

CURRICULUM VITAE

Name: William Joseph Schwartz

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U. of Massachusetts Medical School
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Date of Birth: 28 March, 1950; Philadelphia, PA

Education:

1967-1968	U. Southern California, Los Angeles, CA
1968-1970	U. California, Irvine, CA
1970-1974	U. California School of Medicine, San Francisco, CA
1971 B.S.	U. California, Irvine (Biological Sciences, <i>summa cum laude</i>)
1974 M.D.	U. California San Francisco, School of Medicine

Postdoctoral Training:

Internship and Residency

1974-1975	Intern in Straight Medicine U. California - H.C. Moffitt Hospitals, San Francisco
1978-1981	Resident in Neurology U. California - H.C. Moffitt Hospitals, San Francisco

Research Fellowships

1975-1977	Research Associate, Laboratory of Neurophysiology National Institute of Mental Health, Bethesda, MD
1977-1978	Research Associate, Laboratory of Cerebral Metabolism National Institute of Mental Health, Bethesda
1981-1982	Charles A. King Trust Research Fellow, Boston, MA
1985	Visiting Fellow, The Neurosciences Institute Neurosciences Research Program, New York, NY

Licensure and Certification:

1975	National Board of Medical Examiners Certificate 145309
1982	American Board of Psychiatry and Neurology Certificate 24415
1978-1982	California Physicians/Surgeons Certificate G 036183
1981-	Massachusetts License Registration No. 47414

Academic Appointments:

1981-1982	Instructor in Neurology, Harvard Medical School, Boston
1982-1986	Assistant Professor of Neurology, Harvard Medical School, Boston
1986-1990	Associate Professor of Neurology, U. Massachusetts Medical School, Worcester
1990-	Professor of Neurology, U. Massachusetts Medical School, Worcester
2009-2014	Co-Associate Director, MD-PhD Program, U. Massachusetts Medical School, Worcester

Hospital Appointments:

1981-1983	Assistant in Neurology, Massachusetts General Hospital, Boston
1983-1986	Assistant Neurologist, Massachusetts General Hospital, Boston
1986-	Attending Neurologist, U. Massachusetts-Memorial Medical Center, Worcester

Awards and Honors:

1967-1968	Resident Honors Program, Honors-at-Entrance, Dean's List, California Physicians' Four Year Merit Scholarship, Phi Eta Sigma Honorary Fraternity, NSF Summer Science Program
1968-1970	Dean's List, Biological Sciences Scholastic Honor Society, Student Research Associates Program in Cardiovascular Research (Summers 1969, 1970)
1970-1974	Regents of U. California Four Year Scholarship; Alpha Omega Alpha Honorary Fraternity, Third Year; The Dr. & Mrs. Joseph Fife Scholarship in Medicine (1974); The Merck Manual Award (1974); Senior Address, U. California San Francisco, School of Medicine Commencement (1974)
1987	Elected Member, American Neurological Association
1990	Neurology Residents' Teacher of the Year Award
1993	Chair, Gordon Research Conference on Chronobiology Colby-Sawyer College, New London, NH
1996-	Selected, <i>Best Doctors in America</i>
1997	Neurology Residents' Teacher of the Year Award
1999	Class of '74 Speaker (25th Reunion), Alumni-Faculty Assoc. Homecoming, U. California San Francisco, School of Medicine
2002	Elected President for 2004-2006, Society for Research on Biological Rhythms
2005	Neurology Residents' Teacher of the Year Award

Lectureships and Professorships:

1989	Keynote Address, 7 th Ann. Student Research Symposium, U. Virginia School of Medicine, Charlottesville, VA
1994	The Special (Plenary) Lecture, Founding Congress, Japanese Soc. Chronobiology, Tokyo, Japan
2002	The Opening Lecture, XXII Congress of the Polish Physiological Society, Bydgoszcz, Poland
2005	Boerhaave Professor, Leiden University Medical Centre, Leiden, The Netherlands
2007	The Sixth Michael S. Aldrich Commemorative Lecture in Sleep Medicine, Dept. of Neurology, U. Michigan Medical School, Ann Arbor, MI

- 2008 Baerends Visiting Chair and Honorary Professor, Faculty of Mathematics and Natural Sciences, Rijksuniversiteit Groningen, Groningen, The Netherlands
- 2010 The Distinguished Lecture, University of Hyderabad, Hyderabad, India
- 2012 Hood Fellow and Public Lecture, University of Auckland, Auckland, New Zealand
- (scheduled 2014) Visiting Fellow, Bernstein Center for Computational Neuroscience, Berlin, & Center for Advanced Studies, Ludwig Maximilians Universität, Munich, Germany
The Pittendrigh/Aschoff Lecture, 14th Mtg. Soc. Res. Biol. Rhythms, Big Sky, MT

Professional Societies:

- 1976- Society for Neuroscience / International Brain Research Organization
- 1978- American Association for the Advancement of Science
- 1978- American Academy of Neurology (Fellow, 1987-)
- 1987- American Neurological Association (Fellow, 2012-)
- 1987- Society for Research on Biological Rhythms
- 1988- Boston Society of Neurology and Psychiatry
- 1989- American Sleep Disorders Association / Sleep Research Society
- 2005- European Biological Rhythms Society
- 2009-2011 The Endocrine Society

Committee Assignments and Offices Held:

U. California San Francisco, School of Medicine

- 1970-1974 Member, Admissions Committee
- 1973, 1974 Student Representative, AMA Congress on Medical Education

Harvard Medical School

- 1984-1986 Departmental Representative, Oliver Wendell Holmes Society
- 1986 Member, Admissions Committee, Program in Neuroscience
- 1993-1995 Member, Scientific Advisory Committee NIA P01 AG09975
- 2000-2005 Member, External Advisory Committee NHLBI T32 HL07901
- 2001-2003 Member, Ext. Peer Review Committee, Harvard Ctr. Neurodegeneration & Repair
- 2011- Member, Data and Safety Management Board NHLBI R01 HL093279

Massachusetts General Hospital

- 1983-1985 Member, Resident Selection Committee, Neurology Service
- 1984-1986 Member, Library Committee

U. Massachusetts Medical School

- 1988-1993 Member, Scientific Council
- 1992-1997 Member, Steering Committee of the Program in Neuroscience
- 1993-1995 Member, Search Committee for Chair of Pharmacology
- 1994-1998 Member, Medical Records Committee
- 1995-1998 Member, Review Committee, Institutional Small Grants Program
- 1998-1999 Member, Search Committee for Director of Budnitz Neuropsychiatric Institute
- 1998-2000 Member, Search Committee for Chief of Pediatric Neurology Division

2002-2003	Member, Advisory Committee, Program in Neuroscience
2004-2005	Member, Search Committee for Chair of Neurology
2005-2006	Member, Search Committee for Chair of Psychiatry
2008-2009	Member, Design Team ("Building Cells & Tissues") for the New Curriculum
2009-2013	Member, Selection Committee, Chancellor's Award for Distinguished Scholarship
2011	Member, Subcommittee on Institutional Setting/Academic Environment, Self-Study Task Force for LCME Accreditation
2011-	Member, Tenure Committee
2012-	Member, Progress Board of the Educational Policy Committee
2013-	Member, Capstone Faculty Committee
2013	Member, Search Committee for Associate Dean for Student Affairs

Department of Neurology, U. Massachusetts Medical School

1991-	Chair, Personnel Action Committee
1995-	Coordinator for Recruitment, Neurology Residency Program
1996-1997	Chair, Productivity and Compensation Committee
2010-	Elected Member, Finance Committee
2013-	Departmental Representative, Faculty Advancement and Development Liaison

National

1988-1993	Ad Hoc, then Member, NIH/DRG Neurology A Study Section
1993-1997	Member, NIH Reviewers Reserve (ad hoc reviews for Neurology B Study Section, Neurological Sciences 2 Study Section, NIA Special Program Project Committee, Neurological Disorders Program Project Committee)
1998	Member, Intramural Site Visit, Lab. Developmental Neurobiology, NICHD
1999	Member, Intramural Site Visit, Lab. Cellular & Molecular Regulation, NIMH
2003-2007	Member, External Advisory Council, National Space Biomedical Res. Institute
2008, 2009	Member, NINDS Special Emphasis Panel 2009/01 ZNS1 SRB-S (17) and 2010/01 ZNS1 SRB-S (20)
2010	Member, NIBIB Special Emphasis Panel for Research on the International Space Station ZEB1 OSR-E (M1) S
2013-	Member, NIH/CSR Neuroendocrinology, Neuroimmunology, Rhythms and Sleep Study Section
2014-	Member, Sleep Time Recommendations Consensus Panel, National Sleep Foundation
2014-	Member, Faculty/Career Development Task Force, American Neurological Association

International

2002	Member, Selection Committee, "Aschoff-Honma Prize in Biological Rhythm Research" of the Honma Life Science Foundation, Sapporo, Japan
2002-2012	Member, Scientific Advisory Council, Rijksuniversiteit Groningen Graduate School of Behavioral & Cognitive Neurosciences, Groningen, The Netherlands
2005-2010	Member, External Advisory Board, EUCLOCK Integrated Project of the European Commission
2007-2009	Member, International Scientific Committee for the XI. Congress of the European Biological Rhythms Society, Strasbourg, France
2010-2011	Member, International Organizing Committee for the Third World Congress of Chronobiology, Puebla de Zaragoza, México
2012	Member, AERES Visiting (Evaluation) Committee, Institut des Neurosciences Cellulaires & Intégratives, Strasbourg, France

Society for Research on Biological Rhythms

1991	Chair, Nominating Committee for Society Officers
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1995-1996	Chair, Program Committee for the 5th Biennial Meeting
1996-1998	Secretary
2001-2002	Member, Program Committee for the 8th Biennial Meeting
2002-2004	President-Elect
2004-2006	President
2011	Chair, Nominating Committee for Society Officers

Editorial

2000-2002	Editorial Board, <i>Journal of Biological Rhythms</i>
2002-2013	Associate Editor, <i>Journal of Biological Rhythms</i>
2008-2011	Editorial Board, <i>Endocrinology</i>
2009-2014	Editor-in-Chief, <i>Neurological Bulletin</i> (an electronic journal featuring articles by trainees in neurology & neuroscience)
2010-2011	Guest Editor, <i>Proc Natl Acad Sci USA</i>
2012-2014	Academic Editor (member of Editorial Board), <i>PLoS ONE</i>
2014-	Editor-in-Chief, <i>Journal of Biological Rhythms</i>

Ad Hoc Reviewer (last 5 years) for National Science Foundation, Biotechnology and Biological Sciences Research Council (U.K.), Human Frontier Science Program, Sleep Research Society, Japan Society for the Promotion of Science, U.S.-Israel Binational Science Foundation, Wellcome Trust

Ad Hoc Reviewer (last 5 years) for *Ann Neurol*, *BioMed Central Systems Biology*, *Chronobiol Int*, *Curr Biol*, *Endocrinology*, *Europ J Neurosci*, *Exp Neurol*, *Genes Brain Behav*, *J Biol Rhythms*, *J Clin Invest*, *J Neurosci*, *J Physiol (London)*, *J Roy Soc Interface*, *Nature Cell Biol*, *Neuron*, *Neuropsychopharmacol*, *NeuroReport*, *PLoS ONE*, *Proc Natl Acad Sci USA*, *Proc Roy Soc B*

Research Support (as Principal Investigator, except as noted):

1982-1983	“Neural Regulation of Circadian Rhythms: The Role of Vasopressin in the Rat Suprachiasmatic Nucleus,” William F. Milton Fund of Harvard University “Canine Narcolepsy: Role of the Suprachiasmatic Nucleus,” Charles H. Hood Foundation Grant
1982-1986	“Brain Peptides and the Regulation of Circadian Rhythms,” NINDS Teacher-Investigator Development Award K07 NS00672
1983-1986	“Narcolepsy and the Circadian Timing System,” March of Dimes Birth Defects Foundation Basil O'Connor Grant “A Daily Vasopressin Rhythm in Cerebrospinal Fluid,” NINDS Grant R01 NS18755 (S.M. Reppert, Principal Investigator)
1986-2000	“Suprachiasmatic Nuclei: Neurobiology of a Circadian Clock,” NINDS Grant R01 NS24542
1992-1994	“Circadian Pacemaker in Various Photoperiods,” Central and Eastern Europe Senior Fellowship Program in the Neurosciences, Fogarty Intl. Research Collaboration Grant F05 TW04638 (with H. Illnerová, Czech. Acad. Sci.)
1992-1995	“Structure-Function Studies in the Suprachiasmatic Nucleus,” U.S.-Israel Binational Science Foundation Grant 91-00154 (with M. Castel, Hebrew University, Jerusalem)
1997-1999	“Neural Stem Cells: Transplantation and the Circadian System,” Air Force Office Sci. Res. Grant F 49620-97-1-0066
1997-2005	“Microgravity and the Biology of Neural Stem Cells,” NASA Grant NAG8-1358 (1997-2000), NAG9-1356 (2001-2005)

- 1998-2002 "Neural Stem Cells: Structure and Function After Transplant," (Project 3)
NCI Grant P01 CA68426 (L. Recht, Principal Investigator)
- 2000-2003 "Hypothalamic Reconstruction Using Neural Precursor Cells,"
NINDS Grant R01 NS40788
- 2004-2008 "Neurobiology of Circadian Dysrhythmias,"
NINDS Grant R01 NS46605
- 2005-2006 "Endogenous Neural Precursor Cells and Myelination During Pregnancy,"
National Multiple Sclerosis Society Pilot Grant PP1158
- 2010-2014 "Circadian Biology at the Supra-Organismal Level,"
NIGMS Grant R01 GM094109
- 2013-2015 "Defective Daily Thermoregulation in a Mouse Model of ALS,"
ALS Therapy Alliance Grant

Invitations Accepted to Scientific Meetings and Symposia:

Conferences Organized / Funding Obtained

- 1993 Gordon Research Conference on Chronobiology, Colby-Sawyer College, New London, NH
(as Chair)
- 2006 10th Mtg. Soc. Res. Biol. Rhythms, Sandestin, FL (as President, Soc. Res. Biol. Rhythms)
- 2010 Workshop on "Assembling a Multi-Cellular Circadian Pacemaker: Seeking Principles of Neural
Circuit Organization Across Invertebrate and Vertebrate Brains," Lorentz International
Center for Workshops in the Sciences, Leiden, The Netherlands
(as Co-Organizer with C. Helfrich-Förster, J. Meijer, and L. Morin)
- 2012 Workshop on "The Diversity, Evolution and Mechanisms Controlling Activity Patterns,"
Ein Gedi, Israel
(as Co-Organizer with G. Bloch, N. Kronfeld-Schor, and L. Smale)

Sessions Chaired

- 1986 Co-Chair, Plenary Session I, 38th Mtg. Am. Acad. Neurol., New Orleans, LA
- 1988 Chair, "Biological Rhythms: Mechanisms" (Slide Session 190.)
18th Ann. Mtg. Soc. Neurosci., Toronto, Ontario, Canada
- 1999 Chair, Symposium on "Circadian Clocks"
5th IBRO World Congress Neurosci., Jerusalem, Israel
- 2006 Chair, Presidential Symposium on "Simple Principles for Complex Systems"
10th Mtg. Soc. Res. Biol. Rhythms, Sandestin, FL
- 2011 Chair, The Axelrod Lecture,
12th Congress of the European Biological Rhythms Society, Oxford, England
- 2013 Co-Chair, Session on "Health and Well-Being Aspects of Seasonality," Symposium on
"Seasons of Life: Biological Rhythms Underlying Healthy Living,"
University of Glasgow, Glasgow, Scotland

Lectures at Symposia and Courses

- 1977 Invited Speaker, Workshop on "Methods for Determination of Regional Blood Flow and
Metabolism," 6th Int. Mtg. Int. Soc. Neurochem., Copenhagen, Denmark
- 1978 Invited Speaker and Co-Chair, Session IV, Naito Int. Symposium on "Biorhythm & Its Central
Mechanism," Keidanren Kaikan, Tokyo, Japan
- Invited Speaker, Society for Neuroscience Short Course on Neuroanatomical Techniques,
St. Louis, MO

- 1983 Invited Speaker, Gordon Conference on Chronobiology, "Circadian Regulation Along the Neuroendocrine Axis," Colby-Sawyer College, New London, NH
- 1985 Invited Speaker, 2nd Int. Symposium on Narcolepsy, Stanford Med. School, Stanford, CA
- 1987 Invited Speaker, Annual Course #103 in Neuroendocrinology, 39th Ann. Mtg. Am. Acad. Neurol., New York, NY
Invited Speaker, Symposium on "Neural Principles of Pattern Generation," 38th Ann. Fall Mtg. Am. Physiol. Soc., San Diego, CA
- 1988 Invited Speaker, Symposium on "Early Development of Neuroendocrine Mechanisms," 11th Ann. Mtg. Europ. Neurosci. Assoc., Zurich, Switzerland
- 1989 Invited Speaker (videotaped presentation), NICHD Conference on "Suprachiasmatic Nucleus: The Mind's Clock," Bethesda, MD
- 1990 Invited Speaker, Workshop on "Oncogenes and Entrainment," 2nd Mtg. Soc. Res. Biol. Rhythms, Amelia Island, FL
Invited Speaker, Symposium on "Circadian Mutants," 2nd Mtg. Soc. Res. Biol. Rhythms, Amelia Island, FL
Invited Speaker, Symposium on "Mammalian Circadian Clock: Basic Studies and their Clinical Implications," 4th Ann. Mtg. Assoc. Prof. Sleep Soc., Minneapolis, MN
Invited Speaker, Harry Frank Guggenheim Foundation Workshop on "Neural Bases of Aggressive Behavior," Carmona (Sevilla), Spain
- 1991 Invited Speaker, 24th Ann. Recent Advances in Neurology Course, U. California San Francisco School of Medicine, San Francisco, CA
Invited Speaker, Workshop on "Future Approaches to the Basic Neurobiology of Sleep," National Commission on Sleep Disorders Research, MBL, Woods Hole, MA
Invited Speaker, Study Group on Circadian Rhythms, Fondation pour l'Etude du Systeme Nerveux Central et Peripherique, Geneva, Switzerland
Invited Lecture, The 5th Int. Headache Congress, Washington, D.C.
Invited Speaker, Symposium on "Neurobiologie der Circadianen Uhr," Zoologisches Institut, J.W. Goethe-Universität, Frankfurt, Germany
Invited Speaker and Vice-Chair, Gordon Conference on Chronobiology, Irsee, Germany
- 1992 Invited Discussant, Symposium on "Molecular Basis of Biological Timing," NSF Science & Technology Center for Biological Timing, U. Virginia, Charlottesville, VA
Invited Speaker of the U.S.-Israel Binational Science Foundation
Hebrew University, Jerusalem and Weizmann Institute of Science, Rehovot, Israel
- 1993 Invited Speaker, Course on "The Neurobiologic Basis of Sleep," 7th Ann. Mtg. Assoc. Prof. Sleep Soc., Los Angeles, CA
Invited Speaker, The 5th Sapporo Symposium on Biological Rhythm, "Evolution of Circadian Clock," Sapporo, Japan
- 1994 Invited Speaker, Symposium on "Signal Transduction in the Suprachiasmatic Nucleus," 4th Mtg. Soc. Res. Biol. Rhythms, Amelia Island, FL
Invited Speaker, Course on "The Suprachiasmatic Nucleus (Basic Mechanisms)," 8th Ann. Mtg. Assoc. Prof. Sleep Soc., Boston, MA
Invited Speaker, Symposium on "Signal Transduction in the Biological Clock," 8th Ann. Mtg. Assoc. Prof. Sleep Soc., Boston, MA
Invited Speaker, Symposium on "Towards A Molecular Biology of Sleep," 8th Ann. Mtg. Assoc. Prof. Sleep Soc., Boston, MA
- 1995 Invited Speaker, Gordon Conference on Chronobiology, Barga (Lucca), Italy

- Invited Speaker, Am. Physiol. Soc. Conference on "Understanding the Biological Clock: From Genetics to Physiology," Dartmouth Medical School, Hanover, NH
- Invited Speaker and Co-Chair, Symposium on "Cycling Transcripts and the Circadian Pacemaker - From *Drosophila* to Mammals," 4th IBRO World Congress Neurosci., Kyoto, Japan
- Invited Speaker, Satellite Symposium on "Biological Clock in the Suprachiasmatic Nucleus," 4th IBRO World Congress Neurosci., Kyoto, Japan
- Invited Speaker, NIH Workshop on "Molecular Biology and Genetic Approaches to Sleep Control," Bethesda, MD
- 1996 Invited Speaker, NIH Int. Symposium in Honor of Louis Sokoloff, "*In Vivo Veritas*: Understanding Brain Function through the Use of Quantitative *In Vivo* Biochemical Techniques," Bethesda, MD
- Invited Speaker, NIH Symposium on "Neurobiology of Fos Related Antigens," Bethesda, MD
- 1997 Invited Speaker, Interactive Panel on "Building a Biological Clock Out of Molecular Rhythms," 30th Ann. Winter Conference on Brain Research, Breckenridge, CO
- Invited Speaker, Symposium on "The Suprachiasmatic Nucleus: a 25-Year Retrospective," Harvard Medical School, Boston, MA
- Invited Speaker, Air Force Office Sci. Res. Chronobiology & Neural Adaptation Program Review, United States Air Force Academy, Colorado Springs, CO
- 1998 Invited Speaker, FASEB Summer Research Conference on "Neurobiology of Vertebrate Circadian Rhythm Entrainment," Snowmass Village, CO
- 1999 Invited Speaker (videotaped presentation), Symposium on "Inducible Transcription Factors in the Brain," Rydzyna, Poland
- Invited Speaker, Symposium on "Suprachiasmatic Nucleus Structure and Function," Int. Congress on Chronobiology, Washington, D.C.
- Invited Speaker, 5th Latin American Symposium on Chronobiology, Buenos Aires, Argentina
- Invited Speaker, SmithKline Beecham Foundation Symposium on "Time and Timing in Biological Systems," Seeon, Germany
- 2000 Invited Speaker, Session on "Sleep and Health," 14th Ann. Mtg. NorthEastern Sleep Society, Worcester, MA
- Invited Speaker, Symposium on "Cellular Physiology of the SCN," 7th Mtg. Soc. Res. Biol. Rhythms, Amelia Island, FL
- Invited Speaker, Gordon Conference on Pineal Cell Biology, The Queen's College, Oxford, England
- Invited Speaker, "Circadian Rhythms: The Time of Your Life," 7th Ann. Dartmouth Symposium in the Life Sciences, Hanover, NH
- 2001 Invited Speaker, 6th Ann. Symposium on "Neurology for the Non-Neurologist," Dept. Neurology, University of Arkansas for Medical Sciences, Little Rock, AR
- Invited Speaker of the Programa Universitario de Investigación en Salud/UNAM & CONACyt Inst. Fisiología Celular, México City and Centro de Neurobiología, Querétaro, México
- Invited Speaker, 6th Ann. Summer School, Rijksuniversiteit Groningen Graduate School for Behavioral and Cognitive Neurosciences, Groningen, Netherlands
- Invited Speaker, Gordon Conference on Chronobiology, Salve Regina University, Newport, RI
- Invited Speaker, The 9th Sapporo Symposium on Biological Rhythm, Sapporo, Japan
- 2002 Invited Speaker, Presidential Symposium, 8th Mtg. Soc. Res. Biol. Rhythms, Amelia Island, FL
- Invited Speaker and Co-Chair, Session on "Neural Stem Cells," Baltic Stem Cell Conference on "Stem Cells in Tissue Regeneration," Burg Schlitz, Hohen Demzin, Germany

- 2003 Invited Speaker, Gordon Conference on Chronobiology, Barga (Lucca), Italy
 Invited Speaker, NIMH Workshop on "Making Sense of SCN Heterogeneity: The Tissue is the Issue," Washington, D.C.
 Invited Speaker and Co-Chair, Symposium on "Functional Subdivision Within the Suprachiasmatic Nucleus," 1st World Congress on Chronobiology, Sapporo, Japan
- 2004 Invited Speaker and Co-Chair, Sessions on "Suprachiasmatic Nucleus and Molecular Clock," "Brain Clock and Brain/Sleep," and "Clock Proteins and Human Clocks," 2nd Int. Symposium on "Molecular Clock," Tokyo and Okinawa, Japan
 Invited Speaker, "Use of Stem Cells in Neurodegenerative Diseases - Basics and Applications," Spring School on Regenerative Medicine, Rostock, Germany
 Invited Speaker, Workshop on "Very Large Phase Shifts of the Circadian Clock," 9th Mtg. Soc. Res. Biol. Rhythms, Whistler, BC, Canada
- 2005 Invited Speaker, Session on "Rhythm and Blues for the Clockwork," 10th Congress of the European Pineal and Biological Rhythms Society, Frankfurt, Germany
 Invited Speaker, Symposium on "Neuronal Mechanism of the Mammalian Circadian Timing System," 7th Int. Congress of the Polish Neuroscience Society, Kraków, Poland
- 2006 Invited Speaker and Co-Chair, Symposium on "Temporal Organization of Physiology and Behaviors - Functions of Multi-oscillatory Hierarchical Systems," 83rd Ann. Mtg. Physiol. Soc. Japan, Maebashi, Japan
 Invited Speaker, Minisymposium on "Modeling the Behavior of Coupled Cellular Circadian Oscillators in the Suprachiasmatic Nucleus," Joint Conference on the Life Sciences, Soc. Indust. Appl. Math. / Soc. Math. Biol., Raleigh, NC
 Invited Speaker, Symposium on "Celebration of a Life in Neuroscience: A Symposium to Honor Hal Gainer," Bethesda, MD
 Invited Speaker, Int. Conference on the Frontiers of Biomedical Science: Medical Chronobiology, Chengdu, Sichuan, PR China
- 2007 Invited Speaker, Inaugural Scientific Meeting of the Dutch Center for Timing Research, Rijksuniversiteit Groningen, Groningen, The Netherlands
 Invited Speaker, Symposium on "Synchronization of Circadian and Neuronal Oscillators," 7th Göttingen Mtg. German Neurosci. Soc. / 31st Göttingen Neurobiology Conference, Göttingen, Germany
 Invited Speaker, "Clocks and Rhythms," LXXII Cold Spring Harbor Symposium on Quantitative Biology, Cold Spring Harbor, NY
 Invited Speaker, Gordon Conference on Hormone Action in Development and Cancer, Colby-Sawyer College, New London, NH
 Invited Speaker, 2nd Int. Symposium on "The Future Direction of Oral Sciences in the 21st Century," Univ. Tokushima Grad. School Oral Sciences, Tokushima, Japan
- 2008 Invited Speaker, Symposium on "Interplay Between Circadian and Social Behavior," 11th Mtg. Soc. Res. Biol. Rhythms, Sandestin, FL
 Invited Speaker, Clinical Neurology and Neurosurgery Summer School, University Medical Centre Groningen, Groningen, The Netherlands
 Invited Plenary Speaker, Sleep and Circadian Biology DataBlitz, 38th Ann. Mtg. Soc. Neurosci., Washington, D.C.
- 2009 Invited Speaker, Boston Regional Brain Bee of the Society for Neuroscience, Picower Institute for Learning and Memory, MIT, Cambridge, MA
 Invited Speaker, Berlin Lecture Series on "Circadian Rhythms and Sleep," Charité - Universitätsmedizin Berlin, Germany
 Invited Speaker and Workshop Chair, Symposium on "In Time: Clocks in the Brain and Concepts of Time," School of Behavioral & Cognitive Neurosciences, Rijksuniversiteit Groningen, Groningen, The Netherlands

- Invited Speaker and Co-Chair, Symposium on "Temporal Organization of Physiology and Behavior," 36th Congress Int. Union Physiol. Sci., Kyoto, Japan
- Invited Speaker, Int. Symposium on Biological Rhythm, Sapporo, Japan
- Invited Speaker and Chair, Symposium on "Organization of the Mammalian Circadian Timing System: Centrifugal or Centripetal," 11th Congress of the European Biological Rhythms Society, Strasbourg, France
- Invited Speaker, Symposium on "Circadian Rhythm and Clock Genes: From Molecular Basis to Therapeutic Applications," Versailles, France
- 2010 Invited Discussant, "Meet the Professors," 12th Mtg. Soc. Res. Biol. Rhythms, Sandestin, FL
Invited Faculty, EUCLOCK Autumn School of Chronobiology, Bangalore, India
- 2011 Invited Speaker, Thematic Session on "Mechanisms of Synchronization," 11th Latin American Symposium on Chronobiology, Cholula, Puebla, México
Invited Speaker, Symposium on "Non-photoc entrainment in Mammals," 3rd World Congress on Chronobiology, Puebla de Zaragoza, México
Invited Speaker, Gordon Conference on Chronobiology, Barga (Lucca), Italy
Invited Plenary Lecture, 12th Congress of the European Biological Rhythms Society, Oxford, England
Invited Panelist, Career Development Workshops, 12th Ann. Symposium of the Center for Neuroendocrine Studies, U. Massachusetts, Amherst, MA
- 2012 Invited Speaker, Symposium on "The Diversity, Evolution and Mechanisms Controlling Activity Patterns," Tel Aviv University, Tel Aviv, Israel
Invited Speaker, "Basics of Chronobiology" and "Leading Your Lab," Trainee Professional Development Day, 13th Mtg. Soc. Res. Biol. Rhythms, Sandestin, FL
Invited Lecture, "Social Forces on Clocks: Curious Cases of a Reclusive Yankee and an African Rat," 26th Ann. Mtg. Assoc. Prof. Sleep Soc., Boston, MA
- 2013 Invited Speaker, 4th Ann. Symposium "From Cells to Clinic," Center for Chronobiology, Univ. California San Diego, La Jolla, CA
Invited Faculty, SERB School in Chronobiology, Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore, India
Invited Faculty, International Chronobiology Summer School, Vanderbilt Univ., Nashville, TN
Invited Speaker and Chair, Session on "Neurological Disorders I," Workshop on "Clinical Relevance of Circadian Rhythms," Lorentz International Center for Workshops in the Sciences, Leiden, The Netherlands
Invited Speaker, Symposium on "Thinking Out of the Clock: Biological Rhythms and Circadian Output," XII Latin American Symposium on Chronobiology, Mendoza, Argentina
- 2014 Invited Speaker, Symposium on "NeuroTime and Energy Metabolism," 3rd Ann. Mtg. NeuroTime Program, Amsterdam, The Netherlands

Selected Extramural Seminars and Grand Rounds

Department of Biology, Brandeis University, Waltham, MA
 Department of Biology, Northeastern University, Boston, MA
 Department of Biology, Washington University, St. Louis, MO
 Department of Molecular and Cellular Biology, University of California, Berkeley, CA
 Department of Neurobiology, University of Alabama, Birmingham, AL
 Department of Neurobiology and Behavior, SUNY - Stony Brook University, Stony Brook, NY
 Department of Neurology, University of California San Francisco, School of Medicine, CA
 Department of Neurology, University of Pittsburgh School of Medicine, Pittsburgh, PA
 Department of Neuropharmacology, Scripps Research Institute, La Jolla, CA
 Department of Neuroscience, Brown University, Providence, RI
 Department of Neuroscience, Tufts University School of Medicine, Boston, MA

Department of Pediatrics, Asahikawa Medical College, Asahikawa, Japan
 Department of Physiology, Peking Union Medical College, Beijing, China
 Neuroscience Program, University of Cincinnati College of Medicine, Cincinnati, OH
 Neuroscience Program, University of Connecticut School of Medicine, Farmington, CT
 Neuroscience Program, Texas A & M University, College Station, TX
 Neuroscience and Behavior Program, University of Massachusetts, Amherst, MA
 Molecular, Cellular & Integrative Neuroscience Program, Colorado State University, Ft. Collins, CO
 Faculty of Life Sciences, University of Manchester, Manchester, England
 School of Behavioral & Cognitive Neurosciences, Rijksuniversiteit Groningen, Groningen, The Netherlands
 School of Biological Sciences, University of Auckland, Auckland, New Zealand
 Seminars on Human Neurobiology, Harvard Medical School, Boston, MA
 Sleep Grand Rounds, Brigham and Women's Hospital, Boston, MA
 Case #9-1999, Weekly Clinicopathological Exercises, Massachusetts General Hospital, Boston, MA
 Grand Rounds, College of Medicine, Florida State University, Tallahassee, FL
 Neurology Grand Rounds, Massachusetts General & Brigham and Women's Hospitals, Boston, MA
 Neurology Grand Rounds, Beth Israel Deaconess Medical Center, Boston, MA
 Neurology Grand Rounds, Boston University School of Medicine, Boston, MA
 Neurology Grand Rounds, Tufts – New England Medical Center, Boston, MA
 Neurology Grand Rounds, New York Hospital - Cornell Medical College, New York, NY
 Neurology Grand Rounds, University of California San Diego School of Medicine, La Jolla, CA
 Neurology Grand Rounds, University of Virginia School of Medicine, Charlottesville, VA
 Neurology Grand Rounds, Yale University School of Medicine, New Haven, CT

Teaching Experience:

U. California San Francisco, School of Medicine

1971 Teaching Assistant & Prosector, Dept. of Anatomy
 1973 Instructor, U. California Fencing Club
 1979 Faculty, "Biological Basis of Behavior," Dept. of Psychiatry
 1979 Faculty, Course on Biological Psychiatry, McAuley Neuropsychiatric Institute

Harvard University & Medical School

1982 Tutor in Medical Sciences
 1982-1985 Clinical Faculty, "Introduction to the Nervous System: Basic Neuroanatomy 711.0," Dept. of Anatomy
 1982-1986 Faculty, "Clinico-Pathological Conferences for Neurology-Neuropathology 709.0," Depts. of Neurology & Neuropathology
 1983-1986 Faculty, "Introduction to Clinical Medicine 700M," Dept. of Neurology
 1985 Faculty, "Physiological Timing Systems 712.0," Dept. of Physiology
 1986 Faculty, "Neurobiology of Disease 210," Dept. of Neurobiology
 1986 Faculty, "Information Processing and Behavior," Dept. of Neurobiology, New Pathway Curriculum
 1986 Faculty, "Physiology 700," Dept. of Physiology
 1986-1990 Faculty, "Pathophysiology of Neurological Disease 132," Harvard-M.I.T. Division of Health Sciences & Technology
 1991 Faculty, "Physiological Timing Systems 705.0," Dept. of Physiology
 1991 Faculty, "Chronobiology," Brigham & Women's Postgraduate Medical Series
 1995 Faculty, "Physiological Timing Systems 225," Dept. of Physiology
 1995- Faculty, "Circadian Biology 186," Dept. of Molecular and Cellular Biology

Massachusetts General Hospital

- 1981-1985 Faculty, Postgraduate Course "Neurological & Neurosurgical Intensive Care,"
Neurology, Neurosurgery & Anesthesia Svcs.
1982-1987 Faculty, Postgraduate Course "Neurology: Intensive Review & Update,"
Neurology Service

U. Massachusetts Medical School

- 1986- Faculty, Neurology Clerkship & Resident Lectures, Dept. of Neurology
1987-2011 Faculty, "Mind, Brain & Behavior II," Depts. of Pathology & Neurology
1987-1998 Faculty, Postgraduate Course "Practical Neurology," Dept. of Neurology
1994-2008 Faculty, "Introduction to Neuroscience NE610," Program in Neuroscience
1999-2011 Faculty, Neurology Residents' Conference "NeuroLogic," Dept. of Neurology
2003 Faculty and Co-coordinator, "Bases of Brain Disease NE720d," Program Neurosci.
2003-2010 Faculty, "Mind, Brain & Behavior I," Dept. of Cell Biology
2011- Faculty, Foundations of Medicine, Brain: Nervous Systems and Behavior

International

- 2005 Organizer, Master Class "Introduction to the Biology of Sleep and Sleep Disorders,"
Leiden University Medical Centre, Leiden, The Netherlands
2012 Faculty, "Animal Behaviour" (BIOSCI 337) and "Biological Clocks" (MEDSCI 738)
University of Auckland, Auckland, New Zealand

Research Supervision and Committees:

Pre-doctoral Students

- 1985 Marion Bouchard (now in private medical practice)
1985 David Frim (now Chief of Neurosurgery and Prof. Surgery & Pediatrics, U. Chicago)
1987 Thomas Scammell (now Prof. Neurology, Harvard Medical School)
2010 Krina Shah (now medical student, Dartmouth Medical School)
2010-2011 Changgui Gu (now Post-doc. Fellow, Leiden University Medical Centre)
2013 Thijs Walbeek

Thesis Students

- 2011-2014 Maurine Braun (M.S., Neuroscience, U. Massachusetts Medical School)

Post-doctoral Fellows

- 1984 Robert Gross, M.D., Ph.D. (now Prof. Neurol., Pharmacol., & Physiol., U. Rochester)
1991-1993 Junichi Takeuchi, M.D., Ph.D. (last known, Assoc. Prof. Psych., Yamanashi Med. U., Japan)
1994-1997 Piotr Zlomanczuk, Ph.D. (now Asst. Prof. Physiol., Rydygier Med. Sch., Bydgoszcz, Poland)
1995-1997 Maciej Mrugala, M.D. (now Asst. Prof. Neurol. & Neurosurg., U. Washington, Seattle)
1997-1999 Anita Jagota, Ph.D. (now Assoc. Prof., School of Life Sciences, U. Hyderabad, India)
1997-2002 Hoi Pang Low, Ph.D. (now Res. Asst. Prof. Cancer Biol., U. Mass. Med. Sch., Worcester)
1998-2000 Masato Mitome, D.D.S., Ph.D. (now Prof. & Head, Ped. Dentistry, U. Tokushima, Japan)
1998-2003 Horacio de la Iglesia, Ph.D. (now Prof. Biology, U. Washington, Seattle)
2002-2003 Yusuke Tanahashi, M.D., Ph.D. (now Asst. Prof. Ped. Endo., Asahikawa Med. Coll., Japan)
2002-2005 Mahboubeh Tavakoli, Ph.D. (now Faculty, John A. Logan College, Carterville, IL)
2004-2008 Shirin Haddady, M.D. (now Asst. Prof. Med. & Neurol., U. Mass. Med. Sch., Worcester)
2005-2010 Matthew Paul, Ph.D. (now Post-doc. Fellow, Georgia State U., Atlanta)

2010- Alexandra Castillo-Ruiz, Ph.D.

Ph.D. Thesis Advisory (* as Chair)

1990-1994 David Welsh (Program in Neuroscience, Harvard Medical School)
1993-1997 Lynn DiBenedetto (Dept. Cell Biology, U. Massachusetts Medical School)
1994-1996 Alfred Roca (Program in Neuroscience, Harvard Medical School)
2001-2002 Xiaodong Li (Dept. Biology, Northeastern U., Boston)
2004-2006 Kazuhiko Machida* (Dept. Neurobiology, U. Massachusetts Medical School)
2004-2007 Alejandro Murad (Dept. Neurobiology, U. Massachusetts Medical School)
2004-2007 Ania Busza* (Dept. Neurobiology, U. Massachusetts Medical School)
2008-2011 Arlene Lim (Interdisciplinary Graduate Program, U. Massachusetts Medical School)
2008-2011 Elizabeth Yu* (Dept. Neurobiology, U. Massachusetts Medical School)
2009-2012 Carrie Mahoney (Neuroscience & Behavior Program, U. Massachusetts, Amherst)
2011-2012 Daniel Wreschnig (Dept. Biology, Northeastern University)
2011-2013 Jinli Ling (Dept. Neurobiology, U. Massachusetts Medical School)
2013- Pallavi Lamba (Dept. Neurobiology, U. Massachusetts Medical School)
2013- Emily Manoogian (Neuroscience & Behavior Program, U. Massachusetts, Amherst)

Ph.D. Thesis Defense (* as Chair)

1997 Mary Morris (Ph.D., Neurobiology, Harvard Medical School)
1997 Lynn DiBenedetto (Ph.D., Cell Biology, U. Massachusetts Medical School)
1998 Kim Edelstein (Ph.D., Psychology, Concordia U., Montreal, PQ, Canada)
1999 Mark Zylka (Ph.D., Neurobiology, Harvard Medical School)
2002 Edmund Griffin, Jr. (Ph.D., Neurobiology, Harvard Medical School)
2002 Stephanie Gaus (Ph.D., Neurobiology, Harvard Medical School)
2003 Fu-Chia Yang (Ph.D., Neurobiology, Harvard Medical School)
2005 Dan-Stefan Stoleru (Ph.D., Neuroscience, Brandeis University)
2007 Ania Busza (Ph.D., Neurobiology, U. Massachusetts Medical School)
2010 Leigh Amanda Sadacca (Ph.D., Neurobiology, Harvard Medical School)
2011 Elizabeth Yu* (Ph.D., Neurobiology, U. Massachusetts Medical School)
2012 Konrad Schöttner (Ph.D., Martin-Luther-Universität Halle-Wittenberg, Germany)
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2013 Jinli Ling (Ph.D., Neurobiology, U. Massachusetts Medical School)
2013 Nina Vujovic (Ph.D., Neurobiology, Harvard Medical School)

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Original Investigations

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