

The Ohio State University – Ohio Agricultural Research & Development Center Fall 2018 STEM Forum Speaker Bios and Titles of Their Talks – November 29, 2018



Dr. Katrina Cornish – Innovation Talk Title: "More Bounce to the Ounce: Making Sustainable Materials Work- Technically and Economically"

Katrina Cornish, graduated from the University of Birmingham, Edgbaston, England with a First Class Honours degree in Biological Sciences (1978) and a Ph.D. in Plant Biology in 1982. She is a global expert on alternate rubber and latex production, processing and products with more than 30 years working with rubber biosynthesis and alternative feedstocks in the Government, Commercial and University sectors. She is the Ohio Research Scholar and Endowed Chair in Bioemergent Materials at The Ohio State University, Technical Director of the Program of Excellence in Natural Rubber Alternatives, a fellow of the National Academy of Inventors and the American Association for the Advancement of Science, and CEO of EnergyEne, Inc. She leads a program on alternate rubber production, bio-based fillers and fibers, and exploitation of opportunity feedstocks from agriculture and food processing wastes for value-added products and biofuels and has >240 papers and ~20 patents.



Dr. Joe Scheerens – Innovation Talk Title: Health Beneficial Fruits Are Attached to STEMs

Joe Scheerens is a Professor in the Department of Horticulture and Crop Science at The Ohio State University. He has a B.S. degree from the University of Arizona, a M.S. degree from the University of Wisconsin and a Ph.D. from the University of Arizona. His research is focused on improving the culinary quality and/or health beneficial properties of edible or medicinal horticultural crops or their processed products, including Fruit Phytonutrients for Health and Well-being. A. Dewey Bond Pomology Endowment Research Program (PI), Developing the genomic infrastructure for breeding improved black raspberries. National Institute of Food and Agriculture, Specialty Crop Research Initiative (Co-PI). Development of grafting technology to improve sustainability & competitiveness of the U.S. fruiting vegetable industry National Institute of Food and Agriculture, Specialty Crop Research Initiative (CoPI). Commercialization of burdock (*Arctium* spp.) for medicinal uses. Ohio Agricultural Research and Development Center Seeds Research Grant (CoPI).



Dr. Peter Piermarini – Innovation Talk Title: Developing new chemical tools to control the deadliest animal in the world

Peter Piermarini is an Associate Professor of Entomology at The Ohio State University, Ohio Agricultural Research and Development Center in Wooster, Ohio. He received his BSc in Biology from James Madison University (1995) and doctorate in Zoology (2002) from the University of Florida, before completing postdoctoral training with Dr. Walter F. Boron at the Yale University School of Medicine and Dr. Klaus W. Beyenbach at the Cornell College of Veterinary Medicine. He started as an Assistant Professor of Entomology at The Ohio State University in 2011, and was recently promoted to Associate Professor in 2016. Dr. Piermarini was formally trained as a comparative and molecular physiologist studying the cellular mechanisms of salt and water balance and acid-base regulation in vertebrate and invertebrate animals. Since 2006, he has focused his attention on mosquitoes and other insect pests/vectors, performing physiological and toxicological studies aimed at discovering and developing insecticides with novel mechanisms of action, which have led to 38 peer-reviewed papers and 7 book chapters/reviews.



Dr. Katelyn Swindle Reilly – Innovation Talk Title: New Materials to Prevent Blindness

Dr. Swindle-Reilly is Assistant Professor, Department of Biomedical Engineering, Department of Chemical and Biomolecular Engineering, Department of Ophthalmology & Visual Science, The Ohio State University. She completed a B.S. in Chemical Engineering at Georgia Institute of Technology in 2004. She then received her M.S. in Chemical Engineering in 2006 and Ph.D. in Energy, Environmental, and Chemical Engineering in 2008 from Washington University in St. Louis. Her dissertation research resulted in the development of an injectable, in vivo-gelling biomimetic vitreous substitute. She completed postdoctoral training in Biomedical Engineering at Saint Louis University where she developed biopolymer and electrospun scaffolds for peripheral nerve regeneration. After completing her postdoctoral training, Dr. Swindle-Reilly worked as a Senior Scientist at Rochal Industries LLC for over four years where she researched and developed several patented and FDA approved wound care products. She also designed manufacturing processes and preclinical studies for regulatory clearance of these new devices. She concurrently held an appointment as Adjunct Assistant Professor in Biomedical Engineering at The University of Texas at San Antonio from 2013-2015. She joined The Ohio State University as Assistant Professor in 2016. Her current research interests focus on the design of polymeric biomaterials for soft tissue repair and drug delivery with focused applications in ophthalmology and wound healing.