

Curriculum Vitae

Sidney M. Hecht

Education

- 1966 B.A., Chemistry; University of Rochester
1970 Ph.D., Chemistry (minor: Biochemistry), University of Illinois

Employment

University of Wisconsin

- 1970 National Institutes of Health Postdoctoral Fellow

Massachusetts Institute of Technology

- 1971-75 Assistant Professor of Chemistry
1975-79 Associate Professor of Chemistry

University of Virginia

- 1978-2008 John W. Mallet Professor of Chemistry; Professor of Biology

Smith Kline & French Laboratories

- 1981-83 Vice President, Preclinical Research & Development
1983-86 Vice President, Chemical Research & Development
1986-87 SK&F Distinguished Fellow

Arizona State University

- 2008- Co-Director, Center for Bioenergetics, Biodesign Institute and Professor of Chemistry

Awards

- 1967-70 National Institutes of Health Predoctoral Fellow
1970-71 National Institutes of Health Postdoctoral Fellow
1975-79 Alfred P. Sloan Research Fellow
1975-80 National Institutes of Health Research Career Development Awardee
1977-78 John Simon Guggenheim Memorial Fellow
1996 Arthur C. Cope Scholar Award
1996 Virginia's Outstanding Scientist
1998 Research Achievement Award, American Society of Pharmacognosy
2004 Fellow, American Association for the Advancement of Science

Other Academic Appointments, Lectureships

- 1978 Visiting Professor, Max-Planck Institut für experimentelle Medizin, Göttingen
1979-81 Center for Advanced Studies, University of Virginia
1984 T.Y. Shen Visiting Professor, Massachusetts Institute of Technology
1985 Percy Julian Lectureship, Howard University
1991 Professeur Associé, Muséum National D'Histoire Naturelle, Paris
1991 Gastprofessor, Eidgenössische Technische Hochschule, Zurich
1991 H.C. Brown Lectureship, Purdue University
1992 Ralph Hirschmann Lectureship, Oberlin College
1993 Webster-Sibilsky Lectureship, University of Illinois at Chicago
1994 Distinguished Biochemistry Lectureship, University of Toledo

1997 Eli Lilly Lectureship, Colorado State University
 1997 Nelson J. Leonard Distinguished Lectureship, University of Illinois
 1997 Servier Lectureship, Université de Montréal
 1999 Frontiers in Organic Chemistry Lectureship, Brigham Young University
 2000 W. Allan Powell Lectureship, University of Richmond/American Chemical Society, Virginia Section
 2000 Professeur Associé, Muséum National D'Histoire Naturelle, Paris
 2000 Novum Lectureship, Karolinska Institutet, Stockholm
 2001 Marcel-Piché Lectureship, Institut de Recherches Cliniques de Montréal
 2001 UCLA/Isis Lectureship
 2002 Western Switzerland Universities Lectureship
 2003 Boehringer-Ingelheim Lecturer, Université du Québec à Montréal
 2003 Arnold D. Welch Distinguished Lecturer in Pharmacology, St. Jude Children's Research Hospital
 2004 Frontiers in Biological Chemistry Lecturer, Kyoto University
 2004 Pfizer Lecturer in Organic Chemistry, Indiana University
 2006 Dow/Karabatsos Distinguished Lectureship

Professional Societies

The Chemical Society
 American Chemical Society
 American Society for Biochemistry and Molecular Biology
 American Association for the Advancement of Science
 American Society of Pharmacognosy
 Sigma Xi

Invited Lectures

1983 *Northwestern University (Chemistry Department): Invited Lecturer*
University of Virginia (Biology Department): Invited Lecturer
University of Virginia (Microbiology Department): Invited Lecturer
University of Rochester (Chemistry Department): Invited Lecturer
University of Rochester (Medical School): Invited Lecturer
Gordon Research Conference on Carbohydrates: Invited Lecturer
National Cancer Institute Symposium on the Discovery and Development of Naturally Occurring Antitumor Agents, Frederick, MD: Invited Lecturer
National Cancer Institute Workshop on Biological Modulators, Gaithersburg, MD: Invited Lecturer
University of Illinois (Chemistry Department): Invited Lecturer
University of Illinois (Biochemistry Department): Invited Lecturer
Beckman Instruments (Peptide Chemistry Department): Invited Lecturer
University of California, Los Angeles (Chemistry Department): Invited Lecturer
California Institute of Technology (Division of Chemistry and Chemical Engineering): Invited Lecturer
University of California, Davis (Chemistry Department): Invited Lecturer
Baylor College of Medicine: Invited Lecturer

1984 *Centennial Symposium, School of Pharmacy, Purdue University: Invited Lecturer*
University of California, San Francisco (VA Hospital): Invited Lecturer
Villanova University (Chemistry Department): Invited Lecturer
American Chemical Society, Joint Great Lakes/Central Regional Meeting, Kalamazoo: Invited Lecturer
Gordon Research Conference on Natural Products: Invited Lecturer

Annual Meeting, Plant Growth Regulator Society, Boston: Invited Lecturer
25th Annual Meeting, American Society of Pharmacognosy, Austin: Invited Lecturer
188th National American Chemical Society Meeting, Philadelphia: Invited Lecturer
Pacific Conference on Chemistry and Spectroscopy, Sacramento: Invited Lecturer
Symposium on Bioorganic Chemistry, U. of Maryland: Invited Lecturer
Massachusetts Institute of Technology (Chemistry Department): T.Y. Shen
Visiting Professor
International Chemical Congress of Pacific Basin Societies, Honolulu: Invited Lecturer

1985 *University of Mississippi (Pharmacognosy Department): Invited Lecturer*
Gordon Research Conference on Oxygen Radicals in Medicine and Biology: Invited Lecturer
Howard University (Chemistry Department, Sigma Xi): Percy Julian Lectureship
University of Utah (Medicinal Chemistry Department): Invited Lecturer
American Chemical Society, 15th Northwestern Regional Meeting, SUNY New Paltz: Invited Lecturer
International Research Conference on Natural Products, Chapel Hill: Plenary Lecturer
Gordon Research Conference on Enzymes, Coenzymes and Metabolic Pathways: Invited Lecturer
Santa Fe Graduate Medicinal Chemistry Conference: Keynote Speaker
American Society for Pharmacology and Experimental Therapeutics/American Chemical Society Joint Meeting, Boston: Invited Lecturer
University of Washington (Chemistry Department): Invited Lecturer

1986 *State University Leiden (Chemistry Department): Invited Lecturer*
Université Catholique de Louvain (Chemistry Department): Invited Lecturer
American Chemical Society, 191st National Meeting: Invited Lecturer
University of Illinois (Chemistry Department): Invited Lecturer
University of Wisconsin (Chemistry Department): American Chemical Society Lectureship
Harvard University (Chemistry Department): Invited Lecturer
American Society of Biological Chemistry/American Chemical Society Joint Meeting, Washington, DC: Invited Lecturer
Stanford University (Chemistry Department): Invited Lecturer
Cornell University (Chemistry Department): Invited Lecturer

1987 *Second International Conference on Anticarcinogenesis and Radiation Protection, Gaithersburg, MD: Invited Lecturer*
Museum National d'Histoire Naturelle: Invited Lecturer
Institut de Chimie des Substances Naturelles: Invited Lecturer
University of Massachusetts, Amherst (Polymer Science and Engineering Department): Invited Lecturer
Hoffmann-La Roche, Nutley: Invited Lecturer
American Chemical Society, 42nd Northwest Regional Meeting, Washington: Invited Lecturer
Yale University (Chemistry Department): Invited Lecturer
International Conference on Perspectives in Molecular Approaches to Human Diseases, Bari: Invited Lecturer
Rensselaer Polytechnic Institute (Chemistry Department): Invited Lecturer

Centre National de la Recherche Scientifique, Toulouse (Laboratoire de Chimie de Coordination): Invited Lecturer
State University Leiden (Chemistry Department): Invited Lecturer
Eidgenössische Technische Hochschule, Zurich (Chemistry Department): Invited Lecturer
Eidgenössische Technische Hochschule, Zurich (Biochemistry Department, Invited Lecturer

1988
University of Nebraska (Eppley Institute): Invited Lecturer
University of Missouri (Chemistry Department): Invited Lecturer
American Chemical Society, Brazosport Section: Invited Lecturer
University of California, Davis (Chemistry Department): Invited Lecturer
Johns Hopkins University (Biophysics Division): Invited Lecturer
16th International IUPAC Symposium on the Chemistry of Natural Products, Kyoto: Invited Lecturer
IUPAC Nagoya Symposium on New Topics in Natural Products, Toba: Plenary Lecturer
Osaka University (Institute for Scientific and Industrial Research): Invited Lecturer
Kyoto University Synthetic Chemistry Department): Invited Lecturer
Nagoya University (Molecular Biology Department): Invited Lecturer
Showa University (Synthetic Chemistry Department): Invited Lecturer
Tokyo Institute of Technology (Chemistry Department): Invited Lecturer
Tokyo University (Pharmaceutical Sciences Department): Invited Lecturer
Institute for Physical and Chemical Research, Tokyo: Invited Lecturer
Gulf Coast Chemistry Conference, Pensacola: Invited Lecturer
International Symposium on the Molecular Basis of Specificity of DNA-Antitumor Drug Interactions, Talloires: Invited Lecturer
NIH Workshop on Bioassays for Discovery of Antitumor and Antiviral Agents from Natural Sources, Bethesda: Invited Lecturer
Symposium on the Molecular Basis of Inorganic Pharmaceuticals, Northwestern University: Invited Lecturer

1989
University of Miami (Chemistry Department): Invited Lecturer
Johns Hopkins University (Pharmacology Department): Invited Lecturer
SUNY Binghamton (Chemistry Department): Invited Lecturer
University of Nebraska (Chemistry Department): Invited Lecturer
Gordon Research Conference on the Chemistry of Heterocyclic Compounds: Invited Lecturer
Royal Society of Chemistry Meeting on Molecular Mechanisms in Bioorganic Processes, Newcastle upon Tyne: Invited Lecturer
International Conference on Bioinorganic Chemistry, Cambridge, MA: Invited Lecturer
Virginia Commonwealth University (Biophysics Department): Invited Lecturer
Louisiana State University (Chemistry Department): Invited Lecturer
Georgia State University (Chemistry Department): Invited Lecturer
Ethyl Corporation (Baton Rouge): Invited Lecturer
Smith Kline & French Laboratories, King of Prussia: Invited Lecturer

1990
Lehigh University (Chemistry Department): Invited Lecturer
Merck Sharp & Dohme Research Laboratories, Rahway: Invited Lecturer
Muséum National d'Histoire Naturelle: Invited Lecturer
Centre National de la Recherche Scientifique, Toulouse (Laboratoire de Chimie de Coordination): Invited Lecturer

State University Leiden (Chemistry Department): Invited Lecturer
Cambridge University (Chemistry Department): Invited Lecturer
Technical University of Vienna (Chemistry Department): Invited Lecturer
Eidgenössische Technische Hochschule, Zurich (Chemistry Department): Invited Lecturer
Eidgenössische Technische Hochschule, Zurich (Biochemistry Department): Invited Lecturer
Université Louis Pasteur, Strasbourg (Chemistry Department): Invited Lecturer
American Chemical Society, 199th National Meeting, Boston, Symposium on Oxygen Activation in Catalysis: Oxidations with Metalloenzymes: Invited Lecturer
Roussel-Uclaf Table Ronde on Non-Porphyrinic Iron Oxidation Enzymes, Paris: Invited Lecturer
Institute of Cancer Research, Sutton; Invited Lecturer
9th International Round Table on Nucleosides, Nucleotides and their Biological Applications, Uppsala: Plenary Lecturer
University of Delaware (Chemistry Department): Invited Lecturer
North Carolina State University (Biochemistry Department): Invited Lecturer
Glaxo-University of North Carolina Symposium on Nucleic Acids in Catalysis and Drug Design: Invited Lecturer
Schering Pharmaceutical Research, Berlin: Invited Lecturer
Max Planck Institut für experimentelle Medizin, Göttingen: Invited Lecturer
Consiglio Nazionale delle Ricerche, Bologna: Invited Lecturer
A. Menarini Industrie Farmaceutiche, Rome: Invited Lecturer
Walter Reed Army Institute for Research: Invited Lecturer
Colloquium on DNA Drug Targeting, Institut Gustave Roussy, Villejuif: Invited Lecturer
University of Virginia (Division of Hematology/Oncology): Invited Lecturer

1991

Johns Hopkins University (Biochemistry Department): Invited Lecturer
French-American Chemical Society, 2nd Meeting, Captiva Island, Florida: Invited Lecturer
Vanderbilt University (Center in Molecular Toxicology): Invited Lecturer
Gordon Research Conference on Metals in Biology: Invited Lecturer
Muséum National D'Histoire Naturelle (Chemistry and Biophysics Departments): Lecture Series
Rhône-Poulenc, Vitry: Invited Lecturer
Université Joseph Fourier, (Chemistry Department), Grenoble: Invited Lecturer
Centre D'Etudes Nucleaires de Grenoble (Département de Chimie Structurale): Invited Lecturer
Université de Montpellier (Pharmaceutical Sciences Dept.): Invited Lecturer
Institut de Chimie des Substances Naturelle, Gif-sur-Yvette: Invited Lecturer
Centre National de la Recherche Scientifique, Toulouse (Laboratoire de Chimie de Coordination): Invited Lecturer
State University Leiden (Chemistry Department): Invited Lecturer
Centre Biophysique D'Orleans: Invited Lecturer
Purdue University (Chemistry Department): H.C. Brown Lectureship
Institut de Biologie Moléculaire et Cellulaire du CNRS, Strasbourg: Invited Lecturer
Eidgenössische Technische Hochschule, Zurich (Chemistry Department): Invited Lecturer
Ciba-Geigy, Basel: Invited Lecturer
Second Drug Discovery and Development Symposium, Grand Traverse: Invited Lecturer

University of Virginia (Biochemistry Department): Invited Lecturer
North Carolina State University(Chemistry Department): Invited Lecturer
Conference on Biomolecular Targeting Strategies in the Prevention and Treatment of Disease, Charlottesville: Invited Lecturer
American Chemical Society, 43rd Southeast Regional Meeting, Richmond: Invited Lecturer
Workshop on Molecular Aspects of the Sequence-Specific Binding of Metal Compounds to Nucleic Acids, Royal Netherlands Academy of Arts and Sciences, Haarlem: Invited Lecturer

1992
Wake Forest University (Chemistry Department): Invited Lecturer
Oberlin College (Chemistry Department): Ralph Hirschmann Lectureship
Keystone Symposium on Molecular Biology/Metal Ion Interface, Lake Tahoe: Invited Lecturer
Virginia Polytechnic Institute (Microbiology Department): Invited Lecturer
Virginia Polytechnic Institute (Chemistry Department): Invited Lecturer
American Chemical Society Symposium on Natural Products, 203rd National Meeting, San Francisco: Invited Lecturer
American Chemical Society, Symposium on DNA Cleavage and Viral Inactivation, 24th Central Regional Meeting, Cincinnati: Invited Lecturer
Memorial Sloan-Kettering Cancer Center: Invited Lecturer
Symposium on Copper Coordination Chemistry: Bioinorganic Perspectives, Johns Hopkins University, Baltimore: Invited Lecturer
Carnegie Mellon University (Chemistry Department): Invited Lecturer
Johns Hopkins University (Division of Toxicological Sciences): Invited Lecturer
International Conference on Structures, Conformations and Interactions of Nucleic Acids, Fogarty International Center, National Institutes of Health: Invited Lecturer
Cruachem, Ltd., Glasgow: Invited Lecturer

1993
American University (Chemistry Department): Invited Lecturer
Institut de Biologie Moléculaire et Cellulaire du CRNS, Strasbourg: Invited Lecturer
National Cancer Institute (Board of Scientific Counselors): Invited Lecturer
American Chemical Society Symposium on Mechanistic Bioinorganic Chemistry, 205th National Meeting, Denver: Invited Lecturer
Pennsylvania State University (Chemistry Department): Invited Lecturer
University of Illinois at Chicago (School of Pharmacy): Webster-Sibilsky Lecturer
University of Illinois at Chicago (Department of Medicinal Chemistry and Pharmacognosy): Invited Lecturer
Symposium on DNA Chemistry, Vanderbilt University, Nashville: Invited Lecturer
University of Minnesota (Department of Medicinal Chemistry): Invited Lecturer
University of Minnesota (Department of Chemistry): Invited Lecturer
Symposium on the Interfaces Between Chemistry & Biology, Marion Merrell-Dow, Cincinnati: Invited Lecturer
American Society of Pharmacognosy/Third Drug Discovery and Development Symposium, San Diego: Invited Lecturer
Bristol-Myers Squibb Pharmaceutical Research Institute, Seattle: Invited Lecturer
International Conference on Bioinorganic Chemistry, San Diego: Invited Lecturer
Hybridon, Worcester, MA: Invited Lecturer
New York University Medical Center (Department of Environmental Medicine): Invited Lecturer

- 1994 *University of Utah* (Departments of Chemistry and Medicinal Chemistry): Invited Lecturer
Boston College (Department of Chemistry): Invited Lecturer
University of Toledo (Department of Chemistry): Distinguished Biochemistry Lecturer
Scripps Research Institute (Department of Chemistry): Invited Lecturer
University of California, Santa Cruz (Department of Chemistry and Biochemistry): Invited Lecturer
Symposium on "Topoisomerase I Inhibitors: Molecules to Medicine", 85th Annual Meeting of the American Association for Cancer Research, San Francisco: Invited Lecturer
Merck Sharp & Dohme Research Laboratories (Biochemistry Department): Invited Lecturer
American Chemical Society, North Jersey Section: Invited Lecturer
Seton Hall University (Department of Chemistry): Invited Lecturer
- 1995 *Winter Conference on Bioorganic & Medicinal Chemistry, Symposium on the Reemergence of Natural Products as a Source of New Therapeutics*, Steamboat Springs, Colorado: Invited Lecturer
Georgia Institute of Technology (School of Chemistry and Biochemistry): Invited Lecturer
16th International tRNA Workshop, Madison, Wisconsin: Invited Lecturer
Nucleic Acids Symposium, Noordwijkerhout, the Netherlands: Invited Lecturer
American Chemical Society Symposium on Drug Targeting of RNA, 210th National Meeting, Chicago: Invited Lecturer
NATO Workshop on "DNA Cleavers and Chemotherapy of Cancer or Viral Diseases", Toulouse: Invited Lecturer
Université Louis Pasteur (Institut de Biologie Moléculaire et Cellulaire de CNRS), Strasbourg: Invited Lecturer
Stanford University (Department of Chemistry): Invited Lecturer
University of Missouri (Department of Chemistry): Invited Lecturer
University of Missouri (Department of Biochemistry): Invited Lecturer
Université Louis Pasteur (Magistère de Chimie-Biologie), Strasbourg: Invited Lecturer
University of Dundee (Department of Biochemistry): Invited Lecturer
- 1996 *Ciba-Geigy* (Central Research): Invited Lecturer
University of California, Riverside (Department of Chemistry): Invited Lecturer
University of California, San Diego (Department of Chemistry): Invited Lecturer
37th Annual Medicinal Chemistry Symposium, University of Buffalo: Invited Lecturer
Monroe Wall Symposium, Harvesting Biodiversity for Therapeutic Drugs and Foods, Xechem/Rutgers University, New Brunswick, NJ: Invited Lecturer
Symposium on DNA Photolyases, 24th American Society for Photobiology Annual Meeting, Atlanta: Invited Lecturer
Gordon Research Conference on Natural Products Chemistry: Invited Lecturer
5th International Symposium on Progress in Natural Product Chemistry, Royal Society of Chemistry, Nottingham: Plenary Lecturer
Matt Suffness Symposium, 37th Annual Meeting of the American Society of Pharmacognosy, Santa Cruz: Invited Lecturer
American Chemical Society, Symposium on Mechanisms of Metal-Mediated Biopolymer Cleavage, 212th National Meeting, Orlando: Invited Lecturer
American Chemical Society Awards Symposium, 212th National Meeting,

- Orlando: Award Address
 20th IUPAC Symposium on the Chemistry of Natural Products, Chicago: Plenary Lecturer
 Virginia Polytechnic Institute and State University (Department of Biochemistry): Invited Lecturer
- 1997
- Workshop on Novel Biocatalysts*, Instituto Juan March de Estudios e Investigaciones, Madrid: Invited Lecturer
 University of Sussex (Department of Chemistry): Invited Lecturer
SmithKline Beecham Pharmaceuticals Research Symposium, The Many Faces of RNA, Cambridge University: Invited Lecturer
 Colorado State University (Department of Chemistry): Eli Lilly Lecturer
 University of Illinois (School of Chemical Sciences): Nelson J. Leonard Distinguished Lecturer
 Clemson University (Department of Chemistry): Invited Lecturer
 17th International tRNA Workshop, Chiba, Japan: Invited Lecturer
 22nd Seminar on Frontier Technology on “Structural Biology of RNA-Protein System”, Tokyo, Japan: Invited Lecturer
 4th Anticancer Drug Discovery and Development Symposium, Annapolis: Invited Lecturer
 University of Virginia (Department of Pathology): Invited Lecturer
 20th Gulf Coast Chemistry Conference, Pensacola: Invited Lecturer
 University of Richmond (Department of Chemistry): Invited Lecturer
 Louisiana State University (Department of Chemistry): Invited Lecturer
 Symposium on “Drug Targeting of Topoisomerases”, Fifth Chemical Congress of North America, Cancun, Mexico: Invited Lecturer
 Université de Montréal (Département de Chimie): Servier Lecturer
 McGill University (Department of Chemistry): Invited Lecturer
- 1998
- Johns Hopkins University (Department of Pharmacology): Invited Lecturer
 Scripps Research Institute (Department of Chemistry): Invited Lecturer
 118th Annual Meeting of the Pharmaceutical Society of Japan, Kyoto: Invited Lecturer
 Nippon Shinyaku Co., Ltd. (Research Laboratories): Invited Lecturer
 Institute of Physical and Chemical Research (RIKEN): Invited Lecturer
 Meiji Seika Kaisha Ltd. (Pharmaceutical Research Center): Invited Lecturer
 University of Tokyo (Department of Chemistry and Biotechnology): Invited Lecturer
 University of Iowa (Division of Medicinal and Natural Products Chemistry): Invited Lecturer
 RNA '98 (Third Annual Meeting of the RNA Society), Symposium on RNA Therapeutics, Madison: Invited Lecturer
 39th Annual Meeting of the American Society of Pharmacognosy, Orlando: Award Address
 University of Mississippi, Symposium on “Topoisomerase Targeting Agents: Cancer to Chemotherapy”: Invited Lecturer
 25th Symposium on Nucleic Acids Chemistry, Kobe: Invited Lecturer
 Okayama University (Department of Bioscience & Biotechnology): Invited Lecturer
 EMBO Workshop on Structure and Function of Aminoacyl-tRNA Synthetases, Mittelwihr: Invited Lecturer
 University of Tennessee (Department of Chemistry): Invited Lecturer
- 1999
- Carnegie Mellon University (Department of Chemistry): Invited Lecturer

Gordon Research Conference on Carbohydrates: Invited Lecturer
University of Illinois (Department of Chemistry): Invited Lecturer
AIMECS99: Asian Federation for Medicinal Chemistry International Medicinal Chemistry Symposium, Beijing: Plenary Lecturer
Beijing Medical College (Division of Chemical Sciences): Invited Lecturer
22nd Gulf Coast Chemistry Conference, Pensacola: Invited Lecturer
5th Anticancer Drug Discovery and Development Symposium, Detroit: Invited Lecturer
Lehigh University (Department of Chemistry): Invited Lecturer
Brigham Young University (Department of Chemistry): Invited Lecturer
University of Utah (Department of Chemistry): Invited Lecturer
AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics, Washington, DC: Plenary Lecturer
Banbury Conference on Strategies for Antibacterial Therapy, Cold Spring Harbor Laboratory: Invited Lecturer

2000
University of Richmond (Department of Chemistry, joint with the Virginia Section of the American Chemical Society): W. Allan Powell Lecturer
New York Academy of Sciences Conference on "The Camptothecins: Unfolding Their Anticancer Potential", Washington, DC: Plenary Lecturer
Integrated DNA Technologies (Research Laboratories): Invited Lecturer
Symposium on RNA as a Drug Target, 220th American Chemical Society National Meeting, Washington, DC: Invited Lecturer
Symposium on Advances in the Chemistry of Anticancer Drug Development, British Pharmaceutical Conference, Birmingham, UK: Invited Lecturer
Muséum National D'Histoire Naturelle (Departement de Biophysique): Invited Lecturer.
Centre National de la Recherche Scientifique, Toulouse (Laboratoire de Chimie de Coordination): Invited Lecturer
Ecole Polytechnique, Palaiseau (Groupe de Biophysique): Invited Lecturer
9th Symposium on the Latest Trends in Organic Synthesis, Gainesville: Invited Lecturer
Karolinska Institutet, Stockholm (Chemistry Department): Novum Lecturer in Organic Chemistry
Karolinska Institutet, Stockholm (Biological Chemistry Program): Guest Lecturer as editor of course textbooks
Université Victor Segalen, Bordeaux (Departement de Chimie Biologique): Invited Lecturer
Université Joseph Fourier, Grenoble (Departement de Chimie): Invited Lecturer
Centre d'Etudes Nucleaires de Grenoble (Departement de Chimie Structurale): Invited Lecturer
Muséum National D'Histoire Naturelle: Diplome d'Etudes Approfondies Lecturer
Centre Oscar Lambret (Institut de Recherches sur la Cancer): Invited Lecturer
Université René Descartes (Laboratoire de Chimie et Biochimie Pharmacologiques et Toxicologiques): Invited Lecturer
State University Leiden (Chemistry Department): Invited Lecturer
Institut de Biologie Moléculaire et Cellulaire du CNRS, Strasbourg: Invited Lecturer
Collège de France (Section de Chimie des Intéractions Moléculaires): Invited Lecturer

2001
ISIS Pharmaceuticals: Invited Lecturer
California Institute of Technology (Division of Chemistry and Chemical Engineering): Invited Lecturer

National Cancer Institute (Screening Technologies Branch, Developmental Therapeutics Program): Drug Discovery and Development Seminar
Wake Forest University, William Lown Symposium (School of Medicine): Invited Lecturer
Aclara Biosciences (Protein Chemistry Department): Invited Lecturer
Institut de Recherches Cliniques de Montréal: Marcel-Piché Lecturer
ICN Pharmaceuticals (Biochemical R&D): Invited Lecturer
ISIS Pharmaceuticals: UCLA/ISIS Lectureship
UCLA (Department of Chemistry and Biochemistry): UCLA/ISIS Lectureship
Gordon Research Conference on Natural Products: Invited Lecturer
2nd Oxford Symposium on "Topoisomerase Targeting Agents: Chemistry to Chemotherapy": Oxford, Mississippi: Invited Lecturer
Boston College (Department of Chemistry): Invited Lecturer
University of Connecticut (Department of Chemistry): Invited Lecturer
Brooklyn College CUNY (Department of Chemistry): Invited Lecturer

2002 *Asilomar Conference on Aminoacyl-tRNA Synthetases*: Invited Lecturer
ISIS Pharmaceuticals: Invited Lecturer
Lecture tour of western Switzerland, including
Université de Genève (Département de Chimie): Invited Lecturer
École Polytechnique Fédérale de Lausanne (Département de Chimie): Invited Lecturer
University of Berne (Department of Chemistry): Invited Lecturer
University of Basel (Department of Chemistry): Invited Lecturer
University of Basel (Department of Biochemistry): Invited Lecturer
National Cancer Institute-Frederick (Developmental Therapeutics Program): Invited Lecturer
Institut de Chimie des Substances Naturelle, Gif-sur-Yvette: Invited Lecturer
Southeastern Regional American Chemical Society Meeting, Nucleic Acids Symposium, Charleston: Invited Lecturer
14th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics, Frankfurt: Invited Lecturer

2003 *International Symposium on Nucleic Acids: From Bases to Genomics*, Paris: Invited Lecturer
4th Annual Florida Heterocyclic Conference, Gainesville: Invited Lecturer
University of Michigan (Department of Chemistry): Invited Lecturer
Frontiers in Chemical & Structural Biology, Montreal: Invited Lecturer
44th American Society of Pharmacognosy Meeting, Chapel Hill: Invited Lecturer
ACS Prospectives Conference on Combinatorial Chemistry, Leesburg: Invited Lecturer
Texas A&M (Chemistry/Biology Interface Program): Invited Lecturer
New York University (Department of Chemistry): Invited Lecturer
Université du Québec à Montréal (Département de Chimie): Boehringer-Ingelheim Lectureship
St. Jude's Children's Research Hospital, Memphis: Distinguished Lecturer in Pharmacology

2004 *Rutgers University* (Center for Molecular Biophysics and Biophysical Chemistry): Invited Lecturer
227th National ACS Meeting, Symposium on Protein Synthesis, Anaheim: Invited Lecturer
Kyoto University (Department of Chemistry): *Frontiers in Biological Chemistry* Lecturer

Nippon Shinyaku (Tsukuba Research Center): Invited Lecturer
ARS 2004: International Conference on Aminoacyl-tRNA Synthetases, Seoul, Korea: Invited Lecturer
RIKEN Symposium on RNA as a Therapeutic Target, Seoul, Korea: Invited Lecturer
National Institutes of Health (Laboratory of Biophysical Chemistry): Invited Lecturer
University of Baltimore, Maryland County (Department of Chemistry): Invited Lecturer
Indiana University (Department of Chemistry): Pfizer Lecturer in Organic Chemistry
PALUMED-CNRS Laboratoire de Chimie de Coordination Minisymposium, Toulouse: Invited Lecturer
Memorial Sloan-Kettering Cancer Center (Biological Chemistry Lecture Series): Invited Lecturer

2005 *Pennsylvania State University* (Department of Chemistry): Invited Lecturer
Memorial Sloan-Kettering Cancer Center (Interdepartmental Presentation): Invited Lecturer
National Cancer Institute, Frederick: Symposium on the Elaboration of Proteins Containing Modified Amino Acids: Invited Lecturer
27th Gulf Coast Chemistry Conference, Pensacola: Invited Lecturer
4th National Conference on Chemical Biology/International Symposium on the Interdisciplinary Science of Chemistry with Biology and Medicine, Wuhan, China: Plenary Lecturer
Memorial Symposium for Professor Jacques van Boom, Leiden: Invited Lecturer
International Chemical Congress of Pacific Basin Societies, Honolulu: Invited Lecturer

2006 *Ohio State University* (Department of Biochemistry): Invited Lecturer
Society for Industrial Microbiology Annual Meeting, Symposium on Recent Chemical and Enzymatic Strategies for Natural Products Diversification, Baltimore: Invited Lecturer
Albert Einstein College of Medicine (Department of Biochemistry): Invited Lecturer
Pennsylvania State University (Department of Chemistry), *Symposium in honor of Professor Steven Weinreb*: Invited Lecturer
2006 International Conference on Aminoacyl-tRNA Synthetases, San Diego: Invited Lecturer
Iowa State University (Department of Chemistry): Invited Lecturer
Michigan State University (Department of Chemistry): Dow/Karabatsos Distinguished Lectureship, involving a series of three lectures

Editorial

1986-02 Editorial Advisory Board, *Anti-Cancer Drug Design*
1987-90 Editorial Advisory Board, *Chemical Research in Toxicology*
1989-95 Invited Expert Analyst, *Chemtracts-Organic Chemistry*
1990-91 Associate Editor, *Medicinal Chemistry Research*
1991-98 Editorial Advisory Board, *Journal of Molecular Recognition*
1992- Editorial Advisory Board, *Bioconjugate Chemistry*
1992- Associate Editor, *Journal of the American Chemical Society*
1993-98 Bioorganic Chemistry Series Editor, Oxford University Press

- 1996-97 Guest Editor, Symposium-in-Print on "Strategies for RNA Recognition",
Bioorganic & Medicinal Chemistry
- 1997-99 Editorial Advisory Board, *Molecules Online*
- 2000- Editorial Advisory Board, *Current Medicinal Chemistry-Anticancer Agents*
- 2001- Editorial Advisory Board, *Molecular Cancer Therapeutics*
- 2002- Editorial Advisory Board, *Oncology Research/Anticancer Drug Design*

Committees/National Service

- 1978 Co-organizer (with H. Umezawa), East-West Conference on Bleomycin
- 1979 Organizer, Symposium on Antitumor Agents, ACS National Meeting - Houston
- 1981-83 Member, Bioorganic and Natural Products Study Section, National Institutes of Health
- 1984 Organizer, Symposium, ACS Regional Meeting - Raleigh/Durham
- 1985-89 Member, Walter Reed Scientific Advisory Board
- 1986 Ad hoc member, Chemical Pathology Study Section, National Institutes of Health
- 1986-90 Member, California Institute of Technology Chemistry and Chemical Engineering Division Visiting Committee
- 1987-91 Member, Advisory Board, Research Institute of Pharmaceutical Sciences, University of Mississippi
- 1988 Ad hoc member, Bioorganic and Natural Products Study Section, National Institutes of Health
- 1988 Ad hoc member, Metallobiochemistry Study Section, National Institutes of Health
- 1988-92 Chairman, Chemical Technologies Advisory Board, SmithKline Beecham Pharmaceuticals
- 1989-94 Member, Board of Directors, Harbor Branch Oceanographic Institution
- 1989 Member, Ad Hoc Advisory Committee, Antitumor and Anti-HIV Drug Discovery Screening Program, Division of Cancer Treatment, National Cancer Institute
- 1990-00 Member, R&D Advisory Board, SmithKline Beecham Pharmaceuticals
- 1990 Organizer, Symposium on BioOrganic Chemistry, University of Virginia Chemistry Department
- 1991 Co-organizer (with C. Evans) Conference on Biomolecular Recognition and Targeting Strategies in the Prevention and Treatment of Disease, Charlottesville
- 1991-92 American Chemical Society Committee for the preparation of "Science & Serendipity. The Importance of Basic Research"
- 1992 Member, Review Panel for National Cooperative Drug Discovery Group Applications, National Cancer Institute
- 1992-93 Chairman, Review Panel for Laboratory of Medicinal Chemistry, National Cancer Institute
- 1992-97 Member, Scientific Advisory Board, Cruachem, Ltd.
- 1993-95 Member, Board of Scientific Counselors, Division of Cancer Treatment, National Cancer Institute
- 1993-97 Member, Scientific Advisory Board, Magainin Pharmaceuticals
- 1993-97 Chairman, Discovery Advisory Board, SmithKline Beecham Pharmaceuticals
- 1994 Member, Review Panel for Laboratory of Molecular Pharmacology, National Cancer Institute
- 1994 Chairman, Department of the Army Molecular Biology Review Panel for Breast Cancer Proposals
- 1995 Chairman, Review Panel for Laboratory of Drug Discovery Research & Development, National Cancer Institute
- 1995- Member, Board of Directors, Orchid BioSciences
- 1997- Chairman, Scientific Advisory Board, Orchid BioSciences
- 1998-99 Member, Corporate Technology Board, SmithKline Beecham Pharmaceuticals

1998-01 Member, Board of Directors, Annovis, Inc.
1999 Chairman, Special Emphasis Review Panel, National Cancer Institute
2000- Member, Board of Directors, Pinnacle Pharmaceuticals
2000- Member, Scientific Advisory Board, PALUMED
2000-06 Member, Scientific Advisory Board, Xenogen
2002-05 Chairman, Scientific Advisory Board, Galileo Pharmaceuticals
2005- Member, Scientific Advisory Board, Anacor
2006- Member, Scientific Advisory Board, Calper Life Sciences

Consulting

1979-81 Merck Sharp & Dohme Research Laboratories
1987-00 SmithKline Beecham Pharmaceuticals
1989-94 Harbor Branch Oceanographic Institution
1992-97 Cruachem, Ltd.
1993-97 Magainin Pharmaceuticals
1997-99 Orchid BioSciences
1997-01 Annovis, Inc.
2000-06 Xenogen, Inc.
2000- Pinnacle Pharmaceuticals
2000- PALUMED
2001- Isis Pharmaceuticals
2001-05 Galileo Pharmaceuticals
2005- Edison Pharmaceuticals
2005- Anacor Pharmaceuticals
2005- Biodesign Institute, Arizona State University
2006- Caliper Life Sciences

Research Interests

- Synthesis and mechanism of action of bleomycin family antitumor antibiotics
- Peptidyltransferase as a source of synthetic enzymes
- Mechanism of action/inhibition of mammalian DNA topoisomerase I
- Inhibition of signal transduction at the level of p90RSK

Research Support

- NIH Research Grant CA76297, Interaction of Bleomycin with RNA and DNA
- NIH Research Grant CA77284, Synthesis of Bleomycin Group Antibiotics and Analogues
- NIH Research Grant CA77359, Elaboration of Modified Proteins Using Misacylated tRNAs
- NIH Research Grant AI065316, Novel Tools for the Study of HIV-1 RNase H Inhibition
- NIH Research Grant CA116566, Inhibitors of p90RSK, pending

Sidney M. Hecht

Research Publications

- (1) D. P. Brust, D. S. Tarbell and S. M. Hecht, Studies of Cyclizations of an O-(α -Methylallyl)phenol and the Corresponding Methyl Ether Induced by Electrophilic Reagents, Proc. Natl. Acad. Sci. USA, **53**, 233-236 (1965).
- (2) D. P. Brust, D. S. Tarbell, S. M. Hecht, E. C. Hayward and L. D. Colebrook, Preparation of *cis*- and *trans*-2,3-Dimethyl-2,3-dihydrobenzofurans and Related Compounds. Cyclization Involving Oxonium Ions, J. Org. Chem., **31**, 2192-2201 (1966).
- (3) N. J. Leonard and S. M. Hecht, 6-(3-Methylbut-3-enylamino)purine: A Highly Active Cytokinin, J. C. S. Chem. Commun., 973 (1967).
- (4) S. M. Hecht, J. P. Helgeson and T. Fujii, N-(3-Methyl-2-butenyl)adenine, "Synthetic Procedures in Nucleic Acid Chemistry", John Wiley-Interscience Publishers, New York, 1968, p. 8-10.
- (5) N. J. Leonard, S. M. Hecht, F. Skoog and R. Y. Schmitz, Cytokinins: Synthesis of 6-(3-Methyl-3-butenylamino)-9- β -D-ribofuranosylpurine (3iPA), and the Effect of Side-Chain Unsaturation on the Biological Activity of Isopentylaminopurines and their Ribosides, Proc. Natl. Acad. Sci. USA, **59**, 15-21 (1968).
- (6) W. J. Burrows, D. J. Armstrong, F. Skoog, S. M. Hecht, J. T. A. Boyle, N. J. Leonard and J. Occolowitz, Cytokinin from Soluble RNA of *Escherichia coli*: 6-(3-Methyl-2-butenylamino)-2-methylthio-9- β -D-ribosuranosylpurine, Science, **161**, 691-693 (1968).
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