Keynote Lecture

Nevan J. Krogan
California Institute for Quantitative Biomedical Research School of Medicine, USA

Systems approaches for understanding the HIV-host functional interface

Biography

Dr. Krogan is an Associate Professor in the Department of Cellular and Molecular Pharmacology at the University of California-San Francisco and is an expert in the fields of functional genomics and systems biology. He was born and raised in Regina, Saskatchewan, Canada and obtained his undergraduate degree from the University of Regina. As a graduate student at the University of Toronto, Dr. Krogan led a project that systematically identified protein complexes in the model organism, Saccharomyces cerevisiae, through an affinity tagging-purification/mass spectrometry strategy. This work led to the characterization of 547 complexes, comprising over 4000 proteins, and represents the most comprehensive protein-protein interaction map to date in any organism. To complement this physical interaction data, Dr. Krogan developed an approach, termed E-MAP (or epistatic miniarray profile), which allows for high-throughput generation and quantitative analysis of genetic interaction data. Dr. Krogan’s lab at UCSF focuses on applying these global proteomic and genomic approaches to formulate hypotheses about various biological processes, including transcriptional regulation, DNA repair/replication and RNA processing. He is now developing and applying methodologies to create genetic and physical interactions between pathogenic organisms, including HIV and TB, and their hosts, which is providing insight into the human pathways and complexes that are being hijacked during the course of infection.
Keynote Lecture

Pooja Jain
Drexel University College of Medicine, USA

The tug-of-war between dendritic cells and chronic viral infections

Biography

Pooja Jain is an Associate Professor in the Department of Microbiology and Immunology, Drexel University College of Medicine (DUCOM), Philadelphia. She also holds a joint faculty appointment in the Institute for Molecular Medicine and Infectious Diseases as well as in the Drexel Institute for Biotechnology and Virology Research within DUCOM. She has received a PhD in Microbiology from the Central Drug Research Institute, India in 2001 and completed her postdoctoral training from the Texas Tech University Health Science Center as well as from the DUCOM. She has published 40 peer-reviewed articles and is serving as an Editorial board member/reviewer for 5 reputed journals.
Keynote Lecture

Fatah Kashanchi
George Mason University, USA

Discovery of novel complexes in infected cells

Biography

Dr. Kashanchi received his Ph.D. in 1990 in Microbiology with emphasis on HIV gene expression. He then moved to Washington, DC for his post doctoral and Research Associate fellowship at National cancer Institute, National Institutes of Health from 1991-1998. He was Tenured at the George Washington University medical school as a full Professor in 2004. He moved to GMU as director of research in 2010.

Research interests include Human retroviruses, biodefense viral agents, Cell cycle, host-pathogen interactions, small molecule and peptide inhibitors against transcription machinery, RNAi machinery and its components, proteomics and metabolomics, and humanized mouse models.

The current research in the Kashanchi Lab is focused on defining transcriptional and chromatin mediated regulation of HIV and HTLV-1 infected cells. Their studies have resulted in novel concepts regarding promoter-bound proteins that regulate all events of mRNA biogenesis (including capping, elongation, termination, poly A addition, splicing), nuclear-cytoplasmic transport, and activation of nonsense mRNA degradation. Among biothreat agents, the Kashanchi lab is interested in Rift Valley fever virus (RVFV) and Venezuelan Equine Encephalitis virus (VVEEV) replication in vitro and in vivo and defining crucial host-pathogen interactions that are imperative to pathogenesis.
Keynote Lecture

Ralph A. Tripp
University of Georgia Influenza Pathogenesis and Immunology Research Center, USA

Novel vaccination and therapeutic strategies against respiratory syncytial virus

Biography

Prof Tripp received his doctorate in 1989 from Oregon State University in the field of viral immunity. He was awarded a National Research Service Award and studied adenovirus mechanisms of immune evasion under the tutelage of Dr. Linda Gooding at Emory University, and then was a post-doctoral fellow with 1996 Nobel Laureate Professor Peter C. Doherty at St. Jude Children’s Research Hospital where he studied the mechanisms of T cell memory to influenza virus. Following these programs, Prof Tripp led a research team in vaccine studies for respiratory viral diseases, as a Section Chief, in the Respiratory and Enteric Viruses Branch at the CDC in Atlanta, GA. Prof Tripp now oversees research activities at the Animal Health Research Center at the Univ Georgia which is BSL2/BSL3 biocontainment facility where his laboratory develops platform enabling technologies in pathogen biosensing using nanotechnology-based approaches, antiviral drugs using small molecule and RNAi-based drugs, and animal and human vaccines using state-of-the-art technologies with an in-house GMP vaccine facility. Prof Tripp is also a co-founder and CSO of Argent Diagnostics, Inc, and of Trellis Biosciences-Georgia.

ratripp@uga.edu