Discovery Lecture Series

Date: July 12, 2016
Speaker: Dr. Boubacar Kante
Lecture Title: TBD

Dr. Boubacar Kante is an assistant professor of Electrical and Computer Engineering and a Qualcomm faculty scholar at the University of California San Diego (UCSD). His research is dedicated to unraveling and exploiting the possibilities of using electromagnetic wave to achieve novel functions and devices in fields ranging from global energy, defense, and medicine. Kante received his Ph.D in Physics from Universite Paris Sud (Orsay-France) and was subsequently a postdoctoral researcher at the University of California Berkeley from 2010 to 2013. Professor Kanté’s multidisciplinary research interests are in the areas of wave-matter interaction, from microwave to optics and related fields such as nanophotonics, nanoscale photon management, and biophysics. Kante’s recent research has focused on artificial electromagnetic composites -- metamaterials. He demonstrated the first non-magnetic metamaterial invisibility cloak, introduced the notion of index for a meta-surface, and, the notion of symmetry/parity of ring resonators. Prof. Kante also demonstrated, from symmetry consideration, that closed rings, previously believed incapable of producing artificial magnetism, can make ultra-broadband negative index.

Date: July 19, 2016
Speaker: Dr. William McGinnis
Lecture Title: Development, Embryos, and Evolution

Dr. William McGinnis is a molecular biologist and professor of biology at the University of California, San Diego (UCSD). At UCSD he has also served as the Chairman of the Department of Biology from July 1998 - June 1999, as Associate Dean of the Division of Natural Sciences from July 1, 1999 - June 2000, and as Interim Dean of the newly established Division of Biological Sciences from July 1, 2000 - February 1, 2001. Dr. McGinnis was appointed Dean of the Divisional Biological Sciences on July 1, 2013. He received his Ph.D. from UC Berkeley in 1982 and was a Jane Coffin Childs postdoctoral fellow at the University of Basel. From 1984 to 1995, he was on the faculty of Yale University. He received a Searle Scholar Award, a Presidential Young Investigator Award, and a Dreyfuss Teacher/Scholar Award. Dr. McGinnis was elected to the American Academy of Arts and Sciences in 2010.
Date: July 26, 2016

Speaker: Dr. Paul Jensen

Lecture Title: New Medicines from the Sea: Past, Present & Future

Dr. Paul R. Jensen received a BS in marine biology from the Florida Institute of Technology, an MS degree in microbiology from San Diego State University, and a PhD in marine biology from the Scripps Institution of Oceanography, where he is currently a research microbiologist. His research interests lie at the interface of marine microbiology and natural product chemistry. His group addresses fundamental questions related to the diversity and distributions of bacteria in the marine environment while targeting taxa that produce biologically active secondary metabolites. The compounds produced are explored as a resource for drug discovery and provide opportunities to assess the functional roles of secondary metabolites in marine systems. His studies employ molecular as well as culture-dependent techniques and include the analysis of environmental and genome sequence data, which is mined for gene clusters of interest and to investigate the ecology and evolution of secondary metabolism. The overall goals of his program are to ask which microbes produce natural products, where they live, and why they make them in the context of developing better methods for natural product discovery.

Date: Aug 2nd, 2016

Speaker: Dr. Andrea Tao

Lecture Title: TBD

Professor Andrea is a rare species of native San Diegan who grew up close to the beach, but never learned to surf. Her interest in materials chemistry piqued in high school while volunteering in the chemistry lab of Michael Sailor. As an undergraduate, she had the opportunity to work in George Whitesides’s group and learn about self-assembly. Andrea decided to pursue her interest in both inorganic chemistry and self-assembly during her doctoral work at Berkeley, working with Peidong Yang. Her thesis focused on the synthesis and assembly of shaped metal nanoparticles. After working with solid-state materials for five years, Andrea decided to explore a new field by studying marine proteins in Daniel Morse’s group at UC Santa Barbara. She studied the properties of proteins found in the skin of cephalopods (like squid and octopus) that contribute to the ability of these sea creatures to camouflage themselves. In 2009, Andrea joined the then newly established NanoEngineering Dept. and started her independent work on nanocomposites and plasmonics. If she’s not in her office, you can probably find her at the local crag or tending to her vegetable garden.

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