center. He previously led Purdue's Office of Engagement as Associate Vice President (2011-2013). He received his PhD from the University of California at Berkeley in 1989, his MS from The Ohio State University in 1986, and his Bachelor's degree from the Indian Institute of Technology Madras in 1985. His areas of expertise include *micro- and nano-scale transport phenomena, thermal management and energy efficiency in electronics systems, renewable and sustainable energy systems technology and policy, and global academic-public-private partnerships*. Dr. Garimella served as Jefferson Science Fellow at the U.S.

Department of State from 2010 to 2011, in the International Energy Office. He was the State Department delegate to the Committee on Energy Research & Technology of the International Energy Agency (IEA), and also participated as a Member of the U.S.- Russia Bilateral Presidential Commission Science & Technology Working Group visit to Moscow in February-March, 2011. Most recently, he was appointed Senior Fellow of the State Department's Energy and Climate Partnership of the Americas (ECPA), a regional partnership announced by President Obama at the April 2009 Summit of the Americas to promote clean energy, advance energy security, fight energy poverty, reduce greenhouse gas emissions, support strategies for sustainable landscapes and build capacity for climate change adaptation.





Jay P. Gore

Dr. Jay P. Gore is the Vincent P. Reilly Professor in Mechanical Engineering and a Jefferson Science Fellow at the US Department of State. He is the former Director of the Energy Center in Discovery Park. He served as a Research Fellow in Aerospace Engineering at the University of Michigan and as an Assistant Professor of Mechanical Engineering at the University of Maryland prior to joining Purdue as an Associate Professor. Jay is a past Chairman of the Central States Section of the International Combustion Institute and the ASME K11 Committee on Heat Transfer in Fire and Combustion. He has served as an Associate Editor of the ASME Journal of Heat Transfer. He was the U.S. Editor of the 28th International Combustion

Symposium. Dr. Gore currently serves as an Associate Editor of the AIAA Journal.

Jay's research is in the area of combustion and radiation heat transfer with applications to pollutant reduction, efficiency enhancements, fire safety, and improved fundamental understanding. He has received over \$10M in research funding and is currently serving as the PI for grants over \$1M in gas turbine combustion and radiation heat transfer applications. He has authored or coauthored over 100 archival papers, 4 book chapters, and 175 conference papers. Jay has developed/revised 2 courses (Combustion and Advanced Combustion) at Purdue University and three courses in heat transfer and thermodynamics at the University of Maryland.

Caitlin Grady

Caitlin is currently a PhD candidate in the ecological sciences and engineering program at Purdue University. Her research focuses on water and natural resource management in developing and emerging countries. With a primary interest in evaluation research, Caitlin focuses on analyzing the successes and failures of previously implemented development interventions. This work has led Caitlin to analyze water treatment facilities in East Africa as well as research for development programs and vulnerability issues in Southeast Asia. This work combines a variety of quantitative and qualitative measures of program outcomes. Caitlin holds a bachelor's degree in humanities, science, and the environment from Virginia Polytechnic Institute and State University and a master's degree in agricultural and biological engineering from Purdue University. Ultimately, Caitlin hopes to apply her interdisciplinary purists and knowledge in the international development community in order to provide more effective and efficient aid and resource provisioning for the world's most impoverished people.





Jonathan Gressel

Jonathan Gressel received his M.Sc. and Ph.D. from the University of Wisconsin-Madison and has since been at the Weizmann Institute of Science, and is now an emeritus professor. He also co-founded and was Chief Scientist of TransAlgae, Ltd., a company devoted to transgenically domesticating microalgae as a source of high protein animal feed and biofuel, cultivated using seawater and industrial carbon dioxide. His interests are to see how plant sciences can contribute to world food and fuel securities, with collaborations throughout the developing world. He studied metabolic controls, especially by anti-metabolites and pesticides, using genetic engineering biosafety measures he developed to mitigate transgene movement. He authored more than 320 scientific papers and book chapters and is author, or editor, of eight books dealing with these issues. His latest book is *Genetic Glass Ceilings – Transgenics for Crop Biodiversity* (Johns Hopkins Press). He was awarded the 2010 “Israel Prize for Agricultural Research”, the highest accolade given by the Israeli Government.

Thomas Hertel

Professor Hertel is Distinguished Professor of Agricultural Economics at Purdue University, where his research focuses on the economy-wide impacts of global trade and environmental policies. Dr. Hertel is a Fellow, and Past-President, of the Agricultural and Applied Economics Association (AAEA). He is also the founder and Executive Director of the Global Trade Analysis Project (GTAP) which now encompasses more than 10,000 researchers in 150 countries around the world. This Project maintains a global economic data base and an applied general equilibrium modeling framework which are documented in the book: *Global Trade Analysis: Modeling and Applications*, edited by Dr. Hertel, and published by Cambridge University Press in 1997.

Professor Hertel’s most recent research has focused on the impacts of climate change and mitigation policies on global land use and poverty. During the 2011-12 year he was on leave at Stanford University, where he was engaged in inter-disciplinary research on these topics. Previously, Professor Hertel has conducted extensive research on the impacts of multilateral trade agreements, including the linkages between global trade policies and poverty in developing countries. His book on the poverty impacts of a WTO agreement (co-edited with Alan Winters) received the AAEA Quality of Communication award. Other AAEA awards include: Distinguished Policy Contribution and Outstanding Journal Article.





Lori Hoagland

Lori Hoagland is an Assistant Professor in the Department of Horticulture and Landscape Architecture at Purdue University. She received her B.S. and M.S. in Natural Resources from the University of Nebraska-Lincoln and her PhD in Soil Science from Washington State University. Her research focuses on development of practical approaches to improve soil quality and increase crop productivity while reducing negative impacts of farming systems on the environment. Current projects include predicting nutrient availability and quantifying nutrient loss from biological amendments and cover crops; biological approaches to pathogen suppression in vegetable systems; and, functional interactions between vegetable varieties and beneficial soil microbes.

Julie Howard

Julie A. Howard is the chief scientist in the Bureau for Food Security, which leads the implementation of Feed the Future, the U.S. global hunger and food security initiative. She also serves as the senior advisor to the USAID administrator on agricultural research, extension and education. In this role, she oversees the implementation of the Feed the Future research strategy and leads related new programs to advance innovation in global food security efforts, working with both global and national partners.



Howard previously served as deputy coordinator for development for Feed the Future, where she led a core team in elevating interagency engagement in Feed the Future strategic planning, implementation, and monitoring and evaluation. Before joining USAID in 2011, Howard served as the executive director and chief executive officer of the Partnership to Cut Hunger and Poverty in Africa, an independent nonprofit coalition dedicated to increasing the level and effectiveness of U.S. assistance and private investment through research, dialogue and advocacy. Howard served as a Peace Corps Volunteer in the Dominican Republic, and has written on agricultural technology development and transfer, the development of seed and fertilizer systems, and the role of farmer associations in agricultural development in Zambia, Mozambique, Ethiopia and Somalia. She holds a Ph.D. in agricultural economics from Michigan State University, and master's and undergraduate degrees from the University of California, Davis, and George Washington University.



Matthew Huber

Dr. Matthew Huber is a Professor of Climatology, Climate Dynamics, and Impacts Prediction at the University of New Hampshire under the Institute for the Study of Earth, Oceans, and Space of Earth and Atmospheric Science. Previously, he was a co-founder and member of the Purdue Climate Change Research Center. He was previously the head of the Climate Dynamics Prediction Laboratory. His research is focused on past, present and future climate, the mechanisms that govern climate, the different forms that climates can take on Earth, and the relationship between climate change and life. Major research areas include the radiative and dynamical processes generating tropical ‘thermostats’, and polar amplification of warming, as well as the ecological and evolutionary implications of these processes and patterns. He earned his Ph.D. in Earth Sciences at University of California Santa Cruz.

Michael Ladisch

Michael R. Ladisch, PhD is Director of the Laboratory of Renewable Resources Engineering and Distinguished Professor of Agricultural and Biological Engineering with a joint appointment in Biomedical Engineering at Purdue University and courtesy appointment in Food Science. He earned his BS from Drexel University and MS and PhD degrees from Purdue University, all in chemical engineering. He has a broad background in bioscience and bioengineering, and has authored numerous journal papers, as well as a textbook in “Bioseparations Engineering: Principles, Practice and Economics” (Wiley,2001).



Dr. Ladisch’s research addresses fundamental topics in bioprocess engineering as it applies to bioproducts, biorecovery, and bionanotechnology. His research has resulted in new industrial bioenergy processes, and systematic approaches and correlations for scaling-up laboratory chromatographic purification techniques to process-scale manufacturing systems. He is currently investigating the scale-down of bioseparations and the rapid prototyping of microfluidic biochips for the rapid detection of pathogenic microorganisms. Dr. Ladisch teaches bioseparations, bioprocess engineering and biotechnology at both the graduate and undergraduate level. His discovery and learning activities engage bioproducts, biopharmaceutical, and biotechnology industries on a national basis, as well as industries and stakeholders in the State of Indiana.



Jess Lowenberg-DeBoer

Jess Lowenberg-DeBoer is professor in the Department of Agricultural Economics and Associate Dean and Director of International Programs in Agriculture (IPIA) at Purdue University. His research focuses on agricultural production economics, including soil fertility management, cropping systems, technology adoption, risk management and financing. Since 1997 he has been West Africa facilitator for the USAID Bean/Cowpea Collaborative Research Support Program (CRSP) working to build multidisciplinary teams and supervising CRSP social science research.

Lowenberg-DeBoer has a master's degree in Agricultural Economics from Cornell University, Ithaca, New York, and a Ph.D. in Economics from Iowa State University, Ames. He joined the Purdue faculty in 1985, dividing his time between the West Lafayette campus and Purdue activities in West Africa. He returned in 1992 from a four year tour of duty in the Republic of Niger, West Africa, where he served as economist and team leader for a Purdue University project. He brings to his research and teaching a perspective gained through private sector experience as farmer and journalist western Iowa.

Maureen McCann

Maureen McCann is the Director of Purdue's Energy Center, part of the Global Sustainability Institute in Discovery Park. She obtained her undergraduate degree in Natural Sciences from the University of Cambridge, UK, in 1987, and then a PhD in Botany at the John Innes Centre, Norwich UK, a government-funded research institute for plant and microbial sciences. She stayed at the John Innes Centre for a post-doctoral, partly funded by Unilever, and then as a project leader with her own group from 1995, funded by The Royal Society. In January 2003, she moved to Purdue University as an Associate Professor, and she is currently a Professor in the Department of Biological Sciences. The goal of her research is to understand how the molecular machinery of the plant cell wall contributes to cell growth and specialization, and thus to the final stature and form of plants. Plant cell walls are the source of lignocellulosic biomass, an untapped and sustainable resource for biofuels production with the potential to reduce oil dependence, improve national security, and boost rural economies. She is also the Director of the Center for Direct Catalytic Conversion of Biomass to Biofuels (C3Bio), an interdisciplinary team of biologists, chemists and chemical engineers in an Energy Frontier Research Center funded by the US Department of Energy's Office of Science.





Lisa Eakman Moon

Lisa Eakman Moon is the vice president for The Chicago Council on Global Affairs' global agriculture and food portfolio. Since 2006, The Chicago Council has undertaken studies on U.S. agriculture and food policy, global food security, the role of women and girls in developing country agriculture, and the nexus between agriculture and health. Prior to joining the Council in 2007, she worked with the Department of the Air Force's General Counsel Dispute Resolution division and the Center for Strategic and International Studies in Washington, D.C. Lisa holds a MA in Security Policy Studies from George Washington University and a BA in international studies, political science, and Spanish from Bradley University. She is on the community board of the Chicago High School for Agricultural Sciences; is a member of the Farm Foundation Round Table; and is currently a David Rockefeller Fellow of the Trilateral Commission.

Leigh Raymond

Leigh Raymond is a Professor of Political Science at Purdue University and a founding member and Associate Director of the Purdue Climate Change Research Center. He received his M.S. and Ph.D. in Environmental Science, Policy, and Management from U.C. Berkeley, and a B.A. in Philosophy from Yale University. Prior to his arrival at Purdue in 2002, he taught for two years as a Lecturer in Environmental Studies at the University of Chicago.

Dr. Raymond's research focuses on the role of norms and values in shaping political behavior and policy outcomes, especially in contrast to economic motivations. His primary focus has been on norms and values related to property rights as they affect market-based policies for environmental protection, including emissions trading, as considered in detail in his 2003 book *Private Rights in Public Resources*. Recently, he has completed two multi-year NSF-funded studies of state environmental policies, one addressing the role of norms of precaution on policies toward environmental risk, the other on how moral and other frames influence state policies related to renewable fuels. He is currently conducting research on the role of economic versus and non-economic frames in shaping farmer interest in conservation tillage, and a project on framing climate science. He is also at work on a new book on recent developments in emissions trading policy.





Sean Thompson

Sean M. Thompson is a doctoral candidate in plant breeding at Texas A&M University and U.S. Borlaug Fellow in Global Food Security. Thompson's work at the International Maize and Wheat Improvement Center (CIMMYT) has focused on adapting new technologies to map growing environments, plant phenotypes, and genetics in an effort to select crop varieties capable of catalyzing agricultural-led economic growth in developing nations while increasing food production to meet the needs of a growing world population.

Ronald F. Turco

Dr. Ronald F. Turco is a Professor in the Department of Agronomy, Director of the Indiana Water Resources Research Center and the Purdue Water Community. He has B.S. degrees from the University of Idaho in Bacteriology and Soil Science and a Ph. D. from Washington State University in Soil Microbiology. His research program is divided over four areas: understanding the fate of introduced *E. coli* in soil and water and the role these processes play in such things as water and food contamination, developing a better predictive capacity to understand the environmental fate of manufactured nano materials (fullerenes, single wall carbon nanotubes and nanometals) in soil and water, defining the unintended consequences of using our soils resources for biofuel production and a long-term interest in the fate and degradation of organic materials and metals introduced to soil, the subsurface and water. He has authored many articles and reports and has delivered numerous invited and volunteered presentations. He has also managed numerous large projects from USDA, NSF and EPA. Dr. Turco teaches two graduate level courses: Soil Microbiology and a course titled Biotransformation of Anthropogenic Molecules. He also teaches an undergraduate course on Soil Ecology





Connie Veillette

Connie brings three decades of experience working in the foreign policymaking environment in the House of Representatives, the Senate Foreign Relations Committee, and the Congressional Research Service. She was also the director of the Rethinking U.S. Foreign Assistance Program at the Center for Global Development. She has served as a consultant to the Chicago Council on Global Affairs' work on food security and to the Aspen Institute's Congressional Program. She is a member of the Modernizing Foreign Assistance Network and the AGree advisory board. She is an adjunct professor at George Washington University teaching courses on Comparative Foreign Politics and Congress and Foreign Policy. She holds a MA in Latin American Studies and a Ph.D. in Political Science from George

Washington University. At The Lugar Center, her areas of research include global food security, foreign assistance effectiveness, the budget and appropriations process, and congressional politics.

Connie Weaver

Dr. Connie Weaver was named professor and head of the Department of Nutrition Science in August 1991. In 2000, she became a Distinguished Professor in the department. Also in 2000, she was appointed director of a National Institutes of Health-funded Botanical Research Center to study dietary supplements containing polyphenolics for age-related diseases. In 2008 she became Deputy Director of The Indiana Clinical and Translational Sciences Institute. In 2010, she was elected to the Institute of Medicine of the National Academy of Science.

Her research interests include mineral bioavailability, calcium metabolism, and bone health. Dr. Weaver was appointed to the 2005 U.S. Dietary Guidelines Advisory Committee, and she served on the National Academy of Sciences Food and Nutrition Board Panel to develop new recommendations for requirements for calcium and related minerals. She has published over 300 original research articles and 100 book chapters and reviews. For her contributions in teaching, Dr. Weaver was awarded Purdue University's Outstanding Teaching Award. In 1993, she was honored with the Purdue University Health Promotion Award for Women, and in 1997, she received the Institute of Food Technologists Babcock Hart Award. Dr. Weaver received a Bachelor of Science and Master of Science in food science and human nutrition from Oregon State University. She received a PhD in food science and human nutrition from Florida State University and holds minors in chemistry and plant physiology.

