

A Review of the USDA Agricultural and Food Research Initiative

Committee

Victor L. Lechtenberg

Chair

Dr. Victor L. Lechtenberg is acting executive vice president for academic affairs and provost at Purdue University. Dr. Lechtenberg was previously director of the Center for Regional Development. He served as vice provost for engagement from 2004 to 2011, interim provost from 2007 to 2008, and interim vice president for governmental relations from 2008 to 2009. Dr. Lechtenberg joined the Purdue faculty as a professor of Agronomy in 1971 where he taught crop science and conducted research on forage and biomass crops until 1982. He served as associate director of agricultural research programs and as the executive associate dean of agriculture from 1982 to 1993, and was dean of agriculture from 1993 to 2004. From 1996 through 2002, Dr. Lechtenberg served as chair of the U.S. Department of Agriculture's National Agricultural Research, Extension, Education and Economics Advisory Board and as a member of the advisory board of the National Academies' Division on Earth and Life Studies. Since 2004, as vice provost for engagement, Dr. Lechtenberg led Purdue's engagement and outreach efforts to governmental agencies, corporate leaders, schools and community leaders across Indiana and beyond. He received his BS from the University of Nebraska and PhD from Purdue University. Dr. Lechtenberg is a native of Butte, Nebraska, where he grew up on a general livestock farm.

Steven S. Balling

Member

Dr. Steven S. Balling is director of agricultural and analytical services for Del Monte Foods. He is part of a team of scientists responsible for agricultural research, seed operations, and pest management programs supporting 17 crops grown on 110,000 acres. Over the past 20 years, Dr. Balling has been involved with the development and implementation of Del Monte's widely recognized integrated pest management efforts in fruits and vegetables. He also manages Del Monte's agricultural research program, including pest management research, new variety trials, and pea, bean, and corn breeding at six Del Monte locations in the West and Midwest. He directs the seed operations, which annually produces seven million pounds of corn, pea, and bean seed for Del Monte operations. Dr. Balling received his BS in natural resources and his PhD in entomology from the University of California, Berkeley.

Keith L. Belli

Member

Dr. Keith L. Belli is professor and head of the Department of Forestry, Wildlife, and Fisheries at the University of Tennessee (UT), Knoxville. The department he leads supports undergraduate and graduate programs of study in natural resources, forestry, wildlife, fisheries, forest products, and the environment. Its mission is to advance the science, management, and appreciation of natural resources in Tennessee, the region, and beyond through programs in research, teaching, and extension. He leads one of the largest units in the university's College of Agricultural Sciences and Natural Resources, one of four units in the statewide UT Institute of Agriculture. Prior to his appointment with UT, Dr. Belli worked at Mississippi State University for 18 years, most recently as associate dean of the College of Forest Resources, associate director of the Forest and Wildlife Research Center, and interim head of the Department of Forest Products. Dr. Belli received his BS in forest science from the Pennsylvania State University, his MS in silviculture from Michigan State University, and his PhD in forest biometrics from the University of Minnesota. Dr. Belli currently serves as Research Chair for the National Association of University Forest Resources Programs.

Peter J. Bruns

Member

Dr. Peter J. Bruns is currently a professor of genetics emeritus at Cornell University. From 1969-2000 he held the following positions at Cornell University: assistant, associate, and full professor of genetics; faculty fellow; chairman, Section of Genetics and Development; associate director, Cornell Biotechnology Program; director, Division of Biological Sciences; and director, Cornell Presidential Research Scholars. In 1977 he was a Guggenheim Fellow at the Carlsberg Foundation, Copenhagen, Denmark. He pioneered methods to genetically manipulate the separate somatic and germinal nuclei of the single celled organism *Tetrahymena thermophila*. In addition to grants from the National Science Foundation (NSF) and the National Institutes of Health for his research, he obtained grants from NSF and the Howard Hughes Medical Institute (HHMI) for educational efforts, including the Cornell Institute for Biology Teachers, which he founded. From 2001-2010 he was vice president for grants and special programs at HHMI, and oversaw one of the nation's largest private funds in support of science education from precollege through graduate. In addition he directed HHMI's international grants program in support of basic research outside of the United States. In 2011 he received the Elizabeth W. Jones Award for Excellence in Education from the Genetics Society of America and the Bruce Alberts Award for Excellence in Science Education from the American Society for Cell Biology. He is currently creating a web-based journal of educational resources for HHMI, and serves on advisory boards for the Vermont Genetics Network, the Rotman Institute of Philosophy at the University of Western Ontario, the biotechnology firm Tetragenetics, the National Science Teachers Association, the University of Colorado Interdisciplinary Quantitative Biology Program, the National Board of Medical Examiners' Stemmler Medical Education Research Fund, the Institute for Clinical Research in Montréal, and the American Society for Cell Biology's iBioSeminars. He is a member of the executive committee of the National Academy of Sciences Summer Institutes on Undergraduate Education in Biology, and a member of the board of directors of the Boyce Thompson Institute for Plant Research, the Tilghman Waterman's Museum, and Kenwood House in Chevy Chase, Maryland. He recently served on the workforce studying higher education for the US President's Council of Advisors on Science and Technology and currently is on the Technical Advisory Committee on Science, Technology, Engineering, and Mathematics Education for the American Association of Universities. Dr. Bruns received an AB in Zoology from Syracuse University, and a PhD in Cell Biology from the University of Illinois.

Steven T. Buccola

Member

Dr. Steven T. Buccola joined the Department of Agricultural and Resource Economics at Oregon State University in 1981 and became a professor there in 1988. His research has concentrated on the economics of productivity. Recently he has focused in particular on the economics of science and technology, authoring articles on the implications of basic for applied research, on the synergies between research productivity and funding success, and on the dynamics of life-science research investment. Dr. Buccola is a fellow and former president of the Agricultural and Applied Economics Association, is a former editor of the American Journal of Agricultural Economics, and has served on the editorial boards of four other professional journals. He was the recipient in 2008 of Oregon State University's R.M. Wade Award for Excellence in Teaching, and in both 2004 and 2008 of the Outstanding Journal Article award at the Review of Agricultural Economics (now Applied Economics Policy and Planning). He received his PhD from the University of California, Davis.

James C. Carrington

Member

Dr. James C. Carrington, President of the Danforth Plant Science Center in St. Louis, MO, earned his BS in Plant Sciences at the University of California, Riverside. After receiving his doctorate from the University of California, Berkeley, he served on the faculties at Texas A & M and Washington State universities. Most recently (2001-2011), he was the Director of the Center for Genome Research and Biocomputing (CGRB), the Stewart Professor for Gene Research, and Distinguished Professor of Botany and Plant Pathology at Oregon State University. Carrington is internationally recognized for his research on gene silencing, the functions of small RNA, and virus-host interactions. His work in the small RNA field has focused on mechanisms through which plants and other organisms use non-coding RNA to control growth and development and to defend against viruses. His awards include the Presidential Young Investigator Award from the National Science Foundation, the Ruth Allen Award from the American Society for Phytopathology, and the Humboldt Research Award from the Alexander von Humboldt Foundation. He was elected as a Member of the National Academy of Science in 2008, and is a Fellow of the American Academy of Microbiology, the American Phytopathological Society, and the American Association for the Advancement of Science.

Machi F. Dilworth

Member

Dr. Machi Dilworth is the retired director of the Office of International Science and Engineering at the National Science Foundation (NSF). Prior to this assignment, she served as Deputy Assistant Director (Acting) for the Mathematical and Physical Sciences Directorate at NSF. She was with NSF for 24 years and played a number of roles including Division Director for Biological Infrastructure within the Directorate for Biological Sciences. Among the programs she was involved in at NSF include the Postdoctoral Research Fellowships for Plant Biology, the DOE/NSF/USDA joint programs in plant sciences, the international Arabidopsis genome research program, the Plant Genome Research Program, iPlant project, the Research Coordination Networks, and the Science Across Virtual Institutes (SAVI). From 2007 to 2010, she served as Head of NSF's Tokyo Regional Office and concurrently as Science & Technology Attaché at the US Embassy in Tokyo. Earlier in her career, she worked at the USDA Competitive Research Grants Office for 9 years as a research grants program administrator. In 2002, Dr. Dilworth received the Presidential Distinguished Rank Award for her leadership in the development and management of a series of major research programs at NSF. She is a Fellow of the American Association for the Advancement of Science, and a Fellow of the American Society of Plant Biologists. She earned her BA in natural sciences from International Christian University in Tokyo, and MA and PhD. in plant biochemistry and physiology from the University of California at Los Angeles.

Cutberto Garza

Member

Dr. Cutberto Garza joined Boston College in 2005 where he serves as Provost and Dean of Faculties. Previous to 2005 he held the rank of full professor at Baylor College of Medicine (where he served as the associate director of the USDA Children's Nutrition Research Center) and Cornell University (where he served as Director of the Division of Nutritional Sciences and vice provost). He received his BS from Baylor University, his MD from Baylor College of Medicine, and a PhD in nutrition and science from MIT. Dr. Garza is a specialist in pediatric nutrition and has worked on projects sponsored by the United Nations University (as Director of the the UNU Food and Nutrition Program), World Health Organization (WHO), UNICEF, and other international and national organizations with interests in infant and young child health. He served as chair of the WHO Steering Committee that developed the new WHO growth standards for infants and young children, the Institute of Medicine's (IOM) Food and Nutrition Board, and the National Research Council's Board on International Scientific Organizations. He currently serves as Chair of the World Food Program's Technical Advisory Group. He is a member of the IOM and was named to the inaugural class of the National Associates of the National Academies of Science. He also is a member of the American Society of Clinical Nutrition, the Society for Pediatric Research and the American Pediatric Society, among other organizations.

Ronnie D. Green

Member

Dr. Ronnie D. Green has been the Harlan Vice Chancellor for the Institute of Agriculture and Natural Resources at University of Nebraska-Lincoln since July 2010. His position also serves as University of Nebraska vice president. He previously served as the senior director of Pfizer Animal Health overseeing global technical services for Animal Genetics, a position he held since April of 2008. From 2003-08, Green served as the national program leader for animal production research for the USDA's Agricultural Research Service and as the executive secretary of the White House's interagency working group on animal genomics within the National Science and Technology Council. In this role, he directed a \$45M annual research portfolio and was one of the principal leaders in the international bovine, porcine, and ovine genome projects. He has served on animal science faculties at Texas Tech University and Colorado State University, and received a number of distinguished local, regional and national teaching and research awards for the work he led in those positions. Author of numerous refereed and other publications and invited speaker in almost all 50 states and foreign countries that range from Australia to the United Kingdom, Dr. Green was president in 2010-2011 of the American Society of Animal Science and has served as a board member, recording secretary and as a member of the executive committee. He has held leadership positions in the Beef Improvement Federation, National Cattlemen's Beef Association, National Pork Board, Discover Conferences, and the National Block and Bridle Club. Raised on a mixed beef, dairy and cropping farm in southwestern Virginia, Ronnie received his BS and MS degrees in animal science from the Virginia Polytechnic and State University and Colorado State University, respectively. His PhD, with a focus on animal breeding, was completed jointly in 1988 at the University of Nebraska-Lincoln and the USDA US Meat Animal Research Center.

Rosemary R. Haggett

Member

Dr. Rosemary R. Haggett is vice chancellor for academic affairs and student success at the University of North Texas System (UNTS), where she directs their academic planning, reporting, and campus support. As the system's chief academic officer, she provides leadership and consultation in the development of the academic planning process, academic and research policy, and academic personnel policy. Dr. Haggett is also charged with oversight and evaluation of selected educational programs, professional education, major systemwide academic initiatives, graduate and undergraduate student affairs, and international and other extended learning programs. Dr. Haggett came to UNTS from the University of Toledo, where she served as Provost and Executive Vice President for Academic Affairs since July 2007. Dr. Haggett has extensive experience both in academia and the federal government. Prior to becoming Provost at Toledo, Dr. Haggett was acting director of the Division of Graduate Education and senior adviser of the Education and Human Resources Directorate of the National Science Foundation (NSF). Her other positions at the NSF since 2003 include acting deputy assistant director of the Education and Human Resources Directorate and director of the Division of Undergraduate Education. Dr. Haggett was the second woman in the United States to serve as a College of Agriculture dean when she was appointed dean of the West Virginia University College of Agriculture, Forestry and Consumer Sciences in 1994. In addition to her work at the NSF, Dr. Haggett held a professorship in Animal and Veterinary Sciences at West Virginia University from 1994 to 2007. Dr. Haggett served as associate provost for academic programs at West Virginia University (WVU) from 1999 to 2003, and as dean of the WVU College of Agriculture, Forestry and Consumer Sciences from 1994 to 1999. She has been a member of the biology faculty at Loyola University of Chicago and held positions at Trinity College in Washington, DC, and the University of Maryland. Dr. Haggett also worked at the USDA for more than six years. Dr. Haggett has published in the areas of reproductive biology and neuroendocrinology, as well as student learning outcome assessment and undergraduate science education. She received her BS in biology from the University of Bridgeport. Dr. Haggett holds a PhD in physiology from the University of Virginia and completed postdoctoral work in reproductive biology at Northwestern University.

Gene Hugoson

Member

Gene Hugoson is on staff in the Center for Animal Health and Food Safety at the University of Minnesota where he works with Food System Policy. In addition Hugoson is a Senior Fellow with the Global Initiative for Food Systems Leadership (GIFSL). GIFSL was formed in 2009 by the University of Minnesota in conjunction with Cargill, General Mills and several other major food corporations and has the goal of providing a comprehensive effort to strengthen food safety, food security, environmental sustainability and economic stability worldwide. Prior to joining the university, Hugoson was Commissioner of the Minnesota Department of Agriculture from 1995 to 2011. In addition to the regulatory responsibilities, Hugoson worked to strengthen Minnesota's value-added industries and international trade opportunities. He also served as chair of Minnesota's Environmental Quality Board which administers the state's environmental review, water planning and sustainable development programs. Beginning in 2007 Hugoson became the first chair of the state's Next Gen Energy Board which was established to develop recommendations on how the state can invest its resources to achieve energy independence, agricultural and natural resources sustainability and rural economic vitality. During his tenure as commissioner Hugoson served on the board of the National Association of State Departments of Agriculture (NASDA) for more than eight years including serving as president of NASDA in 2003-2004. Hugoson also served five terms in the Minnesota House of Representatives, having first been elected in 1986. Hugoson has a BA degree in social science education from Augsburg College in Minneapolis. He served in the U.S. Army, including a tour of duty in Vietnam after which he did graduate work at Minnesota State University, Mankato. Hugoson and his family operate a corn and soybean farm in southern Minnesota in Martin County.

Bennie I. Osburn

Member

Dr. Bennie I. Osburn is retired Dean of the School of Veterinary Medicine at University of California (UC), Davis and was interim executive director of the Association of American Veterinary Colleges. His scientific career focused on the health and welfare of food animals, particularly cattle and sheep. He has been involved in key discoveries about food animal viruses, developmental immunology, congenital infections and more recently, food safety. He has published more than 285 peer-reviewed publications. He is a member of the Johns Hopkins Society of Scholars, Fellow in the American Association for the Advancement of Science, Diplomate of the American College of Veterinary Pathologist (ACVP) and Past President of ACVP, the American Association of Veterinary Immunologists, Association of American Veterinary Medical Colleges, and Chair of USDA's Agricultural Biotechnology Research Advisory Committee. Dr. Osburn served as head of the Infectious Disease and Immunology Unit at the California Regional Primate and Research Center from 1975 to 1983 and as associate dean for research and graduate programs at UC Davis from 1975 until he became dean in 1996. Dr. Osburn earned his BS and DVM degrees at Kansas State University, and his PhD in comparative pathology at the University of California, Davis. From 1964 to 1968 he served on the faculty at the College of Veterinary Medicine at Oklahoma State University.

Philip G. Pardey

Member

Dr. Philip G. Pardey is professor of science and technology policy in the Department of Applied Economics at the University of Minnesota where he also directs the university's International Science and Technology Practice and Policy Center. Previously he was a senior research fellow at the International Food Policy Research Institute, Washington DC, and prior to 1994 at the International Service for National Agricultural Research in The Hague, Netherlands. He is a fellow of the American Agricultural Economics Association and a distinguished fellow and past president of the Australian Agricultural and Resource Economics Society. His research deals with the finance and conduct of research and development globally, methods for assessing the economic impacts of research, and the economic and policy (especially intellectual property) aspects of genetic resources and the biosciences. He currently co-directs a Gates Foundation project, HarvestChoice (www.HarvestChoice.org), designed to inform and guide investments intended to stimulate productivity growth in African agriculture. Dr. Pardey is author of more than 300 books, articles, and papers, including, *Ending Hunger in Our Lifetime: Food Security and Globalization* (John Hopkins University Press, 2003), *Saving Seeds: The Economics of Conserving Crop Genetic Resources Ex Situ in the Future Harvest Centers of the CGIAR* (CAB International 2004), *Agricultural R&D in the Developing World: Too Little, Too Late?* (International Food Policy Research Institute, 2006), and *Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending* (Springer 2010). A native of Australia, has a BSc in agricultural science from the University of Adelaide (Australia) and obtained a doctoral degree in agricultural economics from the University of Minnesota in 1986.

Sally J. Rockey

Member

Dr. Sally J. Rockey has been the deputy director for Extramural Research at NIH since August, 2010, and had been acting deputy director since 2008. She leads their extramural research activities, and also serves as director of the Office of Extramural Research, which is the focal point for policies and guidelines for extramural research administration within NIH and in partnership with the biomedical research community. Dr. Rockey has spent the majority of her career in the area of extramural research administration and information technology (IT). She leads or is active on a number of federal committees related to science, research administration, and electronic government and collaborates closely with academic and scientific communities. In 1986, she joined the U.S. Department of Agriculture's Extramural Research arm, where she quickly rose to the post of deputy administrator for the Competitive Research Grants and Award Management Unit of the Cooperative State Research, Education, and Extension Service, overseeing the extramural grants process and portfolio. In 2002, she became chief information officer, applying her breadth of government knowledge and aligning state-of-the-art IT with the department's goals and objectives. Dr. Rockey is a skilled public speaker, giving countless presentations on extramural research priorities and policies, grantsmanship, the competitive peer review process, scientific integrity, and IT. Along with her many professional accomplishments, such as receiving the Presidential Rank Award in 2004, she is an active member of the community and has numerous outside interests. She encouraged the science education of young children by giving presentations on insects to local elementary schools, where she was known as the "Bug Doctor." Dr. Rockey received her PhD in entomology from Ohio State University.

Juliana M. Ruzante

Member

Dr. Juliana M. Ruzante is a senior associate for the Food Safety Campaign at the Pew Charitable Trusts. Prior to joining Pew, she was a risk analysis manager for the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), in College Park, MD. She worked for the University of Guelph and Public Health Agency of Canada developing and operationalizing a multi-factorial framework to rank foodborne risks using multi-criteria decision analysis (MCDA) and at the Western Institute for Food Safety and Security developing training material on animal health and food safety. She also worked as a quality assurance specialist for one of the largest pork and poultry processing companies in Brazil. She was a member of the Food Safety Research Consortium and has served as an expert on the meeting organized by Food Agriculture Organization and World Health Organization on the risks associated with *Enterobacter sakazakii* in follow-up formula. Dr. Ruzante received her DVM from the University of São Paulo and Master in Preventive Veterinary Medicine (MPVM) and PhD in Comparative Pathology from the University of California, Davis.

James J. Zuiches

Member

Dr. James J. Zuiches was vice chancellor for the Office of Extension, Engagement and Economic Development at North Carolina State University from 2006 until his retirement in 2011. In this office, he led statewide extension and engagement programs, including the Small Business Technology and Development Center, Industrial Extension Service, Manufacturing Extension Partnership, continuing education and STEM related programs. He previously was dean of Washington State University's College of Agriculture and Home Economics from 1995-2003, and director of the Agricultural Research Center (1986-1994) and of Cooperative Extension (1995-2000). He was associate director of the agricultural experiment station for New York State at Cornell University from 1982-1986. He also served as a grant-making program officer for the National Science Foundation in Sociology and W.K. Kellogg Foundation in community and rural development, and taught at Michigan State University for eight years. He serves on the Commission that provides oversight of the Food Systems Leadership Institute. He also served on the USDA's National Agricultural Research, Extension, Education and Economics Advisory Board, the NRC Board of Agriculture and Natural Resources, and on three NRC committees, most recently, the Framework Committee on the Review of NIOSH Research Programs. He is a fellow of the American Association for the Advancement of Science. His research and extension specializations include demography, rural sociology, entrepreneurship and community development, leadership, innovation and organizational processes. His work has been funded by the NSF, NICHD, ERDA (now DOE), Kellogg Foundation, and USDA. He has more than 80 publications, including edited books, journal articles, book chapters, bulletins and editorials. Dr. Zuiches has an MS and PhD in Sociology from the University of Wisconsin-Madison.