PETER COURTLAND AGRE 01 April 2012

Position: University Professor and Director
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I. CURRICULUM VITAE

1964-67 Theodore Roosevelt High School, Minneapolis, MN
1967-70 B.A., Augsburg College, Minneapolis, chemistry major
1970-74 M.D., Johns Hopkins University School of Medicine
1974-75 Postdoctoral Fellowship, Department of Pharmacology, Johns Hopkins, lab of Pedro Cuatrecasas
1975-78 Internship and Residency, Case Western Reserve University
University Hospitals of Cleveland, Dept of Medicine
Charles C. J. Carpenter Jr., Director
1978-80 Postdoctoral Fellowship, University of North Carolina at Chapel Hill
Department of Medicine, Hematology/Oncology Div., Harold Roberts, Director
1980-81 Senior Clinical Research Scientist, Wellcome Labs, Research Triangle Park, NC
Clinical Assistant Professor of Medicine at Univ North Carolina at Chapel Hill.
1981-83 Research Associate to Instructor, Johns Hopkins School of Medicine, Departments of Cell Biology/Anatomy and Medicine, lab of Vann Bennett
1984-88 Assistant Professor, Johns Hopkins School of Medicine
1988-93 Associate Professor, Johns Hopkins School of Medicine
1988-89 Sabbatical, Department of Embryology, Carnegie Institution of Washington, Department of Embryology, lab of Steven L. McKnight
1993-05 Professor, Johns Hopkins School of Medicine, Department of Biological Chemistry and Department of Medicine
1996-99 Director, Johns Hopkins Graduate Program in Cellular and Molecular Medicine (CMM)
2005-08 Chair, Committee on Human Rights, National Academy of Sciences, Washington DC
2005-07 James B. Duke Professor of Cell Biology, Duke Univ School of Medicine
Vice Chancellor for Science and Technology, Duke University School of Medicine
Director, Medical Science Training Program, Duke Univ School of Medicine
2006-07 Interim Chairman, Department of Biochemistry, Duke Univ School of Medicine
2008- University Professor and Director, Johns Hopkins Malaria Research Institute, Johns Hopkins Bloomberg School of Public Health
2009-10 President, American Association for the Advancement of Science [AAAS]
2010-11 Chair, Board of Directors AAAS
2010-12 National Research Council, Committee on Research Universities

II. HONORARY DOCTORATES and ORDERS

2003 Doctor Medicinae Honoris Causa, University of Aarhus, Denmark
2004 Honorary Doctorate, Tokyo Dental College, Tokyo Japan
2005 Doctor Medicinae Honoris Causa, University of Oslo, Norway
Commander, Royal Norwegian Order of Merit from King Harald V
Doctor Honoris Causa, Medical School, University of Athens, Greece
2006 Doctor Honoris Causa, Autonomous Univ of the State of Mexico, Toluca, Mexico

Doctor of Humane Letters Honoris Causa, Augsburg College, Minneapolis MN
Doctor of Philosophy Honoris Causa, Keio Univ School of Medicine, Tokyo, Japan
Doctor Honoris Causa, University of Pecs, Hungary
2007 Doctor Honoris Causa of Science, Polish National Academy of Medicine, Warsaw, Poland
2008 Doctor Honoris Causa, Facultad de Medicina, Univ Nacional de Trujillo, Peru
Doctor Honoris Causa, Facultad de Medicina, Univ Nacional de San Marcos, Lima, Peru
Doctor of Science Honoris Causa, The University of North Carolina at Chapel Hill, NC
2009 Doctor Honoris Causa, University of Bordeaux, Victor Segalen, France
Doctor of Science Honoris Causa, University of Maryland, Baltimore County MD
2010 Doctor of Science Honoris Causa, The Pennsylvania State University, University Park PA
2011 Doctor of Science Honoris Causa, St. Olaf College, Northfield MN

III. SELECTED HONORS
1995 Distinguished Alumnus Award, Augsburg College, Minneapolis MN
2000 Elected to National Academy of Sciences of the United States of America, Washington DC
2003 Nobel Prize in Chemistry, Royal Swedish Academy of Sciences, Stockholm, Sweden
(shared with Roderick MacKinnon, Rockefeller University)
Elected Fellow of the American Academy of Arts and Sciences, Boston MA
2004 Elected to American Philosophical Society, Philadelphia PA
2005 Elected to Institute of Medicine of the National Academies, Washington DC
Distinguished Eagle Scout Award, National Office, Boy Scouts of America, Irving TX
Distinguished Alumnus Award, Johns Hopkins Medical Alumni Association
Elected Fellow of the American Association for the Advancement of Science
2006 Honorary Fellow, The Royal Society of Chemistry, London, UK
Honorary Professor, Peking University Health Sciences Center, Beijing, China
2007 Elected to Polish Academy of Medicine, Warsaw, Poland
Elected Foreign Fellow, Pakistan Academy of Sciences, Islamabad, Pakistan
2009 Minnesota Science and Technology Hall of Fame, Science Museum of Minnesota, St Paul MN
2010 Distinguished Medical Alumnus Award, University of North Carolina at Chapel Hill, NC
2011 Honorary Member, Royal Irish Academy, Dublin Ireland
Elected Fellow, American Society of Microbiology

IV. ADDITIONAL HONORS and SPECIAL LECTURESHIPS
1970 Augsburg College, B.A. with high honors
Kekule Prize, Chemistry Department
1974 Johns Hopkins School of Medicine, Henry Strong Denison Student Research Scholarship
Young Investigator Day Student Research Award
1981-85 Clinical Investigator Award, National Heart, Lung and Blood Institute
1986-88 Basil O'Connor Award, March of Dimes Birth Defects Foundation
1987-92 Established Investigator Award, American Heart Association
1989 Elected to American Society for Clinical Investigation
1991 Young Investigator Award, American Fed Clinical Research, Eastern Sec, New York NY
1994 Inaugural Carl W. Gottschalk Distinguished Lectureship in Renal Physiology
American Physiological Society, Experimental Biology 94, Anaheim CA
4th Annual Thomas Maren Lectureship, Mt. Desert Island Biological Lab., ME
International Keynote Lecturer, Korean Physiological Society, Pusan, Korea
1996 8th Annual Dale Blazey Memorial Lecture, Duke Univ Medical Center, Durham NC
Dean's Lecture, Johns Hopkins Univ School of Medicine

1997 AOA Alumnus Award, Johns Hopkins Univ School of Medicine
MERIT Award, NHLBI Blood Diseases
Karolinska Research Lecturer at Nobel Forum, Stockholm, Sweden
1998 Finalist, ASCI Award (American Society for Clinical Investigation), Wash. DC
1999 Homer Smith Award, American Society of Nephrology, Miami FL
2000 Ulf von Euler Lecture, Karolinska Institute, Stockholm Sweden
8th Annual Wm. B. Blythe Lecture in Nephrology, Univ North Carolina, Chapel Hill NC
2001 Journal of Physiology Lecture, 34th Congress IUPS (International Union of Physiological Sciences), Christchurch, New Zealand
Invited Lecturer, Nobel Jubilee Symposium "Beyond Genes," Nobel Prize Centennial 1901-2001, Karolinska Institute, Stockholm Sweden
2002 Dean's Distinguished Seminar Speaker, Univ Colorado Health Sci Center, Denver CO
10th Annual Aline U. and James M. Orten Memorial Lecture, Dept of Biochemistry and Molecular Biology, Wayne State Univ School of Medicine, Detroit, MI
2003 Lamport Memorial Lecture, University of Washington School of Medicine, Seattle WA
Biennial Spa Foundation Prize (shared with Masato Yasui), Brussels, Belgium
The Broegelmann Lecture, University of Bergen, Bergen, Norway
2004 Resolution, Baltimore County Council; Citation, Baltimore County Executive, Towson MD
Citation, Governor of Maryland, and Proclamations, Maryland State Senate and House of Delegates, Annapolis MD
12th Robert W. Berliner Lecture, Yale University, School of Medicine, New Haven CT
Inaugural Mary Sue and Kenneth Coleman Life Sciences Lecture, University of Michigan, Ann Arbor MI
2nd Herb Chasis Lecture, New York University School of Medicine, New York NY
Physician-in-Chief Pro Tempore, Department of Medicine, Brigham and Women's Hospital, Boston MA
11th William C. Moloney Lecture, Hematology Division, Department of Medicine, Brigham and Women's Hospital, Boston MA
Hugh Davson Distinguished Lecture in Cell and Molecular Physiology, Experimental Biology 2004, Washington DC
Golden Plate Award, Academy of Achievement, 43rd International Achievement Summit, Chicago IL
11th John W. Boylan Lecture, Mount Desert Island Biological Lab, Salisbury Cove ME
Lundbeck Foundation Lecture, Copenhagen Biological Society, Copenhagen, Denmark
Bowman Lecture, Dept. of Medicine, Univ Virginia School of Medicine, Charlottesville VA
Inaugural Nobel Laureate Science Lecture in the Rotunda, Univ Virginia, Charlottesville VA
Keynote Lecture, 50th Anniversary of Open Heart Surgery Symposium, Lillehei Heart Institute, University of Minnesota, Minneapolis MN
48th Maurice C. Pincoffs Lecture, Department of Medicine, University of Maryland School of Medicine, Baltimore MD
Maynard M. Dewey Lecture in Biomedical Sciences, Health Sciences Center, State University of New York at Stony Brook NY
Inaugural Dean's Distinguished Lecture, Case Western Reserve University School of Medicine, Cleveland OH
Frontiers in Biological Sciences Lecture, Case Western Reserve University School of Medicine, Cleveland OH
Elected to European Academy of Sciences, Liege, Belgium
2005 Life Sciences Distinguished Lecture, Lawrence Berkeley National Laboratory, Berkeley CA
Japan Society for the Promotion of Science Award, Tokyo Japan

Director's Lecture, National Institutes of Health, Bethesda MD
Chilton Lecture, Department of Biological Chemistry, University of Texas Southwestern Medical School, Dallas TX
Wallace O. Fenn Lecture, International Union of Physiological Sciences XXV Congress, San Diego CA
Doisy Lectures in Biochemistry, Univ Illinois (with Douglas Rees), Urbana-Champaign IL
Paula U. Hamburger Lecture, Friends of Johns Hopkins Libraries, Baltimore MD
2nd N. Ronald Morris Lecture, Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, Piscataway, NJ
7th E. Oritiz de Landazuri Memorial Lecture, Clinical University and Faculty of Medicine, University of Navarra, Pamplona, Spain
Claude Amiel Lecture, International Society of Nephrology, 3rd World Congress of Nephrology, Singapore
Klaus Tschira Lecture, ELSO 2005 (European Life Scientist Organization with Richard Klausner), Dresden, Germany
Clem Finch Visiting Professor and Lecturer, University of Washington, Seattle WA
Howard Hughes Distinguished Lecture, Nicholas School of the Environment and Earth Sciences (with Claire Agre), Duke University, Durham NC
Inaugural Robert W. Schrier Lecture, American Society of Nephrology, Philadelphia PA
Joseph Priestly Award and Lecture, Dickinson College, Carlisle PA
Karl Landsteiner Memorial Award and Lecture, American Association of Blood Banks Annual Meeting, Seattle WA

2006 34th Verna and Marrs McLean Lectureship in Biochemistry (with David P. Bartel), Baylor College of Medicine, Houston TX
Arthur C. Guyton Distinguished Visiting Professorship, Department of Physiology, University of Mississippi Medical Center, Jackson MS
Inaugural Joseph Silva Basic Science Lectureship, University of California at Davis School of Medicine, Davis CA
Honorary Lifetime Membership, American Thoracic Society
Award for Outstanding Work in Science as Related to Medicine, American College of Physicians, Philadelphia PA
8th Martin Rodbell Distinguished Lecture, National Institute of Environmental Health Sciences, Research Triangle Park, NC
Keynote Lecture, Health Science Center Research Week, University of Florida College of Medicine 50th Anniversary, Gainesville FL
Danforth Lecture, Department of Chemistry, Grinnell College, Grinnell IA
3rd Annual Charitable Infirmary Trust Molecular Medicine Lecture, Royal College of Surgeons in Ireland, Dublin, Ireland
Distinguished Medical Sciences Lectureship, University of North Carolina School of Medicine, Chapel Hill NC
Anson L. Clark Memorial Lecture, University of Texas at Dallas, Dallas TX
Honorary Professorship Lecture, Peking University Health Science Center, Beijing, China
75th Anniversary Public Lecture, University of Putra Malaysia, Putrajaya, Malaysia
Howard Hughes Medical Institute Keynote Lecture, University of Richmond VA
Melissa Ann Krinsky Memorial Lecture, Wayne State University School of Medicine, Dept Pediatrics, Division of Pediatric Cancer and Hematology, Detroit MI
Merel Harmel Lecture, Dept of Anesthesia and Surgery, Duke Univ School of Medicine
Tinsley Randolph Harrison Visiting Professorship, Vanderbilt Univ School of Medicine, Nashville TN

3rd Thomas Andreoli Lecture, University of Alabama at Birmingham School of Medicine
Distinguished Lecture, 56th Annul Meeting, Am Soc Human Genetics, New Orleans LA
3rd Michael Smith Lecture, University of British Columbia, Vancouver BC Canada
2nd National Congress of Science, Technology, and Innovation, Nobel Lecturer, ESPOL (Escuela Superior Politecnica del Litoral), Guyaquil, Ecuador
Roy C Swan Lecture, Dept Cell and Developmental Biology, Weill Cornell Medical Center, New York NY

2007 Julius L. Chambers Biomedical/Biotechnology Research Institute Distinguished Lecture, North Carolina Central Univ, Durham NC
Julius Schultz Memorial Lecture, Dept Biochem and Mol Biol, Univ Miami, Miami FL
Medical Scientist Training Program Lectureship, Albert Einstein Coll Med, New York NY
47th Anniversary Lecture, Grad School Biomedical Sciences, Univ Puerto Rico, San Juan PR
Inaugural Keynote Lecture, Glaxo Smith Kline Innovation Symposium, Res Tri Park NC
Keynote Lecture, Deutsche Physiologische Gesellshaft, 86th Annual Meeting, Hannover, Germany
Keynote Lecture, 2nd Meeting of Nobel Laureates, Pakistan Science Fdn, Islamabad
Keynote Lecture, Minnesota Academy of Science Winchell Undergrad Research Symposium, Hamline Univ, St Paul MN
Medical Scientist Training Program Lectureship, University of California Irvine CA
Brookhart Lecture, Dept Physiol and Pharmacol, Oregon Health & Science Univ, Portland OR
Graduation Lecture, Division of Biological Sciences, University of Chicago, Chicago IL
Onassis Foundation Lectures, Channels and Channelopathies, Heraklion, Crete, Greece
Kenneth Myer Lecture, Town Hall, University of Melbourne, Australia
Opening Keynote Lecture, International Brain Research World Congress, Melbourne, Australia
Closing Plenary Lecture, 5th International Conference of Aquaporin, Nara, Japan
Opening Plenary Lecture, Medical Scientist Training Program National Mtg, Keystone, CO
Barbara Baldacci Award Lecture, University of Bari, Italy
Clarenburg Distinguished Lecture and Provost's Lecture on Excellence in Scholarship, Kansas State University, Manhattan KS
Graduate Student Colloquium and Visiting Professor, Univ Maryland, College Park MD
Keynote Lecture, New Frontiers of Molecular Life Sciences, Nijmegen Centre for Molecular Life Sciences, Nijmegen, the Netherlands
Graduate Student Visiting Professor and Lecturer, University of Georgia, Dept Biochemistry, Athens GA
Special Nobel Lecture, American Heart Assn, Scientific Sessions 2007, Orlando FL
Luminaries in Science Lecture, Emory University, Atlanta GA
Keynote Lecture, University of Minnesota – Mayo Clinic – Karolinska Inst Symposium, Frontiers on Proteomics and Nanomedicine, Minneapolis MN
Harold Feinberg Lecture, Univ Illinois at Chicago, Dept Pharmacology, Chicago IL
International Keynote Lecture, MedSciNZ Congress, Queenstown, NZ
Keynote Lecture, 2nd Annual Johns Hopkins Bayview Research Symposium, Baltimore MD
Gold Seal from University of Bari and Seal from City of Bari, Italy
Hans Bloemendal Medal, Radboud University, Nijmegen, the Netherlands

2008 Carolus Linnaeus Trecentenary Lecture, Centre for Philosophy and Fdns Sci, Chennai, India
Keynote Lecture, 6th Winter Symposium, Christian Medical College, Vellore, India
4th Annual Thomas E. Andreoli Visiting Professor and Lecturer, University of Arkansas for Medical Sciences, Little Rock AR
Dartmouth Kidney Week, Medical Grand Rounds, Dartmouth Medical Center, Lebanon NH
Opening Keynote Lecture, US Human Proteome Organization, Annual Meeting, Bethesda MD

50th Anniversary Lecture, Univ Nacional de Trujillo Faculty of Medicine, Trujillo, Peru
Honorary Doctorate Lecture, Universidad Nacional de San Marcos, San Fernando School of Medicine, Lima Peru
Special Presidential Lecture, University Peruana Cayetano Heredia, Lima, Peru
Keynote Lecture, 17th Annual Scientific Meeting, Singapore General Hospital, Keynote Science Lecture
Keynote Lecture, 31st Annual Meeting, Japan Neuroscience Society, Tokyo, Japan
Plenary Lecture, 150th Anniversary Symposium, Keio University, Tokyo, Japan
Keynote Lecture, 2nd EuCheMS, European Assn for Chemical and Molecular Sciences Congress, Torino, Italy
Danny Thomas Lecture, St. Jude Children's Research Hospital, Memphis TN
Keynote Lecture, Novartis Innovation in Science and Tech Day, East Hanover NJ
Keynote Lecture, International Focus on Rare Kidney Diseases, Bergamo, Italy
Hans Christian Andersen Annual Public Lecture, Odense, Denmark
William Mitch Annual Lecture in Nephrology, Renal Division, Emory Univ, Atlanta GA
Keynote Lecture, American Society of Hematology 50th Anniversary Mtg, San Francisco CA
Will Rogers Inst., 2nd Annual Prize for Outstanding Medical Research, Beverly Hills CA
American Heart Association Distinguished Investigator Award, New Orleans LA

2009 Special Nobel Lecture, University of Bordeaux, France
Richard Werth Memorial Lecture, Concordia College, Moorhead MN
Scripps Research Institute Society of Fellows, Distinguished Lecture, La Jolla CA
Dean's Lecture, Johns Hopkins Bloomberg School of Public Health
Special Lecture, Stockholm Meeting - from Nobel Prize to commercial use and improved daily life, Swedish Association of Scientists, Stockholm, Sweden
Keynote Lecture, Research Day, GlaxoSmithKline, Tres Cantos, Madrid, Spain
Special Lecture, Walter Reed Army Institute for Research, Silver Spring MD
Keynote Lecture, Research Day, SUNY Downstate Medical Center, Brooklyn NY
Keynote Lecture, 20th Anniversary Symp, Human Frontier Science Program, Tokyo, Japan
Keynote Lecture, Annual Meeting, American Association for Clinical Chemistry, Chicago IL
Novo Nordisk Foundation Guest Lecture 2009, "The tears and joys of a life in science," University of Aarhus, Denmark
Keynote Lecture, 2nd HOPE Meeting, Japanese Society for the Promotion of Science, Hakone, Kanagawa Prefecture, Japan
John Thompson History of Medicine Lecture, 2009 Congress of Neurological Surgeons, New Orleans LA
Keynote Lecture, Perry V. Halushka Student Research Day, Medical University of South Carolina, Charleston SC
Opening Plenary Lecture, 58th Annual Meeting, American Society of Tropical Medicine and Hygiene, Washington DC

2010 Presidential Lecture, American Association for the Advancement of Science, Annual Meeting, San Diego CA
Harvey Lecture, 106th Harvey Lecture Series, Rockefeller University, New York NY
Special Plenary Lecture, Pew Scholars, Annual Meeting, Los Suenos, Costa Rica
Plenary Lecture, BioVisionAlexandria 2010, Bibliotheca Alexandrina, Alexandria, Egypt
7th Margarete Wuensche Memorial Lecture, Univ Calgary Faculty of Med, Calgary, Alberta
Go Viking Award, 7th Midtsommer Celebration, Norway House, Minneapolis MN
Plenary Lecture, Dean's EM Scientific Research Symposium, Case Western Reserve University, School of Medicine, Cleveland OH
Opening Plenary Lecture, US Pharmacopeia Annual Convention, Washington DC

Keynote Lecture, University of Minnesota Graduate Research Day, Minneapolis MN
Plenary Lecture, 60th Meeting of the Nobel Laureates, Lindau, Germany
Keynote Lecture, Euroscience Open Forum (ESOF 2010), Lingotto Conf Ctr, Torino, Italy
Keynote Lecture, Richard Aster Hematology and Transfusion Medicine Symposium, BloodCenter of Wisconsin, Milwaukee WI
Adel Mahmoud Lecture in Global Health, Woodrow Wilson School, Princeton Univ, NJ
Keynote Lecture, Irish Epithelial Physiology Group Annual Meeting, Kilkenny, Ireland
Keynote Lecture, Science and Innovation Week 2010, Inst of Science Technol of Mexico City
Special Lecture, Instituto Politecnico Nacional, Mexico City
Special Lecture, Faculty of Chemstry, Universida Nacional Autonoma de Mexico, Coyoacan
Qatar Foundation, Doha Qatar
Keynote Scientific Lecture, 1st Annual Research Forum
8th Distinguished Lecture, "My life in science," Education City

2011 Albert Szent-Gyorgi Lecture, Mayo Clinic and Medical School, Rochester MN
Robbins Lectures, Department of Chemistry, Pomona College, Claremont CA
4th Hans Ussing Lecture, Experimental Biology EB2011, Washington DC
Scott Inkley Lecture, Dept Medicine, Case Western Reserve Schl Medicine, Cleveland OH
Knowledge for the World Award, Johns Hopkins Alumni Association, Baltimore MD
Elite Network in Biosciences, Graduate Student International Lectureship, Munich, Germany
Keynote Lecture, 10th Anniversary Symposium, Water and Salt Inst, Univ Aarhus, Denmark
Opening Keynote Lecture, 1st Pyongyang University of Science and Technology International Science Symposium, Pyongyang, North Korea

2012 Vice Chancellor's Special Lecture, University of Zimbabwe, Harare, ZW
Opening Keynote Lecture, South African Society of Biochemistry and Molecular Biology and Federation of African Societies CONGRESS 2012, Drakensberg, RSA
Vice Chancellor's Special Lecture, K-RITH, KwaZulu-Natal Research Institute for Tuberculosis and HIV, Nelson R. Mandela School of Medicine, Durban, RSA
Honorary President and Opening Keynote Lecture, Biotecnologia Habana 2012, Havana, Cuba

V. COMMENCEMENT ADDRESSES

2004 Towson Senior High School Commencement address, Towson MD
Biotechnology Institute of Maryland Graduation Speaker, Baltimore MD
2006 Augsburg College, Minneapolis MN
St. Olaf College, Northfield MN
2007 University of Chicago, Pritzker School of Medicine and Division of Biological Sciences, Chicago IL [with Sanjay Gupta, CNN]
2008 Johns Hopkins University, Bloomberg School of Public Health, Baltimore MD
2009 University of Maryland, Baltimore County, Graduate School, Baltimore MD
2010 The Pennsylvania State University, Eberly College of Science, University Park PA
2011 Rhodes College Graduation Convocation Address, Memphis TN
SUNY at Stony Brook School of Medicine Graduation Convocation Spkr, Stony Brook NY
2012 University of Pennsylvania School of Medicine, Graduation Speaker, Philadelphia PA

VI. SCHOOL VISITS, EDUCATIONAL PROGRAMS, and SPECIAL COMMUNITY EVENTS

2001 Teach for America Guest Teacher, Frederick Douglass High School, Baltimore, MD
2003 Aspenässkolan Elementary School, Lerum Göteborg, Sweden
2004 Stoneleigh Elementary School PTA, Baltimore Co. MD
Theodore Roosevelt High School, Health Sciences Magnet Program, Minneapolis, MN
Paul Lawrence Dunbar High School, Science Teachers Professional Day, Baltimore MD
Baltimore Public Schools Science Students Lecture and Reception at Johns Hopkins
Grand Marshall, Fourth of July Parade, Towson MD
Honorary Starter, Stoneleigh Stampede 5K Run, Towson MD
Paul Lawrence Dunbar High School, Vivien Thomas-Alfred Blalock Film Discussion, Johns Hopkins School of Medicine, Baltimore MD
Towson High School, AP Chemistry and Biology lecture and discussion, Towson MD
Lutherville Laboratory for Science, Mathematics, and Communications, Lutherville Elementary School, Lutherville MD
2005 North Carolina School for Science and Math, Durham NC
Zisukhanyo School, Cape Flats Township, Cape Town, Republic of South Africa
MTN Science Centre Young Scientists Forum and Young Science Writers Competition, Cape Town, RSA
Inanda Seminary School, Inanda Township, Durban, RSA
Gcewu Rural High School, Umbumbulu, KwaZulu-Natal, RSA
Sci Bono Discovery Center, High School Student Workshop, Pretoria, RSA
2006 Symposium Speech, North Carolina Education Governing Board, Duke University
Charlotte Area High Schools Science Student Dialog, Echo Fdn, Carolinas Medical Center, Charlotte NC
Forum for Hope Luncheon Discussion Leader, Echo Foundation, Charlotte NC
Keynote Lecture, North Carolina Student Acad Science Annual Meeting, Durham NC
Keynote Lecture, Triangle Coalition Conv, Education and Innovation, Alexandria VA
Shodor Education Foundation, Durham NC
Keynote Speech, 'A life in science is more fun than you think,' Dallas Area High Schools Science Student Assembly, Dallas TX

National University of Singapore High School, Singapore
Keynote Speech, High School Science Symposium, ESPOL, Guayaquil, Ecuador
2007 North Carolina Science Summit, K-8 Science Education: Elements that matter, James B Hunt Institute for Educational Leadership and Policy, Raleigh NC
Southern High School Academy of Medicine Speaker, Durham NC
2008 Teach for America, William Lloyd Garrison Public School PS/MS 31, The Bronx, NY
Chief Judge High School Talent Search, Agency for Science Technology and Research, Singapore
University of Alaska, Summer High School Science Camp, Fairbanks AK
High School Student Science Guest Lecture, Torino Italy
2009 Intel International Science and Engineering Fair, Reno NV
Adventures in the Mind, Institute for Advanced Study, Princeton NJ
2010 Visiting Scientist, Polytechnic Institute, Baltimore Public Schools, Baltimore MD
Rakai Regional School, Rural Uganda
U.S. Science and Engineering Festival, Washington DC
Lunch with a laureate, McKinley Technology High School
Public interview by NPR correspondent Joe Palca, National Mall
Motivational Lecture, Student Science Camp, Bhaskaryacharya College, Delhi Univ
2012 Augsburg College Chapel Service Homily, Minneapolis MN

VII. SPEECHES and SPECIAL OCCASIONS
2003 Chemistry Laureate Speech, Nobel Prize Banquet, Stockholm Sweden
2004 Honoree and After-dinner Speech, Royal Norwegian Embassy, Washington DC
After-dinner Speech, Regents Dinner, Augsburg College, Minneapolis MN
Maryland State Capitol Reception Speech, Annapolis MD
Pre-dinner Speech, March of Dimes Gala, Washington DC
After-dinner Speech, Mt Desert Island Laboratory Annual Dinner, Yale Club, New York NY
After-dinner Speech, Respiratory Section, American Physiological Society, Washington DC
After-dinner Speech, Physician-in-Chief Pro Tempore Gala, Brigham and Women's Hospital, Boston MA
After-dinner Speech, Johns Hopkins Board of Trustees Banquet, Baltimore MD
After-dinner Speech, Eagle Scout Alumni Dinner, Viking Council, Edina MN
After-luncheon Speech, "Biomedical Research Training in the 21st Century, Med Edge International Conference, Minneapolis MN
After-dinner Speech, NIH Institutional Research Career and Development Award (IRACDA) Postdoctoral Conference, Atlanta GA
After-dinner Speech and Discussion, Johns Hopkins Alumni Association, Atlanta GA
After-dinner Speech, Carnegie Institution of Washington, Dept Embryology, Baltimore MD
After-dinner Speech, SACNAS 2004 Conference [Society for the Advancement of Chicanos and Native Americans in Science], Austin TX
Lecture, Welch Medical Library 75th Anniversary Celebration, Johns Hopkins School of Medicine,
Pre-Dinner Honorary Celebration and Speech, Dedication of James Rouse Annex, Visionary Arts Museum, Baltimore MD
After-dinner Speech, Departments of Chemistry and Biochemistry, City College of City University of New York, NY

2005 After-luncheon Speech, Marbury Institute, Piper Rudnick LLP, Mt. Washington MD
Paula U. Hamburger Lecture, Friends of the Johns Hopkins Univ Libraries, Baltimore MD
After-dinner speech, Um! Yah! Yah! with a view, St. Olaf College Donors Banquet, Minneapolis MN
After-luncheon Speech, Baltimore Women's Forum, Baltimore MD
Special Speech, Norway's Second Century—The New World Norwegians, Doctor Medicinae Honoris Causa Award Ceremony, University of Oslo, Oslo Norway
Banquet Speech, Postdoctoral Symposium, American Society of Nephrology, Philadelphia PA

2006 Guest Speaker, the American Swedish Institute, Minneapolis, MN
Governor's Invited Speaker, Mississippi Governor's Mansion, Jackson MS
After-luncheon Speech, Honors College, Univ Mississippi, Oxford MS
Graduate and Medical Student Open Forum, Univ Florida College of Medicine, Gainesville FL
Scholars' Convocation, Grinnell College, Grinnell IA
Motivational Lecture, 'The Road to Stockholm—Making the Most of a Life in Science,' University of Putra Malaysia, Putrajaya Malaysia
President's Reception Speaker, Univ of Alabama at Birmingham, Birmingham AL
Luncheon Speaker, Johns Hopkins Alumni Council and Trustees Mtg, Baltimore MD

2007 Luncheon Speaker, Research Directors Club, Research Triangle Park NC
Student Motivational Speech, Julius Schultz Visiting Professor, Dept Biochem and Mol Biol, University of Miami, Miami FL
Student Motivational Speech, Univ Puerto Rico School of Medicine, San Juan PR
Banquet speech, Murdock Kannapolis Research Center Opening. Charlotte NC
Banquet speech, Royal Norwegian Embassy North Carolina Cancer Summit, RTP NC
Acceptance Speech, Polish Academy for Medicine, Warsaw, Poland
Public Lecture, Foundation for Research and Technology-Hellas, Heraklion, Crete, Greece
Public Lecture, New South Wales Parliament Bldg., Sydney, Australia
Public Lecture [see Kenneth Myer Lecture], Town Hall, Univ Melbourne, Australia
Public Lecture, Centennial Hall, Nara, Japan
Keynote Lecture, Life in Science [with JM Bishop], Aspen Inst Health Forum, Aspen CO
Public Lecture, University of Auckland, NZ
Public Lecture, University of Otago, Dunedin NZ

2008 Forschungsinstitut New Years Celebration Speech, Berlin Buch, Germany
Chemistry Department Nobel Peace Forum Lecture, Concordia College, Moorhead MN
Public Lecture, My Life in Science, Dartmouth College, Hanover NH
Luncheon Speaker, Center for Global Health, The Earth Inst, Columbia Univ, New York NY
15th Annual Singapore General Hospital Formal Dinner, Motivational Lecture, Singapore
Keynote Speech, Annual Meeting of National Kidney Foundation, Maryland Affiliate, Baltimore, MD
After Dinner Keynote, AOA Awards Dinner, Johns Hopkins Chapter, Baltimore MD
After Dinner Keynote, Annual Meeting, Johns Hopkins Bloomberg School of Public Health, Advisory Board, Santa Monica, CA
Special Speaker, Rhodes College Parents Weekend, Memphis TN
After Dinner Keynote, Hubert H. Humphrey Inst Public Affairs, Innovation 2008: Renewing America through Smarter Science and Tech Policy, Univ Minnesota, Minneapolis MN
Keynote Speaker, BergamoScienza [Science Festival], Bergamo, Italy
After Dinner Speaker, Med Scientist Training Program, Johns Hopkins School of Medicine
Plenary Speaker, EU-US Transatlantic Workshop on Research Integration, Georgia Tech, Atlanta GA
Medical Grand Rounds, Life in the Medical Sciences, Emory Univ, Atlanta GA

After Dinner Keynote, Annual Univ Wisconsin National Academy Dinner, Madison WI
Luncheon Speaker, Johns Hopkins Alumni Meeting, Baltimore MD
Closing Keynote Speaker, Life Sciences Alley Annual Meeting, Minneapolis MN

2009 Public Life in Science Lecture, University of Bordeaux, France
Special Lecture, Concordia College, Morehead MN
Public Lecture, A Life in Science, University of Zambia, Lusaka Zambia
Special Lecture, Malaria Institute at Macha, Choma District, Zambia
White House, Podium Appearance, President Obama's Stem Cell signing ceremony
Special Lecture, Four Decades at Johns Hopkins, Johns Hopkins Faculty Club, Homewood
After-Dinner Speaker, Natl Heart, Lung and Blood Institute Fellows Retreat, Annapolis MD
Workshop on Climate Change, sponsored by The Earth Institute (Columbia Univ) and National Science Foundation, Washington DC
Panel Discussions on Medical Research, Center for the Study of the Presidency and Congress, Washington DC
Panel Discussant, Aspen Health Forum, Aspen Institute, Aspen CO
Opening Plenary Speech, 12th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland at Baltimore County MD
TEDx MidAtlantic Speaker, Maryland Institute College of Art, Baltimore MD
Torske Klubben Luncheon Speaker, Minneapolis MN
Chabad Annual Dinner Awardee, Johns Hopkins University, Baltimore MD
Pre-Luncheon Speech, Hartwell Foundation 2nd Annual Scientific Meeting, Baltimore MD

2010 The Atlantic, Luncheon Workshop on Innovation, Washington DC
Banquet Speaker, Honorary Doctorate Banquet for Karolinska Rektor, University of Minnesota, American Swedish Institute, Minneapolis MN
Science in the City, Piazza San Carlo, Torino, Italy
Opening speech, Johns Hopkins Carey Business School, Global MBA, Baltimore, MD
Special lecture, "A life in medical science," Moravian College, Bethlehem PA
Aspen Forum, Washington DC

2011 Special Lecture, Johns Hopkins Bloomberg Health Advisory Board, Los Angeles CA
After Dinner Keynote, NIH Oxford Cambridge Scholars Annual Meeting, Washington DC
Keynote Dinner Lecture on Malaria, 61st Meeting of the Nobel Laureates, Lindau, Germany
Panelist, Science and Technology for Society Annual Meeting, Kyoto, Japan
TEDMED Speaker, El Coronado, San Diego CA
After Dinner Speaker, The Hamilton Street Club, Baltimore, MD

2012 Opening Keynote Speaker (with H.R.H. Prince Joachim and Higher Education Minister Morten Østergaard), Danish Elite Research Ceremony, Copenhagen, Denmark
Science—A Tool of Diplomacy Lecture, Nobel Peace Prize Forum, Minneapolis, MN
Banquet Keynote Lecture, 205th Meeting of the Interurban Club, Baltimore MD

VIII. MEDIA

A. RADIO AND TELEVISION FEATURED APPEARANCES [Selected]

2003 Lehrer NewsHour, National Public Broadcasting System
2006 The Colbert Report, Comedy Central Television, New York NY
2007 North Carolina People with Pres Wm Friday, WUNC-TV, Raleigh NC
A Morning with Farah, Pakistani National Television, Islamabad
2008 Marc Steiner Show, Maryland Public Radio
2009 Don Shelby Show, WCCO Radio and Television, Minneapolis MN
Midday with Gary Eichten, Minnesota Public Radio

Kwacha Good Morning Zambia, Zambian National Television, Lusaka
Science Friday with Ira Flatow, National Public Radio
Maryland Morning, Maryland Public Radio (with Stephen Hoffman)
2011 Maryland Morning with Sheilah Kast, Maryland Public Radio (with Christopher Plowe)
2012 Zimbabwe Broadcasting Corporation, Morning television interview (with Prof. Francis Gudyanga, Permanent Secretary, Ministry of Science and Technology Development)

B. INTERVIEWS AND FEATURES [Selected]
2008 Lifeline Perspective. 2008. The Lancet 371: 295.
2009 Fabel L. Interview. DCExaminer, 12 October 2008.
2009 Dreifuss C. Conversation with Peter Agre: Using leadership to put a human face on science. The New York Times, 27 January 2009.
Musgrave E. Translates the promise into the practical. Clin Trans Sci 2: 94-95.
2010 Cyranowski D. The scientific diplomat. Nature 463: 281.
2011 Saslow, R. Peter Agre, malaria scientist, discusses his career and research on this disease. Washington Post, 4 April 2011.

IX. SCIENCE PUBLIC ADVOCACY
2004 University of Wisconsin, Madison WI
St. Olaf and Carleton Colleges, Northfield MN
University of Minnesota, Minneapolis MN
Mayo Clinic College of Medicine, Rochester MN
Case Western Reserve University, Cleveland OH
Washington University School of Medicine, St. Louis MO
Baltimore County League of Women Voters, Towson MD
2005 U.S. Senate Committee on Commerce, Science and Transportation, chaired by Sen. Ted Stevens (R-AK), Testimony and written Statement, Washington DC
2006 Keynote Speaker, Anna Baetjer Society (with Susan Wood), Johns Hopkins Bloomberg School of Public Health, Baltimore MD
2007 American Society of Biochemistry and Molecular Biology Policy Committee, Meetings with NIH Directors, Washington DC
American Society of Cell Biology Policy Committee, Capitol Hill Day Meetings with Congressional Staff, Washington DC
2008 Reception Speaker, Office of Hunton and Williams LLD, New York, NY
The Economist Online Debate, "Sustainable development is unsustainable," Moderator - Geoff Carr, Pro - David Victor (Stanford Law School), Con - Peter Agre (Winner 59%)
2011 PCAST, President's Council of Advisors Science & Tech planning meeting, Washington DC
National Research Council Committee on Research Universities, Washington DC

X. HUMAN RIGHTS and SCIENCE DIPLOMACY—Lectures, Meetings, International Missions
2004 Committee on Human Rights Spring and Autumn Meetings, Natl Academies, Wash DC
2005 Lebanese American University, Beirut, Lebanon
Bridges Dialogues Towards a Culture of Peace Lectures, International Peace Foundation
Thammasat University, Bangkok Thailand
Asian Institute of Technology, Bangkok, Thailand
Chiang Mai University, Chiang Mai, Thailand
Burapha University, Chonburi Thailand
Committee on Human Rights Spring and Autumn Meetings, Natl Academies, Wash DC

International Human Rights Network of Academies and Scholarly Societies, Royal Society, London, UK
International Scientific Council Meeting, Israel-Palestine Science Organization [IPSO], London, UK

2006 International Scientific Council Meeting, Israel-Palestine Science Org, Wash DC
Friends of Israeli Palestinian Science Organization Meeting, Washington DC
Committee on Human Rights Spring and Autumn Meetings, Natl Academies, Wash DC
Petra II Conference of the Nobel Laureates, A World in Danger, Petra, Jordan
Nominating Speech for Dr. Alp Ayan, Barbara Chester Award for Torture Victims, Tucson, AZ

2007 Iraqi Women Scientists Workshop, National Academies, Washington DC
Internatl Human Rights Network of Academies and Scholarly Soc, Mt Lavinia, Sri Lanka
Committee on Human Rights Spring Meeting, Natl Academies, Wash DC
Petra III Conference of the Nobel Laureates, Building a Better World, Petra, Jordan

2008 Petra IV Conference of the Nobel Laureates, Reaching for New Economic, Scientific, and Educational Horizons, Petra, Jordan
Committee on Human Rights Spring and Autumn Meetings, Natl Academies, Wash DC
Institute of Medicine Workshop on Military Medicine Ethics, Washington DC

2009 Keynote Plenary Speaker, AAAS Science and Human Rights Coalition, Washington DC
Science and Human Rights Webinar, Washington DC
Science Diplomacy Symposium Speaker, Democratic Peoples Republic of Korea, AAAS Annual Meeting, Chicago IL
Panel Member, Iraqi Academic Conference, hosted by National Academies, Washington DC
Committee on Human Rights Spring and Autumn Meetings, National Academies, Washington DC
Special Lecture, "Fridjof Nansen and Science Diplomacy." ScanBalt Forum, Holmenkollen, Norway
Keynote Lecture, Symposium on Science and Diplomacy, Keio University, Tokyo, Japan
Cuba Science Delegation, Lead Scientist (AAAS, New America Foundation, Lounsbery Foundation), Havana—Biotechnology Institute, University of Havana
Democratic Peoples Republic of Korea (North Korea) Science Engagement Consortium, Lead Scientist (AAAS, US Civilian Research Development Foundation, Syracuse Univ, Korea Society), Pyongyang—State Academy of Science Institutes and Univ, Kim Chaek Univ Technology, Pyongyang Univ Science and Technology

2010 Rektor's Special Lecture on Science Diplomacy, University of Oslo, Norway
Tropical Disease Research Center, Ndola, Zambia
Biomedical Training Research Institute, Harare, Zimbabwe
Myanmar (Burma) Science Delegation, Lead Scientist (AAAS, US Collection Humanitarian Corps), NayPyiDaw—Ministries of Forestry, Health, Science and Technology
Yangon (Rangoon)—University Faculties of Science
Johns Hopkins President's Africa Delegation
Uganda—Makerere University, Mulago Hospital, Rakai Rural Health Center
Ethiopia—University of Addis Ababa, Black Lion Hospital
Zambia—University of Zambia, Government Ministry of Health
National Academies Committee on Human Rights Spring and Autumn Meetings, Wash DC
National Research Council Committee on Research Universities, Summer and Autumn Mtgs
10th Indo-U.S. Science and Technology Forum Board Meeting, New Delhi, India
Visits to Indian Council of Medical Research, National Malaria Research Institute, Motivational Lecture, Student Science Camp, Bhaskaryacharya College, Delhi Univ
Public Lecture, India International Center

Panel Discussant, Elie Wiesel Foundation for Humanity, 92Y, New York NY

2011 Democratic Peoples Republic of Korea (North Korea) Science Engagement Consortium, Lead Scientist, Carter Center, Atlanta GA

Keynote Speaker, Scientist in Solidarity Symposium, University of Tromsø, Norway

Rektor's Lecture, "Science Diplomacy: from Oslo to Pyongyang," Univ Oslo, Norway

Lecture, Paul Nitze School for Advanced Internatl Studies (SAIS), with Vaughan Turekian, Johns Hopkins University, Washington DC

Special Lecture, "Science Diplomacy in the 21st Century, Gladstone Institute, UCSF, Mission Bay CA

National Academies Committee on Human Rights Spring Meeting, Washington DC

3rd Nobel Laureate Symposium on Global Sustainability, "Tranforming the World in an Era of Global Change," Stockholm, Sweden

Visiting Professor, 1st Pyongyang University of Science and Technology [PUST] International Science Symposium, Pyongyang, North Korea

Private meeting with Foreign Minister Ali Akbar Salehi, Islamic Republic of Iran (with Norman Neureiter AAAS and Glenn Schweizer NAS), New York City NY

Opening Keynote, Workshop for Scientists from Middle East and North Africa, organized by Center for Science, Technology, and Security Policy (AAAS), Institut Pasteur, and Faculty of Science Tunis, Carthage, Tunisia

Cuba Science Delegation, AAAS – Cuban Academy of Science, Havana, Cuba
Special Lecture, Faculty of Chemistry, University of Havana
Private Meeting with Former President Fidel Castro

XI. EXTRAMURAL TEACHING

2005 Organizer and Discussant, Cystic Fibrosis-Medical Science Dialog with Warren Warwick (U of MN), St. Olaf-Augsburg College Summer Research Symposium, Northfield MN

2006 Special Lecturer, First Year Medical School Physiology, Univ Aarhus, Aarhus, DK

Organizer and Discussant, Infectious Diseases-Medical Science Dialog with Paul Quie (U of MN), St. Olaf-Augsburg College Summer Research Symposium, Northfield MN

2007 Organizer and Discussant, Cancer and DNA-Medical Science Dialog with Ruth Johnson (Mayo), St. Olaf and Augsburg College Summer Research Program, Minneapolis MN

2008 Teleconference Discussant, Channels and Channelopathies Course, Biophysics Graduate Program, Calgary AB

Organizer and Discussant, Cardiovascular Diseases-Medical Science Dialog with Elizabeth Nabel (NHLBI), St. Olaf-Augsburg College Summer Research Symposium, Northfield MN

2009 Organizer and Discussant, Healthcare Reform-Medical Science Dialog with Paul Batalden (Dartmouth Med School), St. Olaf-Augsburg College Summer Research Symposium, Minneapolis MN

2010 Teleconference Discussant, Channels and Channelopathies Course, Biophysics Graduate Program, Calgary AB

Organizer and Discussant, Modern Imaging Technology with Allan Johnson (Duke) St. Olaf-Augsburg College Summer Research Symposium, Northfield MN

2011 Organizer and Discussant, Childhood Diseases with Donald Mattison (NICHD), St. Olaf-Augsburg College Summer Research Symposium, Minneapolis MN

XII. OTHER INVITED LECTURES, SYMPOSIA, and MEETINGS

1980 Red Cell Club, Duke University Medical Center, Durham NC
1981 Keystone Symposium on Cell Membranes, Keystone CO
1982 American Federation for Clinical Research, Washington DC
American Society of Hematology, Washington DC
1983 Keystone Symposium on Hematopoiesis, Steamboat CO
Gordon Research Conference, Red Cells, Plymouth NH
Department of Medicine, University of Minnesota, Minneapolis MN
Departments of Pediatrics and Medicine, UNC, Chapel Hill NC
Interurban Club, Johns Hopkins School of Medicine, Baltimore MD
American Society of Hematology, San Francisco CA
1984 Jackson Laboratories, Bar Harbor ME
1985 Special Lecture, Department of Chemistry, Washington & Lee University, Lexington VA
Seminar, Department of Medicine, University of South Florida, Tampa FL
Keystone Symposium on Membrane Cytoskeleton, Park City UT
Special Lecture, Department of Chemistry, Western Maryland College, Westminster MD
American Federation for Clinical Research, Washington DC
Red Cell Membrane Workshop, Siena Italy
Hematology Division, UNC, Chapel Hill NC
Cell Biology Laboratory Natl. Inst. Child Health Development, Bethesda MD
Hematology Division, Brigham & Womens Hospital, Boston MA
Hematology Division Childrens Hospital, Boston MA
Hematology Division Duke University Medical Center, Durham NC
Department of Medicine, St. Agnes Hospital, Catonsville MD
1986 Hematology Division, University of Maryland, Baltimore MD
American Federation for Clinical Research, Washington DC
Hematology Division, Medical College of Virginia, Richmond VA
1987 Department of Biophysics, University of Rochester, NY
American Federation for Clinical Research, San Diego CA
Society of General Physiologists, Woods Hole, MA
American Society of Hematology, Washington DC
1988 Cardeza Research Foundation, Thomas Jefferson University, Philadelphia PA
Department of Embryology, Carnegie Institution of Washington, Baltimore MD
Natl Heart, Lung and Blood Institute Council, Bethesda MD
American Federation for Clinical Research, Washington DC
Institut National Tranfusion Sanguine, Paris, France
Department of Medicine, University of Minnesota, Minneapolis MN
Lindsley F Kimball Research Institute, NY Blood Center, NY NY
American Federation for Clinical Research, Washington DC
American Association of Blood Banks, Kansas City MO
1989 Keystone Symposium, Normal and Abnormal Red Cell Membranes, Taos NM
Gordon Research Conference, Red Cells, Plymouth NH
Red Cell Club, UNC, Chapel Hill NC
American Society for Cell Biology, Houston TX
1990 Keystone Symposium, Cytoskeleton and Cell Regulation, Steamboat CO
Department of Pathology, University of Pennsylvania, Philadelphia PA
Hematology Division, Walter Reed Medical Research Institute, Washington DC
Department of Cell Biology, Rockefeller University, NY
Harvard-Yale Transfusion Meeting, Hartford CT
National Eye Institute, Bethesda MD

Department of Medicine, Greater Baltimore Medical Center, Towson MD
American Society for Cell Biology, San Diego CA
Department of Cell & Molecular Biology, Lawrence Labs, Berkeley CA
1991 Ortho Pharmaceuticals, Raritan NJ
Department of Cell Biology, MD Anderson, Houston TX
Gordon Research Conference, Red Cells, Plymouth NH
Eastern Section, American Federation for Clinical Research, NY NY
Department of Chemistry, Purdue University, West Lafayette IN
American Association of Blood Banks, Baltimore MD
American Society of Hematology, Denver CO
1992 Carnegie Institution of Washington, Department of Embryology, Baltimore MD
Hematology Division, Yale University, New Haven, CT
Department of Molecular Genetics, Biochemistry, and Microbiology, Univ. Cincinnati OH
Laboratory of Kidney Electrolyte Metabolism, NHLBI, Bethesda MD
Department of Physiology, Columbia University, NY
1st Cuatrefest International Scientific Symposium, Molecular Basis of Cell Regulation, Parke Davis, Ann Arbor MI
Hematology Division, UNC, Chapel Hill NC
American Federation for Clinical Research, Baltimore MD
Isotonic Transport in Leaky Epithelia, Benzon Symposium, Copenhagen, Denmark
Department of Cell Biology, University of Aarhus, Denmark
Department of Medicine, University of Wisconsin, Madison WI
Society of General Physiologists, Woods Hole MA
Department of Biology, Stanford University, CA
Department of Cell & Molecular Biology, Lawrence Lab, Berkeley CA
Department of Physiology, University of Chicago, IL
Department of Physiology, Yale University, New Haven CT
Red Cell Club, Harvard Medical School, Boston MA
American Society of Nephrology, Baltimore MD
1993 Department of Biophysics, SUNY, Stony Brook NY
Lindsley F. Kimball Research Institute, NY Blood Center, NY NY
Keystone Symposium, Polarized Epithelia, Tamarron CO
American Cyanamid Co., Pearl River NY
Biophysical Society, Washington DC
Department of Medicine, Greater Baltimore Medical Center, Towson MD
American Federation for Clinical Research, Washington DC
Genetics Institute, University of Minnesota, Minneapolis MN
Digestive Disease Week, Boston MA
Department Cell Biology and Physiology, University of Pittsburgh, PA
John C. Parker Symposium, UNC, Chapel Hill NC
ME Müller-Institute, Biozentrum Univ Basel, Switzerland
International Union Physiological Sciences, Glasgow, Scotland
Gordon Research Conference, Red Cells, Plymouth NH
Membrane Biophysics Group, Biophysical Society, Duke Marine Lab, Beaufort NC
Interurban Club, Baltimore MD
American Society of Nephrology, Boston MA
American Society of Hematology, St Louis MO
1994 Dept of Physiology, Emory Univ, Atlanta GA
Keystone Symp, Molecular Biology of the Endothelial Cell, Keystone CO

Dept of Physiology, Rush Medical College, Chicago IL
Dept of Cell Biology, New York Univ School of Medicine, NY NY
Dept of Biochemistry, University of Massachusetts, Worcester MA
Biophysical Society, New Orleans LA
Membaires 94, Buenos Aires, Argentina
XVIII Latin American Congress of Physiological Sciences, Montevideo, Uruguay
Experimental Biology '94, FASEB, Anaheim CA
American Federation for Clinical Research, Baltimore MD
Department of Biophysics, University of Texas Medical Branch, Galveston TX
Pathobiology of Biliary Epithelia, Airlie VA
Mt. Desert Island Biological Laboratory, Salisbury Cove ME
Medical Scientific Day '94, Federation of Medical Science Societies, Nijmegen, The Netherlands
Department of Physiology, Yonsei University School of Medicine, Seoul, Korea
46th Annual Meeting of the Korean Physiology Society, Pusan, Korea

1995 Nephrology Grand Rounds, Columbia Univ., College of Physicians & Surgeons, NY NY
Department of Physiology and Biophysics, Albert Einstein College of Medicine, NY NY
Keynote Lecture, West Coast Salt and Water Club, Morro Bay, CA
National Eye Institute, NIH, Bethesda MD
Neuroscience Department, McGill Univ, Montreal General Hospital, Canada
Cell Biology Department, Cornell Medical College, NY NY
Experimental Biology '95, Atlanta GA
European School for Transfusion Medicine Course, 'Biochemistry and molecular genetic basis of major human blood group markers,' Paris, France
University of Pennsylvania Center for Molecular Studies of Kidney Diseases, Philadelphia PA
Keynote Lecture, Water Channels in Ocular Tissues Special Minisymposium, ARVO Annual Meeting, Ft. Lauderdale FL
Minisymposium, Societas Physiologicæ Homiensis, Karolinkska Institutet, Stockholm, Sweden
Wenner-Gren Symposium 'Biology of Epithelial Cell, Stockholm, Sweden
Gordon Research Conference, Mechanisms of Membrane Transport, Plymouth NH
Symposium on Water Channels and Urea Transporters, XIII International Congress of Nephrology, Madrid, Spain
FASEB Research Conference, GI Tract VI, Snowmass CO
Gordon Research Conference, Red Cells, Plymouth NH
23rd Meeting of Federation of the European Biochemical Societies, Symposium on Pore Forming Proteins, Basel, Switzerland
Homer Smith Symposium, The Kidney: Structure and Function in Health and Disease,
Mt Desert Island Biological Laboratory, Salisbury Cove ME
Department of Medicine, Addenbrookes Hospital, University of Cambridge, UK
Keynote Lecture, Aquaporins and Water Transport, International Symposium, Manchester UK
Medical Sciences Program, Indiana University, Bloomington IN
Distinguished Alumnus Award Program, Augsburg College, Minneapolis MN
Meeting of the President and Board of Trustees, Johns Hopkins University, Baltimore MD

1996 Dept of Ophthalmology, Washington University School of Medicine, St. Louis, MO
Keystone Symposium, Ion Channels as Therapeutic Targets, Tamarron, CO
Chairman, Winter Meeting of the Red Cell Club, Baltimore, MD
Annual Meeting of the Biophysical Society, Baltimore, MD
Membrane Proteins: Struct., Funct., Expression, Kyushu Univ., Fukuoka, Japan (Landon King)
Angiotensin Gordon Research Conference, Ventura CA (Douglas Lee)
Department Anatomy and Cell Biology, Emory University School of Medicine, Atlanta GA

Department of Biochemistry, University of Toronto, Canada
Journées Gabriel Richet, 'Pumps, Channels, and Transporters of the Renal Tubule: Molecular, Pathophysiological, and Pharmacological Aspects', Le Coudray Montceaux, France
Experimental Biology '96, Washington DC
Thos. L. Petty Aspen Lung Conference, 39th Meeting, Aspen CO (Douglas Lee)
American Red Cross 1996 Reference Lab Conference, Reston VA (Barbara Smith)
Department of Terrestrial Biology, Max Planck-Institute, University of Marburg, Germany
33rd Congress, European Dialysis Transplant Association, Amsterdam, The Netherlands
8th Annual Dale L. Blazey Memorial Lecture, Duke Medical Center, Durham NC
Istituto di Fisiologia Generale, Univ degli Studi di Bari, Italy
2nd Cuatrefest International Scientific Symposium, Facolta di Medicina e Chirurgia, University of Naples, Italy
Evans Department of Medicine, Boston University MA
29th Annual Meeting, Am Soc Nephrology, New Orleans LA
Ph.D. Thesis Rapporteur, Univ Paris VII, France
Department of Molecular Genetics, Biochemistry, and Microbiology, Univ. Cincinnati, OH
Dean's Lecture, Johns Hopkins School of Medicine
Department of Biophysics and Physiology, University of Alabama at Birmingham, AL.

1997 Keystone Symposium, Ocular Cell and Molecular Biology, Tamarron CO
Gordon Research Conference, Protons and Membrane Reactions, Ventura CA
Gordon Research Conference, Saliva and Salivary Glands, Ventura CA
Department Molecular and Cellular Physiology, Stanford Univ. School of Medicine, CA
Departments Biochem., Cell.and Mol. Biology, Univ. Tennessee, Knoxville TN
Program in Molecular and Cellular Biophysics, UNC, Chapel Hill NC
Gesellschaft Biochemie Molekularbiologie, 48. Mosbacher Kolloquium, Baden, Germany
Centro de Biologia Molec. Severo Ochoa, Univ. Autonoma de Madrid, Cantoblanco, Spain
Experimental Biology '97, (Douglas Lee), New Orleans LA
International Symposium: Molecular Physiology of Water Transport, Paris, France
Max-Planck-Institut für molekulare Physiology, Dortmund, Germany
Department of Pharmacology, University of Oxford, UK
Departments of Medicine and Biochemistry, Mayo Clinic, Rochester MN
Cystic Fibrosis Foundation Symposium, Williamsburg VA
Johns Hopkins Medical & Surgical Assn., Biennial Meeting, Basic Science Symposium
5th Joint Meeting of European Society for Paediatric Endocrinology and Lawson Wilkins Pediatric Endocrine Society, Stockholm, Sweden
XXXIII International Congress of Physiological Sciences, St. Petersburg, Russia
Gordon Research Conference, Red Cells, Tilton NH
World Congress of Neurohypophyseal Hormones, Montreal, Canada
Cardeza Foundation for Hematologic Research, Jefferson Medical College, Philadelphia PA
Department of Cell Biology, University of Texas, Southwestern Medical Ctr., Dallas TX
Karolinska Research Lecturer at Nobel Forum, Stockholm, Sweden
Aquaporin Research Symposium, NIH, Bethesda MD
Laboratory of Kidney and Electrolyte Metabolism, NIH, Bethesda MD
American Society for Cell Biology, Annual Meeting, Washington DC

1998 Department of Physiology and Biophysics, Wright State Univ School Med, Dayton OH
Department of Physiology and Biophysics, Mt. Sinai School of Medicine, New York NY
Department of Oncology, Johns Hopkins School of Medicine, Baltimore
8th Winternational Symposium on Cellular and Molecular Biology, “Membrane Proteins in Health and Disease,” Banff, Alberta, Canada

Inst. for Environmental Medicine, Univ. Pennsylvania School of Med., Philadelphia PA
Department of Biological Chemistry, Johns Hopkins School of Medicine, Baltimore MD
Transatlantic Lecture, Association of Clinical Biochemists, Glasgow, Scotland
Israel Science Foundation Research Workshop, "Structure and Function of Ion-coupled Transporters," Bet Gabriel, Israel
Aarhus University Symposium, "Epithelial Water Transport in Health and Disease," Sandbjerg, Denmark
The Endocrine Society, ENDO '98 Symposium "The role of aquaporins in disorders of water metabolism," New Orleans LA
XIII International Congress of Eye Research, Paris, France (Steffen Hamann)
FASEB Summer Research Conference, Molecular Biophysics of Cellular Membranes, Saxtons River VT (Mario Borgnia)
Department of Cellular and Molecular Physiology, Yale School of Medicine, New Haven CT
Department of Cell Biology, Duke University Medical Center, Durham NC
The Red Cell Club, University of Pennsylvania, Philadelphia PA (Landon King)
Department of Physiology, McGill University, Montreal, Quebec, Canada
Karolinska Inst, Marta Philipson Pediatric Research Symposium, Stockholm, Sweden (Landon King)
Lindsley F. Kimball Research Institute, New York Blood Center, New York NY

1999 Keystone Symposium, Mol. Physiol. and Pathol. of Membrane Traffic, Santa Fe NM
Department of Cell Biology, Cornell University, Weill College of Medicine, New York NY
Chairman, Winter Meeting of the Red Cell Club, Baltimore, MD
Annual Meeting of the Biophysical Society, Baltimore, MD
Gordon Research Conference, Saliva and Salivary Glands, Ventura CA
Department of Biochem and Mol Biol, Oregon Health Sciences Univ, Portland OR
Gordon Research Conference, Ligand Recognition and Molecular Gating, Ventura CA
International Meeting, "Universal principles of pro-and eukaryotic membrane transport systems," Gesellshaft Deutscher Chemiker, Universitat Osnabruck, Germany
Dept of Medicine, Epithelial Biology Program Project, Johns Hopkins School of Medicine
Seminar, Membrane Biology Group, Vanderbilt University Medical Center, Nashville TN
Symposium Lecture, Annual Meeting, Am Soc Biochem and Mol Biol, San Francisco, CA
Nobel Mini-Symposium Frontiers in Medicine, Molecular biology in pulmonary medicine, Stockholm, Sweden
International Symposium, "Molecular basis of biomembrane transport," Monopoli, Italy
International Conference on Biological Membranes, "Channelopathies" Troina, Sicily, Italy
Gordon Research Conference, Mechanisms of Membrane Transport, Plymouth NH
Yale Univ School of Medicine, Ion Channel Structures and Function, New Haven CT
Department of Physiol and Biophys, Howard Univ College of Medicine, Washington DC
National Research Council Workshop on Training Programs in Pathobiology for Basic Scientists, Boston MA
NIH Conference, Molecular Physiology of Renal Sodium, Urea, and Water Transporters, Bethesda MD
Homer Smith Award Lecture, Annual Meeting, American Society of Nephrology, Miami FL
Department of Physiology and Biophysics, Albert Einstein College of Medicine, NY NY
American Society for Cell Biology, Annual Meeting, Washington, DC

2000 Endocrinology Group Rounds, Emory University, Atlanta GA
Minisymposium "Aquaporins: Key modulators in brain fluid homeostasis" Societas Physiologicae Holmiensis, Karolinska Institutet, Stockholm, Sweden
Ulf von Euler Lecture, Karolinska Institutet, Stockholm, Sweden

Department of Physiology and Biophysics, University of Calgary, Alberta, Canada
The Rank Prize Funds Mini-Symposium on Water, Grasmere, UK
Department of Cell Biology, Duke University Medical Center, Durham, NC
Organizer and Lecturer, Physiology in Focus, Experimental Biology 2000, San Diego, CA
Science and Technology Careers Day, Towson High School, Towson MD
Plenary Lecture, Symposium on Renal Water and Sodium Transport in Kidney, Heart, and Liver Diseases, Skejby Hospital, University of Aarhus, Denmark
Keynote Lecture, 3rd International Aquaporin Conference, Molecular Biology and Physiology of Water and Solute Transport, Göteborg, Sweden
Medical Student Lecture, Dept. Biophysics, Federal University of Rio de Janeiro, Brazil
Symposium Lecture, IV Southern Cone Biophysics Congress, Campinas, Brazil
Lecture, Annual Meeting of Brazilian Biological Societies, Caxambu, Brazil
Lecture, Society of General Physiologists, 54th Annual Meeting and Symposium, Structure and mechanisms of channels and transport proteins, Woods Hole, MA
Lecture, 3rd International Symposium on Epithelial Sodium Channels, Villars sur Ollon, Switzerland
Bioaffinity: Proteins, Receptors, and Medicines, 3rd Pedro Cuatrecasas International Scientific Symposium, Duke University Medical Center, Durham, NC
Symposium Lecture, XIV International Congress for Eye Research, Santa Fe, NM
Department of Neurosciences, Johns Hopkins School of Medicine, Baltimore MD
Renal Division Research Seminar, Univ. of North Carolina at Chapel Hill, NC
8th Annual Wm. Blythe Lecture in Nephrology-Medical Grand Rounds, Univ. of North Carolina at Chapel Hill, NC

2001 Dept. of Physiology, Johns Hopkins School of Medicine, Baltimore, MD
Laboratory of Cell Biology, National Cancer Institute, NIH, Bethesda, MD
Grand Rounds, Dept. of Medicine, and Div. of Nephrology and Hypertension Research Conference, MCP Hahnemann Univ. School of Medicine, Philadelphia, PA
Keystone Symposium Lecture, Membrane Protein Structure/Function Relationships, Tahoe City, CA
Lecture, International Conference on the Structure, Dynamics, and Function of Proteins in Biological Membranes, Monte Verita, Ascona, Switzerland
Symposium Lecture, Probing Molecular Aqueous Environments in Chemistry and Biology, Annual Meeting of the American Chemical Society, San Diego, CA
138th Annual Meeting, National Academy of Sciences, Wash., DC
Lecture, Am. Assoc. Liver Diseases Single Topic Conference on The Pathobiology of Liver Diseases, Airlie, VA
Symposium Lecture, 38th Congress, European Renal Association, European Dialysis Transplant Association, Vienna, Austria (Landon King)
Lecture, FASEB Summer Conference on Glucose Transporter Biology, Snowmass, CO
Seminar, School of Life Sciences, University of Auckland, New Zealand
The Journal of Physiology Lecture, 34th Congress IUPS (International Union of Physiological Sciences), Christchurch, New Zealand
Lecture, Medical Scientist Training Program Retreat, Johns Hopkins School of Med, Airlie VA
Seminar, Department of Physiology, Faculty of Medicine, University of Oslo, Norway
Symposium Lecture, Meeting of the Scandinavian Physiological Society, Aarhus, Denmark
Seminar, Department of Biology, Towson University, Towson, MD
Plenary Lecture, Nobel Jubilee Symposium, Beyond Genes, Karolinska Inst, Stockholm, Sweden
Faculty Seminar, Department of Biological Chemistry, Johns Hopkins School of Medicine

2002 Seminar, Department of Physiology, Wayne State Univ School of Medicine, Detroit, MI

Plenary Lecture, Aquaporin Symposium, Tokyo Medical and Dental University, Japan
Seminar, Department of Neuroscience, University of Tokyo, Japan
Seminar, Department of Ophthalmology, Tokyo Dental College, Japan
Seminar, Department of Biophysics, Kyoto University, Japan
Seminar, Santen Pharmaceutical Company, Nara, Japan
National Academy of Sciences, Class Membership Committee
Seminar, Nephrology Division, Dept Medicine, Univ Maryland, Baltimore MD
Dean's Distinguished Seminar Speaker, Univ. Colorado Health Sci. Center, Denver CO
Medical Grand Rounds, Dept. of Medicine, Univ. of Colorado Health Sci. Center, Denver CO
Seminar, Dept. of Anatomy and Neurobiology, Colorado State University, Ft. Collins, CO
Seminar, Schering-Plough Research Institute, Kenilworth, NJ
Lecture and Discussion Leader, Dept. of Biophysics, University of Calgary, AB, Canada
Plenary Lecture, Canadian Soc Biochem, Mol, and Cell Biol, 45th Winternational Symposium on Membrane Proteins in Health and Disease, Banff, AB, Canada
Seminar, Nephrology Division, Dept. of Medicine, Univ. of Utah, Salt Lake City, UT
Plenary Lecture, Opening of Water and Salt Center, Univ. of Aarhus, Denmark
Plenary Lecture, Joint Aquaporin Meeting, European Union and Human Frontier Science Programs, Nendaz, Switzerland
Seminar and Visiting Professor, Dept. of Biochemistry and Molecular Biology, Mayo Medical School, Rochester, MN
139th Annual Meeting, National Academy of Sciences, Wash DC
Plenary Lecture, Olga Nabandov Symposium--Membrane Proteins: Experimental and Computational Approaches to Understanding Cellular Problems, Univ. Illinois, Urbana, IL
Hopkins Representative, Norwegian-US cooperation in medical and health research and technology, Royal Norwegian Embassy, Washington, DC
Invited Speaker, Presenting Norway: Front-line medical and health research and technology partners, Washington, DC
Seminar, Pharmacology Department, Boston Univ. School of Medicine, Boston MA
Keynote Lecture, Aquaporin Symposium, Biotech Inst, Akita Prefectural University, Japan
Keynote Lecture, Nephrology Symposium, Faculty of Medicine, Niigata University, Japan
International Plenary Lecturer, 12th Japan Society for Obstetrical, Gynecological, and Neonatal Hematology, Tokyo Women's Medical University, Tokyo, Japan
Seminar, Department of Physiology, Keio University School of Medicine, Tokyo, Japan
Plenary Lecture, Nobel Minisymposium, Frontiers in Nephrology Research-Applications to the Clinic, Stockholm, Sweden
Keynote Lecture, The Norwegian Research and Technology Forum in the US and Canada, Washington, DC
Aline U. and James M. Orten Memorial Lecture, Department of Biochemistry and Molecular Biology, Wayne State Univ. School of Medicine, Detroit, MI
Seminar, Institut für Pharmazeutische Chemie, Universität Tübingen, Germany
Seminar, Forschungsinstitut für Molekulare Pharmakologie, Freie Universität Berlin, Germany
2003 23rd Annual Harold S. Lamport Lecture in Physiology and Biophysics, Univ Washington School of Medicine, Seattle, WA
National Academy of Sciences, Class Membership Committee, Wash DC
Plenary Lecture, Gordon Research Conf, Salivary Glands and Exocrine Secretion, Ventura, CA
Seminar, Biophysics/Chemistry/Chemical Biology, Univ. Calif., San Francisco, CA
Seminar, Dept. of Physiology and Biophysics, Univ. Calif, Irvine, CA
Seminar, Dept. of Biology, Morehouse College, Atlanta, GA
Colloquium Speaker, School of Computer, Mathematical, and Natural Sciences, Morgan State

Univ., Baltimore, MD
Seminar, Dept. of Physiology, Univ. of North Carolina at Chapel Hill, Chapel Hill, NC
Spa Foundation Prize Lecture, 31st Annual Conference of the Belgian Paediatric Society, Ferme de l'Abbaye de la Ramée à Jodoigne, Belgium
Human Disorders and Diseases Symposium, Howard Hughes Medical Inst., Bethesda, MD
140th Annual Meeting, National Academy of Sciences, Wash., DC
Symposium Lecturer, Forskerkurs, Univ. of Oslo, Norway
The Broegelmann Lecture, Univ. of Bergen, Norway
Visiting Professor, Dept. of Medicine Research Day, Univ. of Pittsburgh, Pittsburgh, PA
Medical Grand Rounds, Dept. of Medicine, Pittsburgh, PA
Plenary Lecture, Gordon Research Conference, Red Cells, Il Ciocco, Barga, Italy
Seminar, Dept. of Physiology, Univ Bari, Italy
Plenary Lecture, Gordon Research Conference, Mechanisms of Membrane Transport, Holderness School, Plymouth, NH
Nobel Symposium, Membrane Proteins, Structure, Function, and Assembly, at Friiberghs Herrgård, Stockholm, Sweden
Doctor Medicinae Honoris Causa, University of Aarhus, Denmark
Research Symposium Honoring the 60th Birthday of Prof. Andreas Engel, Biozentrum der Universität Basel, Switzerland
Howard Hughes Medical Institute, Scientific Review Board, Chevy Chase, MD
Induction, American Academy of Arts and Sciences, Cambridge, MA
Plenary Lecture, V Congresso Ibero-Americano de Biofísica, Rio de Janeiro, Brazil
75th Anniversary Jubilee Celebration, University of Aarhus, Denmark
Distinguished Seminar, Department of Biology, University of Dayton, OH
White House Reception for Nobel Laureates, Washington, DC
Howard Hughes Medical Inst. Lecture, Univ. Iowa College of Medicine, Iowa City IA
Plenary Lecture, Red Cells and Beyond, Tribute to Colvin Redman's 36 year Career at the Lindsley F. Kimball Research Institute, New York Blood Center, NY
Nobel Prize in Chemistry Lecture, Stockholm University, Stockholm, Sweden
Nobel Prize in Chemistry Lecture, Uppsala University, Uppsala, Sweden
Nobel Prize in Chemistry Lecture, University of Oslo, Blindern, Norway
Nobel Prize in Chemistry Lecture, Göteborg University, Göteborg, Sweden

2004 Visiting Professor, Medical Scientist Training Program, University of Minnesota Medical School, Minneapolis MN
Seminar, Division of Natural Sciences, St Olaf College, Northfield, MN
16th Annual Nobel Peace Prize Forum, St. Olaf College, Northfield MN
Convocation, Augsburg College, Minneapolis MN
Seminar, 3M Tech Forum, 3M Co., St. Paul, MN
Keynote Lecture, 50th Anniversary Symposium, Ferring Pharmaceuticals, Copenhagen DK
Special Lecture, Honorary Doctorate Convocation, Tokyo Dental College, Ichikawa City, Japan
Special Lecture, Novartis Pharmaceutical Company, Tokyo, Japan
Special Lectures, Takeda Pharmaceutical Company, Osaka and Tokyo, Japan
Keynote Lecture, Aquaporin Symposium, Tokyo Medical and Dental University
Special Lecture, Keio University School of Medicine, Tokyo, Japan
Special Lecture, Kyoto University, Kyoto, Japan
56th Annual Keynote Address, Associates of the Cushing/Whitney Library, Yale University School of Medicine, New Haven CT
12th Annual Robert W. Berliner Lecture, Yale Univ School of Medicine, New Haven CT

Special Lecture, 2nd International Malaria Research Conference, Johns Hopkins Bloomberg School of Public Health, Baltimore MD
Special Lecture, 24th Princeton Conference on Cerebrovascular Disease, Baltimore MD
Special Lecture, Life Sciences Week, University of Missouri, Columbia MO
Visiting Professor, Dept. of Physiology and Biophysics, Univ. of Calgary, Alberta, Canada
Special Seminar, Univ Calgary, Faculty of Medicine, Calgary, Alberta, Canada
Hugh Davson Distinguished Lecture in Cell and Molecular Physiology, Experimental Biology 2004, Washington DC
141st Annual Meeting, National Academy of Sciences, Wash., DC
Symposium Speaker, Söderbergska Priset, Awarded to Prof. Anita Aperia, Stockholm Sweden
Seminar, Biology Council of Majors, Meyerhoff Scholars Program and MARC U*STAR Program, University of Maryland at Baltimore County (UMBC), Catonsville MD
Lecture, 49th Topics in Internal Medicine, Johns Hopkins School of Medicine, Baltimore MD
Special Lecture, Johns Hopkins Medicine Board of Visitors, Baltimore MD
Symposium Speaker, Nanomedicine Roadmap Initiative Project Launch Meeting, Bethesda MD
Symposium Speaker, Protein Miss-folding and Miss-processing in Disease, Rockville MD
Lecture, Mayo Clinic Update in Basic Science for the Practicing Nephrologist, Scottsdale AZ
Inaugural Mary Sue and Kenneth Coleman Life Sciences Lecture, Univ Michigan, Ann Arbor MI
2nd Annual Herb Chasis Lecture, New York University School of Medicine, New York NY
Seminar, Harvard Medical School, Boston MA
Physician-in-Chief Pro Tempore, Department of Medicine, Brigham and Women's Hospital, Boston MA
11th William C. Moloney Lecture, Hematology Division, Department of Medicine, Brigham and Women's Hospital, Boston MA
Plenary Speech, 43rd Annual International Achievement Summit, Academy of Achievement, Chicago IL
Seminar, Department of Chemical and Biological Engineering, Johns Hopkins Homewood Campus Graduate Student Association, Baltimore MD
Medical Grand Rounds and Visiting Professor Mayo Clinic Medical School, Rochester MN
Special Lecture, Medtronic Inc., Minneapolis MN
Symposium Lecture, Volume, Ion, and Transmitter Homeostasis in Brain, Med Edge International Conference, Minneapolis MN
Visiting Professor, Graduate School of Biological Sciences, University of Minnesota, Minneapolis MN
Keynote Lecture, Grand Opening Mucosal Biology Research Center, University of Maryland School of Medicine, Baltimore MD
Lecture, Federation of European Neuroscience (FENS) Forum, Lisbon, Portugal
11th Annual John W. Boylan Lecture, Mt. Desert Island Biological Lab, Salisbury Cove ME
Lecturer, 45th Annual Short Course on Medical and Experimental Mammalian Genetics, The Jackson Laboratory, Bar Harbor ME
Plenary Lecture, 75th Anniversary Symposium, The Jackson Laboratory, Bar Harbor ME
Wilmer Eye Institute Strategic Planning Retreat, Johns Hopkins School of Medicine
Plenary Speech and Discussion, Ambrosetti Villa d'Este Forum, Intelligence 2004 on the World, Europe, and Italy, Cernobbio, Lake Como, Italy
Special Lecture, Ambrosetti Leaders of the Future Meeting, Cernobbio, Lake Como, Italy
Lecture, 4th CuatreSymposium in recognition of Pedro Cuatrecasas, Johns Hopkins School of Medicine
Keynote Lecture, LAB '04, 17th National Meeting in Chemistry, Lillestrøm, Norway
Visiting Professor, Centre for Molecular Biology and Neuroscience, Univ Oslo, Norway

Special Lecture, Faculty of Biological Sciences, University of Stavanger, Norway
Symposium Lecture, Forskningsdagene 2004, Oslo, Norway
Lundbeck Foundation Lecture, Copenhagen Biological Society, Copenhagen, Denmark
Special Lecture, Faculty of Biological Sciences, Lund University, Sweden
Bowman Lecture, Dept Medicine, Univ Virginia School of Med, Charlottesville, VA
Inaugural Nobel Laureate Science Lecture in the Rotunda, University of Virginia, Charlottesville, VA
Keynote Lecture, 50th Anniversary of Open Heart Surgery Symposium, Lillehei Heart Institute, University of Minnesota, Minneapolis MN
Keynote Lecture, Life Sciences Research Foundation Annual Meeting, Washington DC
Headlines in Transfusion Medicine Lecture, American Association of Blood Banks (AABB) Annual Meeting, Baltimore MD
State-of-the-Art Lecture, American Society of Nephrology Annual Meeting, St. Louis MO
Research Seminar, Hematology/Oncology Division, University of Pennsylvania School of Medicine, Philadelphia PA
Induction, American Philosophical Society, Philadelphia PA
Keynote Lecture, VIII Congreso Nefrologia Venezolana, Isla Margherita, Venezuela
48th Maurice C. Pincoffs Lecture, Department of Medicine, University of Maryland School of Medicine, Baltimore MD
Maynard M. Dewey Lecture in Biomedical Sciences, Health Sciences Center, State University of New York at Stony Brook NY
Student Program Lecture, 44th Annual Meeting, The American Society for Cell Biology, Washington DC
Symposium Chair and Speaker, The Mechanics of Membrane Bound Machines, 44th Annual Meeting, The American Society for Cell Biology, Washington DC
Special Seminar, Departments of Chemistry and Biochemistry, City College of City University of New York, NY
Honoree, Nobel Celebration and Banquet, Consulate General of Sweden, New York NY
Inaugural Dean's Distinguished Lecture, Case Western Reserve University School of Medicine, Cleveland OH
Frontiers in Biological Sciences Lecture, Case Western Reserve University Scbool of Medicine, Cleveland OH

2005 Life Sciences Distinguished Lecture, Lawrence Berkeley National Lab, Berkeley, CA
Visiting Professor, Brain Research Institute, University of Niigata, Japan
Visiting Professor, School of Medicine, Keio University, Tokyo, Japan
National Academy of Sciences, Class II Membership Committee Meeting, Beckman Center, Irvine CA
17th Annual Nobel Peace Prize Forum, Augsburg College, Minneapolis MN
Director's Lecture, National Institutes of Health, Bethesda MD
Visiting Professor, Department of Pediatrics, Karolinska Institute, Stockholm, Sweden
Keynote Lecture, Research Trends in Science and Technology 2005, Byblos, Lebanon
Special Lecture, Dept. Chemistry, Lebanese American University, Beirut, Lebanon
Keynote Lecture, National Genetic Engineering and Biotechnology Center of the Ministry of Science and Technology [BIOTEC], Bangkok, Thailand
Keynote Lecture, Mahidol University School of Medicine, Bangkok, Thailand
Keynote Lecture, University of Pusan School of Medicine, 50th Anniversary Symposium, Pusan, Korea
Chilton Lecture, Department of Biological Chemistry, University of Texas Southwestern Medical School, Dallas TX

Wallace O. Fenn Lecture, International Union of Physiological Sciences XXV Congress, San Diego CA
Nobel Symposium Lecture, American Society of Clinical Investigation-American Association of Physicians Joint Meeting, Chicago IL
Doisy Lectures in Biochemistry, Univ Illinois at Urbana-Champaign [with Douglas Rees]
2nd N. Ronald Morris Lecture, Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, Piscataway NJ
Keynote Symposium, Association for Research in Vision and Ophthalmology [ARVO] 2005 Annual Meeting Ft. Lauderdale FL
142nd Annual Meeting, National Academy of Sciences, Washington, DC
Special Lecture, Centro de Biologia Molecular Severo Ochoa, Univ. Autonoma, Madrid, Spain
7th E. Oritiz de Landazuri Memorial Lecture, Clinical University and Faculty of Medicine, Pamplona, Spain
Special Lecture, Nordic Centre of Excellence for Research, Water Imbalance Related Disorders, Centre for Molecular Biology and Neuroscience, University of Oslo, Norway
100th Meeting, American Thoracic Society, Nobel Laureate Symposium, San Diego CA
Special Lecture, LVMH-Parfums Christian Dior, Paris, France
44rd Annual International Achievement Summit, Academy of Achievement, New York NY
Plenary Lecture, Gordon Research Conference, Red Cells, Tilton NH
Claude Amiel Lecture, International Society of Nephrology, 3rd World Congress of Nephrology, Singapore
Plenary Lecture, 55th Meeting of the Nobel Laureates, Lindau, Germany
Symposium Lecture, 30th FEBS Congress [Federation of European Biological Sciences], Budapest, Hungary
Keynote Lecture, 2005 APS [American Physiological Society] Conference, Neurohypophyseal Hormones, Steamboat Springs CO
Cystic Fibrosis Conference Organizer and Speaker, Student Summer Research Program, St. Olaf College, Northfield MN
Guest Speaker, Seventh Annual Beckman Scholars Symposium, Irvine CA
Symposium Keynote Lecture, ISN-ESN [International and European Societies for Neurochemistry] 20th Biennial Meeting, Innsbruck, Austria
Keynote Lecture, VXIth International Conf. on Hydrogen Bond Research, Roskilde Denmark
Special Lecture, University of Oslo Faculty of Medicine [with Gro Harlem Brundtland], Oslo, Norway
Klaus Tschira Lecture, ELSO 2005 [European Life Scientist Organization] [with Richard Klausner], Dresden, Germany
Plenary Lecture, 2nd European Science Foundation Functional Genomics Conference, Functional Genomics and Disease, Oslo, Norway
Special Lecture, Université Libre de Bruxelles, Faculty of Medicine, Brussels, Belgium
Special Lecture, Université Catholique de Louvain, Faculty of Medicine, Brussels, Belgium
Keynote Lecture, 4th International Conference on Aquaporins, Genval, Brussels Belgium
Special Lecture, University of Athens Medical School, Athens, Greece
North Carolina Biotechnology Representative, Novo Nordisk Corporation, Copenhagen, Denmark
Nobel Visiting Lectureship, Republic of South Africa
Special Lecture, University of Stellenbosch
Special Lecture, University of Cape Town
Special Lecture, Steve Biko Campus, Durban Institute of Technology
Special Lecture, LIFE Lab Stakeholders Forum, Durham
Special Lecture, University of KwaZulu-Natal, Pietermaritzburg Campus

Special Lecture, University of Pretoria
Presidential Lecture, CSIR [Center for Scientific and Industrial Research], Pretoria
Special Lecture, University of Witwatersrand, Johannesburg
Karl Landsteiner Memorial Award and Lecture, American Association of Blood Banks Annual Meeting, Seattle WA
Chemistry Department Colloquium, Duke University School of Arts and Sciences, Durham NC
Clem Finch Visiting Professor and Lecturer, University of Washington, Seattle WA
Hem-Onc Grand Rounds, Fred Hutchinson Cancer Research Center, Seattle WA
Plenary Lecture, ScanBalt Forum, MedCoast Symposium, Rikshospitalet, Oslo, Norway
Inaugural Robert W. Schrier Lecture, American Society of Nephrology, Philadelphia PA
Joseph Priestly Award and Lecture, Dickinson College, Carlisle PA
Department of Medicine Research Conference, Duke University School of Medicine
Special Lecture, University of Helsinki, Faculty of Science, Helsinki, Finland
Round Table Discussion, "Research Makes Sense," Swedish International Development Cooperation Agency, Nobel Week, Stockholm, Sweden
Special Lecture, Univ Kalmar, Faculty of Natural Sciences and Engineering, Kalmar, Sweden
2006 Special Lecture, Interdisciplinary Nanoscience Center, University of Aarhus, Denmark
Keynote Speech, PhD Day 2006, Faculty of Health Sciences, University of Aarhus
Honorary Doctorate Awards Ceremony and Speech, Autonomous University of the State of Mexico [UAEM], Toluca, Mexico
Colloquium, Faculty of Agriculture; Faculty of Sciences, Medicine, and Chemistry, UAEM El Cerillo Campus
Special Lecture, Faculty of Sciences, Medicine, and Chemistry, UAEM
Lecture and Student Discussion, Ion Channel Diseases Course, Dept. of Physiology and Biophysics, University of Calgary, Alberta, Canada
Hotchkiss Brain Institute Lecture, University of Calgary
34th Verna and Marrs McLean Lectureship in Biochemistry [with David P. Bartel], Baylor College of Medicine, Houston TX
Arthur C. Guyton Distinguished Visiting Professorship, Department of Physiology, University of Mississippi Medical Center, Jackson MS
Plenary Keynote Lecture, American Association for the Advancement of Science [AAAS], Annual Meeting, St. Louis MO
Inaugural Joseph Silva Basic Science Lectureship, University of California at Davis School of Medicine, Davis CA
Special Lecture, Dept. of Emergency Medicine, Carolinas Medical Center, Charlotte NC
Visiting Professor, Department of Biology, University of North Carolina at Charlotte
Norwegian Embassy Science Dialogue, NC Biotechnology Center, Research Triangle Park NC
Basic Science Lecture, Drexel University College of Medicine, Philadelphia PA
Medical Grand Rounds, Drexel University College of Medicine, Philadelphia PA
Keynote Lecture, Duke University Medical Science Training Program Annual Symposium
Keynote Lecture, Howard Hughes Medical Institute Symposium, Grinnell College, Grinnell IO
Grand Round Seminar, Beaumont Hospital, Dublin, Ireland
Visiting Professor, Medical Scientist Training Program, University of North Carolina School of Medicine, Chapel Hill NC
Special Lecture, Alcon Research Ltd., Ft. Worth TX
Plenary Lecture, Jerry Lingrel Symposium, Univ Cincinnati Schl of Med, Cincinnati, OH
Plenary Lecture, 3rd Key Symposium, Membrane Transport Proteins in Health and Disease, Royal Swedish Academy of Sciences, Stockholm, Sweden
Plenary Lecture, 2nd Campus de Excelencia 2006 [Symposium for Spanish Graduate

Students], Fuerteventura, Canary Islands
Visiting Professor, University College London, London UK
Keynote Lecture, 49th Annual Meeting of the Canadian Soc Biochem, Mol Cell Biology, Membrane Proteins in Health and Disease, Niagara-on-the Lake, Ontario, Canada
45th Annual International Achievement Summit, Academy of Achievement, Beverly Hills CA
Plenary Lecture, First International Glial Endfoot Meeting, Nordic Center for Excellence in Research in Water Imbalance and Related Disorders, Oslo, Norway
Keynote Lecture, 28th Annual Meeting, Internatl Society Heart Research, Toronto, Canada
Plenary Lecture, 56th Meeting of Nobel Prize Winners, Lindau, Germany
Plenary Lecture, 11th International Symposium on Vascular Neuroeffector Mechanisms and Cardiovascular Pharmacology, Suzhou, China
Master Lecture, 2nd Military Medical University, Shanghai, China
Plenary Lecture, 15th World Congress of Pharmacology, Beijing, China
Special Lecture, Peking University Faculty of Medicine, Beijing, China
Special Lecture, Institute for Biomedical Sciences, Fudan University, Shanghai, China
Special Lecture, Faculty of Medicine and Health Science, University Putra Malaysia, Putrajaya Malaysia
Keynote Lecture, 11th International Symposium, Society of Chinese Bioscientists in America, San Francisco, CA
Keynote Lecture, Burroughs Wellcome Fund, Scholars Program, Research Triangle Park, NC
Organizer and Discussant, Infectious Diseases Workshop, St. Olaf and Augsburg College Summer Student Research Program, Northfield MN
Howard Hughes Medical Institute Keynote Lecture, University of Richmond, Richmond, VA
Keynote Lecture, American Academy of Nanomedicine, Second Annual Meeting, National Academies of Science, Washington, DC
Howard Hughes Medical Institute Scientific Meeting, Janelia Farm Campus, Ashburn, VA
PhD Opponent, Eli Gunnarson MD PhD, Karolinska Institute, Stockholm, Sweden
Plenary Lecture, Klaus-Tschira-Foundation International Symposium, Heidelberg, Germany
Plenary Lecture, Royal Norwegian Embassy 2006 Transatlantic Science Week, Arctic Meltdown Global Effects, Carnegie Institution, Washington, DC
MSTP Colloquium, University of Alabama at Birmingham School of Medicine, Birmingham, AL
36th Annual Meeting, Institute of Medicine, National Academies of Science, Wash DC
MSTP Colloquium, UCSD School of Medicine, San Diego, CA
Medical Grand Rounds, Dept of Medicine, UCSD, San Diego, CA
Seminar, Dept Cellular and Molecular Medicine, UCSD, San Diego, CA
Moderator, Aquaporin Minisymposium, Keio Univ School of Medicine, Tokyo, Japan
Keio Prize Awards Ceremony, Keio Univ School of Medicine, Tokyo, Japan
Technologically Hip Seminar Series, British Columbia Inst Tech, Vancouver, BC
Keynote Lecture, Experimental Medicine Program, Student Research Day, Vancouver, BC
Special Lecture, PharmaBrand Inc., Quito, Ecuador
Lecture, Carol Woods Retirement Community, Chapel Hill, NC
Visiting Professor, Univ of Oslo, Centre for Mol Biol and Neurosci, Oslo, Norway
Visiting Professor, Morgridge Inst, Wisc Alumni Res Fdn, Univ Wisconsin, Madison WI
2007 Special Lecture, Department of Chemistry and Biochemistry, UNC Wilmington NC
Special Lecture, ICAGEN Corporation, Research Triangle Park NC
Visiting Professor, Univ of Oslo, Centre for Mol Biol and Neurosci, Oslo, Norway
Plenary Lecture, Malaria Day 2007, Johns Hopkins Bloomberg School of Public Health

[with Dominique Promeneur]
Keynote Lecture, 64th Annual Meeting, National Institute of Science, North Carolina A&T University, Greensboro NC
Keynote Lecture, Army Medical College, Natl Univ Science and Tech, Rawalpindi, Pakistan
Keynote Lecture, Government College, Lahore, Pakistan
Keynote Lecture, University of Health Sciences, Lahore, Pakistan
Plenary Lecture, Rovereto Forum, "The role of scientific research for the economic competitiveness of a country." Rovereto, Italy
46th Annual International Achievement Summit, Academy of Achievement, Washington DC
American Academy for Arts and Sciences, American Philosophical Society, National Academy of Sciences Joint Annual Meeting, Washington DC
Symposium Speaker, Digestive Diseases Week, American Gastrointestinal Assoc, Wash DC
Visiting Professor, Univ of New South Wales, Faculty of Medicine, Sydney Australia
Visiting Professor, Florey Institute, University of Melbourne, Australia
Directors National Meeting, Medical Scientists Training Program, Keystone CO
Minnesota Science Museum Centennial Gala Celebration, St Paul MN
King Abdullah Univ Science and Technology, Presidential Search Cmte, Vienna Austria
Visiting Professor, University of Bari Faculty of Medicine, Bari, Italy
Visiting Professor and Lecturer, Carleton College, Northfield MN
King Abdullah Univ Science and Technology [KAUST] Groundbreaking Celebration and Symposium, Jeddah, Saudi Arabia
Moderator, Progress against Malaria, New York Academy of Sciences – Johns Hopkins Bloomberg School of Public Health, New York NY
Visiting Professor and Lecturer, Chicago Area MD PhD Programs, Chicago IL
American University of Beirut, Presidential Search Cmte, New York NY
Moderator, Triangle Malaria Symposium, Duke University, Durham NC
Visiting Professor, University of Auckland, School of Medical Science, Auckland, NZ
Visiting Professor, University of Otago, School of Medical Science, Auckland, NZ
Plenary panelist and luncheon speaker, NIH Fostering Innovation Workshop, Bethesda MD
Plenary and concurrent session panelist, Renaissance Weekend, Charleston SC
2008 Visiting Professor, Christian Medical College, Vellore, India
Visiting Professor, International Centre for Diarrheal Diseases Research, Dhaka, Bangladesh
Visiting Professor and Lecturer, Leibniz Inst Molekular Pharmakologie, Berlin, Germany
King Abdullah University for Science and Technology Advisory Board, London, UK
Visiting Scientist and Lecturer, Malaria Institute at Macha, Macha, Zambia
Andreoli Visiting Professor and Lecturer, University of Arkansas Health Sci, Little Rock AR
American Association for the Advancement of Science Annual Meeting, Boston MA
Nobel Peace Forum, Concordia College, Moorhead MN
Partnering for Global Health Forum, Reston VA
Visiting Professor, Dartmouth Medical Center, Lebanon NH
Johns Hopkins Malaria Research Institute, 4th International Symposium Moderator
Visiting Professor, Universidad Nacional de Trujillo Faculty of Medicine, Trujillo, Peru
Visiting Professor, Universidad Nacional de San Marcos, San Fernando School of Medicine, Lima Peru
Visiting Professor, University Peruana Cayetano Heredia, Lima, Peru
Bonjour Africa Malaria Fundraiser, Durham NC
Visiting Scientist, Novartis Institute for Tropical Diseases, Biopolis, Singapore
Agency for Science Technology and Research Talent Search Judge, Singapore
Panel Discussant, Sustainable Business Leadership Forum, Charlotte NC

University of North Carolina at Chapel Hill, Commencement, Chapel Hill NC
Nobel Lecture, Norwegian Structural Biology Centre, University of Tromso, Norway
Plenary Lecture, International Conference on Aquaporins in Brain, Nordic Centre for Excellence, University of Oslo Faculty of Medicine, Oslo Norway
Moderator, Brain Development and Early Brain Dysfunction, University of Oslo Faculty of Medicine, Oslo Norway
Plenary Panel [with Frank Wilczek and Angela Lindner], Public Communication of the Nobel Prize, Royal Swedish Academy of Science, Stockholm, Sweden
47th Annual International Achievement Summit, Academy of Achievement, Kona HI
Karolinska Institute-Keio University Summer Research Conference, Tokyo, Japan
Special Lecture, University of Alaska Fairbanks, Faculty of Science, Fairbanks AK
Special Lecture, Boston Biomedical Research Institute, Watertown, MA
Special Lecture, Novartis Institute for Biomedical Research, Cambridge, MA
Special Lecture, Syddansk Univ, Odense, Denmark
INSERM Evaluation Committee, Paris France
Keynote Plenary Lecture, 2nd European Chemistry Congress, Torino, Italy
Plenary Lecture, 49th Advances in Enzyme Regulation Conference, Bologna, Italy
Special Lecture, Istituto Ortopedici Rizzoli, Bologna, Italy
Advisory Board Meeting, JHSOM Institute of Basic Biological Sciences
MalERA [Malaria Eradication], Vaccines Consultative Meeting, Montreux, Switzerland
Special Lecture, Paul Nitze School for Advanced International Studies, Bologna, Italy
Plenary Lecture, JHSPH, Dept Mol Microbiol Annual Retreat, Rocky Gap MD
AAAS Board of Directors Meetings, Washington DC and Pasadena CA
Johns Hopkins School of Medicine, Dept of Biol Chem Centennial Symposium and Banquet
Special Lecture, University of Wisconsin, Dept Biochemistry, Madison WI
American Heart Association, Annual Meeting, New Orleans LA
American Society of Hematology, Annual Meeting, San Francisco CA
Malaria Symposium Lecture, Annual Mtg, American Soc Trop Med, New Orleans LA
Will Rogers Prize Lectures, UCLA and University of Southern California, Los Angeles CA
2009 Research Seminar, Laboratory of Kidney and Electrolyte Metabolism, NHLBI, Bethesda MD
American Association for the Advancement of Science Annual Meeting, Chicago IL
San Diego Center for Molecular Agriculture, Water Symposium, Salk Inst, La Jolla CA
Graduation Ceremony, University of North Carolina at Chapel Hill, Chapel Hill NC
University of Oslo, Centre for Molecular Biology and Neuroscience, Scientific Retreat, Lillehammer, Norway
Seminar, Department of Cell Biology, Johns Hopkins School of Medicine
Special Lecture, Department of Medicine Retreat, Johns Hopkins School of Medicine
Moderator, American Association for the Advancement of Science Annual Science and Technology Forum, Washington DC
Hematology Grand Rounds, Johns Hopkins School of Medicine
Johns Hopkins Malaria Research Institute, International Meeting, Cell Biology of Malaria, Baltimore MD
Plenary Lecture, 59th Meeting of the Nobel Laureates, Lindau, Germany
Plenary Lecture, The Physiological Society, Epithelia and Membrane Transport Meeting, Newcastle, UK
Gordon Research Conference, Malaria, Magdalen College, Oxford, UK
Plenary Lecture, Aquaporins in Health and Disease, Rosenholm Castle, Aarhus, Denmark
Plenary Lecture, European Life Science Organization Symposium, Subcellular Microscopy and Probing, Klaus-Tschira-Stiftung, Villa Bosch, Heidelberg, Germany

Plenary Lecture, Water and Health: Global Issues and our Shared Responsibilities, New York Academy of Sciences, New York NY
Session Moderator, Mosquito Biology and Biotechnology Conference, "Helping to reduce the burden of mosquito-borne diseases," Duke University, Durham NC

2010 Grand Rounds, Johns Hopkins Department of Medicine, Baltimore MD
NIH Director's Global Health Research Meeting, Bethesda MD
Tropical Diseases Research Center, Ndola, Zambia
Biomedical Research Training Institute, Harare, Zimbabwe
American Association of the Advancement of Science, Annual Meeting, San Diego CA
American Association of the Advancement of Science, Advisory Board Meetings, Wash DC
National Academy of Sciences Annual Meeting, Washington DC
Seminar, New England Biolabs, Ipswich MA
Johns Hopkins Malaria Research Institute, International Meeting, Vector Biology of Malaria, Baltimore MD
Johns Hopkins Malaria Research Institute-NIH Joint Meetings, Baltimore and Bethesda MD
Seminar, Johns Hopkins Malaria Research Institute, Malaria Interest Group
Speaker, NIAID Program Managers Workshop, Bolger Center, Bethesda MD
Speaker, NIGMS Postdoctoral Fellows Transition Symposium, Natcher Ctr, Bethesda MD
Site Visitor, Mayo Clinic, Guthy-Jackson Research Foundation, Rochester MN
Inaugural Event, Minnesota Partnership, U of MN-Mayo Decade of Discovery, St Paul MN
Infectious Disease Division Research Conference, Johns Hopkins Dept of Med, Baltimore MD
American Society for Tropical Medicine and Hygiene, Annual Meeting, Atlanta GA
Karolinska Inst, 200th Anniversary Celebration, Swedish Ambassador's Residency, Wash DC
Carpenter, CCJ Jr 80th Birthday Celebration, Princeton Club, New York NY
Molecular Microbiology Annual Retreat, Hershey PA
ICEMR Retreat (International Centers for Excellence in Malaria Research), Rockville MD
Advisory Board Mtg, Drugs for the Developing World, GlaxoSmithKline, Tres Cantos, Spain
Advisory Board, Johns Hopkins Inst for Basic Biological Sciences, Baltimore MD

2011 Presidential Lecture Moderator, AAAS Annual Meeting, Washington DC
Special Lecture, Department of Chemistry, Univ Tromsø, Norway
Speaker, Aquaporin Minisymposium, University of Oslo, Norway
Malaria Advisory Panel, Bill & Melinda Gates Fdn, Spring Meeting, Washington DC, Autumn Meeting, Seattle WA
Host, Johns Hopkins Malaria Research Institute 10th Anniversary Symposia and Dinners, Baltimore MD and New York City
Nobel Panelist, Undergraduate Symposium, Johns Hopkins University, Baltimore MD
Annual Meeting, National Academy of Sciences, Washington DC
Plenary Lecture, 200th Anniversary Symp, Molecular Neuroscience, Univ Oslo, Norway
Plenary Lecture Aquaporins, 61st Meeting of the Nobel Laureates, Lindau, Germany
Gordon Research Conference on Malaria, Il Ciocco, Tuscany, Italy
Plenary Lecture, 40th Anniversary Jubilee Symposium, Biozentrum Univ Basel, Switzerland
Host and Organizer, International Centers of Excellence in Malaria Research (ICEMR) Annual Workshop, Victoria Falls, Livingstone, Zambia
Global Malaria Forum, Bill and Melinda Gates Foundation, Seattle WA
Keynote Lecture, "Brain Science the Next Frontier," Univ Minnesota, Minneapolis MN
JHMRI-NIAID Autumn Research Symposium, "Vaccine Development," Johns Hopkins Montgomery County Campus, Rockville MD
Special Lecture, Institut Pasteur de Tunis, Tunisia
60th Annual Meeting, American Society for Tropical Medicine and Hygiene, Philadelphia PA

Grand Rounds, Johns Hopkins Department of Pathology, Baltimore MD
Special Lecture, Faculty of Chemistry, University of Havana, Cuba

XIII. MEDICAL LICENSES

Maryland, No. D26861, August 25, 1981 (renewed until Sept 2012)
Federal Licensing Examination, June 1976
American Board of Internal Medicine Certification, No. 66683, 9 Sept 1980
Physician Work Permission, Medical Faculty, Univ of Zambia, 23 Aug 2011

XIV. MEMBERSHIPS

American Society for Cell Biology (Public Policy Committee)
American Society for Clinical Investigation (emeritus)
The Interurban Clinical Club (emeritus)
American Society of Nephrology
American Physiological Society
American Society for Biochemistry and Molecular Biology (Joint Policy Committee)
National Academy of Sciences, Physiology and Pharmacology (Section 23)
European Academy of Sciences
American Academy of Arts and Sciences, Medical Sciences (Section 5)
Academy of Achievement
American Philosophical Society
Institute of Medicine of the National Academy of Sciences
American Association for the Advancement of Science
American Thoracic Society (Lifetime Membership)
Royal Society of Chemists, London UK
Polish Academy of Medicine, Warsaw Poland
Baltimore Medical Reunion, 2008
American Society for Microbiology, 2011

XV. RESEARCH FUNDING

A. CURRENT GRANT SUPPORT AS PRINCIPAL INVESTIGATOR

NIH, R01 HL48268 (2007-12), Aquaglyceroporins in red blood cells and malaria
NIH, U19 AI089680 (2010-17) International Center of Excellence for Malaria Research, Malaria Transmission and the Impact of Control Efforts in Southern Africa

B. PREVIOUS GRANT SUPPORT AS PRINCIPAL INVESTIGATOR

NIH, K11 HL00069 (1981-86), Clinician Investigator Award
NIH, R01 HL33991 (1985-03), Red Cell Aquaporin-1 Water Transport Protein
NIH, R37 HL48268 (1992-07), Cellular and Molecular Studies of Aquaporin Water Channels
NIH, R01 EY11239 (1996-06), Aquaporin water channel proteins in eye [transferred to Landon King, 2005]
NIH, T32 GM08752 (2000-05), Graduate Program in Cellular and Molecular Medicine [transferred to John Isaacs, 2001]
NIH, RO1 DK065098 (2004-09), Regulation, structure, and function of AQP6, [2006 transferred from Masato Yasui, 2006]
NIH, R01 EY11239 (1996-06), Aquaporin water channel proteins in eye [transferred to Landon King, 2005]
NIH, 2 T32 GM007171 (2006-11), Duke Medical Scientist Training Program [2006 transferred from Salvatore Pizzo; 2007 transferred to Dona Chikaraishi]

C. PREVIOUS GRANT SUPPORT AS SPONSOR OR CO-INVESTIGATOR

NIH, K08 HL03797-01 (1998-03), NHLBI Mentored Clinical Scientist Development Award,Landon S. King, PI

Human Frontier Science Program (2000-03), Research Grant, P.I.: S. Nielsen, Aarhus; Co-Investigators: A. Engel, Basel; S, Hohmann, Göteborg, P. Agre, Baltimore, Regulation of aquaporins and MIP-solute channels

American Heart Association, Scientist Development Grant (2002-2005), Physiological Relevance of a renal intracellular water channel—aquaporin-6, Masato Yasui, PI

XVI. PATENTS

Isolation, Cloning, and Expression of Transmembrane Water Channel Aquaporin-1. U.S. Patent No. 5, 741, 671, April 21, 1998

Isolation, Cloning, and Expression of Transmembrane Water Channel Aquaporin-5. U.S. Patent No. 5,858,702, January 12, 1999

XVII. COMMITTEES and ADVISORY BOARDS

A. U.S. NATIONAL ORGANIZATIONS

American Society of Hematology
Hemoglobin/Red Cell Scientific Subcommittee 1987-89, Chairman 1991

US Veterans Administration, Hematology Study Section, 1991-92

Co-Chairman and Chairman, Red Cell Gordon Research Conference, 1993-95

Red Cell Club, Conference Organizer, Biophysical Society Annual Meetings 1993, 1996

NIH Blood Diseases, Hematology-2 Study Section, 1994-98

Scleroderma Research Foundation, Scientific Advisory Committee 1995-99

National Academy of Sciences, Class Membership Committee (Section 23--Physiology and Pharmacology), 2002-03

National Academy of Sciences, Committee on Human Rights 2003-, Chair 2005-08

Howard Hughes Medical Institute, Scientific Review Board, 2003-07

Scientists and Engineers for America, Board of Advisors, 2006-08

Life Sciences Institute, Advisory Board, University of Michigan, 2008-

Institute of Basic Biological Sciences, Advisory Bd, Johns Hopkins School of Medicine, 2008-

Morgridge Discovery Institute, Advisory Board, University of Wisconsin, 2009-

Guthy-Jackson Medical Foundation, Advisory Board, 2008-11

Passano Foundation, Medical Directorship Board, Baltimore MD, 2009-

Life Sciences Research Fellowship, Advisory Board, Baltimore MD, 2010-

Minnesota Diabetes Decade of Discovery, Co-Chair, U of MN-Mayo Clinic, 2010-

National Research Council, Committee on Research Universities, 2010-11

B. INTERNATIONAL ORGANIZATIONS

Human Genome Organization/Genome Database, Aquaporin nomenclature, 1994-6

Advisory Board, Norwegian Research and Technology Forum in the U.S. and Canada, 2002-05

Honorary Member, the International Raoul Wallenberg Foundation, 2004

Israeli-Palestinian Science Organization, International Scientific Council, 2004-07

King Abdullah Univ for Science and Technology, Advisory Bd, Jeddah Saudi Arabia, 2007

Chair, Science Advisory Board, Duke-Natl Univ Singapore Graduate Medical School, 2008-

The Shaw Prize in Life Science and Medicine Committee, Hong Kong, 2008-11

INSERM External Review Committee, Paris, France, 2008

Advisory Board, Diseases of Developing World, GlaxoSmithKline, Tres Cantos, Spain, 2010-

Malaria Advisory Panel, Bill & Melinda Gates Fdn, Seattle WA, 2011-
Board of Advisors, Pyongyang University of Science and Technology, Pyongyang, DPRK, (North Korea). 2011-
Sanofi-Pasteur Institute Prize Jury, Paris, France 2011-

XVIII. EDITORIAL BOARDS
Editorial Board, Blood, 1993-97
Editorial Committee, The Journal of Clinical Investigation, 1993-2004
Editorial Board, The Journal of Biological Chemistry, 1999-2002

XIX. UNIVERSITY SERVICE
A. STANDING COMMITTEES [Johns Hopkins]
Department of Medicine, Promotions Committee, 1986-88
School of Medicine, Admissions Committee, 1987-88, 90-91
Department of Medicine, Faculty Research Retreat Committee, 1989-93
School of Medicine, Institutional Research Grant Project Committee, 1989-91
School of Medicine, Young Investigators Day Award Review Committee, 1990-
Chairman, 1995-99
Department of Medicine, Internship Selection Committee, 1989-94
School of Medicine, Medical Scientist Training Program Steering Committee, 1991-05
Department of Medicine, Four Schools Physician Scientist Program in Internal Medicine
Co-Director of Hopkins Affiliate, 1992-95
Johns Hopkins Medical School Council, 1992-94
Johns Hopkins Medical Surgical Association, Councillor, 1991-95
Johns Hopkins University, Pew and Searle Scholars Nominating Committee, 1996-97
Johns Hopkins Bloomberg Schl Public Health, Appointments Promotions Committee, 2010-

B. AD HOC COMMITTEES [Johns Hopkins]
School of Medicine, American Cancer Society Institutional Research Awards, 1987
Department of Medicine Search Committee, Director of Endocrinology, 1986-88
School of Medicine Dean's Committee, Resources for clinical research, 1985-86
Department of Medicine Committee, Fellowship training programs, 1986
Department of Medicine Committee, Evaluation of Physician/Scientists, 1988
School of Medicine, Longitudinal Seminar Committee, 1987-88
Co-chair, Biochemistry, Cell and Molecular Biology Graduate Program Retreat, 1991
School of Medicine, Co-Chair, Taskforce for Postdoctoral Programs, 1991
Department of Medicine Search Committee, Director of Cardiology, 1991-92
Department of Medicine Steering Committee, Departmental Retreat, 1992-93
Chair, Department of Biological Chemistry Faculty Search Committee, 2001
School of Medicine Search Committee, Director of Molecular Biology and Genetics, 2003
Johns Hopkins Medical Institutions Prize Nomination Committee, 2008-

C. CLINICAL SERVICE [Johns Hopkins]
Attending Physician, Johns Hopkins Hospital Medical Service, 1984-93
Hematology Consult Service, Bone Marrow Diagnostic Service, and Hematology Outpatient Clinic, 1984-89

D. TEACHING [Johns Hopkins]
Lecturer, Lab Instructor, Human Pathophysiology (2nd year med students), 1983-90

Instructor, Clinical Skills (2nd year med students), 1984-89
Lecturer, Molecules and Cells (1st year med and grad students), 1990-05
Course Director, Clinical Tutorial (MD-PhD Students), 1990-94
Faculty Preceptor, Graduate Program in Biochem., Cell, and Mol. Biology, 1989-05
Faculty Preceptor, Graduate Program in Human Genetics and Mol. Biology, 1990-96
Faculty Preceptor, Graduate Program in Cellular and Molecular Medicine, 1989-05
Medical School Journal Club (first year medical student curriculum), 1992-05
Lecturer, Human Pathology for Graduate Students, 1996-97
Evening Science Discussion with Medical Residents, Dept. of Medicine, Johns Hopkins 2004
Evening Discussion, Undergrad Intro to Research, Dept Biophysics, Johns Hopkins 2009
Lecturer, 2008-09, Organizer and Lecturer, Perspectives in Public Health, JHSPH, 2010-
Lecturer, First Year Med Student Curriculum, "Red Cells," Johns Hopkins Schl of Med 2011-
Fellow's conference, Division of Infectious Diseases, Johns Hopkins Schl of Med 2011
Fellow's conference, Department of Psychiatry and Neurosci, Johns Hopkins Schl of Med 2011

E. PRESENTATIONS and EVENTS [Duke University]

2005 Keynote Speaker and Co-Organizer, Science Retreat, School of Medicine
Howard Hughes Medical Institute Distinguished Lecture [with Claire Agre], Nicholas School of the Environment
Chemistry Department Colloquium, School of Arts and Sciences
Special Nobel Week Public Lecture
Department of Medicine Research Conference, School of Medicine

2006 Graduate School Student Officers Luncheon Speaker and Discussion Leader
Presentation, Board of Visitors, School of Medicine and Health System
Undergraduate Honors Council Dinner Speaker and Discussion Leader
Keynote Lecture, Medical Science Training Program Annual Symposium
Presentation, Cancer Center Board of Overseers
Chairman's Lecture, Albert Eye Research Institute, School of Medicine
Discussion Leader, Summer Student Colloquium, Inst Genome Sciences and Policy
Presentation, visit by Trustees for SingHealth
Moderator and Banquet Speaker, Duke Medicine 75th Anniversary Symposium
Merel Harmel Lecture, Depts Anesthesia and Surgery [see named lectures]
Lecture and Panel Discussion, Fitzpatrick Inst for Photonics Symposum, Pratt School for Engineering
Guest Speaker, Durham-Orange County Medical Society, Durham NC
Presentation, Duke Publications Advisory Board, Sanford Policy Institute
Speaker, Jacksonville Duke Alumni Annual Meeting, Jacksonville FL
Special Speaker, Duke Alumni Annual Meeting, Durham NC

2007 Special Guest, Duke Conversation Society Dinner, Durham NC
Organizer and Moderator, Duke Malaria Symposium, Durham NC
Chairman, 2nd Annual Scientific Advisory Board Meeting, Duke-NUS Graduate Medical School
Summer Student Discuss, Institute on Genome Science and Policy
Duke Founders Day Convocation
Plenary Chair and Discussion Leader, Cell Biology Dept Retreat, Asheville NC
Freshman Focus Discussion Leader, The role of science in politics
Panel Discussion Leader, Fitzpatrick Institute for Photonics Symposium
Keynote Speech, Duke Medical Alumni Weekend Symposium, Life of a Physician Scientist
Moderator, French Family Science Center, Inaugural Symposium

2008 Host and Moderator, "Global Warming 101 Lecture, Will Steger Arctic Explorer

Chairman, 3rd Annual Scientific Advisory Board Meeting, Duke-NUS Graduate Medical School
2009 Panelist, Duke-Natl Univ Singapore Science Retreat, Durham NC
Chairman, 4th Annual Sci Advisory Board Mtg, Duke-NUS Graduate Medical School

F. TEACHING [Duke University]
Lecturer, Graduate Course in Cell Biology, Duke University School of Medicine, 2005-07
Lecturer, General Chemistry Course, Duke University School of Arts and Sciences, 2006-07

XX. TRAINEES
A. FORMER POSTDOCTORAL TRAINEES
Maura McGuire MD (Johns Hopkins), Postdoctoral 1986-88
NIH National Research Service Award 1987-89
Assistant Professor of Medicine, Johns Hopkins 1994-
Ali Saboori PhD (Harvard), Postdoctoral 1986-88
Research Associate, Johns Hopkins School of Public Health 1988-95
Research Associate, Johns Hopkins Dept. of Pathology 1995-
Bradley M. Denker MD (SUNY Upstate, Syracuse), Postdoctoral 1987-88
NIH National Research Service Fellowship 1988-91
NIH Clinical Investigator Award 1992-97; NIH FIRST Award 1997-
Asst. Prof. Medicine, Harvard Med. School, Renal Div. Brigham & Women's Hosp 1994-2005
Assoc. Prof. Medicine, Harvard Med. School, Renal Div. Brigham & Women's Hosp 2005-
Sabine Hartel-Schenk PhD (Free Univ. Berlin, Germany), Postdoctoral 1989-91
Certificate of Merit, Johns Hopkins Young Investigators Day 1991
Maternity interlude 1992-95
Wissenshaftliche Mitarbeiter (Res. Assoc.), Dept. of Medicine, Free Univ. Berlin 1995-
Gregory M. Preston PhD (Univ. Conn.), Postdoctoral 1990-93
NIH Hematology Training Grant 1990-91
American Heart Association Fellow 1991-93
Postdoctoral Award, Johns Hopkins Young Investigators Day 1991
Research Associate, Johns Hopkins Dept. Biological Chemistry 1993-95
Scientific Group Leader, Clinical Diagnostics, Johnson & Johnson, Rochester NY 1995-97
Scientific Group Leader, Central Research, Pfizer Pharmaceuticals, Groton CT 1997-
Jin Sup Jung MD PhD (Univ. Pusan, Korea), Postdoctoral 1992-94
NIH Fogarty International Fellow 1992-94
Assistant Professor of Physiology, University of Pusan, Korea 1994-
Surabhi Raina PhD (Banaras Hindu Univ., India), Postdoctoral 1992-94
Research Faculty Member, Penn. State University, Institute of Biotechnology 1994-
Giuseppe Calamita PhD (Univ. Bari, Italy), Postdoctoral, 1994-1996
Assistant Professor of Physiology, University of Bari, Italy 1996-
Landon S King MD (Vanderbilt), Postdoctoral, Pulmonary Medicine 1993-97
NIH Pulmonary Training Grant 1993-94
NIH National Research Service Award 1994-96
Assistant Professor of Medicine, Johns Hopkins School of Medicine 1997-2003
NIH Mentored Clinical Scientist Development Award 1997-2002
Associate Professor of Medicine, Johns Hopkins 2003-2009
Director, Division of Pulmonary and Critical Care Medicine, Johns Hopkins 2005-
David Marine Professor of Medicine, Johns Hopkins 2009-
Vice Dean for Research, Johns Hopkins School of Medicine 2011-
Mingqi Lu MD (Qingdao Univ., China) PhD (Univ. Conn.), Postdoctoral 1994-97

NIH Alcohol Abuse Training Grant 1994-95
Asst. Dir., Pharmaceutical Research and Development, NexMed Inc. Princeton, NJ, 1997-
Director of Clinical Research and Medical Affairs, ONO Pharma, Lawrenceville, NJ, 2005-
Mélanie Bonhivers PhD (Univ. Paris), Postdoctoral 1996-98
Chargee de Recherche (Res. Assoc.) CNRS, Lab Biomembranes, Univ. Paris-Sud 1998-2000
Chargee de Recherche CNRS, Microbiologie Moleculaire, Univ. Bordeaux 2000-
Matthew Hall PhD (Johns Hopkins), Postdoctoral 1996-98
Staff Scientist (on extended leave of absence), NIEHS, Research Triangle Park, NC
M. Douglas Lee MD (E. Carolina), Postdoctoral, Pulmonary Medicine 1994-98
NIH Pulmonary Training Grant 1994-95
Allen & Hanbury Pulmonary Fellowship 1995-96
NIH National Research Service Award 1996-97
Assistant Professor of Medicine, Univ. North Carolina School of Medicine, Wilmington NC, 1998-
John C. Mathai PhD (Univ. Poona, India), Postdoctoral 1993-1999
American Heart Association Postdoctoral Fellowship award 1996-98
Assistant Professor of Medicine, Epithelial Biology, Univ. of Pittsburgh School of Medicine, 1999-06
Assistant Professor of Medicine, Harvard Medical School, Beth Israel Hospital, 2006-
Masato Yasui, MD (Keio Univ. Japan) PhD (Karolinska Inst., Sweden), Postdoctoral Fellow 1997-00
Human Frontier Science Program Organization Fellow 1998-2000
A McGehee Harvey Research Award, Johns Hopkins School of Medicine 2000
Instructor, Johns Hopkins School of Medicine 2000-01
Assistant Professor of Pediatrics, Johns Hopkins School of Medicine, 2001-04
American Heart Association, Scientist Development Grant, 2002-05
Professor and Chair, Dept Pharmacology, Keio Univ School of Medicine, Tokyo, Japan 2004-
Mario Borgnia PhD (Technion, Israel), Postdoctoral 1996-2000
Human Frontier Science Program Organization Fellow 1996-98
Senior Postdoctoral Fellow, National Cancer Institute 2001-
Anne Lynn Langloh, PhD (Univ. Ala. Birmingham), Postdoctoral 2000-01
Special Investigator, Carnegie Inst. Washington, Dept. Embryology, Baltimore MD 2002-04
Extended maternity leave 2005-
Eric Beitz, PhD (Univ. Tübingen)
Human Frontier Science Program Organization Fellow 2000-01
Assistant Professor Pharmaceutical Chem, Eberhard-Karls-Univ, Tübingen, Germany 2002-04
Professor, Medicinal/Pharmaceutical Chemistry, University of Kiel, Germany 2004-
Reiko Nagaoka, MD PhD (Juntendo Univ., Japan)
Postdoctoral Fellow (co-mentor Masato Yasui), 2001-03
Instructor of Pediatric Nephrology, Juntendo Univ., Tokyo, Japan 2003-
Hiroaki Nagase, MD PhD (Kobe Univ, Japan)
Postdoctoral Fellow (co-mentor Masato Yasui), 2003-05
Assistant Professor of Pediatric Neurology, Kobe Univ Japan 2005-
Johan Ågren, MD PhD (Uppsala Univ, Sweden),
Postdoctoral Fellow (co-mentor Masato Yasui), 2004-05
Assistant Professor of Pediatrics, Univ of Uppsala, Uppsala Sweden 2005-
Kiyoko Yamada, MD PhD (Tokyo Womens Med. Coll., Japan)
Postdoctoral Fellow (co-mentor Masato Yasui), 2002-04
Executive Manager, CAC Inc, Tokyo Japan, 2004-
Jennifer Carbrey, BS (Clemson), Grad Student 1997-2001
PhD Johns Hopkins, Biochem, Cell, and Mol Biol, 2001
Postdoctoral Fellow 2001-05

Research Assistant Professor of Cell Biology, Duke University School of Medicine, 2005-
Nicole Rabaud, PhD (Univ California Davis), Postdoctoral Fellow, 2006-07
Extended maternity leave
Slavica Pavlovic-Djuranovic, PhD (Univ Tuebingen), Postdoctoral Fellow, 2010-

B. FORMER PREDOCTORAL TRAINEES

Andrew Asimos BA (Washington and Lee), Predoctoral Research Assistant 1984-86
MD Univ Pittsburgh School of Medicine, 1990
Director of Emergency Stroke Care, Carolinas Medical Center, Charlotte NC 1994-
Marcel de Vetten MD (Erasmus Univ., Rotterdam Nederland), Exchange Medical Student, 1987-88
American Society for Hematology Student Award 1988
Hippocrates Award (Netherlands national med student research prize), Leiden 1989
Medical Resident, Sinai Medical Center, Baltimore 1990-92
Hematology Postdoctoral, NIH and Johns Hopkins 1992-1997
Instructor, Dept Medicine, Erasmus Univ, Rotterdam, The Netherlands 1997-
Ruben Baumgarten MD (Erasmus Univ., Rotterdam Nederland), Exchange Medical Student 1992-93
American Federation Clinical Research Student Awards 1993, 1994
Medical Resident, Univ. Nijmegen, The Netherlands 1996-
Sabine Mulders PhD (Univ. Nijmegen, Nederland), Exchange Grad. Student, 1994
Chul-So Moon MD (Seoul Natl. Univ., Korea), Grad Student 1991-96
PhD, Johns Hopkins, Human Genetics 1996
Medical Intern, Department of Medicine, East Carolina Univ., Greenville NC, 1996-98
Oncology Fellow, MD Anderson Cancer Center, Houston TX, 1998-2000
Assistant Professor, Department of Oncology, Johns Hopkins School of Medicine, 2001-
Kushal Bhakta BS (Johns Hopkins), Predoctoral Research Assistant, 1994-96
MD, Baylor College of Medicine, Houston TX, 2000
Pediatric Resident and Fellow, Baylor College of Medicine, 2000-06
Assistant Professor of Pediatrics, Baylor College of Medicine, 2006-
Zev Waldman BS (MIT), Predoctoral Research Assistant, 1996-97
MD, Washington Univ, School of Medicine, 2001
Pediatric Resident, Northwestern University School of Medicine, Chicago IL 2001-
John Neely BA (Oral Roberts), Grad Student 1996-2000
PhD, Johns Hopkins Grad Program in Cellular and Molecular Medicine, 2001
National Science Foundation, Summer Fellowship in Japan 2001
MD, Johns Hopkins School of Medicine, 2004
Medical Intern, University of California at San Diego, 2004-05
Neurology Resident, University of California at San Francisco, 2005-
Jason Hoffert, BA (Moravian Coll.), Grad Student 1998-2002
PhD (Johns Hopkins), Biological Chemistry (co-mentor, Landon S. King), 2002
Postdoctoral Fellow, Lab. of Kidney and Electrolyte Metab., NIH, 2002-
Daniel Aaron Gorelick-Feldman, BA (Univ. Penn.), Grad Student 2001-2005
PhD, Johns Hopkins Grad Program in Cellular and Molecular Medicine, 2005
Postdoctoral Fellow, Department of Embryology, Carnegie Institution of Washington
David Kozono, AB (UC Berkeley), Grad Student, Medical Scientist Training Program, 1998-2003
MD PhD, Johns Hopkins School of Medicine, 2005
Radiation Oncology Resident, Brigham and Womens Hospital, Harvard Med School, 2005-09
Instructor, Harvard Med School, 2010-
Kun (Connie) Liu, BS MS (Nankai Univ, PR China), Grad Student in Biol Chem, 2003-06;

PhD (Johns Hopkins), Biological Chemistry 2006
Research Scientist, TrimGen Corporation, Sparks MD, 2006-08
Research Associate JHSPH (below)

George Chunyi Huang, BS (Univ. Brit. Columbia), Grad Student in Cell Mol Medicine, 2002-06
PhD (Johns Hopkins), Cell and Mol Medicine, 2006
Research Analyst, Stansberry and Assoc, Baltimore MD, 2007-

Yangjian Liu, BS MS (Nanjing Univ, PR China), Grad Student in Biol Chem, 2002-07
Postdoctoral Fellow, Institute of Basic Biomedical Research, Johns Hopkins, 2008-

C. SABBATICAL RESEARCHERS

R. James Turner PhD 1997-98
Chief Membrane Biology Section, National Institute of Dental Research

Niels Rüdiger PhD 1997-98
Associate Professor of Clinical Biochemistry, University Hospitals of Aarhus, Denmark

D. CURRENT RESEARCH STAFF at JHSPH

Dominique Promeneur, PhD (Univ of Paris), Postdoc Fellow, 2003-06; Research Assoc, 2006-08; Senior Research Associate 2008-

Kun (Connie) Liu, BS MS (Nankai Univ, PR China), Grad Student in Biol Chem, 2003-06;
PhD (Johns Hopkins), Biological Chemistry 2006
Research Scientist, TrimGen Corporation, Sparks MD, 2006-08
Research Associate, 2008-

XXI. PUBLICATIONS

A. ORIGINAL SCIENTIFIC REPORTS

1. Agre P, Orringer EP, Chui DHK, and Bennett V. 1981. A molecular defect in two families with hemolytic poikilocytic anemia: reduction of high affinity membrane binding sites for ankyrin. J Clin Invest 68: 1566-1576.

2. Agre P, Orringer EP, and Bennett V. 1982. Deficient red-cell spectrin in severe, recessively inherited spherocytosis. N Engl J Med 306: 1155-1161.

3. Agre P, Gardner K, and Bennett V. 1983. Association between human erythrocyte calmodulin and the cytoplasmic surface of human erythrocyte membranes. J Biol Chem 258: 6258-6265.

4. Agre P, Virshup D, and Bennett V. 1984. Cetiedil and Bepridil, Vasodilators which inhibit calcium-dependent calmodulin interactions with erythrocyte membranes. J Clin Invest 74: 812-820.

5. Agre P, Casella JF, Zinkham WH, McMillan C, and Bennett V. 1985. Partial deficiency of erythrocyte spectrin in hereditary spherocytosis. Nature 314: 380-383.

6. Agre P, Asimos A, Casella JF, and McMillan C. 1986. Inheritance pattern and clinical response to splenectomy as a reflection of erythrocyte spectrin deficiency in hereditary spherocytosis. N Engl J Med 315: 1579-1583.

7. Marchesi SL, Letsinger JT, Speicher DM, Marchesi VT, Agre P, Hyun B, and Gulati G. 1987. Mutant forms of spectrin alpha-subunits in hereditary elliptocytosis. J Clin Invest 80: 191-198.

8. Agre P, Saboori AM, Asimos A, and Smith BL. 1987. Purification and partial character-ization of the M_r 30,000 integral membrane protein associated with the erythrocyte Rh(D) antigen. J Biol Chem 262: 17497-17503.

9. Waugh RE, and Agre P. 1988. Reductions of erythrocyte viscoelastic coefficients reflect spectrin deficiencies in hereditary spherocytosis. J Clin Invest 81: 133-141.

10. McGuire MJ, Smith BL, and Agre P. 1988. Distinct variants of erythrocyte protein 4.1 inher-ited in linkage with elliptocytosis and Rh type in three white families. Blood 72: 287-293.

11. Chasis JA, Agre P, and Mohandas N. 1988. Decreased membrane mechanical stability and *in vivo* loss of surface area reflect spectrin deficiencies in hereditary spherocytosis. J Clin Invest 82: 617-623.

12. Saboori AM, Smith BL, and Agre P. 1988. Polymorphism in the M_r 32,000 Rh protein purified from Rh(D)-positive and -negative erythrocytes. Proc Natl Acad Sci USA 85: 4042-4045.

13. Denker BM, Smith BL, Kuhajda FP, and Agre P. 1988. Identification, purification, and characterization of a novel M_r 28,000 integral membrane protein from erythrocytes and renal tubules. J Biol Chem 263: 15634-15642.

14. Blanchard D, Bloy C, Hermand P, Cartron JP, Saboori AM, Smith BL, and Agre P. 1988. Two-dimensional iodopeptide mapping demonstrates that Rh D, c, and E polypeptides are structurally homologous but nonidentical. Blood 72: 1424-1427.

15. de Vetten MP, and Agre P. 1988. The Rh protein is a major fatty acid acylated erythrocyte membrane protein. J Biol Chem 263: 18193-18196.

16. Forget BG, Chang J-G, Coupal E, Stanislovitis P, Costa FF, Winkelmann JC, Agre PC, Marchesi VT, and Watkins PC. 1988. Molecular genetics of the human beta-spectrin gene. Trans Assoc Am Physicians 101: 149-154.

17. Saboori A, Denker BM, and Agre P. 1989. Isolation of proteins related to the Rh polypeptides from non-human erythrocytes. J Clin Invest 83: 187-191.

18. Sahr KE, Tobe T, Scarpa A, Laughinghouse K, Marchesi SL, Agre P, Linnenbach AJ, Marchesi VT, and Forget BG. 1989. Sequence and exon-intron organization of the DNA encoding the alpha I domain of human spectrin: application to the study of mutations causing hereditary elliptocytosis. J Clin Invest 84: 1243-1252.

19. Agre P, Johnson P, and McKnight SL. 1989. Cognate DNA binding specificity is retained after reciprocal exchange of leucine zippers between GCN4 and C/EBP. Science 246: 922-926.

20. Liu SC, Derick LH, Agre P, and Palek J. 1990. Alteration of the erythrocyte membrane skeletal ultrastructure in hereditary spherocytosis, hereditary elliptocytosis, and pyropoikilocytosis. Blood 76: 198-205.

21. Marchesi SL, Conboy J, Agre P, Letsinger JT, Marchesi VT, Speicher DW, and Mohandas N. 1990. Molecular analysis of insertion/deletion mutations in protein 4.1 in elliptocytosis: I. Biochemical identification of rearrangements in the spectrin-actin binding domain and functional characterizations. J Clin Invest 86: 516-523.

22. Conboy J, Marchesi S, Kim R, Agre P, Kan YW, and Mohandas N. 1990. Molecular analysis of insertion/deletion mutations in protein 4.1 in elliptocytosis: II. Determination of molecular genetic origins of rearrangements. J Clin Invest 86: 524-530.

23. Costa FF, Agre P, Watkins PC, Winkelmann JC, Tang TK, John KM, Lux SE, and Forget BG. 1990. Linkage of dominant hereditary spherocytosis to the gene for the erythrocyte membrane skeleton protein ankyrin. N Engl J Med 323: 1046-1050.

24. Smith BL, and Agre P. 1991. Erythrocyte M_r 28,000 transmembrane protein exists as a multi-subunit oligomer similar to channel proteins. J Biol Chem 266: 6407-6415.

25. Preston GM, and Agre P. 1991. Isolation of the cDNA for erythrocyte integral membrane protein of 28 kilodaltons: Member of an ancient channel family. Proc Natl Acad Sci USA 88: 11110-11114.

26. Hartel-Schenk S, and Agre P. 1992. Mammalian red cell membrane Rh polypeptides are selectively palmitoylated subunits of a macromolecular complex. J Biol Chem 267: 5569-5574.

27. Preston GM, Carroll T, Guggino WB, and Agre P. 1992. Appearance of water channels in Xenopus oocytes expressing red cell CHIP28 protein. Science 256: 385-387.

28. Zeidel ML, Ambudkar SV, Smith BL, and Agre P. 1992. Reconstitution of functional water channels in liposomes containing purified red cell CHIP28 protein. Biochemistry 31: 7436-7440.

29. Preston GM, Jung JS, Guggino WB, and Agre P. 1993. The mercury-sensitive residue at cysteine-189 in the CHIP28 water channel. J Biol Chem 268: 17-20.

30. Nielsen S, Smith BL, Christensen EI, Knepper M, and Agre P. 1993. CHIP28 water channels are localized in constitutively water-permeable segments of the nephron. J Cell Biol 120: 371-383.

31. Kuypers FA, Lubin BH, Yee M, Agre P, Devaux PF, and Geldwerth D. 1993. The distribution of erythrocyte phospholipids in hereditary spherocytosis demonstrates a minimal role for erythrocyte spectrin on phospholipid diffusion and asymmetry. Blood 81: 1051-1057.

32. Echevarria M, Frindt G, Preston GM, Snezana M, Agre P, Fischbarg J, and Windhager E. 1993. Expression of multiple water channel activities in *Xenopus* oocytes injected with mRNA from rat kidney. J Gen Physiol 101: 827-841.

33. Bondy C, Chin E, Smith BL, Preston GM, and Agre P. 1993. Developmental gene expression and tissue distribution of the CHIP28 water channel protein. Proc Natl Acad Sci USA 90: 4500-4504.

34. Moon C, Preston GM, Griffin CA, Jabs EW, and Agre P. 1993. The human Aquaporin-CHIP gene: structure, organization and chromosomal localization. J Biol Chem 268: 15772-15778.

35. Echevarria M, Kuang K, Preston GM, Agre P, and Fischbarg J. 1993. Cultured bovine corneal endothelial cells express CHIP28 water channels. Am J Physiol: Cell 265: C1349-C1355.

36. Nielsen S, Smith BL, Christensen EI, and Agre P. 1993. Distribution of Aquaporin-CHIP in secretory and resorptive epithelia and capillary endothelia. Proc Natl Acad Sci USA 90: 7275-7279.

37. Smith BL, Baumgarten R, Nielsen S, Raben DM, Zeidel ML, and Agre P. 1993. Concurrent expression of erythroid and renal Aquaporin CHIP and appearance of water channel activity in perinatal rats. J Clin Invest 92: 2035-2041.

38. Walz T, Smith BL, Zeidel ML, Engel A, and Agre P. 1994. Biologically active two-dimensional crystals of Aquaporin CHIP. J Biol Chem 269: 1583-1586.

39. Preston GM, Jung JS, Guggino WB, and Agre P. 1994. Membrane topology of Aquaporin CHIP: Analysis of functional epitope-scanning mutants by vectorial proteolysis. J Biol Chem 269: 1668-1673.

40. Zeidel ML, Nielsen S, Smith BL, Ambudkar SV, Maunsbach AB, and Agre P. 1994.

Ultrastructure, pharmacologic inhibition, and transport-selectivity of Aquaporin CHIP in proteoliposomes. Biochemistry 33: 1606-1615.

41. Jung JS, Preston GM, Smith BL, Guggino WB, and Agre P. 1994. Molecular structure of the water channel through Aquaporin CHIP: the hourglass model. J Biol Chem 269: 14648-14654.

42. Corbett JD, Agre P, Palek J, and Golan DE. 1994. Differential control of band 3 lateral and rotational mobility in intact red cells. J Clin Invest 93: 683-688.

43. Stamer WD, Snyder RW, Smith BL, Agre P, and Regan JW. 1994. Localization of Aquaporin CHIP in the human eye: Implications in the pathogenesis of glaucoma and other disorders of ocular fluid balance. Invest Ophthalmol and Vis Sci 35: 3867-3872.

44. Walz T, Smith BL, Agre P, and Engel A. 1994. The 3-D structure of human erythrocyte Aquaporin CHIP. EMBO J 13: 2985-2993.

45. Smith BL, Preston GM, Spring FA, Anstee DJ, and Agre P. 1994. Human red cell Aquaporin CHIP: I. Molecular characterization of ABH and Colton blood group antigens. J Clin Invest 94: 1043-1049.

46. Agre P, Smith BL, Baumgarten R, Preston GM, Pressman E, Wilson P, Ilum N, Anstee DN, Lande MB, and Zeidel ML. 1994. Human red cell Aquaporin CHIP: II. Expression during normal fetal development and in a novel form of congenital dyserythropoietic anemia. J Clin Invest 94: 1050-1058.

47. Preston GM, Smith BL, Zeidel ML, Moulds JJ, and Agre P. 1994. Mutations in *Aquaporin-1* in Phenotypically Normal Humans without Functional CHIP Water Channels. Science 265: 1585-1587.

48. Roberts SK, Yano M, Ueno Y, Pham L, Alpini G, Agre P, and LaRusso N. 1994. Cholangiocytes express Aquaporin CHIP and transport water via a channel-mediated mechanism. Proc Natl Acad Sci USA 91: 13009-13013.

49. Jung JS, Bhat RV, Preston GM, Baraban JM, and Agre P. 1994. Molecular characterization of an Aquaporin cDNA from Brain: Candidate osmoreceptor and regulator of water balance. Proc Natl Acad Sci USA 91: 13052-13056.

50. Maeda Y, Smith BL, Agre P, and Knepper MA. 1995. Quantification of Aquaporin-CHIP water channel protein in microdissected renal tubules by fluorescence-based ELISA. J Clin Invest 95: 422-428.

51. Raina S, Preston GM, Guggino WB, and Agre P. 1995. Molecular cloning and characterization of an Aquaporin cDNA from salivary, lacrimal, and respiratory tissues. J Biol Chem 270: 1508-1512.

52. Nielsen S, Pallone T, Smith BL, Christensen EI, Agre P, and Maunsbach A. 1995. Aquaporin-1 water channels in short and long loop descending thin limbs and in descending vasa recta in rat kidney. Am J Physiol: Renal 37: F1023-1037.

53. Elkjær ML, Birn H, Agre P, Christensen EI, and Maunsbach A. 1995. Effects of microtubule disruption on endocytosis, membrane recycling and polarized distribution of Aquaporin-1 and gp330 in proximal tubules cells. Eur J Cell Biol 67: 57-72.

54. Mulders SM, Preston GM, Deen PMT, Guggino WB, van Os CH, and Agre P. 1995. Water channel properties of major intrinsic protein of lens. J Biol Chem 270: 9010-9016.

55. Moon C, Williams JB, Preston GM, Copeland NG, Gilbert DJ, Nathans D, Jenkins NA, and Agre P. 1995. The mouse *aquaporin-1* gene. Genomics 30: 354-357.

56. Walz T, Typke D, Smith BL, Agre P, and Engel A. 1995. Projection map of aquaporin-1 determined by electron crystallography. Nature Structural Biology 2: 730-732.

57. Calamita G, Bishai WR, Preston GM, Guggino WB, and Agre P. 1995. Molecular cloning and characterization of aquaporin Z: a water channel from *E. coli.* J Biol Chem 270: 29063-29066.

58. Mathai JC, Mori S, Smith BL, Preston GM, Mohandas N, Collins M, van Zijl PCM, Zeidel ML, and Agre P. 1996. Functional analysis of Aquaporin-1 deficient red cells: the Colton-null phenotype. J Biol Chem 271: 1309-1313.

59. Devuyst O, Burrow CR, Smith BL, Agre P, Knepper MA, and Wilson PD. 1996. Expression of aquaporins 1 and 2 during nephrogenesis and in autosomal dominant polycystic kidney disease. Am J Physiol: Renal 40: F169-F183.

60. King LS, Nielsen S, and Agre P. 1996. Aquaporin-1 Water Channel Protein in Lung: Ontogeny, Steroid-Induced Expression, and Distribution in Rat. J Clin Invest 97: 2183-2191.

61. Lee MD, Bhakta KY, Raina S, Yonescu R, Griffin CA, Copeland NG, Gilbert DJ, Jenkins NA, Preston GM, and Agre P. 1996. The Human *Aquaporin-5* gene: Molecular characterization and chromosomal localization. J Biol Chem 271: 8599-8604.

62. Delporte C, O'Connell BC, He X, Ambudkar IS, Agre P, and Baum BJ. 1996. Adenovirus-mediated expression of aquaporin-5 in epithelial cells. J Biol Chem 271: 22070-22075.

63. Lu M, Lee MD, Smith BL, Jung JS, Agre P, Verdijk MAJ, Merkx G, Rijss JPL, and Deen P. 1996. The human *aquaporin-4* gene: Definition of the locus encoding two water channel polypeptides in brain. Proc Natl Acad Sci USA 93: 10908-10912.

64. Walz T, Tittmann P, Fuchs KH, Müller DJ, Smith BL, Agre P, Gross H, and Engel A. 1996. Surface topographies at subnanometer resolution reveal asymmetry and sidedness of aquaporin-1. J Mol Biol 264: 907-918.

65. Amiry-Moghaddam M, Nagelhus EA, Agre P, Nielsen S, and Ottersen OP. 1996. Taurine and water channels are co-localized in renal tubule cells and other tissues. Adv Exp Med Biol 403: 165-171.

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