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Research Support

American Chemical Society - Petroleum Research Fund, Type G Grant, "The Kinetics and Thermodynamics of Stacking Reactions", \$9,000, 1975-1977.

Research Corporation, "Fluorescence Detected Circular Dichroism Studies", \$16,790, 1975-1976.

National Science Foundation Department Equipment Grant, "Circular Dichroism Instrumentation", coauthored with T. R. Krugh, \$37,200, 1975-1976.

American Cancer Society Institutional Research Grant, "Sequence Specificity of Drug-Nucleic Acid Complexes", \$1,966, 1975-1976.

Alfred P. Sloan Fellowship, \$20,000, 1979-1983.

Biomedical Research Support Grant, "Laser Cross Linking of Nucleic Acids and Proteins, coauthored with D. C. Hinkle, \$5,000, 1979-1980.

National Institutes of Health, "Laser Cross Linking of Proteins and Nucleic Acids", \$79,765 (direct cost), 1980-1983.

National Institutes of Health, "Fluorescence Detected CD Studies of Nucleic Acids", \$81,006 (direct cost), 1981-1984.

Biomedical Research Support Grant, "Temperature Control for Absorption Spectroscopy", \$4,040, 1984-1985.

National Institutes of Health (National Research Service Award for Senior Fellowship), "Studies of Self Splicing RNA", \$30,140, 1984-1985.

National Institutes of Health, "Effects of Drugs on Nucleic Acids", \$94,346 (direct cost), 1984-1987.
National Institutes of Health, "500 MHz NMR Spectrometer" (DRR BRS Shared Instrumentation), \$300,000 (equipment only), Co-P.I. with T. R. Krugh, 1987.

Office of Naval Research, "Molecular Basis of RNA Catalysis," \$155,337 (direct cost), 1988-1991.

National Institutes of Health, "Computer Graphics Equipment" (DRR BRS Shared Instrumentation), \$172,000 (equipment only).

National Institutes of Health, GM22939, "Kinetic and Spectroscopic Studies of Nucleic Acids",

\$128,415 (direct cost), 1976

National Institutes of Health, 1 R03 TW 01068-01, "Folding RNA with Modified Oligonucleotides,"
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[“Position” is either last prior to retirement or current. Subsequent Positions are last known.]

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Position: Director, Structural Biology Core Facility, Uniform Services University of the Health Sciences

Matthew Fountain

Ph.D., University of Rochester, 1994

Position: Professor and Chair of Chemistry, State University College at Fredonia NY

Stephen M. Testa (NIH Postdoctoral Fellow)

Ph.D., Purdue University, 1994

Position: Associate Professor of Chemistry, University of Kentucky

Sherry Spinelli

Ph.D., University of Rochester, 1999

Position: Research Associate Professor of Pathology and Laboratory Medicine, University of Rochester Medical Center

Irina Catrina

Ph.D., Utah State University, 2001

Position: Clinical Assistant Professor of Chemistry, Yeshiva University

Elzbieta Kierzek

Ph.D., Institute for Bioorganic Chemistry, Poznan, Polish Academy of Sciences

Position: Professor, Institute of Bioorganic Chemistry, Poznan

Elzbieta Lenartowicz

Ph.D., Institute for Bioorganic Chemistry, Poznan, Polish Academy of Sciences, 2016

Position: Head of Laboratory of Molecular Diagnostics, Institute for Bioorganic Chemistry, Poznan, Polish Academy of Sciences

Ph.D. Students

1979 T. Gregory Dewey

“Laser Temperature Jump Kinetics of Solvent Effects on Stacking Reactions in Dyes and Nucleic Acids”

Position: President, Albany College of Pharmacy and Health Sciences

- 1980 Craig D. Scoville
“Studies on a Monoclonal IgG Cryoglobulin”, joint student with G. N. Abraham
(Department of Microbiology)
Position: Practicing Physician
- 1981 Eric W. Lobenstine
“Fluorescence Detected Circular Dichroism: Verification and Applications to Proteins”
Position: Manager of Computers and Network, Chemistry Department, University of
Rochester
- 1981 Diane DePrisco Albergo
“Solvent Effects on the Thermodynamics and Kinetics of Double Helix Formation in

Professor of Chemistry, Wayne State University, Detroit, MI
CEO, DY.rWJf Ch

- 1999 Tianbing Xia
“Sequence Dependence of Stabilities and Structures of Tandem Mismatches and Watson-Crick Base Pairs in RNA”
Position: Systems Engineer, Abbott Labs, Dallas
- 2000 Xiaoying Chen
“Stability and Structure of Guanosine-Uridine and Isoguanosine-Isocytidine Pairs”
Subsequent position: Manager, Bioinformatics, Roche Molecular Systems, Inc., Pleasanton, CA
- Mark E. Burkard
“Base Stacking Interactions and the Thermodynamics and Structure of Guanine-Guanine Pairs in RNA”
Position: Professor of Medicine and Oncology, University of Wisconsin, Madison
- 2001 David H. Mathews
“Prediction of RNA Secondary Structure”
Position: Maquat Distinguished Professor of RNA Biology, Department of Biochemistry and Biophysics, University of Rochester
- Thomas W. Barnes III
“The Impact of Long-Range Cooperativity, Base Composition and Structure on the Molecular Recognition of RNA by C5-(1-Propynyl) Pyrimidine-Containing Oligodeoxynucleotides”
Subsequent position: Patent Attorney, International Paper Co.
- 2002 Susan J. Schroeder
“Exploring the Thermodynamic Stabilities and Structures of Asymmetric Internal Loops in RNA”
Positions: Associate Professor, Departments of Chemistry and of Microbiology and Plant Biology, University of Oklahoma
- Matthew D. Disney
“*In vitro* and *in vivo* Targeting of RNA in Fungal Pathogens with Oligonucleotides and Small-Molecules”
Position: Professor of Chemistry, Scripps Research Institute - Florida
- 2003 Jessica Childs (Disney)
“Oligonucleotide Directed Misfolding of RNAs”
Position: Senior Staff Scientist, Chemistry Dept., Scripps Research Institute - Florida
- 2004 Brent Znosko

- 2006 Shenghua Duan
“Applying Oligonucleotide Microarrays in Determining RNA Secondary Structure”
Subsequent position: Bioinformatics Analyst II, Center for Cancer Computational Biology, Dana Farber Cancer Institute
- Blanton Tolbert
“The Solution NMR Structures of Model RNA Duplexes Containing Non-Canonical GA Pairs: Insights into the Factors Affecting Thermodynamic Stability of RNA 2X2 Nucleotide Internal Loops”
Position: Professor of Chemistry, Case Western Reserve University
- 2007 Neelaabh Shankar
“NMR Studies of Two Conserved RNA Internal Loops Found in Ribosomes”
Position: Patent Attorney
- 2008 Ilyas Yildirim
“Free Energy Calculations of RNA Duplexes with Tandem GA Base Pairs Using the Thermodynamic Integration Approach”
Position: Assistant Professor of Chemistry, Florida Atlantic University
- 2009 James M. Hart
“NMR-Assisted Prediction of RNA Secondary Structure”
Position: Medical Director at Abbott Core Diagnostics
- 2010 Ruiting Liang
“RNA Secondary Structure Determination: Isoenergetic Oligonucleotide Microarray Compared with Chemical Mapping and MALDI MS Detection of Chemical Mapping”
Position: Director, Analytical Research and Development, Beigene
- Biao Liu
“Fluorescence Competition Assay Measurements of Thermodynamics for RNA Pseudoknots and Multibranch Loops”
Position: Computational Scientist, Intellia Therapeutics, Cambridge MA
- 2011 Walter N. Moss
“RNA Secondary Structure Discovery and Characterization”
Position: Associate Professor of Molecular Biology and Biophysics, Iowa State University
- Nicolas Hammond
“Investigating the mechanism of Hoechst 33258 inhibition of *Candida* spp. growth and II. RNA internal loops with tandem AG pairs: the structure of the 5!GAGU/3!UGAG loop can be dramatically different from others, including 5!AAGU/3!UGAA”
Position: Assistant Director of University of Rochester Workshop Program
- 2013 Jason Tubbs
“Computational and Experimental Advances in the RNA Therapeutic Pipeline”
Position: Associate Director of Quality Operations, CoreRX, Clearwater, FL
- Salvatore Priore
“Discovery and Characterization of Influenza Virus RNA Secondary Structures”
Position: Assistant Professor of Clinical Pathology of diItsehssition: 51.12 diItsehss86.72 17.29.8,t

- Indee Dela-Moss
“Analysis of RNA Secondary Structure: Common Themes in Spliced Segments of Influenza A, B, and C”
Subsequent Position: Postdoctoral Fellow, Iowa State University
- 2015 David Condon
“Nucleic Acid Force Fields in Prediction of Ensemble NMR Properties”
Position: Assistant Professor of Internal Medicine, University of South Dakota, Lead Computational Bioinformatics Analyst at Sanford Health, Sioux Falls, South Dakota
- Jonathan Chen
“Two- and Three-Dimensional Modeling of RNA Structures with NMR and Thermodynamics Methods”
Position: Staff Scientist, Center for RNA Biology, University of Rochester Medical Center
- Tian Jiang
“RNA Structure and Function of Influenza Virus”
Position: Systems Engineer, Abbott Labs, Dallas
- 2018 Kyle Berger
“Thermodynamic and Structural Studies of RNA Internal Loops Closed by GU Pairs”
Position: Postdoctoral Fellow in laboratory of David MacLean, University of Rochester School of Medicine and Dentistry
- 2019 Andrew Kauffmann
“Structures of RNA Sequences from Influenza”
Position: Assistant Professor of Chemistry, Truman State University, Missouri
- 2020 Jianbo Zhao
“Molecular Dynamics and Quantum Mechanics Studies of RNA Structures”
Position: Senior Scientist, Nested Therapeutics, Boston, MA

Visiting Scientists

- Dr. Ryszard Kierzek, Professor, Institute of Bioorganic Chemistry, Poznan, Poland
- Dr. Elzbieta Kierzek, Professor, Institute of Bioorganic Chemistry, Poznan, Poland
- Dr. Peter Müller, Scientist, Dr. Karl Thomae, GmbH, Biebrach, Germany
Head, Department of Chemical Research, Dr. Karl Thomae, GmbH, Biebrach, Germany
Senior Vice President, Research and Development, Boehringer Ingelheim Pharmaceuticals, Ridgefield, CT
Chief Scientific Officer & Senior Vice President, Vertex Pharmaceuticals
Retired
- Dr. Martin J. Serra, Paul E. and Mildred L. Hill Professor of Chemistry, Allegheny College
Retired
- Dr. Janet Morrow, Professor of Chemistry, SUNY at Buffalo
- Dr. Neena Grover, Professor of Chemistry & Biochemistry, Colorado College