

CURRICULUM VITAE

Richard Lewis Haganir, Ph.D.
Department of Neuroscience
The Johns Hopkins University School of Medicine
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Education

1971-1975	Vassar College, A.B. Biochemistry
1977-1982	Cornell University, Ph.D. Program in Biochemistry, Molecular and Cell Biology (Thesis Advisor – Dr. Efraim Racker)

Positions Held

2015 – present	Director, The Kavli Neuroscience Discovery Institute at Johns Hopkins
2014 – present	Professor and Director, Department of Neuroscience; Professor, Department of Biological Chemistry and Pharmacology and Molecular Sciences; The Johns Hopkins University School of Medicine
2008-present	Co-Director, Johns Hopkins Brain Science Institute
2006 - 2014	Professor and Director, Department of Neuroscience; Professor, Department of Biological Chemistry and Pharmacology and Molecular Sciences; The Johns Hopkins University School of Medicine; Investigator, Howard Hughes Medical Institute
7/93 - 2/2006	Professor, Department of Neuroscience and Department of Biological Chemistry; The Johns Hopkins University School of Medicine; Investigator, Howard Hughes Medical Institute
1/88 - 6/93	Associate Professor, Department of Neuroscience and Department of Biological Chemistry; The Johns Hopkins University School of Medicine; Associate Investigator, Howard Hughes Medical Institute
7/84 - 12/87	Assistant Professor, Laboratory of Molecular and Cellular Neuroscience, The Rockefeller University

- 7/83 - 7/84 Postdoctoral Fellow, Laboratory of Molecular and Cellular Neuroscience, The Rockefeller University (Advisor - Dr. Paul Greengard)
- 2/82-6/83 Postdoctoral Fellow, Department of Pharmacology, Yale University School of Medicine (Advisor - Dr. Paul Greengard)

Honors and Fellowships

- | | |
|---|------|
| Society for Neuroscience Young Investigator Award | 1991 |
| Racker Symposium Lecturer, Cornell University | 1992 |
| Stephen Schuetze Memorial Lecturer, Columbia University | 1996 |
| DeCamp Symposium Lecturer, Rockefeller University | 1997 |
| NARSAD Distinguished Investigator Award | 1999 |
| Elected to the American Academy of Arts and Sciences | 2001 |
| Santiago Grisolia Award | 2004 |
| Elected to the National Academy of Sciences | 2004 |
| Elected to the rank of AAAS Fellow | 2004 |
| Society for Neuroscience Julius Axelrod Award | 2007 |
| Elected to the Institute of Medicine | 2011 |
| Prosser Lecture, University of Illinois | 2013 |
| Goldman-Rakic Prize for Outstanding Achievement in Cognitive Neuroscience | 2014 |
| Johns Hopkins Basic Science Mentee-Mentor Award | 2017 |

Teaching Experience

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|--|---|
| Yale University
School of Medicine | Pharmacology Seminar |
| Rockefeller University | Advanced Biochemistry
Molecular Neurobiology |
| Marine Biological
Laboratory | Neurobiology Course (Section Head) |
| Johns Hopkins University
School of Medicine | Molecular Neurobiology
Molecular Biophysics of Membrane Ion Channels
Neurochemistry and Neuroendocrinology
Graduate Biochemistry & Cell Biology
Neuropharmacology
Introduction to Molecular & Cellular Neuroscience
Molecular Mechanisms in Synaptic Transmission
Neuroscience and Cognition |

Administrative Experience

National

Section Head, Marine Biological Laboratory Neurobiology Course, 1990
2000 Nominating Committee, Society for Neuroscience, 1999-2000
Ad Hoc Committee on Electronic Initiatives, Society for Neuroscience 1999-2002
Program Committee, Society for Neuroscience, 1999-2002
Chair, Program Committee, Society for Neuroscience, 2001
NINDS Board of Scientific Counselors, 2001 - 2006
Ex Officio, Publications Committee, Society for Neuroscience, 2002-2004
Chair, Gordon Conference on Excitatory Amino Acids and Brain Function, 2003
Treasurer, Society for Neuroscience, 2003-2004
Chair, NINDS Board of Scientific Counselors, 2003- 2006
Ex Officio, Finance Committee, Society for Neuroscience, 2004-2005
Co-Founding Organizer, Cold Spring Harbor Meeting, "Synapses: From Molecules to Circuits and Behavior", 2004 – 2010
Young Investigators Award Selection Committee, Society for Neuroscience, 2007-2010
Annual Meeting Advisory Group, Society for Neuroscience, 2010-2012
National Academy of Sciences, Temporary Nominating Committee, 2012 – 2015
NIMH Council, 2014-present
NIH BRAIN Multi-Council Workshop, 2016-present
President Elect, Society for Neuroscience, 2016
President, Society for Neuroscience, 2017

Johns Hopkins University

Chair, Molecular Biology and Genetics Chair Search Committee 2002
Biochemistry, Cellular and Molecular Biology Policy Committee
Rodent Advisory Committee, 2001-2003
Director, Neuroscience Graduate Program, 1988-2001
M.A.-Ph.D. Committee, 1992-1999
Chair, Neuroscience Graduate Program Steering Committee
Neuroscience Graduate Program Admissions Committee
Medical School Council
ADAMHA Small Instrumentation Program
Institutional Research Progress Grants Committee, 1998-2002
Security Committee
Department of Neurology Chair Search Committee
Department of Oncology Chair Search Committee
Department of Anesthesiology and Critical Care Medicine Chair Search Committee
Grievance Committee
Institute for Basic Biomedical Sciences Directors Committee
Advisory Board of Medical Faculty Committee
Professorial Promotions Committee
Co-Director, Johns Hopkins Brain Science Institute
Science of Learning Institute, Steering Committee

ABMF Agenda Committee
Director, The Kavli Neuroscience Discovery Institute at Johns Hopkins
Department of Psychiatry and Behavioral Sciences Chair Search Committee
Department of Radiology Chair Search Committee

Editorial Boards

Neuron – Associate Editor (1995-present)
Journal of Biological Chemistry – Associate Editor (1995-2000)
Journal of Neuroscience – Associate Editor (1997-2003)
Molecular Neurobiology – Editorial Advisory Board
NeuroSignals – Editorial Board (2001-2003)
Experimental Neurology – Editorial Board (2003-2005)
PNAS – Editorial Board (2005-2016)

Advisory Boards

Educational *Current*

Stanley Center for Psychiatric Research, MIT, Boston, MA – Chair, Scientific Advisory Board

Previous

Picower Institute, MIT, Boston, MA – Chair, Scientific Advisory Board (2010-2017)
Gladstone Institute of Neurological Disease – Scientific Advisory Board (2014-2017)
Max Planck Florida Institute - Scientific Advisory Board (2013-2014)
Wellcome Trust, London, England - Peer Review College
National Institute of Biology, Beijing, China - Scientific Advisory Board
Institute of Neuroscience, Shanghai, China - Scientific Advisory Board (2007 – 2013)

Industrial

Previous

Pfizer, Inc. – Chair, Neuroscience Therapeutic Area Scientific Advisory Panel
Ruxton Pharmaceuticals, Inc. - Scientific Advisory Board
Wyeth Pharmaceuticals, Inc. - Chair, Scientific Advisory Board
Sention Pharmaceuticals, Inc. - Scientific Advisory Board
Saegis Pharmaceuticals, Inc. - Scientific Advisory Board
Intra-Cellular Therapeutics Inc. - Scientific Advisory Board
AGY Therapeutics Inc. – Scientific Advisory Board

Consulting

Merck - Scientific Program Reviewer
EMD Millipore - Consultant

Professional Societies

National Academy of Sciences
American Academy of Arts and Sciences
Institute of Medicine
Society for Neuroscience
American Society for Biochemistry and Molecular Biology
American Association for the Advancement of Science
The Biochemical Society
The Dana Alliance for Brain Initiatives

Current Grant Support

5/22/13 – 3/31/18	P50 MH100024 National Institutes of Mental Health, Silvio A. Conte Center for Neuroscience Research Role: PI \$241,255 (Huganir project) \$1,181,072 total direct Plasticity at the excitatory synapse
4/1/15 – 3/31/20	P50 AG005146 National Institutes of Aging Role: Project Leader \$126,820 (Huganir project direct) Johns Hopkins Alzheimer's Disease Research Center
3/15/16 – 12/31/20	R01 NS036715 National Institutes of Neurological Disorders and Stroke Role: PI \$279,135 direct PDZ domains and AMPA receptor function
7/1/16 – 6/30/17	Broad Institute, Stanley Medical Research Institute Role: PI \$267,386 direct Understanding the role of Schizophrenia risk genes in development and refinement of synaptic networks

9/1/16 – 8/31/19	U01 EY027266 National Eye Institute Role: Co-Investigator \$23,749 (Huganir allocation) Screening for molecules that promote photoreceptor synaptogenesis
9/15/16 – 6/30/19	R01 MH11516 National Institutes of Mental Health Role: MPI \$190,000 (Huganir allocation) \$484,500 total Multiplex in vivo imaging of cell-specific and circuit-specific signaling pathways during synaptic plasticity
2/1/17 – 1/31/22	R01 MH112151 National Institutes of Mental Health Role: PI \$340,000 direct Characterization of SynGAP mutations in human cognitive disorders
2/1/17 – 1/31/22	R01 MH112152 National Institutes of Mental Health Role: PI \$373,830 direct Long-lived synaptic proteins
2/21/17 – 12/31/17	Facebook, Inc. Role: PI \$229,584 direct Non-invasive measurement of neural activity in-vivo
4/1/17 – 3/31/22	R01 MH112808 National Institutes of Mental Health Role: MPI \$324,653 direct AMPA receptor trafficking regulates social behaviors in autism

Past Grant Support

84-87	The Council for Tobacco Research
7/1/87 – 6/30/97	Muscular Dystrophy Association Role: PI \$99,224 (total direct cost for funding period) Tyrosine Kinases: Neuromuscular junction genesis and modulation
1/1/88 – 8/31/91	Howard Hughes Medical Institute Regulation of glutamate receptors by protein phosphorylation
7/1/90 – 6/30/93	The Council for Tobacco Research Role: PI \$211,161 (total direct cost for funding period) Mutagenesis of phosphorylation sites in the nicotinic acetylcholine receptor
7/1/90 – 6/30/95	RO1 NS024418 National Institutes of Neurological Disorders and Stroke Role: PI \$875,000 (total direct cost for funding period) Tyrosine phosphorylation of the acetylcholine receptor
9/1/91 – 8/31/93	Howard Hughes Medical Institute Regulation of glutamate receptors by protein phosphorylation
9/1/93 – 8/31/99	Howard Hughes Medical Institute Regulation of glutamate receptors by protein phosphorylation
7/1/95 – 6/30/00	RO1 NS024418 National Institutes of Neurological Disorders and Stroke Role: PI \$966,985 (total direct cost for funding period) Tyrosine phosphorylation of the acetylcholine receptor
7/22/96-7/21/98	Burroughs Wellcome and Company The Role Of phosphorylation in regulating AMPA receptor single channel properties and synaptic plasticity
8/1/97 – 5/31/00	R01 NS036715 National Institutes of Neurological Disorders and Stroke Role: PI \$395,085 (total direct cost for funding period) PDZ domains and AMPA receptor function

4/1/99 – 3/31/00	Brain & Behavior Research Role: PI \$93,153 (total direct cost for funding period) Functional interactions between dopamine and NMDA receptors
9/1/99 – 8/31/05	Howard Hughes Medical Institute Regulation of glutamate receptors by protein phosphorylation
4/1/00 – 3/31/01	Human Frontiers Molecular mechanisms of the cellular localization of TRKB receptors at central nervous system (CNS) synapses
6/1/00 – 5/31/05	R01 NS036715 National Institutes of Neurological Disorders and Stroke Role: PI \$1,030,581 (total direct cost for funding period) PDZ domains and AMPA receptor function
7/1/00 – 6/30/04	Robert Packard Center for ALS Research at Johns Hopkins Role: PI \$245,620 (total cost for funding period) Role of AMPA receptor modulation in ALS
12/13/01 – 11/30/06	R01 MH64856 National Institutes of Mental Health Role: PI \$1,120,300 (total direct cost for funding period) Regulation of the NMDA receptor signaling complex
9/20/03 – 6/30/08	P50 MH068830 National Institutes of Mental Health Role: PI \$239,809 (Huganir project) Signaling to and from the synapse
9/1/05 – 8/31/10	Howard Hughes Medical Institute Regulation of glutamate receptors by protein phosphorylation
9/1/05 – 6/30/10	P30 NS050274 National Institutes of Neurological Disorders and Stroke Role: Co-Investigator \$706,801 (total direct cost for funding period) JHU Center for Neuroscience Research
7/15/06 – 6/30/10	R01 NS036715

Richard L. Huganir, Ph.D.
Curriculum Vitae

	National Institutes of Neurological Disorders and Stroke Role: PI \$879,739 (total direct cost for funding period) PDZ domains and AMPA receptor function
12/01/06 – 4/30/12	R01 MH64856 National Institutes of Mental Health Role: PI \$1,060,375 (total direct cost for funding period) Regulation of the NMDA receptor signaling complex
2/1/11 – 11/30/15	P30 NS050274 National Institutes of Neurological Disorders and Stroke Role: Co-Investigator \$566,764 (total direct cost for funding period) JHU Center for Neuroscience Research
2/1/11 – 1/31/16	R01 NS036715 National Institutes of Neurological Disorders and Stroke Role: PI \$1,553,388 (total direct cost for funding period) PDZ domains and AMPA receptor function
8/1/11 – 7/31/14	Simons Foundation Role: PI \$250,000 direct Understanding the role of glutamate receptor interacting proteins in autism
8/18/11 – 5/31/15	R01 MH95058 National Institutes of Mental Health Role: PI \$250,000 direct High throughput screen for small molecule probes for neural network development
1/1/14 – 12/31/14	Broad Institute, Stanley Medical Research Institute Role: PI \$202,135 direct Understanding the role of schizophrenia risk genes in development and refinement of synaptic networks
1/1/15 – 12/31/15	Broad Institute, Stanley Medical Research Institute Role: PI \$247,396 direct

Understanding the role of schizophrenia risk genes in development and refinement of synaptic networks

3/1/15 – 2/29/16

Cure Alzheimer's Fund
\$100,000 direct
The role of the KIBRA gene in AB regulation of AMPAR trafficking

1/1/16 – 12/3/16

Broad Institute, Stanley Medical Research Institute
Role: PI
\$209,027 direct
Understanding the role of schizophrenia risk genes in development and refinement of synaptic networks

Training Support

Neuroscience Training Program
Biochemistry, Cellular & Molecular Biology Training Program
Neuromuscular Training Grant
Interdisciplinary Training in Psychiatry and Neuroscience
Cellular and Molecular Medicine Training Program

Present Predoctoral Trainees

Casey Barber	2015-present
Tim Gamache	2017-present
Han Tan	2013-present
Elena Lopez Ortega	2015-present
Richard Roth	2012-present
Adeline Yong	2014-present

Present Postdoctoral Trainees

Yoichi Araki, Ph.D.	2007-present
Alexei Bygrave, Ph.D.	2017-present
Haiwen Chen, Ph.D.	2018-present
Shu-Ling Chiu, Ph.D.	2008-present
Huaqiang Fang, Ph.D.	2010-present
Hana Goldschmidt, Ph.D.	2015-present
Austin Graves, Ph.D.	2017-present
Seok Heo, Ph.D.	2013-present
Ingie Hong, Ph.D.	2013-present
Natasha Hussain, Ph.D.	2009-present
Bian Liu, Ph.D.	2012-present
Kacey Rajovich, Ph.D.	2018-present
Kamal Sharma, Ph.D.	2005-present
Mengnan Tian, Ph.D.	2012-present
Qianwen Zhu, Ph.D.	2017-present

Past Predoctoral Trainees

Julia Bachman (Ph.D.)
Sudha Balasubramanian (M.D./Ph.D.)
Craig Blackstone (M.D./Ph.D.)
Hee Jung Chung (Ph.D.)
Hualing Dong (Ph.D.)
Michael Ehlers (M.D./Ph.D.)
Eric Fung (M.D./Ph.D.)
Yi Gu (Ph.D.)
Jackie Harlow (M.A.)
Jee Hae Kim (Ph.D.)
Julie Leegwater-Kim (M.D./Ph.D.)
Olof Lagerlof (Ph.D.)
David Lieberman (M.D., Ph.D.)
Yuichi Makino (Ph.D.)
Lauren Makuch (Ph.D.)
Andrew Mammen (M.D./Ph.D.)
Lifang Mao (Ph.D.)
Youn Na (Ph.D.)
Mutsuo Nuriya (Ph.D.)
Yuko Oku (Ph.D.)
Zhican Qu (Ph.D.)
Katherine Roche (Ph.D.)
Lei Shen (Ph.D.)
Jason Shepherd (Ph.D.)
Insuk Song (Ph.D.)
Jordan Steinberg (M.D./Ph.D.)
Nicole Stricker (Ph.D.)
Lefei Sun (Ph.D.)
Whittemore Tingley (M.D./Ph.D.)
Kathryn Wagner (M.D./Ph.D.)
Jun Xia (Ph.D.)
Bing Ye (Ph.D.)

Past Postdoctoral Trainees

Jennifer L.P. Adams, Ph.D.
Hiro Aizawa, Ph.D.
Yoko Aizawa, Ph.D.
Victor Anggono, Ph.D.
Jean Claude Beique, Ph.D.
Roger Clem, Ph.D.
Graham Diering, Ph.D.
Christopher Ferris, M.D., Ph.D.
Stephanie Gardner, Ph.D.

Current Location

NIH
Children's Hospital of Boston
NINDS
University of Illinois at Urbana-Champaign
Scion Pharmaceuticals
Biogen Inc.
Affimetrix
Princeton University
Lawyer
Regeneron
Tufts University School of Medicine
Karolinska Institutet
Boston Children's Hospital
Harvard University
Ursinus College
NIAMS/NIH
University of California San Francisco
Fred Hutchinson Cancer Center
Keio University, Japan
J.P. Morgan
Q&Aid Research
NINDS
Takeda Pharmaceuticals International Co.
University of Utah, School of Medicine
Samsung Electronics
Advocate Children's Hospital
Idaho National Laboratory
HuaTai Healthcare Investment Fund
Genentech
Johns Hopkins University
Hong Kong Univ. of Sci. and Technology
University of Michigan

Current Location

NIEHS
Tokyo Metropolitan University
The University of Tokyo
Queensland Brain Institute
University of Ottawa
Mount Sinai School of Medicine
University of North Carolina, Chapel Hill
Mecklenburg Medical Group
Purdue University

Richard L. Haganir, Ph.D.
Curriculum Vitae

Takashi Hayashi, Ph.D.	National Institute of Neuroscience, Japan
Peter Hoffman, Ph.D.	College of Notre Dame
Sunjeev Kamboj, Ph.D.	University College London
Kimihiko Kameyama, Ph.D.	University of Tokyo
Myoung-Goo Kang, Ph.D.	University of Texas Medical Branch
Chong-Hyun Kim, Ph.D.	Korea Institute of Science and Technology
Lit-Fui Lau, Ph.D.	Zhaoke Pharmaceutical
Hey-Kyoung Lee, Ph.D.	Johns Hopkins University
Feng Liang, Ph.D.	Cystic Fibrosis Foundation Therapeutics
Dezhi Liao, Ph.D.	University of Minnesota
Da-Ting Lin, Ph.D.	NIH / NIDA / IRP
Hengye Man, Ph.D.	Boston University
Bernard McDonald, Ph.D.	University of Maryland Baltimore
Lin Mei, Ph.D.	Case Western University
Kathryn Miles, Ph.D.	SUNY Health Science Center at Brooklyn
Steve Moss, Ph.D.	Tufts University School of Medicine
Thomas Nieland, Ph.D.	Merck Research Laboratories
Thai Nguyen, M.D., Ph.D.	Johns Hopkins University
Richard O'Brien, M.D., Ph.D.	Duke University
Peter Penzes, Ph.D.	Northwestern University
Bridget Queenan, Ph.D.	University of California, Santa Barbara
Arippa Ravindran, Ph.D.	Pharmacologist, FDA
Lynn Raymond, M.D., Ph.D.	University of British Columbia
Gavin Rumbaugh, Ph.D.	Scripps Research Institute
Rita Sattler, Ph.D.	Barrow Neurological Institute
Robert Scannevin, Ph.D.	Biogen-Idec
Gek Ming Sia, Ph.D.	University of Texas Health Science Center
Ching-Tien Su, Ph.D.	National Health Research Institute, Taiwan
Jun-Gyo Suh, Ph.D.	Hallym University, Korea
Sheridan Swope, Ph.D.	US Patent and Trademark Office
Kogo Takamiya, M.D., Ph.D.	University of Miyazaki
Gareth Thomas, Ph.D.	Temple University
Lenora Volk, Ph.D.	UT Southwestern Medical Center
Jocelyn Widagdo, Ph.D.	Queensland Brain Institute
Su Zhang, Ph.D.	National Institute of Drug and Alcohol/ NIH
Yong Zhang, Ph.D.	Peking University

PUBLICATIONS

Articles

1. Haganir, R.L., Schell, M.A. and Racker, E. (1979) Reconstitution of the purified acetylcholine receptor from *Torpedo californica*. FEBS Lett. 108:155-160.
2. Haganir, R.L. and Racker, E. (1980) Endogenous and exogenous proteolysis of the acetylcholine receptor from *Torpedo californica*. J. Supramol. Struct. 14:13-19.

3. Killian, P.L., Dunlap, L.R., Mueller, P., Schell, M.A., Haganir, R.L. and Racker, E. (1980) Reconstitution of acetylcholine receptor from *Torpedo californica* with highly purified phospholipids: Effect of α -tocopherol, phylloquinone and terpenoid quinones. *Biochem. Biophys. Res. Comm.* 93:409-414.
4. Coronado, R., Haganir, R.L. and Mautner, H.G. (1981) A K^+ -selective conductance sensitive to cholinergic antagonists obtained by the fusion of axonal membrane vesicles to planar bilayers. *FEBS Lett.* 131:355-358.
5. Haganir, R.L. (1982) Purification and reconstitution of the nicotinic acetylcholine receptor from *Torpedo californica*. Doctoral Dissertation, Cornell University.
6. Haganir, R.L. and Racker, E. (1982) Properties of proteoliposomes reconstituted with acetylcholine receptor from *Torpedo californica*. *J. Biol. Chem.* 257:9372-9378.
7. Haganir, R.L. and Greengard, P. (1983) cAMP-dependent protein kinase phosphorylates the nicotinic acetylcholine receptor. *Proc. Natl. Acad. Sci. USA*, 80:1130-1134. PMID: PMC393542.
8. Tank, D.W., Haganir, R.L., Greengard, P. and Webb, W.W. (1983) Patch-recorded single channel currents of the purified and reconstituted *Torpedo* acetylcholine receptor. *Proc. Natl. Acad. Sci. USA*, 80:5129-5133. PMID: PMC384203.
9. Haganir, R.L., Miles, K. and Greengard, P. (1984) Phosphorylation of the nicotinic acetylcholine receptor by an endogenous tyrosine-specific protein kinase. *Proc. Natl. Acad. Sci. USA*, 81:6968-6972. PMID: PMC392057.
10. Haganir, R.L., Delcour, A.H., Greengard, P. and Hess, G.P. (1986) Phosphorylation of the nicotinic acetylcholine receptor regulates its rate of desensitization. *Nature* 321:774-776.
11. Miles, K., Anthony, D.T., Rubin, L.L., Greengard, P. and Haganir, R.L. (1987) Regulation of nicotinic acetylcholine receptor phosphorylation in rat myotubes by forskolin and cAMP. *Proc. Natl. Acad. Sci. USA*, 84:6591-6595. PMID: PMC299125.
12. Yee, G.H. and Haganir, R.L. (1987) Determination of the sites of cAMP-dependent phosphorylation on the nicotinic acetylcholine receptor. *J. Biol. Chem.* 262:16748-16753.
13. Hirano, A.A., Greengard, P. and Haganir, R.L. (1988) Protein tyrosine kinase activity and its endogenous substrates in rat brain: a subcellular and regional survey. *J. Neurochem.* 50:1447-1455.
14. Hopfield, J.F., Tank, D.W., Greengard, P. and Haganir, R.L. (1988) Functional modulation of the nicotinic acetylcholine receptor by tyrosine phosphorylation. *Nature* 336:677-680.
15. Stratton, K.R., Worley, P.F., Haganir, R.L. and Baraban J.M. (1989) Muscarinic agonists and phorbol esters increase tyrosine phosphorylation of a 40 kD protein in hippocampal slices. *Proc. Natl. Acad. Sci. USA*, 86:2498-2501. PMID: PMC286940.
16. Miles, K., Greengard, P. and Haganir, R.L. (1989) Calcitonin gene-related peptide regulates phosphorylation of the nicotinic acetylcholine receptor in rat myotubes. *Neuron* 2:1517-1524.

17. Hwang, T.-C., Lu, L., Zeitlin, P.L., Gruenert, D.C., Haganir, R.L. and Guggino, W.B. (1989) C1- channels in CF: lack of activation by protein kinase C and cAMP-dependent protein kinase. *Science* 244:1351-1353.
18. Ferris, C.D., Haganir, R.L., Supattapone, S. and Snyder, S.H. (1989) Purified inositol 1, 4, 5-triphosphate receptor mediates calcium flux in reconstituted lipid vesicles. *Nature* 342:87-89.
19. Qu, Z., Moritz, E. and Haganir, R.L. (1990) Regulation of tyrosine phosphorylation of the nicotinic acetylcholine receptor at the rat neuromuscular junction. *Neuron* 2:367-378.
20. Ferris, C.D., Haganir, R.L. and Snyder, S.H. (1990) Calcium flux mediated by purified inositol 1,4,5-triphosphate receptor in reconstituted lipid vesicles is allosterically regulated by adenine nucleotides. *Proc. Natl. Acad. Sci. USA*, 87:2147-2151. PMID: PMC53643.
21. Ferris, C.D., Haganir, R.L., Brecht, D.S., Cameron, A.M. and Snyder, S.H. (1991) Inositol trisphosphate receptor: Phosphorylation by protein kinase c and calcium-calmodulin dependent protein kinases in reconstituted lipid vesicles. *Proc. Natl. Acad. Sci. USA*, 88:2232-2235. PMID: PMC51204.
22. Stratton, K.R., Worley, P.F., Litz, J.S., Parsons, S.J., Haganir, R.L. and Baraban, J.M. (1991) Electroconvulsive treatment induces a rapid and transient increase in tyrosine phosphorylation of a 40 kilodalton protein associated with MAP kinase activity. *J. Neurochem.* 56:147-152.
23. Kofuji, P., Wang, J.B., Moss, S.J., Haganir, R.L. and Burt, D.R. (1991) Generation of two forms of the gamma-aminobutyric acid A receptor gamma-2 subunit in mice by alternative splicing. *J. Neurochem.* 56:713-715.
24. Moss, S.J., Ravindran, A., Mei, L., Wang, J. B., Kofuji, P., Haganir, R.L. and Burt, D.R. (1991) Characterization of recombinant GABA_A receptors produced in transfected cells from murine alpha-1, beta-1 and gamma-2 subunit cDNAs. *Neurosci. Lett.* 123:265-268.
25. Ferris, C.D., Cameron, A., Brecht, D.S., Haganir, R.L. and Snyder, S.H. (1991) Inositol 1,4,5-triphosphate receptor is phosphorylated by cyclic AMP-dependent protein kinase at serines 1755 and 1589. *Biochem. Biophys. Res. Comm.* 175:192-198.
26. Wallace, B.G., Qu, Z. and Haganir, R.L. (1991) Agrin induces phosphorylation of the nicotinic acetylcholine receptor. *Neuron* 6:869-878.
27. Smart, T.G., Moss, S.J., Xie, X. and Haganir, R.L. (1991) GABA_A receptors are differentially sensitive to zinc: Dependence on subunit composition. *Br. J. Pharmacol.* 103:1837-1839. PMID: PMC1908216.
28. Mei, L. and Haganir, R.L. (1991) Purification and characterization of a protein tyrosine phosphatase which dephosphorylates the nicotinic acetylcholine receptor. *J. Biol. Chem.* 266:16063-16072.
29. Wagner, K., Edson, K., Heginbotham, L., Post, M., Haganir, R.L. and Czernik, A. (1991) Determination of the tyrosine phosphorylation sites of the nicotinic acetylcholine receptor. *J. Biol. Chem.* 266:23784-23789.

30. Zeitlin, P.L., Crawford, I., Lu, L., Woel, S., Cohen, M.E., Donowitz, M., Montrose, M.H., Hamosh, A., Cutting, G.R., Gruenert, D., Haganir, R.L., Maloney, P. and Guggino, W.B. (1992) CFTR protein expression in primary and cultured epithelia. *Proc. Natl. Acad. Sci. USA*, 89:344-347.
31. Blackstone, C., Moss, S.J., Martin, L.J., Levey, A.I., Price, D.L. and Haganir, R.L. (1992) Biochemical characterization and localization of a non-NMDA glutamate receptor in rat brain. *J. Neurochem.* 58:1118-1126.
32. Ferris, C.D., Cameron, A.M., Bredt, D.S., Haganir, R.L. and Snyder, S.H. (1992) Autophosphorylation of inositol 1,4,5-triphosphate receptors. *J. Biol. Chem.* 267:7036-7041.
33. Ferris, C.D., Cameron, A.M., Haganir, R.L. and Snyder, S.H. (1992) Quantal calcium release by purified reconstituted inositol 1,4,5-trisphosphate receptors. *Nature* 356:350-352.
34. Blackstone, C.D., Levey, A.I., Martin, L.J., Price, D.L. and Haganir, R.L. (1992) Immunological detection of glutamate receptor subtypes in human CNS. *Ann. Neurol.* 31:680-683.
35. Moss, S.J., Doherty, C.A. and Haganir, R.L. (1992) Identification of the cAMP-dependent protein kinase and protein kinase C phosphorylation sites within the intracellular loops of the murine $\beta 1$, $\gamma 2L$ and $\delta 2S$ GABA_A receptor subunits. *J. Biol. Chem.* 267:14470-14476.
36. Wang, J.B., Kofuji, P., Fernando, J.C.R., Moss, S.J., Haganir, R.L. and Burt, D.R. (1992) The $\alpha 1$, $\alpha 2$, $\alpha 3$ subunits of the GABA_A receptor: Comparison in seizure prone and resistant mice during development. *J. Mol. Neurosci.* 3:177-184.
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- learning and memory in adult mice. *Proc Natl Acad Sci USA*. 114(4):E619-E628. [Epub ahead of print] PMID: PMC5278440.
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314. Lim, C.S., Kang, X., Mirabella, V., Zhang, H., Bu, Q., Araki, Y., Hoang, E.T., Wang, S., Shen, Y., Choi, S., Kaang, B.K., Chang, Q., Pang, Z.P., Hugarir, R.L., Zhu, J.J. (2017) Erratum: BRAf signaling principles unveiled by large-scale human mutation analysis with a rapid lentivirus-based gene replacement method. *Genes Dev*. 31(8): 846. PMID: PMC5435896.
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Chapters

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2. Haganir, R.L. (1986) Phosphorylation of purified ion channel proteins. In: *Neuromodulation*. Kaczmarek, L. and Levitan, I., Eds. Raven Press, New York, pp. 86-99.
3. Haganir, R.L. (1990). Protein phosphorylation in the nervous system. *Progress in Cell Research*, vol. 1 (Ritchie, J.M., et. al., Eds.). Amsterdam: Elsevier, pp. 21-32.
4. Haganir, R.L. (1991) Regulation of the nicotinic acetylcholine receptor by serine and tyrosine protein kinases. *Neuroreceptor Mechanisms in Brain*. Kito, S., et al., Eds. Plenum Press, New York, pp. 279-294.
5. Blackstone, C.B., Raymond, L., Moss, S.J. and Haganir, R.L. (1992) Regulation of non-NMDA glutamate receptors by protein phosphorylation. *Excitatory Amino Acids*. Simon, R.P., Ed. Thieme Medical Publishers, Inc., New York, pp. 15-20.
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7. Mammen, A.L. and Haganir, R.L. (1996) Regulation of NMDA receptors by protein phosphorylation. *The Ionotropic Glutamate Receptors*. D.T. Monaghan and R.J. Wenthold, Eds. Humana Press, Inc., Totowa, NJ, pp. 135-148.
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11. Lee, H.-K. and Haganir, R.L. (1999) Phosphorylation of Glutamate Receptors. In: *Handbook of Experimental Pharmacology*, Vol. 141. Ionotropic Glutamate Receptors in the CNS. Pages 99-119. P. Jonas. and H. Monyer, Eds. Springer-Verlag, Heidelberg, Germany.
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13. Roche, K.W. and Haganir, R.L. (1999) Detection of protein phosphorylation in tissues and cells. In: *Current Protocols in Neuroscience*. John Wiley & Sons, Inc. Madison, CT.
14. Haganir, R.L. (2000) Molecular mechanisms in the regulation of excitatory synaptic transmission. In: *Taniguchi Symposia on Brain Sciences No.22 "Challenges for Neuroscience in the 21st Century*, January 24-26, 1999. Japan Scientific Societies Press, Tokyo. 8:147-160.
15. Stricker, N.L. and Haganir, R.L. (2002) AMPA/Kainate receptors. In: *Assembly and Targeting of Ion Channels*. Henley, J. and Moss, S., Eds. Oxford University Press. Oxford, United Kingdom. 6:131-155.

Reviews

1. Browning, M.D., Haganir, R.L. and Greengard, P. (1985) Protein phosphorylation and neuronal function. *J. Neurochem.* 45:11-23.
2. Haganir, R.L. (1986) Regulation of the nicotinic acetylcholine receptor by protein phosphorylation. *J. Recept. Res.* 7:241-256.
3. Haganir, R.L. and Greengard, P. (1987) Regulation of receptor function by protein phosphorylation. *Trends in Pharm. Sci.* 8:472-477.
4. Miles, K. and Haganir, R.L. (1988) Regulation of nicotinic acetylcholine receptors by protein phosphorylation. *Mol. Neurobiol.* 2:91-124.
5. Haganir, R.L. (1988) Regulation of the nicotinic acetylcholine receptor channel by protein phosphorylation. *Curr. Top. Membr. Transp.* 33:147-163.
6. Hemming, H.C., Nairn, A.C., McGuinness, T.L., Haganir, R.L. and Greengard, P. (1989) Role of protein phosphorylation in neuronal signal transduction. *FASEB J.* 3:1583-1592.
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9. Wagner, K., Mei, L. and Haganir, R.L. (1991) Protein tyrosine kinases and phosphatases in the nervous system. *Curr. Opin. Neurobiol.* 1:65-73.

10. Swope, S.L., Moss, S.J., Blackstone, C. and Huganir, R.L. (1992) Phosphorylation of ligand-gated ion channels: A possible mode of synaptic plasticity. *FASEB J.* 6:2514-2523.
11. Raymond, L.A., Blackstone, C.D. and Huganir, R.L. (1993) Phosphorylation of amino acid neurotransmitter receptors in synaptic plasticity. *Trends Neurosci.* 16:147-153.
12. Roche, K.W., Tingley, W.G. and Huganir, R.L. (1994) Glutamate receptor phosphorylation and synaptic plasticity. *Curr. Opin. Neurobiol.* 4:383-388.
13. Swope, S.L., Qu Z., Huganir, R.L. (1995) Phosphorylation of the nicotinic acetylcholine receptor by protein tyrosine kinases. *Ann. N.Y. Acad. Sci.*, 757:197-214.
14. Ehlers, M.D., Mammen, A.L., Lau, L.-F. and Huganir, R.L. (1996) Synaptic targeting of glutamate receptors. *Curr. Opin. Cell Biol.* 8:484-489.
15. O'Brien, R.J., Lau, L.-F. and Huganir, R.L. (1998) Molecular mechanisms of glutamate receptor clustering at excitatory synapses. *Curr. Op. Neurobiol.* 8:364-369.
16. Kamboj, S. and Huganir, R.L. (1998) Receptor clustering: Activate to accumulate? *Curr. Biol.* 8:R719-R721.
17. Kim, J.H. and Huganir, R.L. (1999) Organization and regulation of proteins at synapses. *Curr. Op. Cell Biol.* 11:248-254.
18. Scannevin, R.H. and Huganir, R.L. (2000) Postsynaptic organization and regulation of excitatory synapses. *Nature Reviews Neurosci.* 1:133-141.
19. Garner, C.C., Nash J., and Huganir, R.L., (2000) PDZ domains in synapse assembly and signaling. *Trends Cell Biology.* 10:274-280
20. Song, I. and Huganir, R.L. (2002) Regulation of AMPA receptors during synaptic plasticity. *TINS* 25:578-588.
21. Thomas, G.M. and Huganir, R.L. (2004). MAPK Cascade Signaling and Synaptic Plasticity. *Nature Reviews Neurosci.* 5:173-183.
22. Shepherd, J.D., Huganir, R.L. (2007) The Cell Biology of Synaptic Plasticity: AMPA Receptor Trafficking. *Annu Rev Cell Dev Biol.* 23:613-643.
23. Beique, J.C., and Huganir, R.L. (2009) AMPA receptor subunits get their share of the pie. *Neuron.* 62(2): 254-68.
24. Anggono, V., Huganir, R.L. (2012) Regulation of AMPA receptor trafficking and synaptic plasticity. *Curr Opin Neurobiol.* 22(3): 461-9. PMID: PMC3392447.
25. Sheng, M., Malinow, R. Huganir, R. (2013) Neuroscience: Strength in numbers. *Nature.* 493(7433): 482-3.
26. Thomas, G.M., Huganir, R.L. (2013) Palmitoylation-dependent regulation of glutamate receptors and their PDZ domain-containing partners. *Biochem Soc Trans.* 41(1): 72-8. PMID: PMC3829716.

27. Huganir, R.L., Nicoll, R.A. (2013) AMPARs and synaptic plasticity: the last 25 years. *Neuron*. 80(3):704-17.
28. Volk, L., Chiu, S.L., Sharma, K., Huganir, R.L. (2015) Glutamate synapses in human cognitive disorders. *Annu. Rev. Neurosci.* 38:127-49.
29. Roth, R.H., Zhang, Y., Huganir, R.L. (2017) Dynamic imaging of AMPA receptor trafficking in vitro and in vivo. *Curr Opin Neurobiol.* Apr 12; 45: 51-58.
30. Barber, C.N., Huganir, R.L., Raben, D.N. (2017) Phosphatidic acid-producing enzymes regulating the synaptic vesicle cycle: Role for PLD? *Adv Biol Regul.* Sep 28. Pii: S2212-4926(17)3-155-0.

Invited Talks and Presentations

- 1981 Gordon Research Conference on "Ion Transport and Membrane Phenomena," Tilton, NH
- 1982 Harvard University School of Medicine - Department of Physiology, Boston, MA
- 1983 University of Washington - Department of Pharmacology, Seattle, WA
University of California - Department of Physiology and Biophysics, Irvine, CA
- 1984 Collegium Internationale Neuro-Psychopharmacologium 14th CINP Congress, Florence, Italy
Thomas Jefferson University - Department of Biochemistry, Philadelphia, PA
- 1985 FASEB Summer Research Conference on Protein Kinases, Saxton's River, VT
Columbia University College of Physicians and Surgeons - Department of Pharmacology, New York, NY
National Institute of Health - Laboratory of Biochemistry, Bethesda, MD
Gordon Research Conference on "Second Messengers and Protein Phosphorylation," Meriden, NH
Gordon Research Conference on "Molecular Pharmacology" - Plymouth, NH
- 1986 Gordon Research Conference on "Ion Channels," New Hampton, NH
New York Academy of Sciences, New York, NY
International Symposium on "Purification, Biosynthesis, Regulation des Recepteurs Membranaires," Cap d'Agde, France
Cornell University - Department of Biophysics, Ithaca, NY
SUNY, Stony Brook - Department of Physiology, Stony Brook, NY
University of Pennsylvania School of Medicine - Department of Pharmacology,

Philadelphia, PA

Roche Institute of Molecular Biology - Department of Neuroscience, Nutley, NJ

26th Annual Meeting of the American Society for Cell Biology, Mini-Symposium on "Regulation of Cell Function by Protein Phosphorylation and Dephosphorylation," Washington, D.C.

70th Annual Meeting of the Federation of American Societies for Experimental Biology, St. Louis, MO

Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics, Baltimore, MD

Johns Hopkins University Medical School, Department of Neuroscience, Baltimore, MD

International Symposium on the "Molecular Biology of Ion Channels," New Haven, CT

1987 Mt. Sinai Medical Center - Department of Biochemistry, New York, NY

Columbia University College of Physicians and Surgeons - Department of Medicine, New York, NY

Gordon Research Conference on "Second Messengers and Protein Phosphorylation," Meriden, NH

Gordon Research Conference on "Ion Transport and Membrane Phenomena," Plymouth, NH

Gordon Research Conference on "Molecular Pharmacology," Plymouth, NH

International Society for Neurochemistry and American Society of Neurochemistry Joint Meeting - LaGuaira, Venezuela

International Workshop on "Structural and Functional Aspects of the Cholinergic Synapse," Jerusalem, Israel

1988 Johns Hopkins University - Department of Biological Chemistry, Baltimore, MD

Case Western Reserve University - Department of Physiology and Biophysics, Cleveland, OH

1989 Johns Hopkins University - Department of Neuroscience, Baltimore, MD

Yale University School of Medicine - Department of Molecular and Cellular Physiology, New Haven, CT

13th International Conference on Biological Membranes, Crans-sur-Sierre, Switzerland

Jacques Monod Conference on Receptors for Neurotransmitters and Neuropeptides, Paris, France

New York Medical College - Department of Physiology, Valhalla, New York

- 1990 International Symposium on Neurotransmitter Receptors, Hiroshima, Japan
Johns Hopkins University - Department of Neurology, Baltimore, MD
Columbia University- College of Physicians and Surgeons- Center for Neurobiology and Behavior, New York, NY
Johns Hopkins Centennial Symposium on Molecules and Medicine, Baltimore, MD
University of Washington - Department of Pharmacology, Seattle, WA
FASEB Summer Research Conference on Receptors: Regulation of Receptor Function, Saxton's River, VT
VII International Congress on Neuromuscular Diseases, Munich, Germany
International Conference on The Cholinergic Synapse, Berlin, Germany
Johns Hopkins University - Department of Pharmacology & Molecular Sciences, Baltimore, MD
University of Medicine and Dentistry of New Jersey and Rutgers, The State University of New Jersey - Center for Advanced Biotechnology and Medicine, and Department of Pharmacology, Piscataway, NJ
Annual Meeting of the Society for Neuroscience Symposium on Regulation of Nicotinic Acetylcholine Receptor Expression and Function, St. Louis, MO
Vanderbilt University - Department of Pharmacology, Nashville, TN
- 1991 24th Annual Winter Conference on Brain Research, Vail, CO
University of North Carolina - Department of Physiology, Chapel Hill, NC
University of Miami - Department of Physiology & Biophysics, Miami, FL
The Rockefeller University - Laboratory of Cellular Physiology & Immunology, New York, NY
University of Medicine and Dentistry of New Jersey - Department of Pharmacology, Piscataway, NJ
Yale University - Department of Cell Biology, New Haven, CT
University of Maryland at Baltimore - Department of Pharmacology and Experimental Therapeutics, Baltimore, MD
University of Vermont - Department of Anatomy and Neurobiology
- 1992 University of California at San Francisco - Department of Physiology, San Francisco, CA
Stanford University - Department of Molecular and Cellular Physiology, Stanford, CA

- The Salk Institute - Department of Molecular Neurobiology, San Diego, CA
- Fourth International Symposium on Excitatory Amino Acids on Molecular Biology of EAA Receptors, Yosemite, CA
- Keystone Symposium on Synapse Formation and Function: The Neuromuscular Junction and the Central Nervous System, Big Sky, MT
- Brandeis University - Department of Biochemistry, Waltham, MA
- Harvard University - Department of Neurobiology, Boston, MA
- Washington University - Department of Cell Biology & Physiology, St. Louis, MO
- Parke Davis Pharmaceutical Research Seminar, Ann Arbor, MI
- Racker Symposium, Cornell University, Ithaca, NY
- FASEB Summer Research Conference on Protein Phosphatases, Copper Mountain, CO
- Bristol-Myers Squibb Research Seminar, Wallingford, CT
- University of Virginia - Department of Neuroscience, Charlottesville, VA
- Emory University - Department of Anatomy and Cell Biology, Atlanta, GA
- Cornell University - Section of Biochemistry, Molecular and Cell Biology, Ithaca, NY
- 1993 Case Western Reserve University - Department of Neuroscience, Cleveland, OH
- National Institutes of Health - Laboratory of Cellular and Molecular Neurophysiology, Bethesda, MD
- Max-Planck-Institut für Biophysikalische Chemie, Gottingen, Germany
- University College London - Department of Biology, London, England
- University of Maryland - Department of Biological Sciences, Baltimore, MD
- Columbia University - Department of Biological Sciences, New York, NY
- Keystone Symposium on Molecular Biology of Neuronal Signal Transduction, Taos, NM
- Parke-Davis Symposium on Recent Advances in Excitatory Amino Acid Research, Ann Arbor, MI
- Georgetown University - Department of Pharmacology, Washington, D.C.
- Molecular Biological Laboratory, Woods Hole, MA
- Gordon Research Conference on Neural Plasticity, Wolfeboro, NH

Richard L. Haganir, Ph.D.
Curriculum Vitae

University of Ottawa - Department of Anatomy and Neurobiology, Ottawa, Ontario, Canada

University of Maryland - Department of Physiology and Experimental Therapeutics, Baltimore, MD

Annual Meeting of the American Epilepsy Society on Regulation of Glutamate Receptors by Protein Phosphorylation, Miami, FL

1994 Emory University - Department of Physiology, Atlanta, GA

Association pour la Neuro-Psycho-Pharmacologie Symposium on Activity Dependent Neuronal Plasticity, Paris, France

Vollum Institute - Department of Neuroscience, Portland, OR

Baylor College of Medicine - Department of Molecular Physiology and Biophysics, Houston, TX

National Institutes of Health - Laboratory of Biochemistry, Bethesda, MD

Glaxo Research Institute - Research Triangle Park, NC

Molecular Biology Laboratory - Woods Hole, MA

Duke University - Department of Pharmacology, Durham, NC

International Symposium on The Cholinergic Synapse: Structure, Function and Regulation, Baltimore, MD

Annual Meeting of the Society for Neuroscience Symposium on Structure, Function and Regulation of Glutamate Receptors, Miami, FL

1995 Winter Conference on Brain Research on Regulation of Glutamate and GABA_A Receptor Function by Phosphorylation, Steamboat Springs, CO

NIDA Addiction Research Center seminar series – National Institutes of Health, Bethesda, MD

Albert Einstein College of Medicine – Department of Neuroscience, Bronx, NY

Brown University – Department of Neuroscience, Providence, RI

University of Pittsburgh – Department of Neurobiology, Pittsburgh, PA

Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting Sunday Symposium: Molecular Biology of Synaptic Transmission, Fort Lauderdale, FL

Cornell University – Department of Physiology, New York, NY

15th Biennial Meeting of the International Society for Neurochemistry (ISN), Kyoto, Japan

- 9th International Conference on Second Messengers and Phosphoproteins: Signal Transduction in Health and Disease, Nashville, TN
Worcester Foundation for Experimental Biology, Shrewsbury, MA
- 1996 1st Congress of the German Neuroscience Society Symposium, Heidelberg, Germany
29th Annual Winter Conference on Brain Research, Snowmass Village, CO
American Society for Pharmacology and Experimental Therapeutics – Experimental Biology '96, Washington, D.C.
Lilly Research Laboratories, Indianapolis, IN
University of Maryland at Baltimore – Department of Pharmaceutical Sciences, Baltimore, MD
Columbia University – Stephen M. Schuetze Memorial Lecture, New York, NY
Northwestern University Medical School – Department of Physiology, Chicago, IL
Harvard Medical School – Department of Pharmacology, Boston, MA
Cold Spring Harbor Laboratory, Banbury Center Plasticity of Glutamate Receptors, Cold Spring Harbor, NY (Organizer)
3rd Jacques Monod Conference on Protein Phosphorylation: A Universal Cellular Language Spoken with Many Accents, Aussois, France
SUNY – Department of Biochemistry and Cell Biology, Stony Brook, NY
CoCensys, Inc. – 5th annual satellite symposium of ASN: Excitotoxicity and Apoptosis in Neurodegeneration and Cerebral Ischemia: Molecular Mechanisms and Therapeutic Implications, Washington, D.C.
26th Annual Meeting, Society for Neuroscience – Glutamatergic Neurotransmission: A View From the Dendrite, Washington, D.C.
University of Miami – Department of Molecular and Cellular Pharmacology, Miami, FL
- 1997 30th Annual Winter Conference on Brain Research, Breckenridge, CO
Mt. Sinai Medical Center, New York, NY
Kennedy Krieger Institute – Kennedy Fellow's Seminar Series, Baltimore, MD
DeCamp Neuroscience Symposium – Rockefeller University, New York, NY
University of Alabama at Birmingham – Neurobiology Research Center, Birmingham, AL
Stanford University – Beckman Center for Molecular and Genetic Medicine, Stanford, CA

University of California, San Francisco – Neuroscience Seminar Series, San Francisco, CA

NeuroScience Network Annual Meeting, Vancouver, British Columbia, Canada

Gordon Research Conference on Excitatory Amino Acids and Brain Function, Plymouth State College, Plymouth, NH

Cellular Regulation by Protein Phosphorylation (ASBMB Satellite Symposium), Seattle, WA

University of California - Joint Seminars in Neuroscience, Los Angeles, CA

Yale University – Department of Pharmacology, New Haven, CT

University of Pennsylvania – David Mahoney Institute of Neurological Sciences, Philadelphia, PA

1998 NIH Neuroscience Lecture Series, Bethesda, MD

Brandeis University – Life Sciences Seminar Series, Waltham, MA

Keystone Symposium on Synapse Formation and Function: From Neuromuscular Junction to CNS, Park City, UT

University of Toronto – Distinguished Speaker in Neuroscience, Toronto, Ontario, Canada

Children’s Hospital Division of Neuroscience Seminar Series – Harvard Medical School, Boston, MA

Massachusetts General Hospital – Harvard Medical School, Charlestown, MA

ASBMB Meeting Satellite Symposium on Structural Basis for Specificity, Washington, D.C.

Gordon Research Conference on The Cell Biology of the Neuron, Plymouth State College, Plymouth, NH

Cold Spring Harbor Laboratory – Molecular Cloning of Neural Genes, Cold Spring Harbor, NY

Cold Spring Harbor Laboratory – Neurobiology: Brain Development and Function, Cold Spring Harbor, NY

13th International Congress for Pharmacology – Glutamate Receptor Subtypes, Munich, Germany

Gordon Research Conference on Molecular and Cellular Neurobiology, Beijing, China

Howard University – Department of Pharmacology, Washington, D.C.

- University of Chicago – Seminar series sponsored by the Committee on Cell Physiology and Neurobiology, Chicago, IL
- 7th Neuropharmacology Conference on Ionotropic Glutamate Receptors, Los Angeles, CA
- Columbia University – Center for Neurobiology and Behavior, New York, NY
- 1999 22nd International Taniguchi Foundation Symposium on Brain Sciences, Kona, Hawaii
- Signal Transduction Seminar Series- Parke-Davis Pharmaceutical Research, Ann Arbor, MI
- Protein Trafficking Workshop – NIH-Johns Hopkins University, Annapolis, MD
- Gordon Conference on Excitatory Amino Acids – Plymouth State College, Plymouth, NH
- EMBO/FMI Conference on Neuronal Circuits: From Molecules to Organisms, Monte Verita Ascona, Switzerland
- Annual Meeting of the Society for Neuroscience – Miami Beach, FL
- Journal of Physiology Symposium on Neuronal Compartmentalization: Channels, Receptors and Signalling (SFN Satellite Symposium), Miami Beach, FL
- Invited Lecturer – Pfizer Central Research, Groton, CT
- Neurobiology Department Seminar – Duke University Medical Center, Durham, NC
- Center for Developmental Biology – University of Texas Southwestern Medical Center, Dallas, TX
- 2000 Adler Foundation Symposium on Alzheimer’s Disease, La Jolla, CA
- Department of Pharmacology Seminar – Georgetown University, Washington, D.C.
- AAAS Annual Meeting – Symposium Organizer “Synapses, Memory and Development of the Brain”, Washington, D.C.
- New York University – Spring Seminar Series, New York, NY
- Y2K Hippocampal Research Conference, Georgetown, Grand Cayman
- Juan March Workshop on Dendrites – Columbia University, New York
- Marine Biological Institute, Neurobiology and Physiology Sections lectures, Woods Hole, MA
- Cold Spring Harbor Laboratories (Banbury Center), Cold Spring Harbor, NY

- Department of Pharmacology Seminar - University of Colorado, Denver, CO
- ASPET Ray Fuller Symposium, Baltimore, MD
- Society for Neuroscience Annual Meeting, New Orleans, LA
- Vollum Institute, Oregon Health Sciences University, Portland, OR
- 2001 NINDS Workshop “Re-Establishing Connectivity in the Damaged Spinal Cord”,
Bethesda, MD
- Medical Scientist Lecture Series - University of California, Irvine, CA
- Sackler Colloquium "Neural Signaling" – National Academy of Sciences, Washington,
D.C.
- Keystone Symposium: The Synapse/Hippocampus: The Integration of Molecular
Mechanisms and Cognitive Function, Taos, NM
- Cellular and Molecular Physiology seminar - Yale University, New Haven, CT
- Department of Psychiatry and Behavioral Science - Stanford University, Stanford, CA
- Hyseq, Inc., Sunnyvale, CA
- Department of Molecular and Cellular Biology Seminar - University of California,
Berkeley, CA
- Gordon Conference on Excitatory Amino Acids, Il Ciocco, Italy
- Wyeth-Ayerst Research, Monmouth Junction, NJ
- HHMI Scientific Meeting: The Nervous System, Chevy Chase, MD
- Center for ALS Research Symposium, Baltimore, MD
- Neuroscience Program Seminar - Washington University, St. Louis, MO
- Neuropharmacology Conference, San Diego, CA
- RIKEN-MIT Symposium – MIT, Cambridge, MA
- Giovanni Armenise-Harvard Foundation Public Conference “The Changing Brain”,
Milan, Italy
- 2002 Aventis Pharmaceuticals, Bridgewater, NJ

University of Michigan, Department of Molecular, Cellular and Developmental Biology,
Ann Arbor, MI

Winter Conference on Brain Research, Aspen, CO

Gordon Research Conference on Molecular and Cellular Neurobiology, Hong Kong,
China

Gordon Research Conference on Cell Biology of the Neuron, Newport, RI

XIVth World Congress of Pharmacology, San Francisco, CA

Rockefeller University, New York, NY

University of Maryland, Baltimore, MD

2003 University of Wisconsin, Department of Physiology, Madison, WI

Northwestern University, Department of Neurobiology and Physiology, Evanston, IL

Columbia University, Department of Biochemistry, New York, NY

Northwestern University Institute for Neuroscience, Chicago, IL

University of Chicago, Committee on Neurobiology Seminar Series, Department of
Neurobiology, Pharmacology and Physiology, Chicago, IL

University of Washington, Department of Physiology and Biophysics, Seattle, WA

FASEB Summer Research Conference on Ion Channel Regulation, Tucson, AZ

Sention, Inc., Providence, RI

Gordon Conference on Excitatory Amino Acids and Brain Function, Mt. Holyoke
College, S. Hadley, MA

HHMI Scientific Meeting, Chevy Chase, MD

Center for ALS Research Symposium, Baltimore, MD

University of North Carolina, Department of Neuroscience Symposium, Chapel Hill,
NC

Neuropharmacology Conference (Co-Organizer), New Orleans, LA

University of Pennsylvania - David Mahoney Institute of Neurological Sciences,
Philadelphia, PA

2004 Winter Conference on Brain Research, Copper Mountain, CO

National Institutes of Health – The Synapse: Molecular Mechanisms of Plasticity, St.
Michaels, MD

Cold Spring Harbor Laboratory – The Banbury Center, “Neuronal and Behavioral
Effects of Ras/Mapk Signaling”, Cold Spring Harbor, NY

Catedra Santiago Grisolia, The Award and Master Courses of Catedra, Valencia, Spain

Cold Spring Harbor Laboratory Conference on “Channels, Receptors, Synapses”, Cold
Spring Harbor, NY (Co-Organizer)

University of Maryland, Bioscience Research & Technology Review Day, College Park,
MD

Robert Packard Center for ALS Research, 4th Annual Symposium, Baltimore, MD

Institut De Neurobiologie - Centre National De La Recherche Scientifique, “Conferences
en Neurobiologie Ladislav Tauc”, Gif sur Yvette, France

2005 University of California San Diego, Neural Plasticity Symposium, San Diego, CA

Cornell University, "Regulation of neurotransmitter receptor function and synaptic
plasticity in the brain", Ithaca, NY

Massachusetts Institute of Technology, "Receptors, Synapses and Memories",
Cambridge, MA

INRC, "Regulation of glutamate receptors and brain function", Annapolis, MD

Marine Biology Laboratory, "Central Synapses", Woods Hole, MA

Skirball Institute, "Regulation of neurotransmission receptors and synaptic plasticity in
the brain", New York, NY

Synaptic Function and Plasticity Conference, "Regulation of the AMPA receptor and
synaptic plasticity", Vancouver, Canada

Gordon Research Conference, "Regulation of the AMPA receptor and synaptic
plasticity", Aussios, France

- Rockefeller University, "Regulation of glutamate receptor function and synaptic plasticity", New York, NY
- AANCP 40th Annual Meeting, "Regulation of AMPA Receptor Function and Synaptic Plasticity", Waikoloa, HI
- 2006 NINDA, "Regulation of Glutamate Receptors and Brain Function", Baltimore, MD
- University of Utah, "Receptors, Synapses and Memory", Salt Lake City, UT
- Stanford University, "Receptors, Synapses and Memory", Stanford, CA
- University of California Davis, "Receptors, Synapses and Memory", Davis, CA
- Brown University, "Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain", Providence, RI
- Yale University, "Receptors, Synapses and Memory", New Haven, CT
- Gordon Research Conference, Cell Biology of the Neuron, "Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain", New London, NH
- Gordon Research Conference, Molecular and Cellular Neurobiology, "Regulation of Glutamate Receptor Function and Synaptic Plasticity", Hong Kong, China
- Protein Society, "Protein-protein Interactions at the Synapse", San Diego, CA
- Harvard University, "Neurotransmitter and Receptor Regulation and Brain Function", Boston, MA
- SFN Annual Meeting- Neuropharmacology Conference, "Regulation of AMPA receptor function during synaptic plasticity", Atlanta, GA
- HHMI Annual Meeting, "Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain", Janelia Farm Research Campus, VA
- 2007 University of Texas, Southwestern, "Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain", Dallas, TX
- Winter Conference on Neural Plasticity, "The Role of *Arc* in Plasticity and Behavior", Moorea, French Polynesia
- Gordon Research Conference, Excitatory Synapses and Brain Function, "Regulation of AMPA receptors and synaptic plasticity", New London, NH

Gordon Research Conference, Calcium Signaling, "Glutamate receptor signaling at synapses", Tilton, NH

HHMI Annual Meeting, "Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain", Janelia Farm Research Campus, VA

Northwestern University, "Regulation of excitatory synaptic function of the brain", Chicago, IL

Axelrod Prize Symposium, "Receptors, Synapses, and Memory", Annual Meeting Society for Neuroscience, San Diego, CA

2008 HHMI-NIH Research Scholars, "Receptors, Synapses and Memory", Bethesda, MD

Gordon Research Conference, Mechanisms of Epilepsy and Neuronal Sync, "Regulation of Glutamate Receptor Function in the Brain", Waterville, ME

University of Tokyo, "Receptors, Synapses and Memories", Tokyo, Japan

Erasmus MC, "Regulation of Glutamate Receptors and Synaptic Plasticity in the Brain", Rotterdam, Netherlands

University of Bordeaux, "Regulation of Glutamate Receptors and Brain Function", Bordeaux, France

Biogen Idec, "Regulation of Glutamate Receptor Function in the Brain", Boston, MA

University of Maryland, Baltimore County, "Regulation of Neurotransmitter Receptor and Brain Function", Baltimore, MD

Tufts University, " Glutamate receptor trafficking and synaptic plasticity", Boston, MA

2009 University of Washington, "Receptors, Synapses and Memories", Seattle, WA

Johns Hopkins University, Clinical Neurosciences Seminar, "Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain", Baltimore, MD

Duke University Medical Center, Department of Neurobiology Seminar, "Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain", Durham, NC

Albert Einstein College of Medicine, Department of Neuroscience Seminar, "Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain", Bronx, NY

NIH, NIH Neuroscience Seminar Series, "Receptors, Synapses and Memories", Bethesda, MD

International Congress on Amino Acids, Peptides and Proteins, “The trafficking of ionotropic glutamate receptors and synaptic plasticity”, Vienna, Austria

University of Alabama at Birmingham, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Birmingham, AL

SFN Annual Meeting, Special Lecture, “Receptors, Synapses and Memories”, Chicago, IL

2nd European Synapse Meeting, “Regulation of AMPA receptor function and synaptic plasticity in the brain”, Göttingen, Germany

2010 43rd Annual Winter Conference on Brain Research, Breckenridge, CO

University of California, San Francisco, Gladstone Institute of Neurological Disease, "Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain", San Francisco, CA

12th International Neuroscience Winter Conference, Solden, Austria

Johns Hopkins University, Biological Chemistry Seminar, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Baltimore, MD

University of California, Irvine, Department of Anatomy & Neurobiology and EpiCenter Annual Symposium, “Regulation of Neurotransmitter Receptors and Brain Function”, Irvine, CA

CAMBRIDGE BIOLINK: Neuroplasticity and the Prospect of Therapy and Repair, “Regulation of Neurotransmitter Receptors and Brain Function in Health and Disease”, Cambridge, MA

2011 University of California, San Diego, Neuroscience Program Seminar, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, San Diego, CA

Winter Conference on Neural Plasticity, "Calcium-Permeable AMPA Receptor Dynamics Mediate Fear Memory Erasure", Moorea, French Polynesia

HHMI Janelia Farms Seminar, “Regulation of AMPA Receptor Function and Synaptic Plasticity in the Brain”, Janelia Farm Research Campus, VA

Keynote Speaker Inaugural Annual Forum, University of Maryland School of Pharmacology, “Receptors, Synapses and Memories”, Baltimore, MD

The Picower Lecture, Picower Institute for Learning and Memory, “Receptors, Synapses and Memories”, Cambridge, MA

National Institute on Drug Abuse Seminar, “Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain”, Baltimore, MD

Marine Biological Institute, Neurobiology Lectures, “Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain”, Woods Hole, MA

Gordon Research Conference on Excitatory Synapses and Brain Function, “Regulation of AMPA Receptors and Synaptic Plasticity in the Brain”, Stonehill College in Easton, MA

8th IBRO World Congress of Neuroscience, “Regulation of Glutamate Receptor Function and Synaptic Plasticity in the Brain”, Florence, Italy

Keynote Speaker NIMH Annual Scientific Retreat, “Regulation of Neurotransmitter Receptors and Brain Function”, Lancaster, PA

7th International Meeting on Metabotropic Glutamate Receptors, “mGluR1 Regulation of AMPA Receptors and Fear Memory”, Taormina, Italy

Zelicof Family Dinners with the Dean, Johns Hopkins University, “Receptors, Synapses and Memories”, Baltimore, MD

Johns Hopkins Medicine Brain Science Institute, Brain Night, “Receptors, Synapses and Memories”, Baltimore, MD

The Molecular and Cellular Cognition Society Annual Meeting, “The Role of Calcium-Permeable AMPA Receptors in Fear Conditioning and Fear Erasure”, Washington, DC

Children's Hospital/Harvard Medical School Seminar Series, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Boston, MA

American College of Neuropsychopharmacology Annual Meeting, “Regulation of AMPA Receptor Function During Fear Memory and Erasure”, Waikoloa, HI

2012 44th Annual Winter Conference for Brain Research, Snowbird, UT

University of Texas, Southwestern Medical Center Neuroscience Seminar, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Dallas, TX

Baylor University/University of Texas Medical School at Houston Joint Seminar, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain” Houston, TX

University of California, Davis Joint Seminars in Molecular Biology, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Davis, CA

Temple University School of Medicine and Shriners Hospitals Pediatric Research Center, Center for Neural Repair and Rehabilitation, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Philadelphia, PA

Plenary Speaker American Society for Neurochemistry Annual Meeting, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Baltimore, MD

DSRC: What is Information in the Brain Workshop, “Can We Image Memory Formation and Erasure in the Brain?”, Arlington, VA

Neurochemistry-Molecular Neurobiology Joint Seminar, University of Tokyo, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Tokyo, Japan

132nd Plenary Lecture - Annual Meeting of the Pharmaceutical Society of Japan, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Sapporo, Japan

The George Washington Institute for Neuroscience at the George Washington University/Center for Neuroscience Research at Children’s National Medical Center Neuroscience Seminar, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Washington, DC

Gordon Research Conference on Molecular & Cellular Neurobiology, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Hong Kong University of Science and Technology, Hong Kong, China

8th Annual FENS Forum of Neuroscience, “Role of Calcium Permeable AMPA Receptors in Fear Memory and Erasure”, Barcelona, Spain

McGill University Seminar, “Regulation of Receptors, Synapses and Memories”, Montreal, Canada

SFN Satellite Meeting, Phosphatases in Neuroscience, “Regulation of AMPA receptors by Protein Phosphorylation”, New Orleans, LA

Simons Foundation Annual Meeting, “High-Throughput Screens for Synaptogenic Factors”, New York, NY

2013 Sanford Burnham Medical Research Institute President’s Lecture, “Regulation of Receptors, Synapses and Memory”, La Jolla, CA

Johns Hopkins University, Biochemistry, Cellular and Molecular Biology Seminar, “Regulation of Receptors, Synapses and Memory”, Baltimore, MD

Wenthold Lecture, NIH Neuroscience Seminar Series, "Regulation of Glutamate Receptors and Synaptic Plasticity in the Brain", Bethesda, MD

Mahoney Institute of Neurological Sciences Colloquium Series at the University of Pennsylvania, "Regulation of Receptors, Synapses and Memories", Philadelphia, PA

2nd Biannual Austin Conference on Learning & Memory Symposium, "Regulation of Glutamate Receptor Function and Learning and Memory in the Brain", Austin, TX

Keynote Speaker, ISN 2013 Synapse Satellite Meeting "Emerging Topics in Synapse Function: Molecular Mechanisms, Circuit Function and Disease", "Receptors, Synapses and Memories", Playa del Carmen, Mexico

Gordon Research Conference on Excitatory Synapses and Brain Function, "Regulation of Glutamate Receptors and Synaptic Plasticity in the Brain", Les Diablerets, Switzerland

Institut du Fer à Moulin, "Regulation of Glutamate Receptors and Synaptic Plasticity in the Brain", Paris, France

C. Ladd Prosser Memorial Lecture at the University of Illinois, "Receptors, Synapses and Memory", Urbana-Champaign, IL

2014 Australian Neuroscience 34th Annual Meeting, "Receptors, Synapses and Memory", Adelaide, Australia

Queensland Brain Institute, "Receptors, Synapses and Memories", Brisbane Australia

IBBS, Science Writers' Boot Camp, "Making and Erasing Memories", Washington, DC

Irwin Levitan Symposium, "Neuromodulation of Ligand Gated Ion Channels", Lambertville, NJ

University College London, "Receptors, Synapses and Memories", London, England

Karolinska Institutet, "Receptors, Synapses and Memories", Stockholm, Sweden

University of Copenhagen, "Receptors, Synapses and Memories", Copenhagen, Denmark

Gordon Research Conference on Synaptic Transmission, "Visualizing AMPA receptor synaptic plasticity in vivo", Waterville Valley, NH

8th International Meeting on Metabotropic Glutamate Receptors, "Modulation of AMPA Receptors and Synaptic Plasticity", Taormina, Italy

2015 48th Annual Winter Conference on Brain Research, Big Sky, MT

Genentech, "Regulation of Neurotransmitter receptors and brain function in health and disease", South San Francisco, CA

Gladstone Institute, University of California, San Francisco, "Regulation of Neurotransmitter receptors and brain function in health and disease", San Francisco, CA

Gordon Research Conference on Dendrites: Molecules, Structure & Function, "Visualizing AMPA Receptor Plasticity *In Vivo*", Ventura, CA

Chicago Chapter for the Society for Neuroscience Annual Meeting, "Receptors, Synapses and Memories", Chicago, IL

Max Planck Sunposium, "Regulation of Neurotransmitter receptor function and synaptic plasticity in the brain", Palm Beach Gardens, FL

University of Maryland, Program in Neuroscience Seminar Series, "Regulation of Neurotransmitter receptor function and synaptic plasticity in the brain", Baltimore, MD

Goldman-Rakic Distinguished Lecture at Yale University, "Receptors, Synapses and Memories", New Haven, CT

Neuroscience School of Advanced Studies course on "Synaptic Plasticity and Neural Circuit Remodeling", Florence, Italy

Gordon Research Conference on Excitatory Synapses & Brain Function, "Mechanisms of AMPA Receptor Regulation", Newport, RI

18th International Symposium on Chromaffin Cell Biology, "Visualization of AMPA Receptor Synaptic Plasticity *In Vivo*", Cairns, Australia

"From synapses to circuits and behavior", Satellite of 2015 ISN/ANS Annual Meeting, "Regulation of AMPA Receptors and Synaptic Plasticity in the Brain", Cairns, Australia

Washington University in St. Louis Neuroscience Retreat, "Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain", Grafton, IL

Stanley Center's Biennial Symposium, Severe Mental Illness: From Genetics to Translational Biology, "Schizophrenia Risk Genes and Synapse Development", Cambridge, MA

2015 Picower Fall Symposium on "Synapses in Health and Disease", "Regulation of Excitatory Synaptic Function and Brain Plasticity", Cambridge, MA

Symposium to Honor Paul Greengard on his 90th Birthday, "Memories of the Greengard Lab: Neurotransmitter Receptors and Synaptic Plasticity", New York, NY

- 2016 Science of Learning Biennial Symposium, “Synaptic Plasticity Mechanisms Underlying Learning in the Brain”, Baltimore, MD
- University of Utah Neuroscience Seminar Series, “Regulation of Glutamate Receptors and Synaptic Plasticity in the Brain”, Salt Lake City, UT
- Stanford Neuroscience Seminar Series, “Regulation of Neurotransmitter Receptor Function During Synaptic Plasticity in the Brain”, Palo Alto, CA
- University of North Carolina at Chapel Hill Neuroscience Center Weekly Seminar, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Chapel Hill, NC
- University of Tokyo, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Tokyo, Japan
- RIKEN Brain Science Institute, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Tokyo, Japan
- Institute for Basic Science, Center for Cognition and Society, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Daejeon, Republic of Korea
- Seoul National University, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Seoul, Republic of Korea
- Champalimaud Centre for the Unknown, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Lisbon, Portugal
- Keynote Speaker 7th ISN Special Neurochemistry Conference, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Coimbra, Portugal
- Ionotropic Glutamate Receptors 26th Neuropharmacology Conference, "AMPA Receptor Trafficking", San Diego, CA
- 1st International SYNGAP1 Conference, “The Role of SynGAP Mutations in Human Cognitive Disorders”, Houston, TX
- 55th Annual meeting of the American College of Neuropsychopharmacology, “Synaptic Plasticity and its Dysregulation in Neuropsychiatric Disorders”, Hollywood, FL
- 2017 Translational Neuroscience Seminar at Icahn School of Medicine at Mount Sinai, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, New York, NY

Richard L. Huganir, Ph.D.
Curriculum Vitae

Plenary Seminar Series of the Rutgers Brain Health Institute, “Regulation of Neurotransmitter Receptor Function and Synaptic Plasticity in the Brain”, Piscataway, NJ

Djavad Mowafaghian Centre for Brain Health, University of British Columbia, Neuroscience Research Colloquium, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Vancouver, Canada

Brown Institute for Brain Science Lecture, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Providence, RI

Herbert Jasper Lectureship at the Montreal Neurological Institute, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in Cognition and Cognitive Disorders”, Montreal, Canada

FENS and The Brain Prize Brain Conference on Learning, Memory and Synaptic Plasticity, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Rungsted, Denmark

Gordon Research Conference on Excitatory Synapses & Brain Function, "Regulation of AMPA Receptor Function and Synaptic Plasticity in Cognitive Disorders", Les Diablerets, Switzerland

International Society for Neurochemistry (ISN) and the European Society for Biochemistry (ESN) 2017 Meeting, “Synaptic plasticity in health and disease”, Paris, France

Neuroscience School of Advanced Studies course on “Synaptic Plasticity and Neural Circuit Remodeling”, Florence, Italy

Inaugural Bordeaux Neurocampus Conference: Past, Present and Future of Brain Research, “Regulation of Neurotransmitter Receptors and Synaptic Plasticity in the Brain”, Bordeaux, France

Columbia University Neurobiology Seminar Series, “Regulation of Neurotransmitter Receptors During Synaptic Plasticity in the Brain”, New York, NY