

Invited Symposium Speakers

Reaching New Heights in Natural Product Synthesis and Medicinal Applications (Cope Scholar Symposium)



Jeffrey Aubé, Professor, Dept. of Medicinal Chemistry, University of Kansas, Lawrence, Kansas and 2012 Cope Scholar, medicinal chemistry, is the featured speaker. Dr. Aubé received his Ph.D. in Organic Chemistry from Duke and a B.S. in chemistry, magna cum laude, from the University of Miami. He was a NIH Postdoctoral Fellow at Yale University. He is Director of the KU Chemical Methodologies and Library Design Center; Director of KU Specialized Chemistry Center; Director, Synthesis Core, KU Center for Cancer Experimental Therapeutics; member of the Kansas Masonic Cancer Research Institute, and an American Association for the Advancement of Science Fellow. His research interests center around the development of new reactions that complement existing methods for preparation of biologically relevant molecules, especially nitrogen-insertion reactions because of its importance in pharmaceutical products. Research includes ring expansion reactions in syntheses of alkaloids, amino acid bioisosteres, and peptidomimetics. Other aspects of his research include designing novel molecules as peptide mimics, enzyme inhibitors, and as probes of cellular transport processes. He has received fellowships from Eli Lilly, American Cyanamid, and the Alfred P. Sloan Foundation. He has received numerous teaching awards.

Robert M. Williams, Dept. of Chemistry, Colorado State University, Ft. Collins, Colorado, University Distinguished Professor. Dr. Williams received his Ph. D. in Organic Chemistry from the Massachusetts Institute of Technology and a B.A. in chemistry, with highest distinction, from Syracuse University. He was a Postdoctoral Fellow at Harvard University under Professor Woodward. He received the Arthur C. Cope Scholar Award from ACS in 2002. He has received grants or fellowships from Merck, Eli Lilly, and NIH. He is the Co-Director of Infectious Diseases Supercluster in Developmental Therapeutics at CSU and Co-Director of the Cancer

Supercluster in Developmental Therapeutics at CSU and is a member of the University of Colorado Cancer Center. He is Associate Editor of *Tetrahedron: Asymmetry* and Co-Editor for the "Organic Chemistry Series." He has been a consultant for numerous companies. He focuses on the interplay of synthetic organic chemistry, microbiology, biochemistry, and molecular biology. His research involves synthesis of natural products, studies on drug-DNA interactions, design and synthesis of antibiotics and biosynthetic pathways.

Cindy C. Browder, Dept. of Chemistry and Biochemistry, Northern Arizona University, Flagstaff, Associate Professor. Her research includes developing novel methodologies for synthesis of organic compounds of medicinal interest. She uses heterocyclic and related structures to generate cyclic and acyclic products. Target molecules include azapeptides, which are known antiviral agents. Her research group is synthesizing myriaporone 4, an anticancer molecule and its analogs. Other synthesis work includes hydrazine carbamates as precursors for medicinal compounds with antiviral and antihypertensive activity, oximes using hydroxylamine condensation reactions, and isoxazoles using copper-induced cyclization reactions of oximes. She maintains a strong commitment to undergraduate laboratory research.

Wei Wang, Dept. of Chemistry and Chemical Biology, University of New Mexico, Albuquerque, Associate Professor. He received his Ph.D. from North Carolina State University, M.S. from Shanghai Institute of Materia Medica, and B.S. from Nanjing Normal University, China. He was a Postdoctoral Research Associate at the University of Arizona and Postdoctoral Fellow at Zhejiang University, China. He received a Young Investigator Award, Gordon Research Conference. Research interests include synthetic organic chemistry, chemical biology, and molecular recognition. He has over 70 publications and two patents. He serves on the Editorial Board of the *World Journal of Biological Chemistry*.

Chris Douglas, Dept. of Chemistry, University of Minnesota, Minneapolis, Assistant Professor. He received his Ph.D. in Chemistry from the University of California at Irvine and B.S. in Chemistry from the University of Minnesota. He received the DuPont Young Investigator Award and awards from Merck, Bristol-Myers Squibb, 3M, Badger Mining, and ARCS Foundation. He received the Outstanding Professor Award at the University of Minnesota. His research focuses on discovering new methods that allows for construction of complex molecules, especially catalytic methods in functionalizing single bond to carbon and organoelectronic materials for development of new medicines.

Stevan Djuric, Senior Director, Medicinal Chemistry Technologies & Structural Chemistry, Advanced Technology, Global Pharmaceutical Research and Development, Abbott Laboratories, Chicago, Illinois. He is responsible for medicinal chemistry technology and structural chemistry groups at Abbott. Current efforts are focused on new initiatives in the areas of high throughput synthesis and purification and design and construction of novel compound libraries for targeting and identification. He is a member of the Editorial Advisory Board for the *Journal of Medicinal Chemistry*.

Karen Newell Rogers, Board of Directors, Aspire BioTech, Colorado Springs, Colorado; Director of Texas A& M Health Science Center –Scott White Center for Cell Death and Differentiation; Raleigh R. White Jr., Endowed Chair of Surgical Research. She received her

Ph.D. in Microbiology and Immunology from the University of Colorado Health Sciences Center and B.A. in Microbiology from the University of Texas at Austin. She was a Postdoctoral Fellow at McGill University, Montreal, Quebec, Canada and National Jewish Center for Immunology & Respiratory Medicine, Denver, CO. She has numerous patents on therapy for cancer, AIDS and many other disease states. She is at the forefront of advancing understanding of cell metabolism in an effort to treat cancer, HIV/AIDS, Lyme disease, and auto-immune diseases. She was nominated as one of the year's innovators for 2011 by The Academy of Medicine, Engineering, and Science of Texas.

Paul Savage, Reed M. Izatt Professor of Chemistry and Biochemistry, Dept of Chemistry and Biochemistry, Brigham Young University, Provo, Utah. He received his BS from Brigham Young University and his Ph.D. in organic chemistry from the University of Wisconsin at Madison. He did postdoctoral research at Ohio State University, Columbus, Ohio where he was an NIH Fellow. His research focus is on glycolipid immunology, oligosaccharide vaccines, and membrane active antibiotics as well as optimizing medical device coatings to prevent bacterial colonization. He has received a number of awards from BYU including a Faculty Excellence in Research Award and has been issued eight U.S. patents.