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# Macromolecular Complexes IN CELL BIOLOGY

WEDNESDAY 02 JUNE

University of Michigan Life Sciences Institute  
NINTH ANNUAL SYMPOSIUM

BIOMEDICAL SCIENCE RESEARCH BUILDING AUDITORIUM

## 8:45 am Welcome + Opening Remarks

Alan Saltiel, PhD

Mary Sue Coleman Director of the Life Sciences Institute

## MORNING SESSION

### 9:00 am Keynote:

#### Understanding the Words of Chromatin Remodeling

Gerald Crabtree, PhD

Professor in Experimental Pathology and

Professor of Developmental Biology, Stanford University

Introduction: Philip J. Hanlon, PhD, Vice Provost for Academic and Budgetary  
Affairs and Provost-designate, University of Michigan

### 9:50 am Break

### 10:10 am Regulation of Membrane Traffic by Rab GTPase Networks

Peter Novick, PhD

Professor of Cellular & Molecular Medicine, UC San Diego

### 11:00 am Histone Demethylases and Dynamic Regulation of Histone Methylation

Yang Shi, PhD

Merton Bernfield Professor, Division of Newborn Medicine,

Department of Medicine, Children's Hospital Boston,

and Professor, Department of Pathology, Harvard Medical School

### 11:50 am Lunch

## AFTERNOON SESSION

### 1:15 pm Dicer and Beyond: Making and Using RNA for Gene Regulation

Jennifer A. Doudna, PhD

Howard Hughes Investigator and Professor of Biochemistry and  
Molecular Biology, UC Berkeley

### 2:05 pm Molecular Organization of Kinetochore

Stephen C. Harrison, PhD

Howard Hughes Investigator and Giovanni Armenise-Harvard Professor  
in Basic Biomedical Science and Professor of Pediatrics,  
Harvard Medical School

### 2:55 pm Break

### 3:15 pm The Evolution and Engineering of Cell Signaling

Wendell Lim, PhD

Professor, Department of Cellular and Molecular Pharmacology

Department of Biochemistry and Biophysics, UC San Francisco

### 4:05 pm Neurotransmitter Receptor Complexes and Synaptic Plasticity in the Brain

Richard L. Huganir, PhD

Professor and Director, Department of Neuroscience, Investigator,

Howard Hughes Medical Institute, Co-Director, Brain Science Institute,

The Johns Hopkins University School of Medicine

### 5:00 pm Closing Remarks

Alan Saltiel, PhD

Mary Sue Coleman Director of the Life Sciences Institute,

University of Michigan

Public invited





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## MORNING SESSION

### Gerald Crabtree, PhD

Professor in Experimental Pathology and  
Professor of Developmental Biology,  
Stanford University

Dr. Crabtree is a Professor of Pathology and of Developmental Biology at Stanford University School of Medicine. He grew up in the hills of West Virginia and received his BS degree from West Liberty State College, West Virginia. After receiving his MD degree from Temple University School of Medicine, he did postdoctoral work at Dartmouth Medical School. He was a senior investigator at NIH before joining the Stanford faculty in 1985.

Dr. Crabtree is a member of the National Academy of Sciences, a Howard Hughes Investigator and a recipient of numerous awards, among them the Warner-Lambert/Parke-Davis Award and in 2009 shared the Thomson Laureate in Chemistry with Stuart Schreiber. His laboratory is studying the interaction between the signaling pathways and genetic circuits regulating embryonic development. To modulate and explore these circuits, his laboratory is also designing small molecules that rapidly and reversibly activate or inhibit these circuits, thereby allowing precise temporal analysis of their functions. Recently he has focused on the mechanisms by which specific assemblies of chromatin remodeling complexes produce distinct biologic function, which will be the topic of his talk today.

### Peter Novick, PhD

Professor of Cellular & Molecular Medicine,  
UC San Diego

Peter Novick is a George E. Palade Professor, Department of Cellular and Molecular Medicine, UC San Diego. He received his BS in biology from Massachusetts Institute of Technology and a PhD in biochemistry from U.C. Berkeley. Returning to MIT, he used reverse genetics to address the cellular functions of actin. In 2000 he was named a Fellow of the American Academy of Microbiology and in 2006 he was elected to the American Academy of Arts and Sciences.

### Yang Shi, PhD

Merton Bernfield Professor, Division of  
Newborn Medicine, Department of Medicine,  
Children's Hospital Boston, and Professor,  
Department of Pathology, Harvard Medical  
School

Dr. Shi is a Merton Bernfield Professor, Division of Newborn Medicine, Department of Medicine, Children's Hospital Boston, and Professor, Department of Pathology, Harvard Medical School. He received his BS from Shanghai First Medical College (now Fudan University Medical School), and his PhD from New York University. Dr. Shi has served on NIH study sections and the editorial boards of MCB and JBC. He is current a member of the editorial board of Epigenetics and Chromatin.

## AFTERNOON SESSION

### Jennifer A. Doudna, PhD

Howard Hughes Investigator and Professor  
of Biochemistry and Molecular Biology,  
UC Berkeley

Dr. Doudna is Professor of Molecular and Cell Biology and Professor of Chemistry at the University of California, Berkeley and an Investigator of the Howard Hughes Medical Institute. She received her BA in biochemistry from Pomona College and her PhD from Harvard University. Dr. Doudna is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. She is also a Fellow of the American Association for the Advancement of Science.

### Stephen C. Harrison, PhD

Howard Hughes Investigator and Giovanni  
Armenise-Harvard Professor in Basic  
Biomedical Science and Professor of  
Pediatrics, Harvard Medical School

Dr. Harrison is the Giovanni Armenise-Harvard Professor in Basic Biomedical Sciences at Harvard Medical School, and Investigator in the Howard Hughes Medical Institute. He earned both his BA and PhD in biophysics from Harvard. Harrison has made important contributions to structural biology, most notably by determining and analyzing the structures of viruses and viral proteins. Dr. Harrison is a member of the National Academy of Sciences and a fellow of the American Academy of Arts and Sciences.

### Wendell Lim, PhD

Professor, Department of Cellular and  
Molecular Pharmacology Department of  
Biochemistry and Biophysics,  
UC San Francisco

Wendell Lim is a Professor in the Departments of Pharmacology and Biochemistry at the University of California San Francisco, and an Investigator with the Howard Hughes Medical Institute. Lim earned his AB in chemistry at Harvard University, his PhD in biochemistry and biophysics at the Massachusetts Institute of Technology, and completed postdoctoral research in molecular biophysics at Yale University. Lim is also a pioneer in the emerging field of synthetic biology.

### Richard Haganir, PhD

Professor and Director, Department of  
Neuroscience, Investigator, Howard Hughes  
Medical Institute, Co-Director, Brain Science  
Institute, The Johns Hopkins University  
School of Medicine

Richard Haganir is a Professor and Director of the Solomon H. Snyder Department of Neuroscience and an Investigator with the Howard Hughes Medical Institute. He received his PhD from Cornell University and was a postdoctoral fellow with the Nobel Laureate, Paul Greengard at Yale. Dr. Haganir is a Fellow of the American Association for the Advancement of Science and is a member of the American Academy of Arts and Sciences and the National Academy of Sciences.