

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

David Baker, PhD
Professor,
Department of Biochemistry
Director,
Institute for Protein Design
University of Washington
Investigator,
Howard Hughes Medical Institute

“The Coming of Age
of *De Novo* Protein Design”

Thursday, January 15, 2019
2:00 pm

Icahn Medical Institute Building
Goldwurm Auditorium


Reception to follow the lecture



Department of Pharmacological Sciences

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 Nineteenth
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 Pharmacological Sciences) and the Lamport 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.



David Baker, PhD

Dr. Baker is the Henrietta and Aubrey Davis Endowed Professor of Biochemistry, Director of the Institute for Protein Design, Investigator of the Howard Hughes Medical Institute, and Adjunct

Professor of Genome Sciences, Bioengineering, Chemical Engineering, Computer Science, and Physics at the University of Washington. He received his PhD degree in biochemistry with Randy Schekman at the University of California, Berkeley and did postdoctoral work in biophysics with David Agard at the University of California, San Francisco.

Dr. Baker is a pioneer in methods to predict and design the three-dimensional structures of proteins. His laboratory is unique in the use experiments to first understand the fundamental principles underlying protein folding, and then to develop simple computational models based on these insights, and to test the models through rigorous structure prediction and design. He is the developer of the computational prediction and design method, ROSETTA, that been used widely to predict protein structures and to design de-novo proteins with unprecedented accuracy by laboratories throughout the world.

Dr. Baker has received numerous awards in recognition of his pioneering work, including the AAAS Newcomb Cleveland Prize, the Sackler International Prize in Biophysics, the Overton Prize from the International Society of Computational Biology, the Feynman Prize from the Foresight Institute, and the Protein Society Hans Neurath Award. He is a member of both the National Academy of Sciences and the American Academy of Sciences.

In Honor of

IRVING L. SCHWARTZ

Scientist, scholar, teacher, physician

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- 1993 Albert J. Hudspeth, MD, PhD
University of Texas-Southwestern Medical Center
 - 1995 Charles F. Stevens, MD, PhD
The Salk Institute
 - 1998 Wayne L. Hubbell, MD, PhD
University of California at Los Angeles
 - 2000 Richard N. Bergman, PhD
University of Southern California
 - 2005 Stephen C. Harrison, PhD
Harvard Medical School
 - 2006 Roger D. Kornberg, PhD*
Stanford University
 - 2007 Kurt Wüthrich, PhD*
The ETH Zürich
The Scripps Research Institute
 - 2008 Stuart L. Schreiber, PhD
Harvard University
The Broad Institute of Harvard & MIT
Howard Hughes Medical Institute
 - 2009 Michael G. Rosenfeld, MD
University of California, San Diego
Howard Hughes Medical Institute
 - 2010 Klaus Schulten, PhD
University of Illinois Urbana-Champaign
 - 2011 Kevan Shokat, PhD
University of California, San Francisco
Howard Hughes Medical Institute
 - 2012 Tony Hunter, PhD
The Salk Institute for Biological Studies
 - 2013 David E. Shaw, PhD
D. E. Shaw Research
Columbia University
 - 2014 Joachim Frank, PhD
Columbia University
Howard Hughes Medical Institute
 - 2015 Wayne A. Hendrickson, PhD
Columbia University
 - 2016 Jennifer Doudna, PhD
University of California, Berkeley
Howard Hughes Medical Institute
 - 2017 Stephen W. Fesik, PhD
Vanderbilt University School of Medicine
 - 2018 Thomas R. Cech, PhD*
University of Colorado
Howard Hughes Medical Institute

* The Nobel Prize Winner