



MOUNT SINAI  
SCHOOL OF  
MEDICINE

# The Eighth Irving L. Schwartz Lectureship in Structural and Chemical Biology



## The Eighth Irving L. Schwartz Lectureship

IN  
STRUCTURAL & CHEMICAL BIOLOGY

### **Stuart Schreiber, Ph.D.**

Morris Loeb Professor of Chemical Biology  
Harvard University  
Investigator, Howard Hughes Medical Institute  
Director of Chemical Biology at  
and Founding Member  
of the Broad Institute  
Harvard University and MIT

### **“Small-Molecule Probe and Drug Discovery”**

Friday, July 11, 2008  
1:30 PM

*The Hatch Auditorium  
Guggenheim Pavilion*

Reception to follow the lecture

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



### **Irving L. Schwartz, M.D.**

was recruited by the Trustees of the Mount Sinai Hospital in 1964 to devote himself to the launching of the Mount Sinai School of Medicine. Now Emeritus, he was the first Dean of the Mount Sinai Graduate School of Biological Sciences, the

founding Chairman of the Department of Physiology & Biophysics (currently the Department of Structural and Chemical Biology) and the Lamport Distinguished Professor.

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 organellar, 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 the 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.



### **Stuart Schreiber, Ph.D.**

is the Morris Loeb Professor in the Department of Chemistry and Chemical Biology at Harvard University, an Investigator at Howard Hughes Medical Institute, and a founding member of the Broad Institute and Director of its Chemical Biology

Program at Harvard and MIT. He is also a member of the National Academy of Sciences and the American Academy of Arts and Sciences (1995).

Dr. Schreiber is known for developing systematic ways to explore biology, especially disease biology, using small molecules (precursors to therapeutic drugs that are used as bioprobes) and for his role in the development of the field of chemical biology. Using a chemical approach, he discovered principles that underlie information transfer and storage in cells.

During the past 25 years, Dr. Schreiber developed an integrated set of techniques that are systematizing the discovery and application of small molecules to biology and medicine. Using diversity-oriented synthesis (DOS) and new methods in small-molecule screening, many new insights into disease biology have been gained. Over 200 labs nationwide have collaborated with the Chemical Biology Program's Screening Center, leading to many small-molecule probes and insights into biology and medicine. To facilitate sharing of information derived and knowledge gained from small molecules, Dr. Schreiber and his colleagues created a public database named ChemBank, which has been accessed by over 50,000 users from over 8,000 institutions in 154 countries.

Dr. Schreiber extended his concepts in chemical biology to medicine by participating in the founding of three biopharmaceutical companies: Vertex Pharmaceuticals (VRTX; 1989), ARIAD Pharmaceuticals (ARIA; 1991) and Infinity Pharmaceuticals (INFI; 2001), each of which has devised new therapeutic agents that are being tested in human clinical trials or used as FDA-approved drugs.

Dr. Schreiber was Professor at Yale University from 1981-1988, and became a member of Harvard's Department of Chemistry and Chemical Biology in 1988.

In Honor of

IRVING L. SCHWARTZ

*Scientist, scholar, teacher, physician*

A supporter of excellence in research and teaching and a source of encouragement and inspiration to his colleagues and students.

#### Previous Schwartz Lecturers

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|------|---|
| 1993 | Albert J. Hudspeth, M.D., Ph.D.<br><i>University of Texas-Southwestern Medical Center</i>   |
| 1995 | Charles F. Stevens, M.D., Ph.D.<br><i>The Salk Institute</i>  |
| 1998 | Wayne L. Hubbell, M.D., Ph.D.<br><i>University of California at Los Angeles</i>   |
| 2000 | Richard N. Bergman, Ph.D.<br><i>University of Southern California</i>   |
| 2005 | Stephen C. Harrison, Ph.D.<br><i>Harvard Medical School</i>   |
| 2006 | Roger D. Kornberg, Ph.D.*<br><i>Stanford University</i><br>* <i>The Nobel Prize in Chemistry 2006</i>                                 |
| 2007 | Kurt Wüthrich, Ph.D.*<br><i>The ETH Zürich</i><br><i>The Scripps Research Institute</i><br>* <i>The Nobel Prize in Chemistry 2002</i> |