

STAFF

Johannes Goebel / Director

Geoff Abbas / Director for Stage Technologies

Eric Ameres / Senior Research Engineer

S. Argeo Ascani / Associate Curator, Music

David Bebb / Senior System Administrator

Peter Bellamy / Senior Systems Programmer

Michael Bello / Video Engineer

Victoria Brooks / Curator, Time-Based Visual Arts

Eric Brucker / Lead Video Engineer

Ash Bulayev / Curator, Dance + Theater

Michele Cassaro / Guest Services Coordinator

John Cook / Box Office Manager

David DeLaRosa / Production Technician

Zhenelle Falk / Artist Services Coordinator

William Fritz / Master Carpenter

Kimberly Gardner / Manager, Administrative Operations

Laura Gypson / Production Administrative Coordinator

Ian Hamelin / Project Manager

Ryan Jenkins / Event Technician

Shannon Johnson / Design Director

Pamela Keenan / Production Technician

CathyJo Kile / Business Manager

Carl Lewandowski / Production Technician

Eric Chi-Yeh Lin / Lead Stage Technician

Stephen McLaughlin / Event Technician

Candice Sherman / Business Coordinator

Avery Stempel / Front of House Manager

Jeffrey Svatek / Audio Engineer

Dan Swalec / Master Electrician

Todd Vos / Lead Audio Engineer

Pete Wargo / Manager, Information Systems

Michael Wells / Production Technician

Emily Zimmerman / Assistant Curator

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EMPAC



TALK DETAIL VIEW

RAVI KANE

The Design of Nanoscale Therapeutics and Nanostructured Materials

TUESDAY SEPTEMBER 24 2013 | 12PM

TALK

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RAVI KANE

The Design of Nanoscale Therapeutics and Nanostructured Materials

TUESDAY SEPTEMBER 24 2013 | 12PM

This talk will describe efforts to interface bioactive molecules with nanomaterials and nanoscale scaffolds for designing potent therapeutics and functional nanocomposites. We are designing potent inhibitors of bacterial toxins based on the concept of polyvalency – the simultaneous binding of multiple ligands on one biological entity to multiple receptors on another. We will describe the design and characterization of polyvalent inhibitors that are several orders of magnitude more potent than the corresponding monovalent inhibitors and are effective in vivo. We are also investigating the structure and function of biological molecules immobilized onto nanomaterials such as carbon nanotubes. We will describe the design of enzyme-containing nanocomposite films that are effective against antibiotic-resistant bacteria.

Dr. Kane is the P. K. Lashmet Professor of Chemical and Biological Engineering at Rensselaer Polytechnic Institute (RPI). He received a B.S. in Chemical Engineering with distinction from Stanford University in 1993 and a Ph.D. in Chemical Engineering from MIT in 1998. After postdoctoral research in the Department of Chemistry and Chemical Biology at Harvard University, he joined Rensselaer Polytechnic Institute as an assistant professor in 2001. He was then promoted to associate professor in 2006, to professor in 2007, and to P.K. Lashmet Professor in 2008. He has won several research and teaching awards. In 2004, he was recognized by MIT's Technology Review Magazine as one of the top 100 young innovators in the world. In 2008, he received the young investigator award from AIChE Nanoscale Science and Engineering Forum and a NYSTAR faculty development award. In 2009, he received a young investigator award from the ACS Biochemical Technology Division. In 2011, he received the Trustees' Outstanding Teacher Award at RPI. He was recently elected to the AIMBE College of Fellows. Dr. Kane has published more than 100 research articles in refereed archival journals.