

Interdisciplinary Research Seminars sponsored by the Institute for Biophysical Dynamics

Summer, 2004 – Spring, 2005

- Aug. 30 **Claus Seidel, Ph.D.**, Institute for Physical Chemistry, Heinrich Heine University, Dusseldorf “Analysis of Molecular Structure and Dynamics by Multiparameter Fluorescence Spectroscopy”
- Oct. 12 **Chao Tang, Ph.D.**, NEC Laboratories America, Princeton, NJ, "The Yeast Cell Cycle Network Is Robustly Designed"
- Oct. 19 **Susan Ferro Novick, Ph.D.**, Yale University School of Medicine “Vesicle Traffic and Organelle Inheritance in Eukaryotes from High to Low”
- Oct. 26 **Laurie Parker, Ph.D.**, Kent/Kron Lab “Thiophosphorylation as a kinase activity probe: a strategy for quantitative phosphoproteomics
- Nov. 3 **Gerhard Hummer Ph.D.**, National Institutes of Health “Bridging the gap between theory and experiment: picosecond x-ray crystallography, membrane translocation, and single-molecule pulling “
- Nov. 8 **Craig M. Crews, Ph.D.**, Yale University, "Chemical Genetics: Probing Cell Biology with Small Molecules"
- Nov. 9 **Min Li, Ph.D.**, Johns Hopkins University School of Medicine, Membrane receptor trafficking: Genetic selection of subcellular zipcodes”
- Nov. 16 **Benoit Roux, Ph.D.**, Weill Medical College, Cornell University, "Theoretical and computational models of biological channels"
- Nov. 18 **Tom Muir, Ph.D.**, Rockefeller University, "The chemical biology of protein splicing"
- Nov. 29 **Johan Elf, Ph.D.**, Department of Cell and Molecular Biology, Uppsala University, "Modeling stochastic reaction diffusion kinetics"
- Nov. 30 **Ayyalusamy Ramamoorthy, Ph.D.**, University of Michigan, “Structure, Dynamics, Topology and Membrane-disrupting Mechanism of Antimicrobial Peptides”
- Dec. 7 **Andres Colubri, Ph. D.**, Biochemistry & Molecular Biology, University of Chicago "What basic information is needed to fold a protein?"
- Dec. 14 **Neil Kelleher, Ph.D.**, Department of University of Illinois, Urbana/Champaign, "How a Chemist Needs Computer Science, Biology, and Engineering To Push the Limits of Modern Mass Spectrometry"
- Jan. 5 **Rachel Martin, Ph.D.**, UC Berkeley, "Solid state NMR methods development: From protein structure to ex-situ NMR"
- Jan. 11 **Duhee Bang**, Kent Lab, “Toolkit Development for the Total Synthesis of Proteins & Application to the Dissection of Protein Stability”
- Jan. 18 **Young-Sam Lee**, Mrksich Lab, “Toward a Cell-Free Model System of Focal Adhesion Assembly"
- Jan. 25 **Eric Potma, Ph.D.**, Harvard, “Biology Seen through the Windows of CARS”
- Feb. 1 **Michael Diehl, Ph.D.**, CalTech, “Engineering Functional Multiprotein Assemblies: Exploring Cooperative Biomotor Dynamics with Single Molecule Sensitivity”
- Feb. 2 **Amit Meller, Ph.D.**, Harvard, “Translocation and unzipping kinetics of DNA molecules using a nanopore”
- Feb. 8 **Thuc Le**, Cluzel Lab, “RNA profiling in a single bacterium”

- Feb. 15 **Mark Goulian, Ph.D.**, Penn, “Perturbing, imaging, and modeling two-component signaling in bacteria”
- Feb. 22 **Joshua Coon, Ph.D.**, Univ. Virginia, Reshaping the proteomics landscape with ion/ion chemistry: new technology, differential analysis of phosphorylation, and the histone code
- Mar. 1 **Chin Lin Guo, Ph.D.**, Harvard, “Long-range cooperativity in yeast mating polarization”
- Mar. 8 **Jose Vilar, Ph.D.**, Computational Biology Center, Memorial Sloan-Kettering Cancer Center, “Multilevel Modeling of Cellular Networks”
- Mar. 28 **William F. DeGrado, Ph.D.**, Department of Biochemistry and Biophysics, University of Pennsylvania, “Coming to Grips with Membranes by Design”
- Apr. 5 **Dyche Mullins, Ph.D.**, Department of Cellular and Molecular Pharmacology, UCSF, “Construction and Demolition of Actin Filaments and Networks”
- Apr. 13 **Alexander van Oudenaarden, Ph.D.**, Department of Physics, MIT, “Information storage and propagation in genetic networks”
- Apr. 19 **Paulo S.P. Silveira, M.D. Ph.D.**, Harvard School of Public Health and University of São Paulo (Brazil), “Length Adaptation of Airway Smooth Muscle”
- Apr. 26 **William Gelbart, Ph.D.**, Department of Chemistry, UCLA, “How Viral Genomes Get into Host Cells”
- Apr. 29 **Kazunari Taira, Ph.D.**, Department of Chemistry & Biotechnology, School of Engineering, The University of Tokyo and Gene Function Research Center, Natl. Inst. of Advanced Industrial Science and Technology, “Gene Discovery by Ribozyme and siRNA Libraries”
- May 3 **Elena Lucchetta**, Ismagilov lab, “Dynamics of Drosophila Embryonic Patterning Network Perturbed in Space and Time Using Microfluidics”
- May 10 **Adarsh Pandit**, Sosnick lab, “Native-like transition states in protein folding identified using metal binding sites and Psi-analysis”
- May 17 **Jim Horn, Ph.D.**, Kossiakoff lab, “Mapping the binding pathway between human growth hormone variants and human growth hormone receptor”
- May 24 **Eva Chi, Ph.D.**, Lee lab, “The Role of Cell Membrane in the Pathogenesis of Alzheimer’s Disease”
- Jun. 1 Annual Seitz Lecture
Ruedi Aebersold, Ph.D., ETH Zurich and Institute for Systems Biology, “Systems Biology and Quantitative Proteomics”
- Jun. 9 **Carlos Bustamante Ph.D.**, University of California, Berkeley University of California, Berkeley, “Single Molecule Observation of Hepatitis C Virus RNA Helicase at work”
- Jun. 28 **Erwin London, Ph.D.** Departments of Biochemistry and Cell Biology and of Chemistry, SUNY Stony Brook, “Fluorescence Studies on Membrane Protein Structure and Lipid Organization”