

## CURRICULUM VITAE

### **Daniel Herschlag**

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**Present position** Professor of Biochemistry  
Professor of Chemistry and of Chemical Engineering (by Courtesy)  
Senior Associate Dean of Graduate Education and Postdoctoral Affairs  
Stanford University School of Medicine

### **Education**

1976-1978 University of Michigan

1979-1982 SUNY-Binghamton B.S. in Biochemistry  
Research with Dr. E.S. Stevens,  
Structural characterization of glycopeptides.

1982-1983 University of Minnesota  
Research with Dr. J.E. Gander,  
Enzymology of glycopeptide synthesis.

1983-1988 Brandeis University Ph.D. in Biochemistry  
Advisor: Dr. W.P. Jencks,  
Mechanisms of phosphoryl transfer.

1989-1992 University of Colorado Postdoctoral  
Advisor: Dr. T.R. Cech,  
Mechanism of RNA self-splicing.

### **Positions Held**

1992-1997 Assistant Professor of Biochemistry, Stanford University School of Medicine; Assistant Professor of Chemistry, by Courtesy.

1992-present Participating Faculty in Biophysics Graduate Program, Stanford University

1997-2000 Associate Professor of Biochemistry, Stanford University School of Medicine;  
Associate Professor of Chemistry, by Courtesy

2001-2002 Associate Professor of Biochemistry, Stanford University School of Medicine;  
Associate Professor of Chemical Engineering and of Chemistry, by Courtesy

2002-present Professor of Biochemistry, Stanford University School of Medicine;  
Professor of Chemical Engineering and of Chemistry by Courtesy

2011-present Senior Associate Dean of Graduate Education and Postdoctoral Affairs, Stanford University School of Medicine

2012-present Stanford Institute of Chemical Biology, Executive Committee

## **Honors and Awards**

Faculty Award for Student Services, Stanford School of Medicine (2012)  
ASBMB William Rose Award (2010)  
AAAS Fellow (2005)  
NIH Merit Award (2002 - 2012)  
Cope Scholar Award from the American Chemical Society (2000)  
Established Investigator of the American Heart Association (1998-2002)  
Pfizer Award for Enzyme Chemistry from the Division of Biological Chemistry of the American Chemical Society (1997)  
David and Lucile Packard Fellowship in Science and Engineering (1995-2000)  
Searle Scholar (1993-1996)  
Lucille P. Markey Scholar in Biomedical Science (1990-1997)  
Helen Hay Whitney Postdoctoral Fellowship (Colorado; 1989-1990)  
Gillette Foundation Fellowship (Brandeis; 1986-1987)  
Award for Excellence in Biochemistry (SUNY; 1982)  
American Institute of Chemists Award in Biochemistry (SUNY; 1982)  
Phi Beta Kappa (Michigan; 1979)  
James B. Angell Scholar (Michigan; 1978, 1979)

## **Professional Societies and Activities**

HHMI International Student Research Fellowships competition, Reviewer, 2014  
NIH Pioneer Director's Award Reviewer, 2014  
NSF Reviewer Panel, 2014  
ASBMB, Program Theme Organizer, 2013  
NIH, Pioneer Award Review Panel, 2012  
PloS Biology, Advisory Board, 2010-present  
NIH Study Section (MSFE), 2007-2010  
Biopolymers, Editorial Advisory Board, 2006-present  
Faculty of 1000 Chemical Biology, Advisory Board, 2005-2010  
Winter Enzyme Mechanisms Conference, Organization Committee, 2005  
Member, Faculty of 1000, 2005  
PloS Biology Editorial Board, 2004-present  
ASBMB Program Planning Committee for 2003 National Meeting  
Board of Directors, RNA Society, 2002-2003  
Enzymes, Coenzymes and Metabolic Pathways Gordon Conference, Co-chair, 1999  
American Society of Biochemistry and Molecular Biology, Nominating Committee, 1998  
Annual Review of Biochemistry, Editorial Board, 1998-2002  
Enzymes, Coenzymes and Metabolic Pathways Gordon Conference, Co-vice chair, 1998  
Bay Area Enzyme Discussion Group, Co-organizer, 1996  
RNA, Editorial Board, 1995-present  
Bay Area RNA Club, Co-organizer, 1995-2000

## **Memberships**

American Association for the Advancement of Science  
American Chemical Society  
RNA Society  
Biophysical Society

## **Invited Seminars**

Molecular Genetics Gordon Conference, June, 1990

Biochemical Society Meeting, Birmingham, England, December, 1990

Whitehead Institute, February, 1991

Brandeis University, Biochemistry Department, February, 1991

University of Pittsburgh, Biology Department, November, 1991

RNA Processing Meeting, Keystone, Colorado, May, 1992

Nucleic Acids Gordon Conference, July, 1992

SYNTEX, Palo Alto, October, 1992

RNA Symposium, National Cancer Institute, October, 1992

The RNA World, Markey Symposium, UCLA, November, 1992

Ribozyme Pharmaceuticals, Inc., January, 1993

CloneTec, Palo Alto, February, 1993

Restriction Endonucleases and Modification Methyltransferases: Structure and Mechanisms, FASEB Summer Research Conference, July, 1993

Enzymes, Coenzymes and Metabolic Pathways Gordon Conference, July, 1993

Dartmouth University, Department of Biochemistry, July, 1993

SYNTEX, November, 1993

Gilead, November, 1993

University of California, San Francisco, Pharmaceutical Chemistry, April, 1994

University of California, Berkeley, Structural Biology, April, 1994

Arizona State University (Student Lectureship), May, 1994

Scripps/UCSF Structural Biology Meeting, Cabo San Lucas, Mexico, May, 1994

RNA Processing Meeting, Madison, WI, May, 1994

Bioorganic Gordon Conference, June, 1994

Molecular Recognition Gordon Conference, August, 1994

Workshop on Site-specific Recombination and Transposition, Woods Hole, September, 1994

Scripps Research Institute, December, 1994

Keystone Symposium: "Ribozymes: Basic Science and Therapeutic Applications",  
January, 1995

Harvard University, Medical School, Genetics Department (MGH), February, 1995

University of North Carolina, Biochemistry and Biophysics, February, 1995

University of Texas, Southwestern Medical School, Dallas, March, 1995

University of California, Santa Cruz, March, 1995

Table Ronde Roussel Uclaf: "Structural Basis of Enzymatic Activity in Enzymes and Ribozymes", Paris, May, 1995

NATO Advanced Research Workshop: "Bioorganic Chemistry", Pennsylvania, May, 1995

University of Chicago, Biochemistry, May, 1995

University of California, San Francisco, Biochemistry and Biophysics, October, 1995  
Albert Einstein, Biochemistry, November, 1995  
Columbia, Biochemistry and Biophysics, November, 1995  
New York University, Microbiology, November, 1995  
University of Colorado, Biochemistry, January, 1996  
Isotope Effects Gordon Conference, February, 1996  
Chiron Corporation, March, 1996  
UCLA, Chemistry, April, 1996  
Nucleic Acids Gordon Conference, June, 1996  
W.P. Jencks Retirement Symposium, July, 1996  
Repligen Award Symposium for W.P. Jencks, ACS meeting, August, 1996  
University of Illinois, Microbiology, November, 1996  
Biochemistry Mini-Symposium, University of California, San Francisco, December, 1996  
University of Texas, Austin, Chemistry, January, 1997  
University of California, Santa Barbara, Chemistry and Biochemistry, February, 1997  
Novel Biocatalysts Workshop, Instituto Juan March, Madrid, Spain, March, 1997  
Chemistry in Biology Symposium, Salk Institute, San Diego, January, 1998  
Johns Hopkins University, Biochemistry and Biophysics, Seminar, February, 1998  
University of Michigan, Ann Arbor, February, 1998  
Penn. Enzyme Symposium IV, University of Pennsylvania, Philadelphia, March, 1998  
Bioorganic Mechanisms Gordon Conference, June, 1998  
Nucleic Acids Gordon Conference, June, 1998  
27th Reaction Mechanisms Conference, Asilomar, CA, June, 1998  
Phosphoryl Transfer: A Molecular Basis for Signalling, Lake Tahoe, CA, October, 1998 (ASBMB)  
Scientific Alumni Colloquium Series in the Life Sciences, Brandeis University, November, 1998  
Yale University, Biochemistry and Biophysics, Seminar, November, 1998  
Metal Ions Gordon Conference, January, 1999  
ISIS Pharmaceuticals, Carlsbad, CA, February, 1999  
University of California, Berkeley, Structural Biology, April, 1999  
University of Utah, Chemistry, April, 1999  
Washington University, Biochemistry and Biophysics, St. Louis, April, 1999  
University of California, Davis, April, 1999  
ASBMB National Meeting, San Francisco, May, 1999  
Discovery Chemistry Seminar Series Dupont Life Sciences, Wilmington, DE, September, 1999  
RNA Biochemistry, Bavaria, Germany, November, 1999  
Harvard University, Molecular and Cell Biology, Cambridge, MA, December, 1999  
Harvard University Medical School, Cambridge, MA, January, 2000  
NIH Workshop on Single Molecule Techniques, Bethesda, MD, April, 2000

RNA Structure Symposium, Santa Cruz, CA, July, 2000

Enzymes Gordon Conferences, Meriden, NH, July, 2000

Molecular Genetics Gordon Conferences, New London, CT, July, 2000

Symposium in Molecular Biology, RNA and Protein Folding, Penn State University, August, 2000

Cope Scholar Award, ACS, Washington, DC, August, 2000

UCSF, Biochemistry and Biophysics, January, 2001

MIT, Department of Chemistry, Biological Chemistry Division, February, 2001

Johns Hopkins Folding Meeting, Coolfont, VA, March, 2001

Dowd Lectures, University of Pittsburgh, Chemistry Department, April, 2001

University of Oregon, Molecular Biology, May, 2001

Cal Tech, Department of Chemistry, Pasadena CA, May, 2001

Physical Organic Chemistry Gordon Conference, Plymouth, NH, July, 2001

ACS Meeting, Chicago, IL, August, 2001

Boehringer Ingelheim Research Lecture, Univ. of British Columbia, Chemistry Department, Vancouver, February, 2002

Duke University, Department of Biochemistry, April, 2002

University of North Carolina, Department of Biochemistry, Chapel Hill, NC, April, 2002

First Annual Biochemistry Symposium, Research Triangle Park Biochemistry and Enzymology Club, Keynote Speaker, April, 2002

ASBMB National Meeting, New Orleans, LA, April, 2002

Scripps Research Institute, Structure & Chemistry Affinity Group Seminar Series, May, 2002

Nucleic Acids Gordon Conferences, Bristol, RI, June, 2002

Molecular Genetics Gordon Conferences, New London, CT, July, 2002

Ribozyme & RNA Catalysis: International Workshop, Dundee, Scotland, August, 2002

Enzyme Mechanisms Conference, Galveston, TX, January, 2003

Case Western Reserve University, Center for RNA Molecular Biology, Cleveland, OH, January, 2003

Biophysical Society Annual Meeting, San Antonio, TX, March, 2003

CalTech Physics Colloquium, March, 2003

ACS Meeting, Frontiers in Enzymology, New York, September, 2003

Emory University, January, 2004

University of Washington, Chemistry Department, March, 2004

Brown University, April, 2004

John Hopkins University, Department of Pharmacology, April, 2004

University of Texas, Austin, Department of Chemistry and Biochemistry, May, 2004

FASEB Conference on Nucleic Acid Enzymology, June, 2004

San Francisco State University, Department of Chemistry, September, 2004

University of Kentucky Department of Biochemistry, December, 2004

The 19<sup>th</sup> Enzyme Mechanism Conference, Pacific Grove, CA, January, 2005

Duke University, Department of Cell Biology, March, 2005

Cold Spring Harbor Systems Biology Meeting, Invited speaker, March, 2005

Cal Tech, Department of Chemistry, April, 2005

Ohio State MBI Enzyme Dynamics Workshop, OH May, 2005

ACS Meeting, Frontiers in RNA Catalysis, Washington D.C., August, 2005

MIT/CSBi, December, 2005

Keystone Symposium on Nucleic Acid Enzymes, Taos, NM, February, 2006

Biophysical Society, RNA Folding and Unfolding, Salt Lake City, UT, February, 2006

UC Berkeley, Structural and Quantitative Biology seminar, March, 2006

Princeton University, Lewis-Sigler Institute, April, 2006

Gordon Research Conference on Single Molecule Approaches to Biology, New London, NH, June, 2006

FASEB Conference, Post-Transcriptional Control of Gene Expression: Mechanisms of MRNA Decay, Snowmass, CO, June, 2006

USC, Department of Chemistry, September, 2006

ACS Meeting, Division of Biological Chemistry, Enzymatic Catalysis and Transition States, Repligen Award Symposium (Vern Schramm), San Francisco, September, 2006

Riboclub 2006, New insights into mRNA degradation, Université de Sherbrooke, Quebec, Canada, September, 2006

AECOM, Seminar Speaker, New York, December, 2006

University of Missouri-Columbia, Biochemistry Department, January, 2007

UC Irvine, Graduate Student Seminar Series, February, 2007

ACS Meeting, Division of Physical Chemistry, RNA Folding, Chicago, March, 2007

University of Sheffield, UK, NACON VII, April, 2007

The Pennsylvania State University, Department of Chemistry, April, 2007

ASBMB National Meeting, Translational Control, Washington D.C., May, 2007

University of Chicago, May, 2007

Northwestern University, May, 2007

Stanford University, Medical Center Alumni Association, Biomedical Symposium, May, 2007

Gordon Research Conference on Nucleic Acids, Salve Regina University, Newport, RI, June, 2007

ACS Meeting, Division of Physical Chemistry; Award in Pure Chemistry Symposium (Xiaowei Zuang), Boston, August, 2007

University of California, Santa Cruz, April, 2008

University of Texas, Southwestern Medical Center, April, 2008

Ohio State University, April, 2008

Protein Dynamics and Catalysis Conference, NY, May, 2008

FASEB National Meeting, Nucleic Acid Enzymes, June, 2008

Enzymes, Coenzymes & Metabolic Pathways, Gordon Conference, Biddeford, July, 2008

236th ACS National Meeting, Philadelphia, August 2008

Tiselius Symposium on Horizons in Biochemistry 2008; "Enzymes at Work" Uppsala University, Sweden, October 2008

Columbia University, Department of Biological Sciences, December 2008

Zing Nucleic Acids Conference, Mexico, February, 2009

University of Michigan, Department of Biological Chemistry, March 2009

Powered by National Centers for Biomedical Computing Scientific Lecture, NIH April 2009

University of Texas, Austin, April 2009

Gordon Conference on Discovery and Therapeutic Targeting of New Enzyme Reactions and Pathways, Waterville Valley, NH, July 2009

University of Maryland Baltimore County, Department of Chemistry and Biochemistry, Baltimore, MD, November 2009

UCSF, California Institute for Quantitative Biosciences (QB3) Invitational Speaker Series, April 2010

University of Manchester Interdisciplinary Biocentre International Seminar, April 2010

ASBMB, William C. Rose Award Lecture, April 2010

CalTech, Department of Chemistry, April 2010

University of Pittsburgh, Department of Structural Biology, May 2010

Telluride Science Research Center Workshop: Toward Meaningful Analysis of Phosphoryl Transfers and RNA Catalysis: Experiments and Computations, June 2010

RNA Society Platform Talk, Annual Meeting, Seattle, WA, June 2010

Biocatalysis Gordon Conference, Bryant University, Smithfield, RI, July 2010

University of Florida, Department of Biochemistry, September 2010

Yale University, Joe Coleman Memorial Lecture, December 2011

Keynote Speaker, BECUR Undergraduate Conference, University of Arizona, February 2012

ACS National Meeting, Chemistry of Life symposium, UC San Diego, March 2012

University of Delaware, Seminar, May 2012

Molecular Biophysics Training Program Seminar, Student-invited speaker, UC San Diego, May 2012

Biopolymers Gordon Conference, Invited speaker, Newport, June 2012

ACS National Meeting, Repligen Symposium, Philadelphia, August 2012

College of Sciences Distinguished Speaker Series, Orlando, FL, September 2012

245th ACS National Meeting, Frontiers in RNA Catalysis and Folding: Interface of Theory and Experiment, New Orleans, LA, April 2013

ASBMB Annual Meeting, RNA Function and Protein Synthesis, Boston, MA, April 2013

Gordon Conference on Bioenergetics, Andover, NH, June 2013

The Role of Dynamics in Enzyme Catalyzed Reactions, Telluride Science Research Center, Telluride, CO, July 2013

University of Wisconsin-Madison, David E. Green Lecture in Enzyme Chemistry, Madison, WI, March 2014

Case Western Reserve University, Student invited guest seminar for Harland Lecture series, Cleveland, OH, April 2014

University of Rochester, Department of Biochemistry and Biophysics seminar series, Rochester, NY, April 2014