Board of Directors

Foundation for Food and Agricultural Research (FFAR)

APPOINTED DIRECTORS

Kathryn Boor, Ph.D.

Dr. Kathryn J. Boor became the dean of Cornell University's College of Agriculture and Life Sciences on July 1, 2010. As the Ronald P. Lynch Dean of the College of Agriculture and Life Sciences, Boor oversees the second-largest college at Cornell and shares responsibility for leadership and advancement of Cornell Cooperative Extension throughout New York State with the dean of Cornell's College of Human Ecology. Prior to her appointment as Dean, Dr. Boor served as Professor and Chair of the Department of Food Science at Cornell University (2007-2010).

Dr. Boor earned a B.S. in Food Science from Cornell University and an M.S. in Food Science from the University of Wisconsin. She conducted research for two years in Kenya, East Africa, as a member of a multi-disciplinary team working with small-scale farmers to enhance sustainable and safe goat milk production and preservation systems, then earned her Ph.D. in Microbiology in 1994 at the University of California, Davis (UC-Davis.).

She established the Food Safety Laboratory as an Assistant Professor in the Department of Food Science at Cornell University in 1994. She became director of the Milk Quality Improvement Program in 1997.Her research focuses on identifying biological factors that affect transmission of bacteria in food systems, from the farm to the table. Dr. Boor has specific research expertise with the foodborne pathogens *Listeria monocytogenes*, *E. coli O157:H7, Vibrio parahaemolyticus*, and various streptococci. She has served as major advisor for 26 graduate students; graduates from her laboratory now hold key food safety positions around the globe in government, academia and the food industry. Her research group has published more than 120 peer-reviewed research articles. Presently, research in Dr. Boor's laboratory is funded by the National Institutes of Health, the United States Department of Agriculture and the New York State Milk Promotion Advisory Board.

Dr. Boor serves on the editorial boards for the Journal of Food Protection, Applied and Environmental Microbiology and Foodborne Pathogens and Disease. She is past president of the New York State Association for Food Protection and she presently serves as scientific advisor for the New York State Cheese Manufacturers' Association. She served on the National Academy of Science/Institute of Medicine Committee on Review of the Use of Scientific Criteria and Performance Standards for Safe Food (December 2001—May 2003) and completed a term on the National Advisory Committee on Microbiological Criteria for Foods in 2006.

Dr. Boor received the 2000 USDA Honor Award as a member of the Listeria Outbreak Working Group, the 2000 Foundation Scholar Award and the 2006 DeLaval Award for Dairy Extension

programming, both from the American Dairy Science Association, and the 2002 Samuel Cate Prescott award for outstanding research from the Institute of Food Technologists. Dr. Boor is a Fellow of the American Academy of Microbiology, the International Academy of Food Science and Technology, and the Institute of Food Technologists

Douglas Buhler, Ph.D.

As the Director of AgBio Research and Senior Associate Dean for Research for Michigan State University's College of Agriculture and Natural Resources (CANR), Dr. Doug Buhler acts as liaison with Michigan commodity groups and provides leadership for Project GREEEN (Generating Research and Extension to meet Economic and Environmental Needs). Project GREEEN is a cooperative effort between plant-based commodities and businesses together with AgBio Research, MSU Extension and the Michigan Department of Agriculture to advance Michigan's economy through its plant-based agriculture. As CANR acting associate dean for research, Buhler provides oversight for and coordination of the CANR's research program. Before being named associate director in 2005, Buhler served as acting associate director and CANR acting associate dean for research from March to December 2005. He was chairperson of the MSU Department of Crop and Soil Sciences from 2000 to 2005.

Buhler was born and raised on a dairy farm in southern Wisconsin. He received his bachelor's degree from the University of Wisconsin-Platteville and his master's and doctoral degrees (both in agronomy) from the University of Nebraska. After receiving his doctorate, Buhler returned to the University of Wisconsin, where he taught and advised undergraduates and conducted research on weed biology, management and conservation. He joined the U.S. Department of Agriculture-Agricultural Research Service (USDA-ARS) in St. Paul, Minn., in 1989 with research responsibilities in weed management and water quality. In 1993, Buhler was transferred to the USDA-ARS National Soil Tilth Laboratory in Ames, Iowa, where his research responsibilities included weed biology, ecology and management in corn and soybean production systems. Buhler's research and outreach activities focus on the responses of weed populations to various crop and soil management systems. His research results are being used to develop and implement improved weed management systems and have resulted in more than 330 publications, including 125 refereed journal and review articles.

Buhler has been the author or editor of three books and an invited presenter at numerous seminars, symposia and workshops. He served as an associate editor for Weed Science and Weed Technology and is a consulting editor for the Journal of Crop Production. Buhler is a fellow of the North Central Weed Science Society, the Weed Science Society of America, the American Society of Agronomy and the Crop Science Society of America.

Nancy Creamer, Ph.D.

Dr. Nancy Creamer is a Distinguished Professor of Sustainable Agriculture and Community Based Food Systems at North Carolina State University. Dr. Creamer received her Ph.D. in Horticultural Science at Ohio State University, her M.S. in International Agricultural

Development from Cal Poly, San Luis Obispo, and her B.S. degree from University of California - Santa Barbara.

Dr. Creamer is Co-Director of the Center for Environmental Farming Systems (CEFS), which includes a 2000 acre sustainable agriculture research, outreach, and teaching facility. Dr. Creamer's area of specialization includes farming systems research, organic production systems, and community-based sustainable local food systems. She provided leadership for a statewide North Carolina initiative engaging many diverse sectors and partners resulting in a statewide action plan: From Farm to Fork, a Guide to Building North Carolina's Sustainable Local Food Economy, and has spearheaded the development of many of the strategic initiatives identified in the report, including a current USDA AFRI project focused on scaling up local food supply chains into mainstream markets including Fort Bragg Military base.

Dr. Creamer was a member of the USDA Specialty Crops Advisory Committee, and has served as a consultant to the European Commission on funding and evaluation of European-wide agriculture research activities. She was appointed by the North Carolina Governor to the legislated NC Sustainable Local Foods Advisory Council in 2010, and was Vice Chair of the Council through 2013. The CEFS team was recently awarded the Southern Region's C. Peter Macgrath Community Engagement Award, a national distinction which recognizes outreach and engagement partnership efforts of four-year public universities. In 2012, CEFS received one of the highest awards given by USDA and was awarded a Secretary's Honor Award for "Assisting Rural Communities in Creating Prosperity so they are Self-Sustaining, Repopulating, and Economically Thriving".

Deborah Delmer, Ph.D.

Professor Deborah Delmer, is Professor Emeritus of Biology University of California, Davis, Professor Delmer received her B.A. degree with honors in bacteriology in 1963 from Indiana University and her Ph.D. in cell biology in 1968 from The University of California San Diego. She has held faculty positions at Michigan State University, The Hebrew University, and the University of California Davis. In 2004, she received from the American Chemical Society the Anselme Payen Award in recognition of excellence in the science and chemical technology of cellulose. Professor Delmer also served as President of the American Society of Plant Biologists and in 2004 she was elected to membership in the US National Academy of Sciences. From 2002-2007, she served as Associate Director for Food Security for the Rockefeller Foundation where she was involved with grant making and policy relating to the role of biotechnology in developing world agriculture.

The Honorable Dan Glickman

Dan Glickman is the Executive Director of the Aspen Institute Congressional Program, a nongovernmental, nonpartisan educational program for members of the United States Congress. The program provides lawmakers with a stronger grasp of critical public policy issues by convening high-level conferences and breakfast meetings in which legislators are brought

together with internationally-recognized academics, experts and leaders to study the issues and explore various policy alternatives.

He served as the U.S. Secretary of Agriculture from March 1995 until January 2001. Under his leadership, the Department administered farm and conservation programs; modernized food safety regulations; forged international trade agreements to expand U.S. markets; and improved its commitment to fairness and equality in civil rights.

Before his appointment as Secretary of Agriculture, Glickman served for 18 years in the U.S. House of Representatives representing the 4th Congressional District of Kansas. During that time, he was a member of the House Agriculture Committee, including six years as chairman of the subcommittee with jurisdiction over federal farm policy issues. Moreover, he was an active member of the House Judiciary Committee; chairman of the House Permanent Select Committee on Intelligence; and was a leading congressional expert on general aviation policy.

Glickman is also a Senior Fellow at the Bipartisan Policy Center in Washington, D.C. The BPC was formed in 2007 by former Senate Majority Leaders Howard Baker, Tom Daschle, Bob Dole and George Mitchell to develop and promote bipartisan solutions to the country's problems and to promote civility in government.

Glickman served as Chairman of the Motion Picture Association of America, Inc. (MPAA) from 2004 until 2010.

Prior to joining the MPAA, he was the Director of the Institute of Politics at Harvard University's John F. Kennedy School of Government (2002-2004).

Before his election to Congress in 1976, Glickman served as president of the Wichita School Board; was a partner in the law firm of Sargent, Klenda and Glickman; and worked as a trial attorney at the U.S. Securities and Exchange Commission. He received his Bachelor of Arts in history from the University of Michigan and his J.D. from The George Washington University. He is a member of the Kansas and District of Columbia Bars.

Glickman is also on the board of directors of the Chicago Mercantile Exchange; Communities in Schools; Food Research and Action Center, a domestic anti-hunger organization; National 4-H Council; and the Center for U.S. Global Engagement, where he is Chair of the U.S. Global Leadership Coalition. He co-chairs an initiative of eight foundations, administered by the Meridian Institute, to look at long-term implications of food and agricultural policy. He chairs an initiative at the Institute of Medicine on accelerating progress on childhood obesity. He is a member of the Council on Foreign Relations, the Academy of Motion Picture Arts and Sciences and a senior fellow of the Center on Communication Leadership and Policy at the USC Annenberg School for Communication & Journalism, the Council on American Politics at The Graduate School of Political Management at The George Washington University, and is Vice-Chair of the World Food Program-USA. He is the co-chair of the Chicago Council on Global Affairs' global agricultural development initiative. He is the author of "Farm Futures," in Foreign Affairs (May/June 2009).

Robert Horsch, Ph.D.

Rob Horsch has led the Agricultural Research and Development team at the Bill & Melinda Gates Foundation since its inception in 2006. He developed the R&D strategy and built a strong team that has made and managed a billion dollar portfolio of grants aimed at improving agricultural productivity, reducing farmer risk, and developing more nutritious versions of the staple crops grown and consumed by resource poor farm families in Africa and south Asia.

Prior to joining the Gates Foundation in 2006, Rob was the leader of International Development Partnerships at Monsanto Company and involved in a number of public private partnerships for agricultural development. He served as President of the Sustainable Development Sector of Monsanto Company from 1998 through 2000. In 1996, Rob became Vice President and General Manager of the Agracetus Campus of Monsanto Company's Agricultural Sector in Middleton, Wisconsin, serving in that capacity until the end of 1999. From 1981 until 1995, he led the company's plant tissue culture and transformation efforts, contributing to the development of techniques to genetically engineer a wide range of crops, and to the development of Bollgard, Yieldgard, Roundup Ready and other improved traits in crops grown by 18 million farmers in 27 countries on over 400 million acres around the world. He and two colleagues were awarded the 1998 US National Medal of Technology by President Clinton for this pioneering work.

Rob has served on the editorial boards of several plant science journals, including The Plant Cell, Plant Physiology, Plant Cell Reports, and Plant Biotechnology. He has served on advisory boards for NSF, DOE, NRC, CGIAR, World Agricultural Forum, U. of Wisconsin, Lindenwood University and The Nature Conservancy. He co-taught plant molecular biology course at Cold Spring Harbor Laboratories from 1985-1988.

Rob earned his B. Sc. in Biology from the University of California, Riverside in 1974; his Ph.D. in Genetics, from the University of California, Riverside in 1979; and was a Postdoctoral Fellow in Plant Physiology at the University of Saskatchewan from 1979 to 1981.

Pamela Johnson

Pam Johnson, of Floyd, Iowa, serves as chairwoman of the Corn Board of the National Corn Growers Association, a farmer-led trade association with offices in St. Louis and Washington.

Johnson is a sixth generation farmer who raises corn and soybeans with her husband, two sons and their young families. They also manage a seed business and are member investors in ethanol and biodiesel plants.

On the national level, Johnson currently serves as a co-chair of the Agri-Industry Council Executive Committee and as a member of the NCGA Nominating Committee. Additionally, she represents NCGA with the National Coalition for Food and Agriculture Research, as a member of the Monsanto Grower Advisory Committee and as a board member of the Maizall Alliance. Previously, Johnson chaired NCGA's Research and Business Development Action Team and its Bylaws Committee. She also served as the board liaison to the NCGA Grower Services Action Team and the organizational liaison to the National Pork Producers Council.

In her home state, Johnson is a director of the Iowa Corn Growers Association and former chairwoman of the Iowa Corn Promotion Board. She also serves as president of Iowa Corn Opportunities and is a former member of the U.S. Grains Council Biotech and Trade Policy A-Teams.

Founded in 1957, the National Corn Growers Association represents approximately more than 40,000 dues-paying corn growers and the interests of more than 300,000 farmers who contribute through corn check-off programs in their states. NCGA and its 48 affiliated state associations and check-off organizations work together to help protect and advance corn growers' interests.

Mark E. Keenum, Ph.D.

Dr. Mark Everett Keenum became Mississippi State's 19th president Jan. 5, 2009, following a distinguished public service career.

Despite difficult economic times, Dr. Keenum guided Mississippi State to new heights during his first five years in office. His quick action to address budget shortfalls following the recession that began in 2008 put the university in position to meet those challenges and maintain the highest level of academic excellence. Since then, the university has experienced record enrollment growth to more than 20,000 students. The freshman class of fall 2013 was not only the largest in university history, but also reported the highest average ACT scores in university history. During 2011-12, Mississippi State awarded more than 4,000 degrees at all levels for the first time in its history, and followed that with more than 4,200 degrees in 2012-13.

The campus has expanded and improved since 2009 with the addition of three new residence halls, the Mize Pavilion, a state-of-the-art basketball practice facility, and the Leo W. Seal Jr. Football Complex. A major renovation of historic Lee Hall is to be complete in spring 2014 and a major expansion of Davis Wade Stadium will be completed by August 2014. Construction of a new classroom building with built-in parking got under way in January 2014.

Since 2009, fundraising has reached all-time record levels, with private giving exceeding $80 million a year in fiscal years 2011, 2012, and 2013. In fall 2013, the university formally announced *Infinite Impact: the Campaign for Mississippi State*, which had been in its quiet phase for three years, with a goal of $600 million by 2018. By January 2014, the campaign total had surpassed $380 million. Dr. Keenum has also been instrumental in expanding the MSU Promise Program, which provides need-based scholarship assistance to Mississippi students whose families have limited financial means. Through the Sonny Montgomery Center for America's Veterans, he has also led initiatives to make Mississippi State one of the most veteran-friendly universities in the nation.

Mississippi State has strengthened its role as the flagship research university in the state. The Carnegie Foundation for the Advancement of Teaching classified MSU as a university with "very high research activity," the only such designation in Mississippi. Dr. Keenum travels frequently to Washington, D.C., meeting with Congressional leaders and federal agency heads to

pursue research opportunities and broaden the university's influence on the national level. He has also worked closely with state leaders in support of higher education in Mississippi.

Keenum serves as vice-chairman of the Southern Association of Colleges and Schools' Commission on Colleges' Executive Council. SACS-COC is the recognized regional accrediting body in the 11 U.S. Southern states (Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia) and in Latin America for those institutions of higher education that award associate, baccalaureate, master's or doctoral degrees.

He also is a member of the American Public Land-Grant Universities Board of Directors. Based in Washington, D.C., the Association of Public and Land-grant Universities (APLU) is a research and advocacy organization of public research universities, land-grant institutions, and state university systems with member campuses in all 50 states, U.S. territories and the District of Columbia.

A graduate of Mississippi State University with degrees in agricultural economics, Dr. Keenum began his career at MSU as a faculty member with the Extension Service and the Department of Agricultural Economics. He went on to serve as chief of staff to U.S. Senator Thad Cochran in Washington, DC and was Under Secretary of the United States Department of Agriculture prior to returning home to Mississippi State.

He graduated from Corinth (MS) High School and earned an associate of arts degree from Northeast Mississippi Community College in Booneville and was a member of the Northeast Tigers football team.

Dr. Keenum is married to the former Rhonda Newman of Booneville, also an MSU graduate. They have four children: Rett, Mary Phillips, Katie and Torie.

Michael Ladisch, Ph.D.

Dr. Michael R. Ladisch 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). He previously chaired the National Research Council Committee on Bioprocess Engineering as well as the Committee on Opportunities in Biotechnology for Future Army Applications. Dr. Ladisch was elected to the National Academy of Engineering in 1999.

Dr. Ladisch's research addresses fundamental topics in bioprocess engineering as it applies to bioproducts, biorecovery, and bionanotechnology. The work that he carries out with teams of researchers consisting of colleagues, graduate students, and staff is multi-disciplinary and multi-

institutional, and addresses properties of proteins and living organisms at surfaces, rapid prototyping of microfluidic biosensors, bioseparations, and transformation of renewable resources into bioproducts. 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. There are numerous opportunities for graduate and advanced studies in LORRE.

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.

Christopher Mallett, D.Phil

Dr. Chris Mallett was named corporate vice president of Cargill Research & Development in January 2005 and leads all R&D resources across Cargill.

Prior to joining Cargill, Mallett had an academic career in Austria and Australia. He then joined Unilever, the consumer goods multinational, where he held various leadership positions in R&D in the European edible oils and frozen food business. From 1994 to 2001, Mallett served successively as chief of division, executive vice president, and deputy CEO for CSIRO Australia, the nation's premier science agency. In 2001 he joined the dairy multinational Fonterra in New Zealand as senior vice president of R&D and CTO.

He has also served on many Boards and Advisory Boards in the UK, Australia, and New Zealand and most recently as a member of the Board of Renessen, the former joint venture between Cargill and Monsanto to develop added-value crop inputs for animal feeds.

He was elected fellow of the Australian Academy of Technological Sciences and Engineering in 1999, and was the recipient of a 2000 Centenary Medal of Australia for contributions to R&D.

Mallett, who is a Manxman, received his bachelor's, master's and D.Phil degrees in chemistry from Oxford University. He is married with three adult children.

Pamela Matson, Ph.D.

Dr. Pamela Matson is the - Chester Naramore Dean of the School of Earth Sciences, the Richard and Rhoda Goldman Professor of Environmental Studies, and Senior Fellow at the Woods Institute for the Environment at Stanford University

Pamela Matson is an interdisciplinary Earth scientist who works to reconcile the needs of people and the planet. Her research addresses a range of environment and sustainability issues,

including sustainability of agricultural systems; vulnerability of particular people and places to climate change; the consequences of tropical deforestation on atmosphere, climate and water systems; and the environmental consequences of global change in the nitrogen and carbon cycles. With multi-disciplinary teams of researchers, managers, and decision makers, she has worked to develop agricultural approaches that reduce environmental impacts while maintaining livelihoods and human wellbeing.

Dr. Matson is the author of numerous scientific publications and books, including the National Research Council volume titled *Our Common Journey: A Transition toward Sustainability* and *Seeds of Sustainability: Lessons from the Birthplace of the Green Revolution*. A MacArthur Fellow and a Fellow of the National Academy of Sciences as well as the American Academy of Arts and Science and the American Association for the Advancement of Science, she is the founding co-chair of the National Academies Roundtable on Science and Technology for Sustainability, a past president of the Ecological Society of America, serves on the boards of the World Wildlife Fund, Climate Central and ClimateWorks. She also has served on the science leadership committee for the International Geosphere-Atmosphere Programme, the U.S. National Academies' Board on Sustainable Development and Committee on America's Climate Choices, and many other national and international groups.

At Stanford, she is the dean of the School of Earth Sciences, a senior fellow at the Woods Institute for Environment, and co-leads the Initiative on Environment and Sustainability, an effort that brings together faculty from around the university to help solve critical resource and environment challenges of the century. She is also the scientific director of the Leopold Leadership Program, a program that provides leadership and communications training to environmental scientists and analysts.

Dr. Matson received her B.S. in Biology from the University of Wisconsin – Eau Claire; her M.S. in Environmental Science from Indiana University; and her Ph.D. in Forest Ecology from Oregon State University.

Terry McElwain, DVM, Ph.D.

Dr. Terry F. McElwain, associate director and professor, Paul G. Allen School for Global Animal Health, and executive director, Washington Animal Disease Diagnostic Laboratory. He has been a faculty member at WSU since 1989.His research explores global control of infectious diseases. He is involved in development, validation and application of molecular techniques for diagnosis and is co-inventor on 12 patents or licensing agreements.

McElwain has improved the standards of animal health laboratories across the country. He played a vital role in formation of the National Animal Health Laboratory Network, which permits rapid recognition of animal health problems with potential international consequences. He has mentored veterinary students, graduate students and post-doctoral fellows in the development of their laboratory skills and research. He received WSU's Sahlin Faculty Excellence Award for Outreach and Engagement in 2008-09 and directs WSU's Animal Health Research Center.

McElwain is a member of the National Academy of Sciences Institute of Medicine, a diplomat of the American College of Veterinary Pathologists, a member of the National Animal Health Laboratory Network and Laboratory Response Network for Bioterrorism, and a member of the Board of Directors of the World Association of Veterinary Laboratory Diagnosticians.

Stanley Prusiner, M.D.

Dr. Stanley B. Prusiner is Director of the Institute for Neurodegenerative Diseases and Professor of Neurology at the University of California, San Francisco (UCSF). He received his undergraduate and medical school training at the University of Pennsylvania and his postgraduate clinical training at UCSF. He completed his military service as a lieutenant commander in the U.S. Public Health Service at the National Institutes of Health. Editor of 12 books and author of over 500 research articles, Dr. Prusiner's contributions to scientific research have been internationally recognized.

Dr. Prusiner discovered an unprecedented class of pathogens that he named prions. Prions are infectious proteins that cause neurodegenerative diseases in animals and humans. Dr. Prusiner discovered a novel disease paradigm when he showed prions cause disorders such as Creutzfeldt-Jakob disease (CJD) in humans that manifest as (1) sporadic, (2) inherited and (3) infectious illnesses. Dr. Prusiner demonstrated that prions are formed when a normal, benign cellular protein acquires an altered shape. His concept of infectious proteins as well as his proposal of multiple biologically active shapes or conformations for a single protein were considered heretical. Remarkably, the more common neurodegenerative diseases including Alzheimer's, Parkinson's and many of the frontotemporal dementias as well as some forms of ALS have been shown to be caused by prions over the past five years. Prusiner predicted a prion etiology for these common degenerative diseases based on his seminal discovery that prions can assemble into amyloid fibrils. Much of Dr. Prusiner's current research focuses on developing therapeutics aimed at halting neurodegeneration in Alzheimer's, Parkinson's, the frontotemporal dementias and Creutzfeldt-Jakob disease.

Dr. Prusiner is a member of the National Academy of Sciences, the Institute of Medicine, the American Academy of Arts and Sciences and the American Philosophical Society, and a foreign member of the Royal Society, London. He is the recipient of numerous prizes, including the Potamkin Prize for Alzheimer's Disease Research from the American Academy of Neurology (1991); the Richard Lounsbery Award for Extraordinary Scientific Research in Biology and Medicine from the National Academy of Sciences (1993); the Gairdner Foundation International Award (1993); the Albert Lasker Award for Basic Medical Research (1994); the Paul Ehrlich Prize from the Federal Republic of Germany (1995); the Wolf Prize in Medicine from the State of Israel (1996); the Keio International Award for Medical Science (1996); the Louisa Gross Horwitz Prize from Columbia University (1997); the Nobel Prize in Physiology or Medicine (1997); and the United States National Medal of Science (2009).

Dr. Prusiner holds 50 issued or allowed United States patents, all of which are assigned to the University of California.

Yehia "Mo" Saif, Ph.D.

Dr. Mo Saif is Professor Emeritus of the Food Animal Health Research Program of the Ohio Agricultural Research and Development Center at The Ohio State University. Dr. Saif is a past-President of the American Association of Avian Pathologists (AAAP) and the current editor of Avian Diseases. He is a highly regarded expert on avian pathology and an adviser to the World Animal Health Organization (OIE). His laboratory is an official OIE reference laboratory. Dr. Saif has received numerous awards including the AAAP's Life Member and Special Service awards, the American Veterinary Medical Association Excellence in Poultry Medicine Research award, the ACVM Distinguished Veterinary Microbiologist award, and an honorary diploma from the American Veterinary Epidemiology Society. Dr. Saif received his DVM degree from Cairo University and a PhD in veterinary preventive medicine from Ohio State University.

Barbara Schaal, Ph.D.

Barbara Schaal is the Dean of the Faculty of Arts & Sciences and the Mary Dell Chilton Distinguished Professor in the Department of Biology, Washington University in St. Louis. She currently chairs the Division on Earth and Life Studies at the National Research Council and is on President Obama's Council of Advisors for Science and Technology.

Schaal is a plant evolutionary biologist who uses DNA sequences and genomics to understand evolutionary processes such as gene flow, geographical differentiation, and the domestication of crop species. Her current research focuses on the evolutionary genomics of rice including domestication and adaptation.

She received a BS from the University of Illinois, Chicago and a Ph.D. from Yale University, both in biology. She was on the faculty of the University of Houston and Ohio State University before joining Washington University in 1980, where she has served as chair of the biology department.

She has been president of the Botanical Society of America, the Society for the Study of Evolution and Vice President of the US National Academy of Sciences. She has received a Guggenheim Fellowship, the Wilbur Cross Medal from Yale University, and the Distinguished Scientist Award from the American Institute of Biological. She is an elected member of the US National Academy of Sciences and the American Academy of Arts and Sciences and is appointed a US science envoy by former Secretary of State Hillary Clinton.

EX-OFFICIO DIRECTORS

Tom Vilsack, Secretary of Agriculture

Tom Vilsack serves as the Nation's 30th Secretary of Agriculture.

As leader of the U.S. Department of Agriculture (USDA), Vilsack is working hard to strengthen the American agricultural economy, build vibrant rural communities and create new markets for the tremendous innovation of rural America. In five years at the Department, Vilsack has worked to implement President Obama's agenda to put Americans back to work and create an economy built to last. USDA has supported America's farmers, ranchers and growers who are driving the rural economy forward, provided food assistance to millions of Americans, carried out record conservation efforts, made record investments in our rural communities and helped provide a safe, sufficient and nutritious food supply for the American people.

As chair of the first-ever White House Rural Council, Secretary Vilsack and USDA are taking steps to strengthen services for rural businesses and entrepreneurs by finding new ways to partner with other Federal agencies and the private sector to spur investment in rural America.

USDA is promoting American agriculture by conducting cutting-edge research and expanding markets at home and abroad. The years 2009-2013 represent the strongest five years in history for agricultural trade, and new trade agreements President Obama signed with Columbia, South Korea and Panama will create even more export opportunities for American farmers and ranchers. Here at home, USDA has helped increase the number of farmers markets by 74 percent since 2008, and today there are more than 260 new regional food hubs to help connect farmers with broader regional markets.

Vilsack knows that conserving natural resources is critical to the long-term strength of our economy. That is why USDA has enrolled a record number of private working lands in conservation programs and implemented new strategies - such as landscape-scale efforts - to restore our forests and clean our water supply. This work is creating private sector jobs

protecting and rehabilitating our forests and wetlands, and providing increased opportunities for outdoor recreation.

Under Vilsack's leadership, USDA has partnered with First Lady Michelle Obama's Let's Move! initiative to improve the health of America's children. He helped pass and implement the Healthy, Hunger Free Kids Act, enabling USDA to help combat child hunger and obesity by making the most significant improvements to school meals in 30 years. He has led a comprehensive effort to improve the safety of the American food supply, implementing changes to food safety standards to prevent illnesses by reducing the prevalence of E. coli, salmonella and campylobacter in our meat and poultry.

He has made civil rights a top priority, reaching historic resolutions to all major past cases of discrimination brought against USDA by minority groups, and taking definitive action to move USDA into a new era as a model employer and premier service provider.

Prior to his appointment, Vilsack served two terms as the Governor of Iowa, in the Iowa State Senate and as the mayor of Mt. Pleasant, Iowa. A native of Pittsburgh, Pennsylvania, Vilsack was born into an orphanage and adopted in 1951. After graduating Hamilton College and Albany Law School, he moved to Mt. Pleasant, his wife Christie's hometown, where he practiced law. The Vilsacks have two adult sons and two daughters-in-law - Doug, married to Janet; and Jess, married to Kate. They also have two grandchildren.

Catherine E. Woteki, Ph.D., Under Secretary of Agriculture Research, Education, and Economics

Dr. Catherine Woteki is Under Secretary for United States Department of Agriculture's (USDA) Research, Education, and Economics (REE) mission area, as well as the Department's Chief Scientist. Her responsibilities include oversight of the four agencies that comprise REE, the Agricultural Research Service (ARS), National Institute for Food and Agriculture (NIFA), Economic Research Service (ERS), and National Agricultural Statistics Service (NASS). The National Agriculture Library and National Arboretum also fall under this mission area.

Since returning to USDA, Dr. Woteki has followed the direction established by Congress, developing the Office of the Chief Scientist, the USDA Science Council, and other coordinating programs. She has been called upon to lead scientific delegations to China and the first Meeting of Agricultural Chief Scientists held under the auspices of the G-20 leader, Mexico. Dr. Woteki is an advocate for building the platforms necessary to enhance domestic and international research for building the platforms necessary to enhance domestic and international agricultural research that include open access to scholarly publications, open access to germplasm collections and genetic and genomic data; accelerated innovation and technology transfer in the agricultural arena; and improved agricultural statistics.

Before joining USDA, Dr. Woteki served as Global Director of Scientific Affairs for Mars, Incorporated, where she managed the company's scientific policy and research on matters of health, nutrition, and food safety.

From 2002 to 2005, she was Dean of Agriculture and Professor of Human Nutrition at Iowa State University, where she was also the head of the Agriculture Experiment Station. Dr. Woteki served as the first Under Secretary for Food Safety at USDA from 1997 to 2001, where she oversaw U.S. Government food safety policy development and USDA's continuity of operations planning. Dr. Woteki also served as the Deputy Under Secretary for REE at USDA in 1996.

Prior to going to USDA, Dr. Woteki served in the White House Office of Science and Technology Policy as Deputy Associate Director for Science from 1994 to 1996. During that time she co-authored the Clinton Administration's policy statement, "Science in the National Interest." Dr. Woteki has also held positions in the National Center for Health Statistics of the U.S. Department of Health and Human Services (1983 to 1990), the Human Nutrition Information Service at USDA (1981 to 1983), and as Director of the Food and Nutrition Board of the Institute of Medicine at the National Academy of Sciences (1990 to 1993). During her tenure as Director of the Food and Nutrition Board she had direct responsibility for twenty-seven studies and co-authored a nutrition book entitled Eat for Life which became a Book of the Month

Club selection.

Dr. Woteki's research interests include nutrition, food safety policy, risk assessment, and health survey design and analysis. She is the author of over sixty refereed scientific articles and twelve books and technical reports.

In 1999, Dr. Woteki was elected to the Institute of Medicine of the National Academy of Sciences, where she has chaired the Food and Nutrition Board (2003 to 2005). She received her M.S. and Ph.D. in Human Nutrition from Virginia Polytechnic Institute and State University (1974). Dr. Woteki received her B.S. in Biology and Chemistry from Mary Washington College (1969).

Chavonda Jacobs-Young, Ph.D., Administrator of the Agricultural Research Service

Dr. Chavonda Jacobs-Young is the Administrator of the Agricultural Research Service (ARS). Prior to her appointment to Administrator she served as ARS Associate Administrator for National Programs, where she led the Office of National Programs which manages the research objectives of the Agency. She also led the Office of International Research Programs which is responsible for ARS' liaison with its international partners.

Prior to moving into her role at ARS, Dr. Chavonda Jacobs-Young served as the Director of the Office of the Chief Scientist in the U.S. Department of Agriculture, where she was responsible for facilitating the coordination of scientific leadership across the Department to ensure that research supported by, and scientific advice provided to, the Department and external stakeholders were held to the highest standards of intellectual rigor and scientific integrity. She also served as the Acting Director for USDA's National Institute of Food and Agriculture.

Dr. Jacobs-Young was a senior policy analyst for agriculture in the White House Office of Science and Technology Policy where she supported the President's science adviser and others within the Executive Office of the President on a variety of agricultural scientific activities and worked across the Federal Government to improve interagency cooperation and collaboration on high-priority scientific issues.

Dr. Jacobs-Young is a native of Georgia. She holds M.S. and Ph.D. degrees in Wood and Paper Science and a B.S. degree in Pulp and Paper Science and Technology from North Carolina State University. She also is a graduate of American University's Executive Leadership in Public Policy Implementation Program.

Sonny Ramaswamy, Ph.D., Director of the National Institute of Food and Agriculture

Dr. Sonny Ramaswamy was appointed to serve as director of the USDA's National Institute of Food and Agriculture (NIFA) on May 7, 2012. As part of USDA's Research, Education, and Extension mission, he oversees NIFA awards funds for a wide range of extramural research,

education, and extension projects that address the needs of farmers, ranchers, and agricultural producers.

Prior to joining NIFA, Dr. Ramaswamy served as dean of Oregon State University's College of Agricultural Sciences and director of the Oregon Agricultural Experiment Station. He provided overall leadership for the college's academic programs at the Corvallis campus and OSU programs at Eastern Oregon University in La Grande, for-credit extended education, informal education through the Agricultural Sciences and Natural Resources Extension Program, and research at OSU's main campus and 11 branch experiment stations throughout the state. Previously, Dr. Ramaswamy was associate dean of the Purdue University College of Agriculture and directed the university's agricultural research programs from 2006 to 2009. Prior to joining the Purdue faculty, Dr. Ramaswamy was head of Kansas State University's Department of Entomology from 1997 to 2006, where he held the title of Distinguished Professor and was named the Presidential Outstanding Department Head in 2002. He also served on the faculty of Mississippi State University and as a research associate at Michigan State University. As an insect physiologist, he worked on the integrative reproductive biology of insects.

Dr. Ramaswamy has received research grants from many federal agencies, including USDA, National Science Foundation, National Institutes of Health, Environmental Protection Agency, and the United States Agency for International Development, as well as from state agencies, commodity groups, and industry. He has published nearly 150 journal articles, book chapters, and a book. He has received a number of awards and honors as a scientist and department head, including being named a Fellow of the American Association for the Advancement of Science; Fellow of the Entomological Society of America; and Distinguished Graduate Alumnus of Cook College, Rutgers University.

He received a Bachelor of Science in agriculture and a Master of Science in entomology from the University of Agricultural Sciences, Bangalore, India, and his doctorate in entomology from Rutgers University. He is also a graduate of the University of Nebraska's New Academic Chair's Program and Harvard University's Management Development Program.

France A. Cordova, Ph.D., Director of the National Science Foundation

Dr. France A. Córdova, was sworn in as director of the National Science Foundation (NSF) on March 31, 2014. Nominated by President Barack Obama to head the $7.2-billion independent federal agency, she was confirmed by the U.S. Senate on March 12. Córdova leads the only government science agency charged with advancing all fields of scientific discovery, technological innovation, and science, technology, engineering and mathematics (STEM) education. NSF's programs and initiatives keep the United States at the forefront of science and engineering, empower future generations of scientists and engineers, and foster U.S. prosperity and global leadership.

Córdova is president emerita of Purdue University, where she served as president from 2007 to 2012. From 2002 to 2007, she led the University of California, Riverside, as chancellor and was a distinguished professor of physics and astronomy. Córdova was the vice chancellor for

research and professor of physics at the University of California, Santa Barbara, from 1996 to 2002.

From 1993 to 1996, Córdova served as NASA's chief scientist. Prior to joining NASA, she was on the faculty of the Pennsylvania State University where she headed the department of astronomy and astrophysics from 1989 to 1993. Córdova was deputy group leader in the Earth and space sciences division at Los Alamos National Laboratory from 1988 to 1989 and staff scientist from 1979 to 1989. She received her Bachelor of Arts degree from Stanford University and her doctorate in physics from the California Institute of Technology in 1979.

More recently, Córdova served as chair of the Board of Regents of the Smithsonian Institution and on the board of trustees of Mayo Clinic. She also served as a member of the National Science Board (NSB), where she chaired the Committee on Strategy and Budget. As NSF director, she is an ex officio member of the NSB.

Córdova's scientific contributions have been in the areas of observational and experimental astrophysics, multi-spectral research on x-ray and gamma ray sources and space-borne instrumentation. She has published more than 150 scientific papers. In 1997, she was awarded an honorary doctorate by Loyola Marymount University, Los Angeles. She is a recipient of NASA's highest honor, the Distinguished Service Medal, and was recognized as a Kilby Laureate in 2000. The Kilby International Awards recognize extraordinary individuals who have made "significant contributions to society through science, technology, innovation, invention and education." Córdova was elected to the American Academy of Arts and Sciences and is a National Associate of the National Academies. She is also a fellow of the American Association for the Advancement of Science (AAAS) and the Association for Women In Science (AWIS).

She is NSF's 14th director, succeeding Subra Suresh who stepped down in March 2013. Córdova is married to Christian J. Foster, a science educator, and they have two adult children.