

Curriculum Vitae

Name: Peter Jeffrey Conn

Work: P. Jeffrey Conn, Ph.D.
Lee E. Limbird Professor of Pharmacology
Director, Vanderbilt Center for Neuroscience Drug Discovery

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EDUCATION

1977 - 1981 B.S. Lee University, Cleveland, Tennessee (Psychology) (Magna Cum Laude)

1981 - 1982 University of Cincinnati, Cincinnati, Ohio (Physiological Psychology)

1982 - 1986 Ph.D. Vanderbilt University, Nashville, Tennessee (Pharmacology)

PROFESSIONAL TRAINING AND EXPERIENCE

1980 - 1981 Undergraduate Teaching Assistant, Department of Behavioral and Social Sciences, Lee University, Cleveland, Tennessee

1981 - 1982 Graduate Teaching Assistant, Department of Psychology, University of Cincinnati, Cincinnati, Ohio

1986 Research Associate, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, Tennessee

1986 - 1988 Postdoctoral Fellow, Department of Pharmacology, Yale University School of Medicine, New Haven, Connecticut

- 1988 Visiting Lecturer, Yale College, Yale University, New Haven, Connecticut
- 1988 - 1994 Assistant Professor, Department of Pharmacology, Emory University School of Medicine, Atlanta, Georgia
- 1994 - 1999 Associate Professor, Department of Pharmacology, Emory University School of Medicine, Atlanta, Georgia
- 1999 - 2000 Professor, Department of Pharmacology, Emory University School of Medicine, Atlanta, Georgia
- 2000 - 2003 Senior Director and Head, Department of Neuroscience, Merck Research Laboratories, Merck and Company, West Point, Pennsylvania
- 2000 - 2005 Adjunct Professor, Department of Pharmacology, Emory University School of Medicine, Atlanta, Georgia
- 2003 - 2008 Professor, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, Tennessee
- 2003 - 2010 Director, Program in Translational Neuropharmacology, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, Tennessee
- 2004 - 2010 Director, Vanderbilt Program in Drug Discovery, Vanderbilt University School of Medicine, Nashville, Tennessee
- 2006 - 2011 Research Scientist, VA Medical Center, Nashville, Tennessee
- 2008 - present Lee E. Limbird Professor of Pharmacology, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, Tennessee
- 2011 - present Director, Vanderbilt Center for Neuroscience Drug Discovery

CONSULTANCIES AND SCIENTIFIC ADVISORY BOARDS

- 1986 - 1988 Research Consultant, Miles Pharmaceuticals, New Haven, Connecticut.
- 1994 - 1999 Research Consultant, Wyeth Ayerst Pharmaceuticals, Research Division, Princeton, NJ.
Regular weekly visits. Directed research of two full-time laboratory technicians.
- 1996 - 1997 Research Consultant, CNS Research, Eli Lilly and Co, Indianapolis, IN
- 1997 - 2000 Research Consultant, Pfizer Pharmaceuticals, Groton, CT.
- 2003 - 2004 Research Consultant, Boston Scientific, Natick, MA
- 2004 Research Consultant, Merck and Co., West Point, PA
- 2004 Research Consultant, Solvay Pharmaceuticals, Marietta, GA

- 2004 - 2006 Scientific Advisory Board Member, Research Consultant, Prescient Neuropharma, Vancouver, BC, Canada
- 2005 - 2006 Scientific Advisory Panel, Invitrogen Life Technologies, Madison, WI
- 2005 - 2006 Consultant, Renovis Inc., San Francisco, CA
- 2006 - 2007 Consultant, Eli Lilly and Company, Indianapolis, IN
- 2006 - 2007 External Advisory Network, Invitrogen, Madison, WI
- 2006 - 2007 Consultant, Roche Pharmaceutical Co., Palo Alto, CA
- 2004 - 2007 Expert Consultant, Compound Selection Committee, Treatment Units for Research on Neurocognition and Schizophrenia (TURNS)
- 2007 - 2008 CNS Advisory Board Member, Eyeforpharma, London, UK
- 2006 - 2008 Scientific Advisory Board Member, Cephalon, Inc., West Chester, PA
- 2006 - 2008 Scientific Advisory Board Member, AstraZeneca USA, Wilmington, DE
- 2004 - 2008 Scientific Advisory Board Member, Addex Pharmaceuticals, Geneva, Switzerland
- 2007 - 2008 CNS Target Advisory Board, Forest Research Institute, Jersey City, NJ
- 2007 - 2008 Scientific Advisory Board Member, CNS, Roche, Basel, Switzerland
- 2007 - 2008 Consultant, LEK Consulting, Chicago, IL
- 2008 Consultant, Merck and Company, West Point, PA
- 2005 - 2009 Scientific Advisory Board Member, Dystonia Medical Research Foundation, Chicago, IL
- 2007 - 2009 Consultant, Epix Pharmaceuticals, Lexington, MA
- 2008 - 2009 Consultant, AMRI, Albany, NY
- 2008 - 2009 Consultant, Evotec, San Francisco, CA
- 2006 - 2009 Scientific Advisory Board Member, NeuroOP Inc., Atlanta, GA
- 2006 - 2010 Founding Member, Cure Dystonia Initiative Advisory Council (CDIAC), Dystonia Medical Research Foundation, Chicago, IL
- 2008 - 2009 Merck Serono Scientific Advisory Board, Geneva, Switzerland
- 2008 - 2009 Consultant, Genentech., San Francisco, CA
- 2008 - present Consultant, Millipore Corp., St. Charles, MO
- 2005 - present Scientific Advisory Board Member, Seaside Therapeutics, Boston, MA
- 2004 - present Scientific Advisory Board Member, Michael J. Fox Foundation, New York, NY (Executive Scientific Advisory Board Member 2008 -2009)
- 2008 - present Scientific Advisory Board Member, Stanley Center for Psychiatric Research, Broad Institute (MIT/Harvard), Cambridge, MA
- 2009 - present Founding Director, Scientific Advisory Board, Karuna Pharmaceuticals, Boston, MA

Individual Consultant visits with:

- Bristol Myers and Company, Wallingford, CT (1987)
- Merrell Dow Research Institute, Cincinnati, OH (1988, 1991)
- ICI Pharmaceuticals Group, Wilmington, DE (1992)
- Pfizer Pharmaceuticals, Groton, CT (1995)
- Zeneca Pharmaceuticals, Wilmington, DE (1995)
- Parke-Davis Pharmaceuticals, Ann Arbor, MI (1993, 1998)
- Novartis Pharmaceuticals, Basel Switzerland (1999)
- AstraZeneca, Worcester, MA (2000)
- Merck Research Labs, San Diego, La Jolla, CA (2000)

Acadia Pharmaceuticals, San Diego, CA (2003, 2004, 2005)
Merck Research Labs, West Point, PA (2004, 2008)
Neurocrine Biosciences, San Diego, CA (2005)
Serono Pharmaceutical Research Institute, Geneva, Switzerland (2005)
Johnson and Johnson, Raritan, NJ (2005)
Seaside Therapeutics, Boston, MA (2005)
Eli Lilly and Co. Indianapolis, IN (1991, 1995, 1999, 2000, 2003, 2004, 2006-2 visits, 2010)
Roche Palo Alto, Palo Alto, CA (2006)
Forest Research Institute, Newark, NY, (2006)
IMS Health, West Lawn, PA (2007)
Johnson and Johnson, Beerse, Belgium (2007)
Sepracor, Inc., Marlborough, MA (2007)
Lundbeck Research USA, Paramus, NJ (2007)
Otsuka Pharmaceuticals, NJ (2007)
Prestwick Pharmaceutical Company, Washington, DC (2007)
Genentech, Inc., San Francisco, CA (2007)
Primary Insight, New York, NY (2007)
The Frankel Group, New York, NY (2008)
Metastatix, Inc., Atlanta, GA (2008)
GlaxoSmithKline, Harlow, United Kingdom (2007, 2008)
Adolor Corporation, Exton, PA (2008)
Abbott Laboratories, Abbott Park, IL (2009)
PureTech, Boston, MA (2008, 2009, 2010)

HONORS AND AWARDS

1980 - 1981 Undergraduate Honors Teaching Assistant, Lee University
1981 Who's Who Among Students in American Colleges and Universities
1981 Behavioral and Social Sciences Departmental Award, Lee University
1982 University of Cincinnati Summer Research Fellowship
1984 - 1986 Eli Lilly Research Fellowship
1986 American College of Neuropsychopharmacology/ Mead Johnson Travel Award
1988 Winter Conference on Brain Research Fellowship Award
1991 Eli Lilly Graduate Training Award
1998 Distinguished Alumnus in Natural Sciences Award, Lee University
1998 Granted membership in American College of Neuropsychopharmacology
1999 Independent Investigator Award, National Alliance for Research on Schizophrenia and Depression (NARSAD)
2003 ISI Most-Cited Scientists in Pharmacology & Toxicology
2004 NARSAD Essel Investigator; Distinguished Investigator Award, National Alliance for Research on Schizophrenia and Depression (NARSAD)
2007 ASPET-Astellas Award in Translational Pharmacology
2007 Pharmacia - ASPET Award for Experimental Therapeutics
2007 Charles R. Park Award for Basic Revealing Insights into Physiology and Pathophysiology
2007 Discovery Lecturer at Vanderbilt University

2008	Lee University Distinguished Alumnus of the Year Award
2008	PhRMA Foundation Award for Excellence in Pharmacology and Toxicology
2008	Lee E. Limbird Endowed Professor of Pharmacology
2009	Emory Distinguished Lecturer in Pharmacology
2009	Distinguished Guest, Sun Yat-sen University and The South China Center for Innovative Pharmaceuticals, Guangzhou, China
2010	Ralph J. Cazort Heritage Lecture, Meharry Medical College, Nashville, TN.

RESEARCH GRANTS - CURRENT

Functions of Metabotropic Glutamate Receptor Subtypes, 8/1/93 - 4/30/14, NIH/NINDS, RO1, \$1,250,000 direct costs current funding period, P. Jeffrey Conn, Principal Investigator.

Regulation of Signaling by mGluR5, 2/15/01 - 6/30/15, NIH/NIMH, RO1, \$1,400,000 direct costs current funding period, P. Jeffrey Conn, Principal Investigator.

Muscarinic receptor activators as novel antipsychotic agents, 12/01/05 - 11/30/15, NIH/NIMH R01, \$1,450,000 direct costs current funding period, P. Jeffrey Conn, Principal Investigator.

Functional effects of mGluR potentiators in the CNS, 7/1/06 - 5/31/11 NIH/NIMH R01, \$1,000,000 direct costs, P. Jeffrey Conn, Principal Investigator.

Discovery of novel allosteric modulators of mGluR4 for treatment of Parkinson's disease, 12/1/07 - 12/31/11, Michael J. Fox Foundation, LEAPS Award, \$3,909,000 direct costs, P. Jeffrey Conn, Principal Investigator.

Novel strategies for treatment of Fragile X syndrome, 11/1/07 - 4/31/11, Seaside Therapeutics, \$8,500,000 direct costs, P. Jeffrey Conn, Principal Investigator.

Modulators of Metabotropic Glutamate Receptor Subtype 2 for Cocaine Dependence, 9/22/10 - 7/31/15, NIH/NIDA R01, Burnham Institute, \$1,240,934 direct costs, Subcontract Vanderbilt, \$300,000 direct costs, Nicolas Cosford, Principal Investigator; P. Jeffrey Conn, Principal Investigator, Vanderbilt Subcontract.

Selective M1 mAChR allosteric modulators for the treatment of schizophrenia, NIH/NIMH, 5/20/08 - 4/30/13, \$1,250,000 direct costs, Craig Lindsley, Principal Investigator. P. Jeffrey Conn, Co-PI

Partial antagonists of mGluR5 for treatment of cocaine addiction, NIH/NIDA, 3/31/08 - 3/30/13, \$1,500,000 direct costs. Craig Lindsley, Principal Investigator. P. Jeffrey Conn, Co-PI

Vanderbilt Specialized Chemistry Center for Accelerated Probe Development, NIH/NIMH, U54, 9/1/08 - 5/31/14, \$22,000,000 direct costs, Craig W. Lindsley, Principal Investigator, P. Jeffrey Conn, Co-PI

Johnson and Johnson Industry Sponsored Contract, VUMC34998, 12/9/08 - 12/9/11, \$3,257,329 direct costs, P. Jeffrey Conn, Principal Investigator

M4 Positive Allosteric Modulators for the Treatment of Schizophrenia, 8/28/09 - 5/31/14, NIH: RO1, \$1,250,000 direct costs, Carrie Jones, Principal Investigator, P. Jeffrey Conn, Co-PI

Vanderbilt NCDDDG for Discovery of Novel Treatments of Schizophrenia, 2/19/10 - 12/31/14, NIH, U01, \$1,396,532 direct costs, P. Jeffrey Conn, Principal Investigator

Roles of M1 and M4 mAChR subtypes in striatum-implication in dystonia treatment, 4/1/10 - 3/31/15, NIH, RO1, \$1,250,000 direct costs for proposed funding period, Zixiu Xiang, Principal Investigator, P. Jeffrey Conn, Co-PI

Circuitry to therapy: regulation of basal ganglia and antiparkinsonian efforts of muscarinic agents, 9/30/10 - 8/31/15, NIH/Subcontract with Emory University, \$649,120 direct costs, Principal Investigator, P. Jeffrey Conn for Vanderbilt

Discovery of Novel M1 muscarinic receptor antagonists, 1/1/10 - 12/31/14 Industry sponsored contract, \$1,612,905 direct costs

Postdoctoral Training in CNS Drug Discovery Research, 7/4/11 - 06/30/16 NIH/NIMH T32, \$1,097,492 direct costs, Principal Investigator, P. Jeffrey Conn

RESEARCH GRANTS - COMPLETED

Protein Kinase C-Induced Modulation of Calcium Channels, 7/1/87 - 11/31/88, N.I.H. Personal NRSA Postdoctoral Fellowship, P. Jeffrey Conn, Principal Investigator.

Kindling-Induced Changes in Ionic Conductances in Pyramidal Cells of the Piriform Cortex and Hippocampus, 1/1/89 - 12/31/89, \$25,000 direct costs, Emory University (N.I.H. Biomedical Research Support Grant), P. Jeffrey Conn, Principal Investigator.

Cellular Mechanisms of Kindling-Induced Epileptogenesis, 1/1/89 - 12/31/90, \$10,000/year direct costs, Pharmaceutical Manufacturers Association Foundation, P. Jeffrey Conn, Principal Investigator.

Molecular and Cellular Mechanisms of Kindling-Induced Seizure Activity, 8/31/89 - 8/31/90, \$10,000 direct costs, Emory University Research Committee, P. Jeffrey Conn, Principal Investigator.

Changes in Excitatory Amino Acid Neurotransmission Resulting from Kindling-Induced Epileptogenesis, 7/1/90 - 6/31/92, Epilepsy Foundation of America, P. Jeffrey Conn, Principal Investigator, Declined.

Cellular Basis of Long-Lasting Changes in Neuronal Excitability, 2/1/90 - 1/31/95, N.S.F., P. Jeffrey Conn, Principal Investigator, Declined.

Regulation of Synaptic Inhibition in the Hippocampus by G-Protein-Linked Glutamate Receptors, 9/1/92 - 8/31/93, \$10,000 direct costs, Emory University Research Committee, P. Jeffrey Conn, Principal Investigator.

Metabotropic Glutamate Receptors and Synaptic Plasticity, 7/1/92 - 6/30/95, \$128,000 direct costs, Council for Tobacco Research, P. Jeffrey Conn, Principal Investigator.

Cellular Mechanisms of Kindling-Induced Epileptogenesis, 4/1/90 - 3/31/95, \$323,000 direct costs, N.I.H, R29, P. Jeffrey Conn, Principal Investigator.

Cellular Mechanisms of Kindling-Induced Epileptogenesis, 4/1/95 - 3/31/99, \$455,000 direct costs, N.I.H, RO1, P. Jeffrey Conn, Principal Investigator.

Physiological Roles of Muscarinic Acetylcholine Receptor Subtypes in the Hippocampus, 7/1/95 - 12/31/98, \$204,000 direct costs, Council for Tobacco Research, P. Jeffrey Conn, Principal Investigator.

Production and Characterization of Subtype-Specific Antibodies for Metabotropic Glutamate Receptors, 2/1/96 - 12/31/98, \$125,000 direct costs, Wyeth-Ayerst Pharmaceuticals, P. Jeffrey Conn, Principal Investigator.

Neuromodulatory Roles of Multiple Muscarinic Receptor Subtypes, 2/1/96 - 1/31/01, \$540,000 direct costs, N.I.H, RO1, P. Jeffrey Conn, Principal Investigator.

Regulation of NMDA receptors by Muscarinic ACh Receptors, 9/30/97 - 5/31/01, \$547,000 direct costs, N.I.H., RO1, P. Jeffrey Conn, Principal Investigator.

Inhibition of Glutamate Autoreceptor Function as a Novel Strategy for Treatment of Schizophrenia, 9/15/98 - 9/14/00, \$100,000 direct costs, National Alliance for Research on Schizophrenia and Depression (NARSAD) Independent Investigator Award, P. Jeffrey Conn, Principal Investigator.

Regulation of Substantia Nigra Function by GABA-B Receptors, 5/1/00 - 4/31/01, \$40,000 direct costs, Tourette Syndrome Association Research Award, P. Jeffrey Conn, Principal Investigator.

Regulation of Metabotropic Glutamate Receptor Responses by RGS proteins, 2/1/99 - 1/31/01, \$540,000 direct costs, N.I.H. RO1, Julie Saugstad, Principal Investigator.

Muscarinic Receptor Proteins in Alzheimer's Disease, 8/1/99 - 7/31/03, \$1,019,000 direct costs, N.I.H. RO1, Allan Levey, Principal Investigator.

Control of glutamate receptor activation, 7/1/98 - 6/31/02, \$535,000 direct costs, N.I.H., R01, Steven Traynelis, Principal Investigator.

Metabotropic Glutamate Receptor mGluR4 as a Novel Target for Parkinson's Disease Treatment, 8/1/98 - 7/31/02, \$720,000 direct costs, U.S. Army Medical Research and Material Command, Allan Levey, Principal Investigator.

Zinc-Dependent Apparent Desensitization of NMDA Receptors, 7/1/00 - 6/30/04, \$775,000 direct costs, N.I.H. RO1, Fang Zheng, Principal Investigator

Metabotropic Glutamate Receptors in Basal Ganglia, Project in program Center Grant entitled Models of Parkinson's Disease, 9/1/99 - 8/31/04, N.I.H., \$760,000 direct costs for individual project, P. Jeffrey Conn, Principal Investigator of project 5; Mahlon Delong, Principal Investigator of center grant.

Educational Grant in Basic Neuroscience, 07/01/03 - 6/30/04, \$50,000 direct costs, Eli Lilly and Company, P. Jeffrey Conn, Principal Investigator.

Development of a High Throughput Assay for allosteric potentiators of mGluR4, 9/30/04-8/31/05, RO3, NIH/NINDS, \$50,000 direct costs, P. Jeffrey Conn, Principal Investigator.

Allosteric Potentiators of mGluR5 as a novel approach for the treatment of Schizophrenia, 5/1/04-4/30/05, NARSAD, \$100,000 direct costs, P. Jeffrey Conn, Principal Investigator.

Amgen/Vanderbilt Partnership for Drug Discovery, 1/1/05 - 6/31/06, Amgen, P. Jeffrey Conn, Principal Investigator.

Discovery of allosteric potentiators of mGluR7 as novel antiparkinsonian agents, 8/01/05 - 6/30/07, Michael J. Fox Foundation, \$200,000 direct costs. P. Jeffrey Conn, Principal Investigator.

Discovery of Novel Allosteric Modulators of the M1 Muscarinic Receptor, 02/01/06 - 1/31/07, NIH/NMDH, X01, P. Jeffrey Conn, Principal Investigator (Facilities access grant).

Allosteric Potentiators of mGluR5 as a novel approach for the treatment of schizophrenia, 9/01/04 - 8/31/06, Stanley Medical Research Institute, \$150,000 direct costs, P. Jeffrey Conn, Principal Investigator.

An MLSCN for GPCRs, Ion Channels, and Transporters, 3/1/05 - 2/28/08, NIH/NIMH, U54, \$7,500,000 direct costs, David Weaver, P. Jeffrey Conn, Co- Principal Investigators.

mGluR4 potentiators as a Treatment for Parkinson's Disease, 12/01/05 - 11/30/07, NIH/NINDS R21, \$250,000 direct costs. P. Jeffrey Conn, Principal Investigator.

A Direct Assay for HTS of Gi/Go-Linked GPCRs: mGluR7 as the Prototype, 9/30/05 - 9/29/07, NIH/NINDS, R21, \$125,000 direct costs, Colleen Niswender, Principal Investigator.

Metabotropic Glutamate Receptors in Basal Ganglia, 12/01/04 - 11/30/09, NIH/NINDS, RO1, \$1,165,000 direct costs, P. Jeffrey Conn, Principal Investigator.

TRAINING GRANTS

Manisha A. Desai, Predoctoral Graduate Training Award, Eli Lilly and Company, 10/1/91 - 9/31/93.

Valerie Boss, NIH NRSA Postdoctoral Training Award, Multiple subtypes of metabotropic glutamate receptors, 7/1/92 - 6/30/95.

Danny G. Winder, NIH NRSA Predoctoral Graduate Training Award, Regulation of kainate-evoked currents by mGluRs, 10/1/93 - 9/30/95.

Heather Prince Miller, Predoctoral Graduate Training Award, Pharmaceutical Manufacturers Research Association Foundation, AMPA receptor subunit expression and physiology in kindling, 1/1/94 - 12/31/96.

Dorothy S. Chung, NIH NRSA Predoctoral Graduate Training Award, The role of mGluR1a in hippocampal interneurons, 9/1/94 - 8/31/96.

Stefania Risso Bradley, NIH NRSA Postdoctoral Training Award, Physiological roles of mGluR4a in the hippocampus, 6/1/95 - 2/28/99.

Fang Zheng, NIH NRSA Postdoctoral Training Award, Presynaptic roles of group II mGluRs in hippocampus, 12/1/97 - 11/30/99.

Michael J. Marino, NIH NRSA Postdoctoral Training Award, Physiological roles of the m1 muscarinic receptor, 4/1/97 - 3/31/98.

Susan Taylor Rouse, NIH NRSA Postdoctoral Training Award, Muscarinic acetylcholine receptors in perforant pathways, 10/1/97 - 9/30/00.

Sudar Alagarsamy, NIH NRSA Postdoctoral Training Award, Mechanism of NMDA regulation of mGluR5 function, 9/1/97 - 8/31/00.

Thomas A. Macek, NIH NRSA Predoctoral Graduate Training Award, Modulation of mGluR7 function by protein kinase C, 5/1/98 - 4/30/00.

Hervé Schaffhauser, National Alliance on Schizophrenia and Depression (NARSAD) Young Investigator Award, Molecular Aspect of Inhibition of group II metabotropic glutamate receptors by protein kinase C, 7/1/99 - 6/31/01.

Fang Zheng, National Alliance on Schizophrenia and Depression (NARSAD) Young Investigator Award, Reduction of zinc inhibition of NMDA receptor by tyrosine kinase as a new strategy for development of antipsychotic agents, 7/1/99 - 6/31/01.

Richard Peavy, NIH NRSA Predoctoral Graduate Training Award, Desensitization of mGluR5 in astrocytes mediated by PKC, 7/1/99 - 6/31/01.

Michael Marino, National Parkinson's Disease Foundation, Metabotropic glutamate receptors as a novel target for prevention of Parkinson's Disease, 6/1/99 - 5/31/00.

Scott Sorensen, NIH NRSA Postdoctoral Training Award, GRK2-mediated regulation of mGluR5 signaling, 4/1/00 - 3/31/03.

Rodriguez, Alice, NIH NRSA Postdoctoral Training Award, Development of allosteric potentiators of mGluR4, 9/1/04 - 8/31/07.

Jones, Carrie, Pharmaceutical Research and Manufacturers Association Postdoctoral Fellowship, Allosteric potentiators of mGluR5 as a novel approach to treatment of schizophrenia, 2/01/06 - 10/31/06.

Jones, Carrie, NIH NRSA Postdoctoral Training Award, mGluR5 allosteric potentiators: In Vivo Characterization, 11/1/06 - 10/31/08.

Shirey, Jana, NIH NRSA, Graduate Student Training Award, Development and use of novel allosteric potentiators to study the role of M4 mAChR in modulating hippocampal neurotransmission, 07/01/07 - 06/30/09.

Sheffler, Doug, Pharmaceutical Research and Manufacturers Association Postdoctoral Fellowship, Regulation of mGluR1 function by positive allosteric modulators, 08/01/07 - 07/31/09.

Brady, Ashley, NRSA, Ruth L. Kirschstein National Research Service Award, Ectopic activators of M1 as novel antipsychotic agents, 09/01/07 - 08/31/09.

Jones, Paulianda, Pharmaceutical Research and Manufacturers Association Postdoctoral Fellowship, Activation of group II mGlu receptors by agonists and positive allosteric modulators, 02/01/08 - 01/31/10.

Digby, Gregory, NIH/NIMH, Allosteric and orthosteric agonists differentially activate M1 ACh Receptors, 09/01/09 - 08/31/12.

Rook, Jerri, NIH/NIMH, In Vivo characterization of mGluR5 positive allosteric modulators, 09/01/09 - 08/31/12.

Noetzel, Meredith, NIH/NIMH, Characterization of the molecular biological effects of M1 allosteric modulators, 07/01/2010 - 06/30/13.

Foster, Daniel, NHI/NIMH, Elucidation of M5 muscarinic receptor Neurophysiology using allosteric modulators, 05/01/2011 - 04/30/2014.

GRADUATE STUDENTS

Manisha A. Desai, Emory Department of Pharmacology Graduate Program, 1988 - 1993;
Currently, Patent Attorney, Eli Lilly and Company, Indianapolis, IN.

Danny G. Winder, Emory Neuroscience Graduate Program, 1990 - 1996; Currently, Associate Professor, Department of Physiology, Vanderbilt University School of Medicine.

Rob W. Gereau, Emory Neuroscience Graduate Program, 1991 - 1995; Currently, Chief, Basic Research Section and Associate Professor, Department of Anesthesiology, Washington University School of Medicine.

Dorothy S. Chung, Emory Neuroscience Graduate Program, MD/PhD Program, 1992 - 1997;
Currently, Neurology Resident, Johns Hopkins University.

Heather Prince Miller, Emory Neuroscience Graduate Program, 1991 - 1997; Currently, Clinical Research Scientist, Cato Research, Ltd., Durham, NC.

Thomas A. Macek, Emory Molecular Therapeutics and Toxicology Graduate Program, 1994 - 1999; Currently, Clinical Director, Clinical Neurosciences, Takeda Pharmaceuticals.

Richard D. Peavy, Emory Molecular Therapeutics and Toxicology Graduate Program, 1995 - 2001; Currently, Scientific Operations Manager, Laboratory of Allergic Diseases, National Institute of Allergy and Infectious Diseases.

Hazar Awad Granko, Emory Molecular Therapeutics and Toxicology Graduate Program, 1996 - 2001; Currently, Associate Director, Regulatory Affairs, Pearl Therapeutics, Raleigh, NC.

Marion Wittmann, Department of Physiology, University of Tübingen, Tübingen, Germany, 1998 – 2001; Currently, Senior Research Biologist, Merck Research Laboratories, West Point, PA.

Olga Maltseva-Poisik, Emory University Neuroscience Graduate Program, 1999 - 2006;
Currently, Postdoctoral Fellow, Ion Channel Physiology Group, NIEHS/NIH, Research Triangle Park, NC.

Yelin Chen, Vanderbilt University Neuroscience Graduate Program, 2003 - 2007;
Currently, Postdoctoral Associate, Picower Institute for Learning and Memory, MIT, Cambridge, MA.

Sameer Sharma, Vanderbilt University, Department of Pharmacology (Craig Lindsley, co-mentor), 2007 - 2009; Currently, Research Assistant, Department of Pharmacology, Vanderbilt Medical Center.

Jennifer Edl-Ayala, Vanderbilt University, Department of Pharmacology, 2004 - 2009; Currently, Postdoctoral Fellow at University of Florida.

Jana Shirey, Vanderbilt University, Department of Pharmacology, 2004 - 2010; Currently, Postdoctoral Fellow, Vanderbilt University.

Alexis Hammond, Vanderbilt University, Department of Pharmacology, 2006 - 2011; Currently, Clinical Fellow at Georgetown University.

Tom Bridges, Vanderbilt University, Department of Pharmacology (Craig Lindsley, co-mentor), 2007 - 2010; Currently, Postdoctoral Fellow at Vanderbilt University.

Evan Lebois, Vanderbilt University, Department of Pharmacology (Craig Lindsley, co-mentor), 2007 - 2010; Currently, Graduate Student at Emory University.

Nicole Miller, Vanderbilt University, Department of Pharmacology, 2007 - 2010; Currently, Staff Scientist at NIH.

Kari Johnson, Vanderbilt University, Department of Pharmacology, 2006 - present.

Shen Yin, Vanderbilt University, Department of Pharmacology, 2009 - present.

POSTDOCTORAL FELLOWS AND RESEARCH FACULTY

Valerie Boss, 1991 -1994; Currently, Assistant Professor, Emory University.

Stefania Risso Bradley, 1994 - 1999; Currently, Senior Research Scientist, Merck Pharmaceuticals, West Point, PA.

Haley Berson Melikian, 1995 - 1997; Currently, Assistant Professor, University of Massachusetts School of Medicine, Brudnick Neuropsychiatric Research Institute.

Fang Zheng, 1995 - 2000; Currently, Assistant Professor, Department of Pharmacology and Toxicology, University of Arkansas School of Medicine.

Susan Taylor Rouse, 1996 - 1999; Currently, Assistant Professor, Science Division, Southern Wesleyan University.

Julie Saugstad, Research Assistant Professor, 1996 - 2000, Currently, Assistant Scientist, Legacy Neurobiology Research, Portland, OR.

Hervé Schaffhauser, 1998 - 2000; Currently, Scientist, Hoffmann-La Roche Ltd. Basel, Switzerland.

Michael J. Marino, 1995 - 2001; Director, Neuroscience, Merck Pharmaceutical Company, West Point, PA.

Sudar Alagarsamy, 1996 - 2001; Currently, Senior Research Biologist, Ferring Research Institute, Inc, San Diego, CA.

Guido Mannaioni, 1999 - 2001; Currently, Associate Professor, University of Florence, Florence, Italy.

Scott Sorensen, 1999 - 2001; Currently, Senior Research Scientist, Inspire Pharmaceuticals, Durham, NC.

Zhaohui Cai, 1999 - 2001; Currently, Senior Scientist, Paradigm Genetics, Inc., Research Triangle Park, NC.

Kelly Ciambor, 2000 - 2001; Currently, Licensing Agent with Emory University Office of Technology Transfer, Emory University, Atlanta, GA.

Ornella Valenti, 2000 - 2003; Currently, Postdoctoral Fellow, University of Pittsburgh, Pittsburgh, PA.

Marion Wittmann, 2001 - 2003; Currently, Principal Scientist, Biogen Idec, Cambridge, MA.

Yongqin Zhang, 2003 - 2005; Currently, Postdoctoral Fellow, Department of Pediatrics, Vanderbilt Medical Center, Nashville, TN.

Ruggero Galici, 2004 - 2005; Currently, Senior Research Biologist, Johnson and Johnson, San Diego, CA.

Kamondanai Hemstapat, 2004 - 2006; Currently, Research Fellow, University of Miami, Miami, FL.

Yi Nong, 2004 - 2006; Currently, Research Assistant Professor, Rockefeller University, New York, NY.

Jessica Banko, 2005 - 2006; Currently, Director, Office of Research Services, College of Medicine and Assistant Professor, Department of Molecular Medicine, Vanderbilt University, Nashville, TN.

Marketa Marvonova, 2005-2006; Currently, Assistant Professor of Clinical Practice, Midway College School of Pharmacy, Paintsville, KY.

Joy Marlo, 2006- 2009; Currently, working at home.

Paulianda Jones, 2007 - 2009; Currently, Assistant Professor, Ethical Culture Fieldston School, Department of Science, New York, NY.

Ashley Brady, 2005 - 2009; Currently, Associate Director of Development, Biomedical Research, Vanderbilt University Medical Center.

Alice Rodriguez, 2003 - 2007; Vanderbilt University, Department of Pharmacology, Currently, Instructor, Department of Pharmacology, Vanderbilt Center for Neuroscience Drug Discovery, Vanderbilt University.

Colleen Niswender, 2004 - 2006; Vanderbilt University, Department of Pharmacology, Currently, Associate Professor of Pharmacology, Director , Molecular Pharmacology, Vanderbilt Center for Neuroscience Drug Discovery, Vanderbilt University.

Carrie Jones, 2005 - 2009; Currently, Assistant Professor of Pharmacology, Director, In Vivo Pharmacology, Vanderbilt Center for Neuroscience Drug Discovery, Vanderbilt University.

Doug Sheffler, 2005 - 2010; Assistant Professor of Pharmacology, Associate Director, Molecular Pharmacology, Vanderbilt Center for Neuroscience Drug Discovery, Vanderbilt University.

Analisa Thompson, 2007- 2009; Currently, Senior Scientist, Vanderbilt Center for Neuroscience Drug Discovery, Vanderbilt University, Department of Pharmacology.

Satywan Jadhav, 2008 - present; Vanderbilt University, Department of Pharmacology.

Jerri Rook, 2008 - present; Vanderbilt University, Department of Pharmacology.

Greg Digby, 2008 - present; Vanderbilt University, Department of Pharmacology.

Thomas Utley, 2009 - present; Vanderbilt University, Department of Pharmacology.

Meredith Noetzel, 2009 - present; Vanderbilt University, Department of Pharmacology.

Elizabeth Herman, 2009 - present; Vanderbilt University, Department of Pharmacology.

Karen Gregory, 2009 - present; Vanderbilt University, Department of Pharmacology.

Kera Lawson 2009 - present; Vanderbilt University, Department of Pharmacology.

Julie Field, 2009 - present; Vanderbilt University, Department of Pharmacology.

Jonathan Dickerson, 2010 - present; Vanderbilt University, Department of Pharmacology.

Adam Walker, 2010 - present; Vanderbilt University, Department of Pharmacology.

Dan Foster; 2010 - present, Vanderbilt University, Department of Pharmacology.

GRADUATE STUDENT COMMITTEES

Emory University: Bryan Atkinson, Hong Ying Zhong, Tracey Theroux, Michell Kalis, Jim Kiley, Haley Melikian, Susan Taylor, Deedra Woolfolk, Jenni Palocsik, Amy Waddel, Michelle Gilmore, Tracy Thomas, Brenden Guingrich, Shelly Wood, Audra Brown, Fernanda Laezza, Stephanie

Dall Vechia, Jennifer Berkeley, Laura Volpicelli, Cecily Hammil, Masa Kuwajima, Gus Davis, Evan LeBois.

Vanderbilt University: Mihaela Bazalakova (2003-2007, Committee Chair), Amanda Vanhoose (2003 - 2005), Brad Greuter (2003-2005), Ming Xu (2003-2006), Michael Bennyworth (2003-2007, Committee Chair), Elizabeth Hackler (2004-2007), Will Oldham (2004-2007), Kyle Arneson (2004-2007), Eun-Ja Yoon (2004-2008, Committee Chair), Jennifer Veale (2004-present), Uade DaSilva (2004-2009), Bryan Voss (2004-present), Jennifer Steiner (2004-present). Sunita Misra (2004 - 2008, Committee Chair), Richard Gustin (2005 - present), Bonnie Garcia (2006-present), Phil Kennedy (2006-present), Julie Field, (2006-present), Heather Gosnell (2006-present), Jenny Madison (2007-2009), David Lund (2007-present), Summer Young (2009-present), Katherine Betke (2009-present Committee Chair), Jason Klug (2010-present), Elizabeth Dong (2010-present), Leslie Aldrich (2010-present).

ROTATION STUDENTS

Traci Thomas (1993), Karen Nutt (1993), Deepa Joshi (1994), Gretchun VonAlman (1995), Brenden Guingrich (1995), Charlotte Owens (1995), Orem Levey (1996), David Wolf (1996), Laura Volpicelli (1998), Walter Hubert (1998), David Guttman (1998), Chris Bowden (1998), Candice Junge (1999), Alisa Guttman (2000), Vidya Balasubramanian (2000), Masa Kuwajima (2000), Anthony Blount (2003), Gia Piak (2003), Matt Judson (2004), Jana Shirey (2004), Vandana Grover (2004), Jennifer Edl (2004), Dalyir Pretto (2004), Christina Stujenske (2004), Julie Field (2004), Alisha Russell (2004), Sheila Kosnoor (2004), Kirsten Hemelke (2004), Yerai Oliveres (2004), Jaqueline Recktenwald, (2005), Jennifer Madison (2005), Bill Nobis (2005), Sonya Dave (2005), Aliya Fredrick (2006), Jason Klug (2007), Evan Lebois (2007), Katherine Betke (2008), Shen Yin (2009), Alexander Nackenoff (2009), JT Brogan (2009), Kevin Kumar (2010).

UNDERGRADUATE RESEARCH STUDENTS

Tommy Hahm (1992), Timothy Shane Smith (1993), Temeika Smith (1994), Afua Boaten (1994), Carolyn Conley (1995), Trisha Ritch (1995 - 1996), Chris Conn (1996), Anastassios Tzingounis (1995 - 1997), Prasad Reddy (1998 - 1999), Todd Deveau (2004), Katja Mimms (2004), Lily Williams (2005 - 2006), B.J. Johnson (2005), Jonathan Reeves (2005, 2006), Samuel Kane (2007-2009), Brianna Mann (2007-2008), John Rosanelli (2008-present), Catherine Ruelens (2009-2010), Emma Squire (2011).

TEACHING RESPONSIBILITIES

1987 - 1988	Course Director, Neurobiology of Drug Abuse (Undergraduates)
1989 - 2000	Medical Pharmacology (Medical Students)
1989 - 2000	Pharmacology for Allied Health Professionals

1989 - 2000	Introductory Pharmacology (Graduate Students)
1989 - 2000	Neuropharmacology (Graduate Students)
1989 - 1990	Developmental Neurobiology (Graduate Students)
1990 - 2000	Cellular Neurobiology (Graduate Students)
1990 - 1995	Systems of Neuroscience (Graduate Students)
1993 - 1994	Co-director - Advanced Graduate Seminar (Graduate Students)
1997 - 2000	Course Director - Principles of Molecular Therapeutics and Toxicology (Graduate Students)
2004 - 2007	Pharmacological Targets and Mechanisms (Graduate Students)
2004 -	Biotech and Pharma Industries (MBA Students)
2004 -	Foundations of Neuroscience (Graduate Students)
2005 -	Molecular Basis of Psychotropic Drug Action (Graduate Students)
2005	Cell and Developmental Biology / Biotech (Graduate Students)
2005 -	Drug and Device Development (Graduate Students)
2007 -	Modern Drug Discovery Course - Director (Graduate Students)
2010-	NSC 235 The Biological Basis of Mental Disorders (Undergraduate Students)

INTRAMURAL ACTIVITIES

Emory

1990 - 1993	Graduate Recruitment Committee, Graduate Program in Physiological and Pharmacological Sciences
1991 - 1993	Executive Committee, Graduate Program in Physiological and Pharmacological Sciences
1992 - 1993	Graduate Admissions Committee, Graduate Program in Neuroscience
1990 - 1993	Director, Summer Research Scholars Program, Graduate Division of Biological and Biomedical Sciences
1993 - 1996	Director of Graduate Studies, Graduate Program in Neuroscience
1994 - 1996	Qualifying Examination Committee, Graduate Program in Physiological and Pharmacological Sciences
1996 - 1997	Admissions Committee, MD/Ph.D. Program
1995 - 1996	Executive Committee, Howard Hughes Medical Institute Undergraduate Research Program
1993 - 1998	Executive Committee, Graduate Program in Neuroscience
1995 - 2002	Emory University Committee on Promotions and Tenure
1999	Qualifying Examination Committee, Graduate Program in Molecular Therapeutics and Toxicology

Vanderbilt

2003	Synthetic/Medicinal Chemistry Faculty Search Committee, Department of Chemistry
2004 - 2005	Recruitment Committee for Structural Biologist, Department of Pharmacology
2004 - 2005	Chemical Safety Committee
2004 - 2005	Chair, Neuroscience Program Self Study Committee

2003 - 2005	Faculty Mentoring Committee, Richard Nass
2003 - 2005	Faculty Mentoring Committee, Christine Saunders
2005	Recruitment Committee for Drug Disposition, Division of Clinical Pharmacology, Vanderbilt University
2004 - 2006	Organizer, Vanderbilt Department of Pharmacology Seminar Series
2005	VICB Synthetic Chemistry Core Search Committee
2005	Organizing Committee, Career Opportunities in the Biological and Biomedical Sciences
2005 - 2006	VICB Faculty Recruitment Search Committee
2006 - 2007	Chair, Vanderbilt Therapeutic Discovery Grant Review Panel
2006 - 2007	Recruitment Committee for Drug Disposition, Division of Clinical Pharmacology, Vanderbilt University
2004 - 2007	Vanderbilt Pharmacology Development Committee
2007 - 2008	Vanderbilt Faculty Mentoring Committee Chair, Craig Lindsley
2007 - 2008	Search Committee, Pharmacology/Bone Biology Medicinal Chemistry
2007 - 2009	Qualifying Exam Committee, Pharmacology Graduate Training Program
2004 - 2010	Vanderbilt Institute for Chemical Biology, Executive Committee
2004 - 2010	Vanderbilt Faculty Mentoring Committee, Tony Forster
2005 - 2010	Advisory Board, VICB HTS facility
2007 - 2011	R&D Committee, VA Medical Center
2010	Postdoctoral Affairs Director Search Committee
2003 - present	Vanderbilt Pharmacology Training Program Advisory Committee
2004 - present	Vanderbilt Faculty Mentoring Committee, Eugenia Gurevich
2007 - present	Vanderbilt Faculty Mentoring Committee, Ben Spiller
2007 - present	Vanderbilt Faculty Mentoring Committee, Gregory Mathews
2008 - present	Large Animal Advisory Committee
2008 - present	VICB Synthesis Core Advisory Board
2010 - present	Internal Advisory Committee Radiochemistry Research Faculty
2010 - present	Vanderbilt Faculty Mentoring Committee, Carrie Jones
2010 - present	Vanderbilt Faculty Mentoring Committee, Scott Daniels
2010 - present	Vanderbilt Faculty Mentoring Committee, Qi Zhang
2011 - present	Vanderbilt Institute for Clinical and Translational Research Internal Advisory Committee
2011- present	Search Committee, Radiology and Radiological Sciences

EXTRAMURAL ACTIVITIES

1987 -	Reviewer of grant applications for National Science Foundation (U.S.A.), U.S. Veterans Administration, Swiss National Science Foundation, and The Wellcome Trust, U.K.
1991 - 1993	Councilor, Atlanta Chapter of Society of Neuroscience
1991	Chairman, Second Messengers I slide session, Society for Neuroscience 21st Annual Meeting, New Orleans, Louisiana
1993 - 1995	Dissertation committee for Tracy Kneisler, Department of Pharmacology, University of North Carolina, Chapel Hill, North Carolina

- 1994 Ad Hoc member, N.I.H. Neurological Sciences Study Section II
- 1994 Special Emphasis Panel, N.I.H. Neurological Sciences Study Section II.
- 1995 Dissertation committee for Jeffrey Kogan, Department of Cellular and Molecular Physiology, Yale University, New Haven, Connecticut
- 1995 - 1998 Committee on Public Information, American Society for Pharmacology and Experimental Therapeutics
- 1996 - 1997 Committee Chair, Committee on Public Information, American Society for Pharmacology and Experimental Therapeutics
- 1997 Special Emphasis Panel of N.I.H. National Institute on Neurological Disorders and Stroke, Scientific Review Branch
- 1997 Dissertation committee for Gilles Dubè, Department of Physiology, University of Ottawa, Ottawa, Ontario, Canada
- 1997 - 2000 Program Committee, Society for Neuroscience
- 1998 Behavioral and Neurosciences Special Emphasis Panel, N.I.H., NINDS Scientific Review Branch
- 1998 - 2001 Regular member, NIH Brain Disorders and Clinical - 2 Study Section
- 1998 - 2000 Thesis committee for Phillip Harp, Georgia Institute of Technology, Atlanta, Georgia
- 1998 - 2003 Consultant, Program Project Grant - Regulation of Neuronal Excitability, Department of Neuroscience, Baylor College of Medicine, Houston, Texas
- 2001 - 2003 Executive Committee, American Society for Pharmacology and Experimental Therapeutics (ASPET) Neuropharmacology Division
- 2003 - 2004 NIMH National Advisory Mental Health Council (NAMHC)
- 2004 - 2005 Pharmacia-ASPET Award for Experimental Therapeutics Committee
- 2004 Michael J. Fox Foundation Panel to Evaluate Opportunities to Contribute to Drug Discovery in Parkinson's Disease
- 2004 Co-organizer, Study Group, Early Phase Drug Discovery in the 21st Century: Are Academic, Government, and Industrial Partnerships Possible? Annual Meeting of the American College of Neuropsychopharmacology (ACNP), San Juan, Puerto Rico
- 2004 Special Emphasis Panel, NIMH Cooperative Drug Development Group program (CDDG)
- 2005 Participant, NIH NINDS Parkinson's Disease Research Summit; Strategic planning for support of Parkinson's disease research
- 2005 Organizing Committee, Fifth Annual Meeting on Metabotropic Glutamate Receptors, Taormina, Italy
- 2005 Chair, NIH MLSCN Steering Committee Administrative Subgroup
- 2005 Michael J. Fox Foundation Fast Track Award Review Committee
- 2006 Chair, Michael J. Fox Foundation Drug Discovery Award Review Committee
- 2007 Organizing Committee, National Academies of Science Institute of Medicine Forum on Drug Discovery, Development, and Translation
- 2006 Dystonia Foundation Research Grant Review Committee
- 2006 - 2007 American Society for Pharmacology and Experimental Therapeutics (ASPET) Award Committee
- 2006 - 2007 Chair Elect, Neuropharmacology Division, American Society for Pharmacology and Experimental Therapeutics (ASPET)

2003 - 2007	Liaison Committee with Governmental Agencies and the Pharmaceutical Industry, American College of Neuropsychopharmacology (ACNP)
2004 - 2007	Expert Consultant, Compound Selection Committee, Treatment Units for Research on Neurocognition and Schizophrenia (TURNS)
2008	Board of Scientific Counselors, Ad hoc member, NIH, NIDDK Intramural Program Review
2008	Technical Evaluation Panel, NIMH Program Review
2007 - 2009	Chair, Neuropharmacology Division, American Society for Pharmacology and Experimental Therapeutics (ASPET)
2005 - 2008	NIH Molecular Libraries Screening Centers Network (MLSCN) Steering Committee
2006 - 2011	Member, Publications Board of Trust, American Society for Pharmacology and Experimental Therapeutics (ASPET)
2007 - 2009	Executive Scientific Advisory Board, Michael J. Fox Foundation
2009 - 2010	NIMH National Advisory Mental Health Council (NAMHC)
2010	NIH Blueprint for Neuroscience Research Study Section
1999 - present	International Union of Pharmacology (IUPHAR) subcommittee on Metabotropic Glutamate Receptors
2005 - present	Scientific Advisory Board, Michael J. Fox Foundation
2009 - present	Center for the Neurobiology of Addiction Treatment Advisory Board
2010 - present	Allosteric Modulator Drug Discovery Congress Advisory Board
2011 - present	Member, The National Center for Research Resources (NCRR) Special Emphasis Panel for evaluation of Center for Translational Science Awards competitive revisions
2011 - present	NINDS Blueprint Neurotherapeutics Steering Committee
2011 - present	Scientific Advisory Board, Johns Hopkins' Lieber Center

EDITORIAL ACTIVITIES

1987 -	Reviewer of manuscripts for European Journal of Pharmacology, Journal of Pharmacology and Experimental Therapeutics, Experimental Neurology, Experimental Eye Research, Neurodegeneration, Journal of Experimental Biology, Learning and Memory, Neuroscience Letters, Journal of Neurochemistry, British Journal of Pharmacology, Journal of Neuroscience, Synapse, Molecular Pharmacology, Science, Journal of Biological Chemistry, Journal of Neurophysiology, Neuron, Journal of Physiology (London), Neuroscience, European Journal of Neuroscience, Neuropharmacology, Proceedings of the National Academy of Science (USA), Nature Neuroscience
1995 - 2000	Associate Editor, <i>Molecular Pharmacology</i>
2001	Guest Editor, <i>Pharmacology, Biochemistry and Behavior</i> , Special issue dedicated to Metabotropic Glutamate Receptors
2001	Guest Editor, <i>Current Drug Targets, CNS and Neurological Disorders</i> Special issue dedicated to Metabotropic Glutamate Receptors.
1996 - 2001	Editorial Board Member - <i>Neuroscience Net</i>
1993 - 2004	Editorial Board Member - <i>SYNAPSE</i>

2003 - 2005	Editorial Board Member - <i>Medicinal Chemistry Reviews</i>
2004 - 2007	Editorial Board Member - <i>Neurobiology of Disease</i>
2006 - 2011	Editor in Chief, <i>Molecular Pharmacology</i>
1998 - 2011	Handling Editor - <i>Journal of Neurochemistry</i>
2000 - present	Editorial Board Member - <i>Current Drug Targets, CNS and Neurological Disorders</i>
2002 - present	Regional Editor (USA) - <i>Current Neuropharmacology</i>
2002 - present	Editorial Board Member - <i>Letters in Drug Design & Discovery</i>
2004 - present	Editorial Board Member - <i>Medicinal Chemistry</i>
2009 - present	Honorary Editorial Board Member - <i>International Journal of High Throughput Screening</i>
2010 - present	Editorial Advisory Board Member - <i>ACS Medicinal Chemistry Letters</i>
2011 - present	Editorial Board Member - <i>Journal of Clinical and Experimental Pharmacology</i>

PROFESSIONAL SOCIETIES

American College of Neuropsychopharmacology (ACNP)
American Association for the Advancement of Science
American Society for Pharmacology and Experimental Therapeutics
Society for Neuroscience
International Brain Research Organization
International Basal Ganglia Society
American Chemical Society

INVITED PRESENTATIONS

1987

Invited Speaker, Department of Psychiatry, University of Cincinnati School of Medicine, Cincinnati, OH
Invited Speaker, Department of Preclinical CNS Research, Bristol Meyers Company, Wallingford, CT

1988

Invited Speaker, Department of Pharmacological Sciences, Merrell Dow Research Institute, Cincinnati, OH
Invited Speaker, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, TN
Invited Speaker, Symposium, Neuromodulation in Model Systems, Annual meeting of the European Society for Neuroscience, Goteberg, Sweden

1989

Invited Speaker, Symposium, Winter Conference on Brain Research, Snowbird, UT

1990

Symposium Chair, Symposium, Metabotropic Glutamate Receptors in the CNS, Winter Conference on Brain Research, Snowmass, CO
Invited Speaker, Society for Neuroscience, Atlanta Chapter, Annual Neuroscience Symposium, Atlanta, GA

1991

Invited Speaker, Department of Biology, Central Missouri State University, Warrensburg, MO
Invited Speaker, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN
Invited Speaker, Department of Pharmacological Sciences, Merrell Dow Research Institute, Cincinnati, OH
Invited Speaker, Department of Biology, St. Lawrence University, Canton, NY

1992

Invited Speaker, ICI Pharmaceuticals Group, Wilmington, DE

1993

Invited Speaker, Parke-Davis Pharmaceuticals, Ann Arbor, MI
Invited Speaker, Symposium, First International Meeting on Metabotropic Glutamate Receptors, Taormina, Italy

1994

Invited Speaker, Neuroscience Program, University of Pennsylvania, Philadelphia, PA
Invited Speaker, Symposium, XIXth Congress of Collegium Internationale Neuro-Psychopharmacologicum, Washington, DC
Invited Speaker, Department of Pharmacology, Georgetown University School of Medicine, Washington, DC
Invited Speaker, Spring Hippocampal Research Conference, Grand Cayman, BWI
Invited Speaker, Symposium, Glutamate Targets for Schizophrenia Symposium, Wyeth Ayerst Pharmaceuticals, Research Division, Princeton, NJ
Invited Speaker, Glutamate Program Project Group, Georgetown Univ. School of Medicine, Washington, DC

1995

Invited Speaker, Council for Tobacco Research, Spring Symposium, New York, NY
Invited Speaker, Division of Neuroscience, Visiting Professor Series, University of Pittsburgh, Pittsburgh, PA
Invited Speaker, Neuronal and Behavioral Plasticity - Amino Acids and Amines, University of Texas, Galveston (Satellite Symposium of the 1995 meeting of the Society for Neuroscience), Galveston, TX
Invited Speaker, Wyeth Ayerst Pharmaceuticals, Research Division, Princeton, NJ
Invited Speaker, Zeneca Pharmaceuticals, Wilmington, DE
Invited Speaker, Pharmacological Properties and Physiological Roles of Metabotropic Glutamate Receptors, Experimental Biology 95 (Annual meeting of the Federation of American Societies in Experimental Biology, Atlanta, GA)
Invited Speaker, Department of Biology, Dickenson State University, Dickenson, ND
Invited Speaker, Division of Neuroscience, Pfizer Pharmaceuticals, Groton, CT
Invited Speaker, Department of Neurobiology, Brown University, Providence, RI
Invited Speaker, Symposium, Regulation of Glutamate Receptors, Annual meeting of the American Epilepsy Society, Baltimore, MD

1996

- Invited Speaker, Symposium, Regulatory Roles of Adenosine in the Central Nervous System, Winter Conference on Brain Research, Snowmass, CO
- Invited Speaker, Symposium, Second International Meeting on Metabotropic Glutamate Receptors, Taormina-Sicily, Italy.
- Invited Speaker, Symposium, Neuronal Plasticity and Responses to Psychoactive Drugs: A Molecular Analysis. Annual meeting of the Society of Biological Psychiatry, New York, NY.
- Invited Speaker, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN
- Invited Speaker, Neuroscience Program, Cornell Graduate School in Medical Sciences, Cornell University, New York, NY

1997

- Invited Speaker, Wyeth Ayerst Pharmaceuticals, Research Division, Princeton, NJ
- Invited Speaker, Division of Neuroscience, Baylor College of Medicine, Houston TX
- Invited Speaker, Symposium, Roles of Metabotropic Glutamate Receptors in Epilepsy, Winter Conference on Brain Research, Breckenridge, CO
- Invited Speaker, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, TN
- Invited Speaker, Gordon Research Conf., Excitatory Amino Acids & Brain Function, Plymouth State, NH
- Invited Speaker, Neuroscience Graduate Program Seminar Series, University of Georgia, Athens, GA
- Invited Speaker, Department of Neurobiology, University of Alabama, Birmingham, AL
- Invited Speaker, Division of Neuroscience, Pfizer Pharmaceuticals, Groton, CT
- Invited Speaker, Recent Advances in the Metabotropic Glutamate Receptor Field: Clinical Implications, Annual Meeting of the American College of Neuropsychopharmacology (ACNP), Kamuela, HI

1998

- Invited Speaker, Metabotropic Glutamate Receptors as Novel Therapeutic Targets in Neuropharmacology, XXIst CINP Congress, Glasgow, UK
- Invited Speaker, Pharmacology and Functions of Metabotropic Glutamate Receptors, Meeting of the European Society for Neurochemistry, Saint Petersburg, Russia
- Invited Speaker, Modulation of Hippocampal Function by G-Protein-Coupled Receptors, Spring Hippocampal Research Conference, Grand Cayman
- Invited Speaker, Wyeth Ayerst Pharmaceuticals, Research Division, Princeton, NJ
- Invited Speaker, Division of Neuroscience, Pfizer Pharmaceuticals, Groton, CT
- Invited Speaker, Department of Neurobiology, University of Pittsburgh, Pittsburgh, PA
- Invited Speaker, Symposium, Excitatory Amino Acids in Epilepsy, International Meeting on Excitatory Amino Acids: Ten Years Later, Manaus, Brazil
- Invited Speaker, Signal Transduction Colloquium, Dept of Pharmacology, Duke University, Durham, NC
- Invited Speaker, Ligand-Gated Ion Channels, Meeting of the Southeastern Pharmacology Society, Nashville, TN
- Invited Speaker, Metabotropic Glutamate Receptors as Therapeutic Targets, Parke-Davis Pharmaceuticals, Ann Arbor, MI
- Invited Speaker, Department of Physiology, University of North Carolina, Chapel Hill, NC

1999

- Plenary Lecture, Third International Meeting on Metabotropic Glutamate Receptors, Taormina-Sicily, Italy
- Invited Speaker, Roles of Metabotropic Glutamate Receptors in Basal Ganglia, Winter Conference on Brain Research, Snowmass, CO
- Invited Speaker, Department of Physiology, University of Tübingen, Tübingen, Germany
- Invited Speaker, Department of Neuropharmacology, Institute for Neurobiology, Magdeburg, Germany
- Invited Speaker, Department of Neurology, University of Freiburg, Freiburg, Germany
- Invited Speaker, Wyeth-Ayerst Pharmaceuticals, Research Division, Princeton, NJ
- Invited Speaker, Novartis Pharmaceuticals, Nervous System Research, Basel, Switzerland
- Invited Speaker, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN
- Invited Speaker, Investigators Workshop, Glutamate Metabotropic Receptors as Therapeutic Targets in Epilepsy, Meeting of the American Epilepsy Society, Orlando, FL
- Invited Speaker, Division of Neuroscience, Pfizer Pharmaceuticals, Groton, CT
- Invited Speaker, Endogenous Glutamate Receptor Ligands: Novel leads for Schizophrenia Research and Therapy, Annual Meeting of the American College of Neuropsychopharmacology (ACNP). Acapulco, Mexico
- Invited Speaker, Department of Biology, Georgia State University, Atlanta, GA

2000

- Invited Speaker, New Insights in Metabotropic Glutamate Receptor Functions, Biannual meeting of the European Neuroscience Association, Brighton, U.K.
- Invited Speaker, Roles of Metabotropic Glutamate Receptors in Modulation of Hippocampal Function, Spring Hippocampal Research Conference, Grand Cayman, BWI
- Invited Speaker, Pfizer Pharmaceuticals, Sandwich, UK
- Invited Speaker, Department of Molecular Pharmacology, AstraZeneca, Worcester, MA
- Invited Speaker, Merck Research Labs, San Diego, La Jolla, CA
- Invited Speaker, International Workshop on Basal Ganglia and Thalamus in Health and Movement Disorders, Moscow, Russia
- Invited Speaker, Department of Pharmacology and Toxicology, Medical College of Georgia, Augusta, GA
- Invited Speaker, Department of Pharmacology, Merck Research Labs., West Point, PA
- Invited Speaker, Department of Molecular Physiology, Baylor College of Medicine, Houston, TX
- Invited Speaker, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN
- Invited Speaker, Merck Sharp & Dohme Research Laboratories, Neuroscience Research Centre, Harlow, Essex, United Kingdom
- Invited Speaker, Department of Pharmacology, University of Rome, Rome, Italy
- Invited Speaker, NYU Neuroscience Seminar Series, New York University, New York, NY
- Invited Speaker, Department of Biology, Lee University, Cleveland, TN
- Invited Speaker, Pfizer Pharmaceuticals, Groton, CT
- Invited Speaker, Symposium, Metabotropic Glutamate Receptors, The Royal Danish School of Pharmacy, Copenhagen, Denmark.

2001

- Invited Speaker, Pharmacology, Regulation, and Function of Metabotropic Glutamate Receptor Subtypes, Experimental Biology 2001, Orlando, FL

Invited Speaker, Group I Metabotropic Glutamate Receptors: Roles in Pain, Epilepsy, Movement Disorders, and Brain Injury, Winter Conference on Brain Research, Steamboat Springs, CO

Invited Speaker, Cell Signaling Seminar Series, Downstate Medical Center, Brooklyn, New York, NY

Invited Speaker, Department of Defense-Funded Parkinson-Related Research, Potomac, MD

Invited Speaker, Meeting of the International Basal Ganglia Society (IBAGS) meeting, Auckland, New Zealand.

Invited Speaker, Neuro- and Psychotropic Effects of Drugs Active at Metabotropic Receptors - Therapeutic Perspectives. 7th International Congress on Amino Acids, Vienna, Austria

Invited Speaker, MIT/Merck Annual Spring Symposium, Massachusetts Institute of Technology, Cambridge, MA

2002

Invited Speaker, Glutamate Mechanisms, 5th International Symposium on Medicinal Chemistry of Neurodegenerative Diseases, Yucatan Peninsula, Mexico

Invited Speaker, Distribution and Functional Roles of Glutamate Receptors in Basal Ganglia: Implications for Treatment of Parkinson's Disease, Experimental Biology 2002, New Orleans, LA

Invited Speaker, Fourth International Meeting on Metabotropic Glutamate Receptors, Taormina-Sicily, Italy

Invited Speaker, Center for Neurodegenerative Disorders, Emory University, Atlanta, GA

Invited Speaker, Department of Pharmacology Seminar Series, Vanderbilt University School of Medicine, Nashville, TN

Chairman, Schizophrenia/Psychosis Panel, Glutamate and Glutamate receptors in Psychosis affective disorders, Annual Meeting of the American College of Neuropsychopharmacology (ACNP), San Juan, Puerto Rico

Invited Speaker, Glutamate Mechanisms in Schizophrenia, Winter Conf. on Brain Research, Snowbird, UT

2003

Plenary Lecture, New York Academy of Sciences Meeting on Glutamate and Disorders of Affect and Motivation, New Haven, CT

Keynote Speaker, British Pharmacological Society Focus Meeting, Basic and Clinical Aspects of Glutamate Pharmacology, Bristol, UK

Invited Speaker, Department of Neuropharmacology, The Scripps Research Institute, La Jolla, CA

Invited Speaker, Department of Pharmacology, Georgetown University School of Medicine, Washington, D.C.

Invited Speaker, Department of Pharmacology, University of Rome, Rome, Italy

Invited Speaker, Program in Clinical and Preclinical Pharmacology, University of Catania, Catania, Italy

Invited Speaker, National Parkinson Foundation Annual Meeting, New Orleans, LA

Invited Speaker, Acadia Pharmaceuticals, La Jolla, CA

Invited Speaker, Department of Pharmacology, Emory University School of Medicine, Atlanta, GA

Invited Speaker, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN

Invited Speaker, Hot Topics Session, Annual Meeting of the American College of Neuropsychopharmacology San Juan, PR

2004

- Invited Speaker, Department of Pharmacology, Case Western Reserve University, Cleveland, OH
- Invited Speaker, Symposium, Novel Approaches to Treatment of Disorders of Cognition, Solvay Pharmaceuticals, Miami, FL
- Invited Speaker, Tourette Syndrome Association meeting, Atlanta, GA
- Invited Speaker, Drug Discovery Frontiers in Cancer and Neuroscience: The Application of Chemistry to Diseases, Drug Discovery Program, Georgetown University Medical Center, Washington, DC
- Invited Speaker, Department of Medicinal Chemistry & Molecular Pharmacology, Purdue University School of Pharmacy, West Lafayette, IN
- Invited Speaker, Symposium, Role of proline and its metabolism in human disease. National Cancer Institute, Ft. Detrick, MD
- Invited Speaker, CNS Diseases Congress, Strategic Research Institute, Philadelphia, PA
- Invited Speaker, Grass Foundation Mini-Symposium: Neuronal Ion Channels: From Molecules to Disease, Nashville, TN
- Invited Speaker, Department of Molecular Neurology, Merck and Company, West Point, PA
- Invited Speaker, Symposium, Physiological functions and therapeutic potential of metabotropic glutamate 5 (mGluR5) receptors, Annual Meeting of the American College of Neuropsychopharmacology (ACNP), San Juan, PR
- Invited Speaker, Novel approaches to drug discovery: allosterism, interfaces, & receptoromics Symposium, Annual Meeting of the American College of Neuropsychopharmacology (ACNP), San Juan, PR
- Invited Speaker, Department of Psychiatry, Yale University School of Medicine, New Haven, CT

2005

- Invited Speaker, Fifth International Meeting on Metabotropic Glutamate Receptors, Taormina-Sicily, Italy
- Invited Speaker, Symposium, Challenges for Drug Discovery Programs in Academia, Annual meeting of the American Association for Cancer Research, Anaheim, CA
- Symposium, Molecular Library approaches to CNS drug discovery, ASPET 2005, San Diego, CA
- Invited Speaker, New York Academy of Sciences symposium, "Allosteric Modulation of G Protein-coupled Receptors," New York, NY
- Invited Speaker, Department of Cell & Structural Biology. University of Illinois, Chicago, IL
- Invited Speaker, Third Annual Meeting on Psychiatric Drug Discovery and Development, Princeton, NJ
- Invited Speaker, Neurocrine Biosciences, San Diego, CA
- Plenary Lecture, International Congress on Schizophrenia Research, Savannah, GA
- Invited Speaker, Finding Quality Leads and Lead Optimization, Drug Discovery Technology Conference, Boston, MA
- Invited Speaker, Acadia Pharmaceuticals, La Jolla, CA
- Invited Speaker, Division of Neuroscience, Wyeth Ayerst Pharmaceuticals, Princeton, NJ
- Invited Speaker, Division of Neurological Disorders, Johnson and Johnson, Raritan, NJ
- Invited Speaker, Renovis Inc. San Francisco, CA
- Invited Speaker, Annual meeting of the Southeastern Pharmacology Society (SEPS), Nashville, TN
- Invited Speaker, Seaside Therapeutics, Boston, MA

2006

- Invited Speaker, Pharmacology, Biochemistry and Behavior Conference, Morzine, France

Keynote Speaker, Symposium on New Targets in Psychiatry, Copenhagen, Denmark
Invited Speaker, Annual meeting of CINP, Symposium, Mechanisms of action of drugs for schizophrenia: future directions, Chicago, IL
Invited Speaker, Gordon Conference on Medicinal Chemistry, New London, NH
Invited Speaker, Department of Pharmacology, Emory University School of Medicine, Atlanta, GA
Invited Speaker, Cephalon Inc., West Chester, PA
Invited Speaker, Michael J. Fox Foundation, Community Outreach, Atlanta, GA
Invited Speaker, Grand Rounds, Eli Lilly and Co., Indianapolis, IN
Invited Speaker, 11th Anniversary G-Protein Coupled Receptors Conference, Las Vegas, NV

2007

Invited Speaker, Ray Fuller Symposium, American Society for Pharmacology and Experimental Therapeutics, Experimental Biology, Washington, D.C.
Invited Speaker and session Chair Symposium, International Brain Research Organization (IBRO) World Congress of Neuroscience, Melbourne, Australia
Invited Speaker, British Pharmacological Society Meeting on Cell Signaling, Leicester, UK
Invited Speaker, Glutamate in the Vineyards, Sydney, Australia
Invited Speaker, Molecular Pharmacology of G Protein-Coupled Receptors, Melbourne, Australia
Invited Speaker, Johnson and Johnson Seminar Series, Brussels, Belgium
Invited Speaker, Psychiatry Centre of Excellence, GlaxoSmithKline, Harlow, UK
Invited Speaker, Sepracor, Inc. Seminar Series, Marlborough, MA
Plenary Lecture, University of Toronto, Annual GRID (Graduate Research in Progress) Symposium, Toronto, Canada
Keynote Speaker, CNS Drugs Summit - R& D Excellence, Philadelphia, PA
Invited Speaker, Plenary Symposium: How Can We Find New Drugs for Bone in the 21st Century?, American Society for Bone and Mineral Research, Honolulu, HI
Invited Speaker and session Chair, International Congress on Schizophrenia Research (ICOSR), Colorado Springs, CO
Invited Speaker, Department of Neurobiology Seminar Series, University of Alabama Birmingham, Birmingham, AL
Invited Speaker, Gordon Research Conference on Excitatory Amino Acids, Colby-Sawyer College, NH
Invited Speaker, Lundbeck Research USA, Paramus, NJ
Invited Speaker, The Broad Institute of MIT and Harvard, Boston, MA
Invited Speaker, Southern Research Institute, Division of Drug Discovery, Birmingham, AL
Invited Speaker, Otsuka Pharmaceuticals, Princeton, NJ

2008

Symposium Organizer, Novel approaches to treatment of schizophrenia: Beyond the monoamines, Annual meeting of the American Society for Pharmacology and Therapeutics, San Diego, CA
Symposium Organizer, Drug Discovery in an Academic Setting, Annual meeting of the American Society in Biochemistry and Molecular Biology (ASBMB), San Diego, CA
Meeting Co-Organizer and invited speaker, Keystone Symposium, G Protein-Coupled Receptors: New Insights in Functional Regulation and Clinical Application, Killarney, Ireland
Invited Speaker, Life Sciences Institute Seminar Series, University of Michigan, Ann Arbor, MI

Invited Speaker, Toronto Western Research Institute Seminar Series, University of Toronto, Toronto, Canada
Meeting Co-Organizer and Speaker, Sixth International Meeting on Metabotropic Glutamate Receptors, Taormina-Sicily, Italy
Invited Speaker, Uniformed Services University of the Health Sciences Seminar Series, Bethesda, MD
Invited Speaker, Neuroscience Seminar, Harvard Medical School/McLean Hospital, Boston, MA
Invited Speaker, Research Seminar Series, Ohio State University, Columbus, OH
Invited Seminar Speaker, GlaxoSmithKline, Harlow, UK
Invited Speaker, Sixth Annual Congress: G Protein-Coupled Receptors in Drug Discovery, Berlin, Germany
Invited Speaker, Department of Pharmacology Seminar Speaker University of North Carolina, Chapel Hill, NC
Invited Speaker, University of Alabama Birmingham Neuroscience Seminar Series, Birmingham, AL
Invited Speaker, Advances in G Protein-Coupled Receptor Research Webinar (Science/AAAS), Washington, D.C.
Invited Speaker, Emerging Themes in GPCR Signaling and Drug Discovery, Madison, WI
Invited Speaker, Center for Biomedical Science Special Seminar Series, University of Texas, San Antonio, TX
Invited Speaker, Satellite Session, Society for Neuroscience Meeting, Washington, D.C.
Invited Speaker, Adolor Corporation Seminar Series, Exton, PA

2009

Invited Speaker, Gordon Research Conference on Phosphorylation and G Protein Mediated Signaling Networks, Biddeford, ME
Distinguished Visiting Professor, Sun Yat-sen University and South China Center for Innovative Pharmaceuticals Gunghzhou, China
Invited Speaker, Drug Discovery for Neurodegeneration Conference, Washington, D.C.
Invited Speaker and session Chair, Target Discovery World Congress, San Francisco, CA
Invited Speaker, Emory Neurosciences DeLong Symposium, Emory University, Atlanta, GA
Invited Speaker, Chemical Genomics Meeting, Portland, OR
Invited Speaker, GPCR Seminar Series, Abbott Laboratories, Abbott Park, IL
Invited Speaker, Chauncey Leake Lecture, University of Texas Medical Branch, Galveston, TX
Invited Speaker, 10th Annual Great Lakes GPCR Retreat, Rochester, NY
Invited Speaker, Bristol Myers Squibb symposium, Non-traditional approaches to Drug Discovery Symposium, Philadelphia, PA
Invited Speaker, Drug Development Summit, Phoenix, AZ
Invited Speaker, Schizophrenia Brainstorming Meeting, PureTech, Boston, MA
Keynote address, “Allosteric Modulators of GPCRS as Novel Approach to Treatment of CNS Disorders”, Frontiers in Graduate Pharmacology Research Symposium, Emory University Distinguished Lecturer, Atlanta, GA
Invited Speaker, New York Academy of Sciences Parkinson’s Disease Annual Therapeutics Conference, New York, NY
Invited Speaker, Symposium on Structure and molecular interaction as a basis for drug action, University of Bonn, Bonn, Germany
Invited Speaker, Annual Southeast Technology Transfer Directors’ Meeting, Atlanta, GA

- Panel Chair and Invited Speaker, “Roles of Metabotropic Glutamate Receptor 5 in Regulation of Cognitive Function,” Annual meeting of the American College of Neuropsychopharmacology, Hollywood, FL
- Invited Speaker, Satellite symposium, Chemical Probes for Neuroscience, Annual Conference of Society for Neurosciences, Chicago, IL

2010

- Invited Speaker and session Chair, Symposium, G protein-coupled 7TM receptors: from molecular to physiological function, World Pharma 2010 Congress, Copenhagen, Denmark
- Invited Speaker, Symposium, New Approaches and Targets in Psychiatry, World Pharma 2010 Congress, Copenhagen, Denmark
- Plenary Lecture, “Allosteric Modulators of GPCRS as a Novel Approach to Treatment of Schizophrenia,” Society of Biological Psychiatry Annual Meeting, New Orleans, LA
- Invited Speaker, Axelrod Symposium, Structure and Mechanism in Drug Design, Annual meeting of the American Society for Pharmacology and Therapeutics, Anaheim, CA
- Invited speaker, Oregon Health and Science University Departmental Seminar, Portland, OR
- Invited speaker, Broad Institute Stanley Center for Psychiatry Research, Seminar Series, Boston, MA
- Plenary Lecture, “Allosteric Modulators of GPCRS as a Novel Approach to Treatment of CNS Disorders,” Eli Lilly and Company, Psychiatric Disorders Group, Indianapolis, IN
- Guest Lecturer, “Targeting metabotropic glutamate receptors for treatment of schizophrenia,” Institute of Pharmacology, Krakow, Poland
- Guest Speaker, “Targeting metabotropic glutamate receptors for treatment of CNS disorders”, Annual Ralph J. Cazort Heritage Lecture, Meharry College, Nashville, TN
- Invited Speaker, 20th Neuropharmacology Conference: High Resolution Neuropharmacology: Structure changes the paradigm, San Diego, CA
- Plenary Lecture, “Diverse Models of Efficacy and Stimulus Bias of Allosteric Modulators of GPCRS” The Allosteric Modulator Drug Discovery Conference, Satellite Session, Society for Neuroscience Annual meeting, San Diego, CA
- Guest Speaker, “New molecular targets in the treatment of Parkinsonism, dystonia and dyskinesias,” Bachman-Strauss Dystonia and Parkinson Foundation 2010 Think Tank, Interface between Parkinson’s disease and involuntary movements, New York, NY
- Keynote address, “Diverse modes of efficacy and stimulus bias of allosteric modulators of GPCRS”, Allosteric Modulator Drug Discovery Congress, San Diego, CA
- Guest Speaker, “Anxiety disorders: glutamate dysfunction, treatments, and need for glutamate biomarkers,” Institute of Medicine Forum on Neuroscience and Nervous System Disorders, Glutamate-related Biomarkers in Drug Development for Disorders of the Nervous System, Washington, D.C.
- Guest Speaker, “Leveraging the Expertise of Academia to Facilitate Drug Development,” Institute of Medicine Forum on Neuroscience and Nervous System Disorders, Board on Health Sciences Policy, Washington, D.C.
- Invited Speaker, ACNP (American College of Neuropsychopharmacology Panel), Discovery of small molecules for research on neuropsychiatric disorders: Target validation and drug discovery, Miami, FL
- Invited Speaker, ACNP (American College of Neuropsychopharmacology Panel), Recent Advances in Glutamatergic Treatment of Schizophrenia, Miami, FL
- Invited Speaker, NIA Advisory Workshop, “Advancing Preclinical Therapy Development for Alzheimer’s Disease”, Bethesda, MD

2011

- Invited Speaker, Keystone Symposium, Evolving Approaches to Early Stage Drug Discovery, Snowbird, UT
- Invited Speaker, International Meeting on Metabotropic Glutamate Receptors, Taormina-Sicily, Italy
- Invited Speaker, New York Academy of Sciences Symposium, Advancing Drug Discovery for Schizophrenia, New York, NY
- Invited Speaker, Wake Forest Department of Physiology and Pharmacology Seminar Speaker, Winston Salem, NC
- Invited Speaker, Distinguished Scientist Lecture Series, University of Montreal Seminar Speaker, Montreal, Canada
- Invited Speaker, Association of American Medical Colleges (AAMC), “Translating Science - Making Connections Across Disciplines on Scientific Breakthroughs”, Nashville, TN
- Invited Speaker and Session Chair Motor Systems, IBRO World Congress, “Physiological Roles and antiparkinsonian potential of metabotropic glutamate receptors in the basal ganglia motor circuit” Florence, Italy
- Invited Speaker, Emerging Genetics and Neurobiology of Severe Mental Illness Broad Institute, Cambridge, MA
- Keynote Speaker, “GPCR, PAMs, NAMs, and SAMs - a new way to affect GPCR Receptors, American Chemical Society, Medicinal Chemistry Division Symposium, Denver, CO
- Invited Speaker, High Throughput Chemistry and Chemical Biology GRC Conference, “Optimization and functional diversity of allosteric modulators of GPCRs.”, Colby Sawyer College, New London, NH
- Invited Speaker, Washington University School of Medicine, St. Louis, MO
- Invited Speaker, National Parkinson Foundation Symposium, Washington, D.C.
- Invited Speaker, Drug Discovery in Academia Conference, Bethesda, MD
- Invited Speaker, Vanderbilt Medical Alumni Associate Board Meeting, Nashville, TN
- Keynote Speaker, “Neuromodulatory Roles of Multiple Muscarinic Receptor Subtypes”, NIH MLPCN Steering Committee Meeting Keynote Address, Nashville, TN

2012

- Invited Speaker, Albany Molecular Research, Inc. Discovery Research Department, Albany, NY
- Invited Speaker, Scripps Institute, West Palm Beach, FL
- Invited Speaker, Grand Rounds in Psychiatry, University of Texas Southwestern Medical Center Dallas, TX
- Invited Speaker, Drug Discovery for Neurodegeneration: An Intensive Course on Translating Research into Drugs, “Druggability Considerations for GPCRs and Ion Channels”, New York, NY
- Invited Speaker, Department of Pharmacology Seminar Series, University of San Diego, San Diego, CA
- Keynote Speaker, 9th Annual Mastering Medicinal Chemistry Conference, San Francisco, CA
- Keynote Speaker, GLC Annual Meeting, is "GPCRs and allosteric modulation: from CNS and beyond", Chicago, IL
- Keynote Speaker, Great Lakes Chapter, ASPET annual meeting, “GPCRs and allosteric modulation: from CNS and beyond”, Chicago, IL
- Invited Speaker, New York Academy of Science symposium on GPCRs, New York NY
- Keynote Speaker, Center for Neurodegeneration and Experimental Therapeutics spring retreat, University of Alabama Birmingham, Birmingham, AL

PATENTS

Issued US Patents

1. Hess, J.W., **Conn**, P.J. and Warren, L.E. (2003). Identification of novel polymorphic sites in the human mGluR8 gene and uses thereof. International Patent number WO03054167.
2. **Conn**, P.J. Mallorga, P.J., Jacobson, M.A., Scolnick, E.M., and Sur, C.S. (2004). Treatment of Psychosis with a Muscarinic M1 Receptor Ectopic Activator. International Patent number WO2004073639.
3. **Conn**, P.J., Marino, M.J., and Kinney, G. (2005). Treatment of Movement Disorders with a Metabotropic Glutamate 4 Receptor Positive Allosteric Modulator. International Patent number WO-2005007096.
4. **Conn**, P.J., Rodriguez, A.L., and Jones, C.K. (2006). Partial mGluR5 Antagonists for Treatment of Anxiety and CNS Disorders. International Patent number US 7,531,541 B2.
5. **Conn**, P.J., Lindsley, C.W., Weaver, C.D., Rodriguez, A.L., Niswender, C.M. Jones, C.K., and Williams, R. (2007). Benzamide mGluR5 Positive Allosteric Modulators and Methods of Making and Using Same. International patents pending.
6. **Conn**, P.J., Lindsley, C.W., Weaver, C.D., Rodriguez, A.L., Niswender, C.M., Jones, C.K., and Williams, R. (2011). Bicyclic mGluR5 Positive Allosteric Modulators and Methods of Making and Using Same. International Patent number US 8,034,806.

Published Patent Applications

1. **Conn**, P.J., Lindsley, C.W., Weaver, C.D., Rodriguez, A.L., Niswender, C.M., Jones, C.K., and Williams, R. 'Benzamide derivatives as mGluR5 positive allosteric modulators and their preparation, pharmaceutical compositions and use in the treatment of diseases' WO 151184, **2008**.
2. Lindsley, C.W., **Conn**, P.J., Kennedy, J.P., and Brogan, J.T. 'Unnatural dispyrin analogues, preparation and uses thereof' WO 0152107, **2009**.
3. Lindsley, C.W., **Conn**, P.J., Williams, R., Jones, C.K., and Sheffler, D.J. 'Sulfonyl-piperidin-4-yl-methylamine amide analogs as GlyT1 inhibitors, methods for making same, and use of same in treating psychiatric disorders' WO 0256186, **2010**.
4. Lindsley, C.W., **Conn**, P.J., Williams, R., Jones, C.K., and Sheffler, D.J. 'Sulfonyl-azetidin-3-yl-methylamine amide analogs as GlyT1 inhibitors, methods for making same, and use of same in treating psychiatric disorders' WO 0261696, **2010**.

5. Lindsley, C.W., **Conn**, P.J., Williams, R., Jones, C.K., and Sheffler, D.J. ‘Alkylsulfonyl-2,3-dihydrospiro[indene-1,4’-piperidine analogs as GlyT1inhibitors, methods for making same and use of same in treating psychiatric disorders’ WO 0249167, **2010**.
6. Lindsley, C.W., **Conn**, P.J, Weaver, C.D., Niswender, C.M., Lebois, E.P., and Bridges, T.M. ‘Amidobipiperidinecarboxylate M₁ allosteric agonists, analogs and derivatives thereof, and methods of making and using same’ WO 096703, **2010**.
7. **Conn**, P.J., Lindsley, C.W., Hopkins, C.R., Weaver, C.D., Niswender, C.M., Gogliotti, R.D., and Engers, D.W. ‘Substituted 1,1,3,3-tetraoxidobenzo[*d*][1,3,2]dithiazoles as mglur4 allosteric potentiators, compositions, and methods of treating neurological dysfunction’ WO 088406, **2010**.
8. Lindsley, C.W., **Conn**, P. J., Weaver, C.D., Niswender, C.M., Williams, R., Jones, C.K., and Sheffler, D.J. ‘3.1.0 GlyT1 inhibitors and methods of making and using the same’ WO 0256192, **2010**.
9. Lindsley, C.W., **Conn**, P. J., Weaver, C.D., Niswender, C.M., Williams, R., Jones, C.K., and Sheffler, D.J. ‘3.3.0 GlyT1 inhibitors and methods of making and using the same’ WO 0261773, **2010**.
10. **Conn**, P.J., Lindsley, C.W., Hopkins, C.R., Weaver, C.D., Niswender, C.M., and Engers, D.W. ‘Substituted dioxopiperidines and dioxopyrrolidines as mGluR4 allosteric potentiators, compositions and methods of treating neurological disease’ WO 0124663, **2011**.
11. **Conn**, P.J., Lindsley, C.W., Hopkins, C.R., Weaver, C.D., Niswender, C.M., and Cheung, Y-Y. ‘Aryl and heteroaryl sulfones as mGluR4 allosteric potentiators, compositions and methods of treating neurological disease’ WO 057208, **2011**.
12. **Conn**, P.J., Lindsley, C.W., Hopkins, C.R., Niswender, C.M., Gogliotti, R.D, and Salovich, J.M. ‘mGlu₄ allosteric potentiators, compositions, and methods of treating neurological dysfunction’ WO 050316, **2011**.
13. **Conn**, P.J., Lindsley, C.W., Hopkins, C.R., Niswender, C.M., and Gogliotti, R.D. ‘mGlu₄ allosteric potentiators, compositions, and methods of treating neurological dysfunction’ WO 050305, **2011**.
14. **Conn**, P.J., Lindsley, C.W., Emmitte, K.A., and Weaver, C.D. ‘Substituted phenylamine carboxamide analogs as mglur5 negative allosteric modulators and methods of making and using the same’ WO035214, **2011**.
15. **Conn**, P.J., Lindsley, C.W., Emmitte, K.A., Weaver, C.D., Rodriguez, A.L., Felts, A.S., Jones, C.K., and Bates, B.S. ‘Substituted benzamide analogs as mglur5 negative allosteric modulators and methods of making and using the same’ WO 035209, **2011**.

16. **Conn, P.J., Lindsley, C.W., Emmitte, K.A., Weaver, C.D., Rodriguez, A.L., Felts, A.S., Jones, C.K., and Bates, B.S.** ‘Substituted heteroarylamide analogs as mglur5 negative allosteric modulators and methods of making and using the same’ WO 035186, **2011**.
17. **Conn, P.J., Lindsley, C.W., Emmitte, K.A., Weaver, C.D., Rodriguez, A.L., Felts, A.S., Jones, C.K., and Bates, B.S.** ‘Substituted heteroarylamine carboxamide analogs as mglur5 negative allosteric modulators and methods of making and using the same’ WO 035174, **2011**.
18. **Conn, P.J., Lindsley, C.W., Weaver, C.D., Stauffer, S., Williams, R., McDonald, G., Bartolome-Nebreda, J.M., and Zhou, Ya.** ‘O-benzyl nicotinamide analogs as mglur5 positive allosteric modulators’ WO 035324, **2011**.
19. **Conn, P.J., Lindsley, C.W., Hopkins, C.R., Weaver, C.D., Niswender, C.M., Engers, D.W., Gentry, P.R., Cheung, Y-Y, Salovich, J.M., and Gogliotti, R.D.** ‘Imidazolidinone derivatives and related compounds as mGluR4 allosteric potentiators, compositions and methods of treating neurological dysfunction’ WO 029104, **2011**.
20. **Conn, P.J., Lindsley, C.W., Hopkins, C.R., Weaver, C.D., Niswender, C.M., and Cheung, Y-Y.** ‘Substituted benzoimidazolesulfonamides and substituted indolesulfonamides as mGluR4 potentiators’ WO 011722, **2011**.
21. **Conn, P.J., Lindsley, C.W., Hopkins, C.R., Weaver, C.D., Niswender, C.M., and Engers, D.W.** ‘Benzisoxazoles and azabenzisoxazoles as mgluR4 allosteric potentiators, compositions, and methods of treating neurological dysfunction’ WO 100614, **2011**
22. **Conn, P.J., Lindsley, C.W., Hopkins, C.R., Niswender, C.M., Gogliotti, R.D., Salovich, J.M., and Engers, D.W.** ‘Pyrazolopyridine, pyrazolopyrazine, pyrazolopyrimidine, pyrazolothiophene and pyrazolothiazole compounds as mgluR4 allosteric potentiators, compounds and methods of treating neurological dysfunction’ WO 100607, **2011**

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1. **Conn, P.J. and Sanders-Bush, E.** (1984). Selective 5HT-2 antagonists inhibit serotonin-stimulated phosphatidylinositol metabolism in cerebral cortex. *Neuropharmacology* 23: 993-996.
2. **Conn, P.J. and Sanders-Bush, E.** (1985). Serotonin-stimulated phosphoinositide turnover: Mediation by the S-2 binding site in rat cerebral cortex but not in subcortical regions. *J. Pharmacol. Exp. Ther.* 234: 195-203.

3. Sanders-Bush, E., **Conn**, P.J. and Sulser, F. (1985). The serotonin/norepinephrine linked beta adrenoceptor system and the mode of action of anti-depressants. *Psychopharmacol. Bull.* 21: 373-378.
4. **Conn**, P.J. and Sanders-Bush, E. (1986). Biochemical characterization of serotonin-stimulated phosphoinositide turnover. *Life Sci.* 38: 663-669.
5. **Conn**, P.J., Sanders-Bush, E., Hoffman, B.J., and Hartig, P.R. (1986). A unique serotonin receptor in choroid plexus is linked to phosphatidylinositol turnover. *Proc. Nat. Acad. Sci. U.S.A.* 83: 4086-4088.
6. **Conn**, P.J. and Sanders-Bush, E. (1986). Agonist-induced phosphoinositide hydrolysis in choroid plexus. *J. Neurochem.* 47: 1754-1760.
7. **Conn**, P.J. and Sanders-Bush, E. (1986). Regulation of serotonin-stimulated phosphoinositide hydrolysis: Relation to the serotonin 5HT-2 binding site. *J. Neurosci.* 6: 3669-3675.
8. Sanders-Bush, E. and **Conn**, P.J. (1986). Effector systems coupled to serotonin (5HT) receptors in brain: 5HT-stimulated phosphoinositide hydrolysis. *Psychopharmacol. Bull.* 22: 829-836.
9. **Conn**, P.J., Janowsky, A. and Sanders-Bush, E. (1987). Denervation supersensitivity of 5HT-1c receptors in rat choroid plexus. *Brain Res.* 400: 396-398.
10. **Conn**, P.J. and Sanders-Bush, E. (1987). Central serotonin receptors: Effector systems, physiological roles, and regulation. *Psychopharmacology* 92: 267-277.
11. **Conn**, P.J. and Sanders-Bush, E. (1987). Relative efficacies of piperazines at the phosphoinositide hydrolysis-linked 5HT-2 and 5HT-1c receptors. *J. Pharmacol. Exp. Ther.* 242: 552-557.
12. Kaczmarek, L.K., **Conn**, P.J., and Fink, L.A. (1988). Regulation of ion channels in neurons that control reproductive behavior in *Aplysia*. *Neurol. Neurobiol.* 50: 285-304.
13. **Conn**, P.J., Strong, J.A., Azhderian, E.A., Nairn, A., Greengard, P. and Kaczmarek, L.K. (1989). Differential effects of protein kinase inhibitors on cyclic AMP and phorbol ester-induced changes in excitability of *Aplysia* bag cell neurons. *J. Neurosci.* 9: 473-479.
14. **Conn**, P.J., Strong, J.A., and Kaczmarek, L.K. (1989). Inhibitors of protein kinase C prevent enhancement of calcium current and action potentials in peptidergic neurons. *Aplysia. J. Neurosci.* 9: 480-487.
15. **Conn**, P.J. and Kaczmarek, L.K. (1989). The bag cell neurons of *Aplysia*: A model for the study of the molecular mechanisms involved in the control of prolonged animal behaviors. *Mol. Neurobiol.* 3: 237-273.

16. Desai, M. and **Conn**, P.J. (1990). Selective activation of phosphoinositide hydrolysis by a rigid analog of glutamate. *Neurosci. Lett.* 109: 157-162.
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18. **Conn**, P.J. and Desai, M.A. (1991). Pharmacology and physiology of metabotropic glutamate receptors in mammalian central nervous system. *Drug Dev. Res.* 24: 207-229.
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20. Desai, M.A., Smith, S., and **Conn**, P.J. (1992). Multiple metabotropic glutamate receptors regulate hippocampal function. *Synapse* 12: 206-213.
21. Chen, S.J., Desai, M.A., Klann, E., Winder, D.G., Sweatt, J.D., and **Conn**, P.J. (1992). Amygdala kindling alters protein kinase C activity in dentate gyrus. *J. Neurochem.* 59: 1761-1769.
22. Boss, V. and **Conn**, P.J. (1992). Metabotropic excitatory amino acid receptor activation stimulates phospholipase D in hippocampal slices. *J. Neurochem.* 59: 2340-2343.
23. Boss, V. Desai, M.A., Smith, S., and **Conn**, P.J. (1992). *Trans*-ACPD-induced phosphoinositide hydrolysis and modulation of hippocampal pyramidal cell excitability do not undergo parallel developmental regulation. *Brain Res.* 594: 181-188.
24. Winder, D.G. and **Conn**, P.J. (1993). Activation of metabotropic glutamate receptors increases cAMP accumulation in hippocampus by potentiating responses to endogenous adenosine. *J. Neurosci.* 13: 38-44.
25. Schoepp, D.D and **Conn**, P.J. (1993). Metabotropic glutamate receptors in brain function and pathology. *Trends Pharmacological Sci.* 14: 13-20.
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27. Gereau, R.W. and **Conn**, P.J. (1994). Potentiation of cAMP responses by metabotropic glutamate receptors depresses excitatory synaptic transmission by a kinase-independent mechanism. *Neuron* 12: 1121-1129.
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SUBMITTED MANUSCRIPTS

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