

**The Fourteenth
Irving L. Schwartz Lectureship**
In
STRUCTURAL & CHEMICAL BIOLOGY

Joachim Frank, PhD
Professor
Department of Biochemistry & Molecular
Biophysics,
Columbia University
Investigator
Howard Hughes Medical Institute

“Ribosome and tRNA Dynamics
During the Elongation Cycle”

Thursday, October 2, 2014
2:00 pm

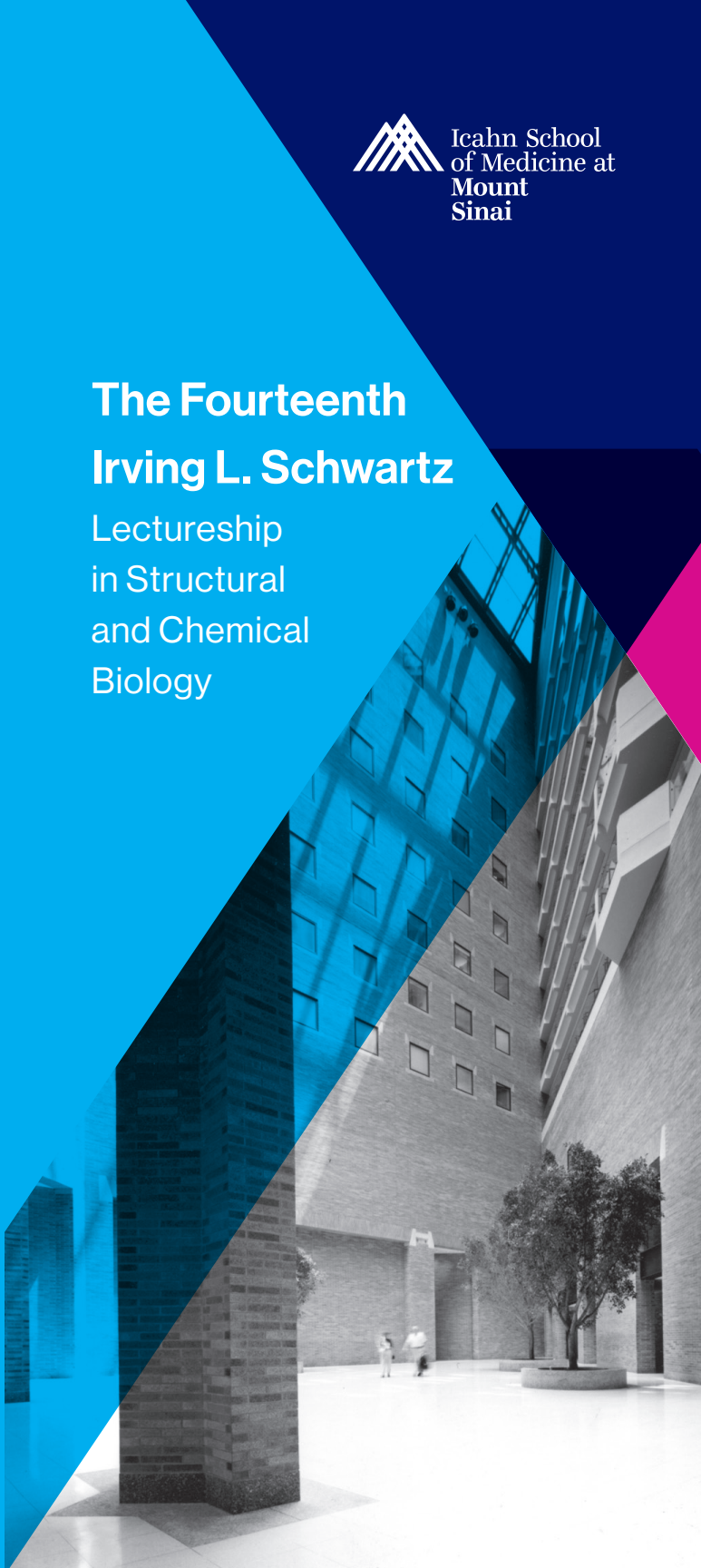
Icahn Medical Institute Building
Goldwurm Auditorium

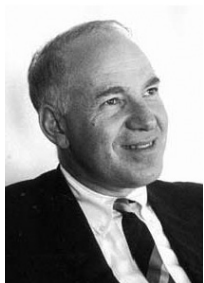
Reception to follow the lecture



**Department of Structural
and Chemical Biology**
Icahn School of Medicine at Mount Sinai
One Gustave L. Levy Place
1425 Madison Avenue
New York, New York 10029
Tel. 212-659-8647

**The Fourteenth
Irving L. Schwartz
Lectureship
in Structural
and Chemical
Biology**





Irving L. Schwartz, MD
(1918 – 2011)

Dr. Schwartz was the first Dean of the Mount Sinai Graduate School of Biological Sciences from 1965 to 1980 when he became Dean Emeritus.

He was also the founding chairman of the Department of Physiology and Biophysics (currently the Department of Structural and Chemical Biology) and the Lampport Distinguished Professor until his retirement in 1989.

Under Dr. Schwartz's early leadership, Mount Sinai grew as a center of excellence in translational research. He believed in the "vital interdisciplinary interactions among clinicians, basic scientists, medical students, and graduate students within one institution." Dr. Schwartz's interests in biomedical research and education were far reaching, addressing fundamental problems of body fluid regulation, secretory phenomena and neurophysiology. His work, originally in whole animal and organ physiology, evolved over the years to the cellular level, and ultimately to the molecular level. He had a major interest in the function of neurohypophyseal and other peptides. His studies on peptides ranged from bedside observations, to biochemical mechanisms of action, to the definition of three-dimensional structure of such molecules in solution as well as in the crystalline state. The work of his group on the molecular conformation of hormones in solution pioneered structure-function analysis based on the tertiary structure of molecules.



Joachim Frank, PhD

Joachim Frank is a Professor of the Department of Biochemistry and Molecular Biophysics, and a Professor of the Department of Biological Sciences at Columbia University. He is

a Howard Hughes Medical Institute Investigator. He received his PhD from the Technical University in Munich and, in 1975, joined the Wadsworth Center in Albany as a Senior Research Scientist. In 1985, he joined the faculty of the Department of Biomedical Sciences in the newly founded School of Public Health of SUNY Albany. In 2008 he moved to New York to assume his current positions. Dr. Frank's lab has developed techniques of electron microscopy and single-particle reconstruction of biological macromolecules. He has applied this technique of visualization to explore the structure and dynamics of the ribosome during the process of protein synthesis.

Dr. Frank is a member of the National Academy of Sciences and of the American Academy of Microbiology. He is also a fellow of the American Academy of Arts and Sciences and of the American Association for the Advancement of Science. He was recently honored for his contributions to the development of cryogenic electron microscopy of biological molecules and the study of protein synthesis with the 2014 Franklin Medal for Life Science.

In Honor of
IRVING L. SCHWARTZ
Scientist, scholar, teacher, physician

Previous Schwartz Lecturers

- | | |
|------|--|
| 1993 | Albert J. Hudspeth, MD, PhD
<i>University of Texas-
Southwestern Medical Center</i> |
| 1995 | Charles F. Stevens, MD, PhD
<i>The Salk Institute</i> |
| 1998 | Wayne L. Hubbell, MD, PhD
<i>University of California at Los Angeles</i> |
| 2000 | Richard N. Bergman, PhD
<i>University of Southern California</i> |
| 2005 | Stephen C. Harrison, PhD
<i>Harvard Medical School</i> |
| 2006 | Roger D. Kornberg, PhD*
<i>Stanford University</i>
* The Nobel Prize in Chemistry 2006 |
| 2007 | Kurt Wüthrich, PhD*
<i>The ETH Zürich</i>
<i>The Scripps Research Institute</i>
* The Nobel Prize in Chemistry 2002 |
| 2008 | Stuart L. Schreiber, PhD
<i>Harvard University</i>
<i>The Broad Institute of Harvard & MIT</i>
<i>Howard Hughes Medical Institute</i> |
| 2009 | Michael G. Rosenfeld, MD
<i>University of California, San Diego</i>
<i>Howard Hughes Medical Institute</i> |
| 2010 | Klaus Schulten, PhD
<i>University of Illinois Urbana-Champaign</i> |
| 2011 | Kevan Shokat, PhD
<i>University of California, San Francisco</i>
<i>Howard Hughes Medical Institute</i> |
| 2012 | Tony Hunter, PhD
<i>The Salk Institute for Biological Studies</i> |
| 2013 | David E. Shaw, PhD
<i>D. E. Shaw Research</i>
<i>Columbia University</i> |