

# Craig M. Powell, M.D., Ph.D.

Curriculum Vitae

Departments of Neurology & Neurotherapeutics and Psychiatry  
The University of Texas Southwestern Medical Center  
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## POSITIONS

<b>Associate Professor with Tenure</b> <b>University of Texas Southwestern Medical Center, Dallas, TX</b> Dept. of Neurology & Neurotherapeutics, Dept. of Psychiatry, Neuroscience Graduate Program	2011-present
<b>Head of Neurodevelopmental Disorders Section</b> <b>University of Texas Southwestern Medical Center, Dallas, TX</b> Dept. of Neurology & Neurotherapeutics	2013-present
<b>Ed and Sue Rose Distinguished Professor in Neurology</b> <b>University of Texas Southwestern Medical Center, Dallas, TX</b> Dept. of Neurology & Neurotherapeutics	2013-present
<b>Assistant Professor (tenure track)</b> <b>University of Texas Southwestern Medical Center, Dallas, TX</b> Dept. of Neurology & Neurotherapeutics, Dept. of Psychiatry, Neuroscience Graduate Program	2005-2011
<b>Assistant Professor (Postdoc, non-tenure track)</b> , Laboratory of Dr. Eric J. Nestler <b>University of Texas Southwestern Medical Center, Dallas, TX</b> Dept. of Psychiatry	2003-2005
<b>Assistant Instructor (Postdoc)</b> , Laboratory of Dr. Eric J. Nestler <b>University of Texas Southwestern Medical Center, Dallas, TX</b> Dept. of Psychiatry	2001-2003
<b>Chief Resident, Neurology Residency Program</b> <b>University of California, San Francisco (UCSF), San Francisco, California</b>	2000-2001
<b>Resident, Neurology Residency Program</b> <b>University of California, San Francisco (UCSF), San Francisco, California</b>	1998-2001
<b>Medicine Intern</b> <b>Baylor College of Medicine, Houston, Texas</b>	1997-1998

## EDUCATION

<b>Baylor College of Medicine, M.D., Ph.D.</b> Houston, Texas Ph.D. in Neuroscience, July 1994, Laboratories of Dr. J. David Sweatt & Dr. Daniel Johnston M.D. with Honor, June 1997	1988 -1997
<b>Louisiana State University</b>	1984 - 1988

Baton Rouge, Louisiana  
B.S. in Zoology (Psychology minor), May 1988

## **PROFESSIONAL CERTIFICATION**

Texas Medical License # L1970 (exp. 8/31/2014)  
Drug Enforcement Agency # BP6351592 (exp. 3/31/14)  
Board Certified in Neurology (American Board of Psychiatry and Neurology) Recertification in  
Neurology 2/2012 (American Board of Psychiatry and Neurology)  
California Medical License # A068342 (exp. 2/28/2002)

## **HONORS/AWARDS**

### **The University of Texas Southwestern Medical Center**

**Elected Chair, Department of Defense Autism Research Program Integration Panel (2013)**

**Named Director, Erma Lowe Center for Alzheimer's Research (2012)**

**Elected Member, American College of Neuropsychopharmacology (ACNP) (2012)**

**Elected Member, American Neurological Association (ANA) (2010)**

**Elected Associate Member, American College of Neuropsychopharmacology (ACNP), (2009)**

**Named Director, Erma Lowe Laboratory in Alzheimer's Research (2008)**

**Autism Young Investigator Award**, NIH-sponsored Shared Neurobiology of Autism and Related Disorders Workshop, Los Angeles, CA (2007)

**ACNP Young Investigator Memorial Travel Award (American College of Neuropsychopharmacology)**  
— selected to speak in both Travel Awardee Breakout Session and Hot Topics Session, Boca Raton, FL (2007)

**NARSAD Young Investigator Award (National Alliance for Research on Schizophrenia and Depression)**  
(2003)

### **University of California, San Francisco**

**Chief Resident (2000-2001)**

**American Academy of Neurology Annual Meeting Scholarship for Residents (May 2000)**

### **Baylor College of Medicine**

**Alpha Omega Alpha**

**Dean's Award for Excellence (graduate program, 1992 – 1994)**

**Award for Excellence in Neuroscience (1993)**

**Invited Platform Speaker 5th Annual Graduate Student Symposium (1993)**

**Most Outstanding Scientific Poster Presentation at the M.D./Ph.D. Scientific Retreat (1992)**

**Neural Systems and Behavior Course, Woods Hole Marine Biological Laboratory (1993)**

**NATO Advanced Study Institute on Biological Signal Transduction, Spetses, Greece (1991)**

**Most Outstanding Student During Clinical Clerkships, M.D./Ph.D. Program award (1995)**

### **Louisiana State University (LSU)**

**Phi Beta Kappa**

**Chancellor's Aide Scholarship**

**T. H. Harris Scholarship**

**Alpha Epsilon Delta**, premedical honor society (president, 1986-87; treasurer, 1987-88)

**Phi Kappa Phi, Mu Sigma Rho, Gamma Beta Phi, & Collegium honor societies**

**Vice President, College of Basic Sciences Student Council**

**Dean's List** (1984-88)

**Choppin Memorial Honor's Convocation**, for academic achievement in the College of Basic Sciences (1988)

**Sophomore Honor's Distinction**, for academic achievement in the Honors Program (1986)

**Regent's Certificate of Excellence**, for overall academic performance (1988)

## **GRANTS AND SUPPORT**

### **Ongoing:**

**NIMH R01 MH081164 (Powell) \$1,250,000 direct over 5 years, 2008-2013**

Neurotrophin Function in vivo: Implications for Autism and Mental Retardation

**NICHD R01 HD069560-01 (Powell) \$1,062,500 direct over 5 years, 2011-2016**

Novel Genetic Models of Autism

**NIMH R01 MH093697 (Powell) \$1,000,000 direct over 4 years, 2012-2016**

Striatal Synaptic Abnormalities in Models of Autism

**NICHD R01 HD-69560-0251 Diversity Suppl. (Powell) \$62,750 (initial year) 9/1/2012-8/31/2014**

Novel Genetic Models of Autism—Diversity Supplement

**Autism Speaks Basic/Clinical Pilot Award (Powell) \$120,000 direct over 2 years, 2012-2014**

Temporally Controlled Genetic Rescue of Shank3 Autism Model

**Autism Speaks Translational Postdoctoral Fellowship (mentor of Dr. Haley Speed) \$115,800 direct over 2 years, 2012-2014**

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### **Pending:**

**NICHD 1U54HD079132-01 (contact PI Powell, MPI Sweeney) \$4,085,000 direct over 5 years, 2013-2018**

Intellectual and Developmental Disabilities Research Center 2013

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### **Completed:**

**Autism Science Foundation Postdoctoral Fellowship (mentor of Dr. Haley Speed) \$35,000 direct over 1 year, 2011-2012**

**Autism Speaks Weatherstone Predoctoral Fellowship (mentor of Mehreen Kouser) \$56,000 direct over 2 years, 2010-2012**

Synaptic Animal Models of Autism

**NICHD R21 HD065290 (Powell) \$350,000 direct over 2 years, 2009-2011**

Novel Genetic Animal Models of Autism

**Hartwell Foundation Individual Biomedical Research Award (Powell) \$300,000 direct over 3 yrs, 2008-2011**

Discovery of Common Synaptic Mechanisms in Novel Mouse Models of Autism

**Autism Speaks Physician/Investigator Beginning Autism Research Award (Powell) \$300,000 over 3 yrs, 2008-2011**

Animal Models of Autism: Pathogenesis and Treatment

**Dept. of Veterans Affairs Task Order 5.12 (Powell) \$200,000 direct for 1 yr, 2008-2009**

Mechanisms of Hippocampal Cognitive Dysfunction in Models of Gulf War Syndrome

**5 UL1 RR024982-02 (Packer) NIH/NCRR Pilot Award (Powell), \$50,000 direct for 1 yr, 6/2008-5/2009**

mTOR Kinase as a Therapeutic Target in Reconsolidation of PTSD-related Traumatic memory

**NIMH P50 MH 74866 (Co-Investigator, PI = Paul Greengard), \$150,000 direct costs over 3 yrs, 2005-2008**

**Autism Speaks Biomedical Research in Autism Spectrum Disorders (Powell) \$120,000 direct costs over 2 yrs, 2006-2008**

Characterization and Treatment of Autism-related Behaviors in PTEN Conditional Knockouts: A Potential Animal Model of Autism

**Autism Speaks Biomedical Research in Autism Spectrum Disorders (Powell) \$120,000 direct costs over 2 yrs, 2006-2008**

The Role of Neuroligins in Cognitive Function: Implications for Autism

**Mentored Clinical Scientist Development Award (K08, Powell), NIMH, \$ 838,566 direct costs over 5 yrs, 2003-2008**

**Young Investigator Award, NARSAD (Powell) \$60,000 direct costs over 2 yrs, 2003-2006**

**National Research Service Award, National Institute of Mental Health, 1992-1997**

to support research in the lab of J. David Sweatt, Ph.D. in collaboration with Daniel Johnston, Ph.D.

**National Institutes of Health Medical Scientist Training Program Graduate Fellowship, 1988-92**

**Epilepsy Foundation of America, Medical Student Fellowship, 1988**

**National Science Foundation Research Experiences for Undergraduates Fellowship, 1987-88**

## **PUBLICATIONS**

### **Research Papers**

Jaramillo, T., Reimers, J., Dewey, C., Liu, S., Xuan, Z., & **Powell, C.M.** (2013) Autism-relevant Shank3 mutation results in repetitive behavioral abnormalities and striatal dysfunction. In preparation.

Jaramillo, T., Blundell, J., & **Powell, C.M.** (2013) Autism-related neuroligin-3 mutation alters social behavior and spatial learning. *Autism Research*, in revision.

- Latchney, S.E, Masiulis, I., Zaccaria, K.J., Lagace, D.C., **Powell, C.M.**, McCasland, J.S., & Eisch, A.J. (2013) Developmental and Adult GAP-43 Deficiency in Mice Dynamically Alters Hippocampal Neurogenesis and Mossy Fiber Volume. **Developmental Neuroscience**, in press.
- Kouser, M., Speed, H., Dewey, C., Reimers, J., Widman, A., Liu, S., Bangash, A., Worley, P., & **Powell, C.M.** (2013) Loss of Shank3 Autism-related gene results in hippocampus-dependent impairments in behavior and synaptic transmission. **Journal of Neuroscience**, 33(47): 18448-18468. PMC3834052
- Haws, M.E., Jaramillo, T.C., Espinosa-Becerra, F., Widman, A., Stuber, G., Sparta, D.R., Tye, K.M., Russo, S.J., Parada, L.F., Kaplitt, M., Bonci, A., **Powell, C.M.** (2013) PTEN knockdown alters dendritic spine morphology, not density. **Journal of Comparative Neurology**, in press. NIHMSID548018 PMID24264880
- Rojas, J.C., Banerjee, C., Siddiqui, F., Nourbakhsh, B., & Powell, C.M. (2013) Pearls & Oysters: Acute Ischemic Stroke Caused by Atypical Thrombotic Thrombocytopenic Purpura. **Neurology**, 80(22): e235-8. PMC3716404
- Suris, A., Smith, J., **Powell, C.M.**, & North, C.S. (2012) Interfering with the Reconsolidation of Traumatic Memory: Sirolimus as Novel Agent for Treating Veterans with Posttraumatic Stress Disorder. **Annals of Clinical Psychiatry**, 25(1): 33-40. NIHMSID548021 PMID23376868
- Haws, M., Kaeser, P., Jarvis, D., Sudhof, T.C., & **Powell, C.M.** (2012) Region-specific Deletions of RIM1 Reproduce a Subset of Global RIM1a-/- Phenotypes. **Genes, Brain, & Behavior**, 11(2):201-13. PMC3268893
- Speed, H.E., Blaiss, C.A., Kim, A., Haws, M.E., Melvin, N.R., Jennings, M., Eisch, A.J., & **Powell, C.M.** (2012) Delayed Reduction of Hippocampal Synaptic Transmission and Spines Following Exposure to Repeated, Subclinical Doses of Organophosphorus Pesticide in Adult Mice. **Toxicological Sciences** 125(1): 196-208. PMC3247802
- Petrik, D., Jiang, Y., Birnbaum, S.G., **Powell, C.M.**, Kim, M., Hsieh, J., & Eisch, A. (2012) Functional and Mechanistic Exploration of an Adult Neurogenesis-promoting Small Molecule. **FASEB** 26(8): 3148-3162. PMC3405259
- Lewis, A.S., Vaidya, S.P., Blaiss, C.A., Brager, D.H., Chen, X., Liu, Z., Bender, R.A., Estep, C.M., Popov, A.B., Van Beldhoven, P.P., Nicholson, D.A., Bayliss, D.A., **Powell, C.M.**, Johnston, D., & Chetkovich, D.M. (2011) Deletion of the HCN Channel Auxiliary Subunit TRIP8b Eliminates Hippocampal Ih and Promotes Antidepressant Behavior in Mice. **J. Neuroscience**, 31(20):7424-40. PMC3169171
- Blundell, J., Blaiss, C.A., Lagace, D.C., Eisch, A.J., & **Powell, C.M.** (2011) Block of Glucocorticoid Synthesis During Reactivation Inhibits Extinction of an Established Fear Memory. **Neurobiology of Learning and Memory**, 95(4):453-60. PMC3356929
- Blaiss, C.A., Yu, T., Zhang, G., Chen, J., Dimchev, G., Parada, L.F., **Powell, C.M.**, & Kernie, S.G. (2011) Temporally Specified Genetic Ablation of Neurogenesis Impairs Cognitive Recovery Following Traumatic Brain Injury. **Journal of Neuroscience**, 31(13):4906-16. PMC3103868
- Netzer\*\*, W.J., Powell\*\*, C.M.**, Nong, Y., Blundell, J., Wong, L., Duff, K., Flajolet, M., & Greengard, P. (2010) Lowering  $\beta$ -amyloid levels rescues learning and memory in a Down Syndrome Model **PLoSOne**, 5(6): e10943. **\*\*Equal Contribution** PMC2880593

- Suris, A., North, C., Adinoff, B., **Powell, C.M.**, Greene, R. (2010) Effects of Exogenous Glucocorticoid on Combat-related PTSD Symptoms. *Annals of Clinical Psychiatry*, 22(4):274-279. NIHMSID341152 PMID: 21180658
- Blundell, J., Kaeser, P.S., Sudhof, T.C., & **Powell, C.M.** (2010) RIM1 $\alpha$  and Interacting Proteins Involved in Presynaptic Plasticity Mediate Prepulse Inhibition and Additional Behaviors Linked to Schizophrenia. *Journal of Neuroscience*, 30(15):5326-5333. PMC2860606
- Blundell, J., Blaiss, C.A., Etherton, M.R., Espinosa, F., Tabuchi, K., Walz, C., Bolliger, M.F., Sudhof, T.C., & **Powell, C.M.** (2010) Neuroligin 1 Deletion Results in Impaired Spatial Memory and Increased Repetitive Behavior. *Journal of Neuroscience*, 30(6): 2115-2129. PMC2824441
- Dill, J., Patel, A.R., Yang, X.L., Bachoo, R., **Powell, C.M.**, Li, S. A (2010) Molecular Mechanism for Ibuprofen-mediated RhoA Inhibition in Neurons. *Journal of Neuroscience*, 30(3):963-972. NIHMSID548051 PMID20089905
- Etherton, M.R.\*, Blaiss, C.\*, **Powell, C.M.**, & Sudhof, T.C. (2009) Mouse Neurexin-1 $\alpha$  Deletion Causes Correlated Electrophysiological and Behavioral Changes Consistent with Cognitive Impairments. *PNAS*, 106(42): 17998-18003. \*Equal Contribution PMC2764944
- Zhang, C., Milunsky, J.M., Newton, S., Ko, J., Zhao, G., Maher, T.A., Tager-Flusberg, H., Bolliger, M.F., Carter, A.S., Boucard, A.A., **Powell, C.M.**, & Sudhof, T.C. (2009) A Neuroligin-4 Missense Mutation Associated with Autism Impairs Neuroligin-4 Folding and Endoplasmic Reticulum Export. *Journal of Neuroscience*, 29(35): 10843-10854. PMC2777970
- Hawasli, A.H., Koovakkattu, D., Hayashi, K., Anderson, A.E., **Powell, C.M.**, Sinton, C.M., Bibb, J.A., Cooper, D.C. (2009) Regulation of Hippocampal and Behavioral Excitability by Cyclin-Dependent Kinase 5 *PLoS One*, 4(6): e5808. PMC2695674
- Zhou, J, Blundell, J, Ogawa, S, Kwon, CH, Zhang, W, Sinton, C, **Powell, CM**, & Parada, L.F. (2009) Pharmacological Inhibition of mTORC1 Suppresses Anatomical, Cellular, and Behavioral Abnormalities in Neural-specific Pten Knockout Mice. *Journal of Neuroscience*, 29(6):1773-1783. NIHMSID341157 PMID19211884
- Blundell, J., Tabuchi, K., Bolliger, M.F., Blaiss, C.A., Brose, N., Liu, X., Sudhof, T.C., & **Powell, C.M.** (2009) Increased Anxiety-like Behavior in Mice Lacking the Inhibitory Synapse Cell Adhesion Molecule Neuroligin 2. *Genes Brain & Behavior*, 8:114-126. PMC2648807
- Kaeser, P., Kwon, H., Blundell, J., Chevaleyre, V., Morishita, W., Malenka, R.C., **Powell, C.M.**, Castillo, P.E., & Sudhof, T.C. (2008) RIM1 $\alpha$  phosphorylation at serine-413 by protein kinase A is not required for presynaptic long-term potentiation or learning. *PNAS*, 105(38), 14680-14685. PMC2567150
- Blundell, J., Kouser, M., & **Powell, C.M.** (2008) Systemic Inhibition of Mammalian Target of Rapamycin Inhibits Fear Memory Reconsolidation. *Neurobiology of Learning and Memory*, 90, 28-35. PMC2497420
- Blundell, J., Hoang, C.V., Potts, B., Gold, S., & **Powell, C.M.** (2008) Motor coordination deficits in mice lacking RGS9. *Brain Research* 1190, 78-85. PMC2241663
- Tabuchi, K., Blundell, J., Etherton, M.R., Hammer, R.E., Liu, X., **Powell, C.M.**, & Sudhof, T.C. (2007) A Neuroligin-3 Mutation Implicated in Autism Increases Inhibitory Synaptic Transmission in Mice. *Science*, 318, 71-76. PMC3235367

- Shukla, K., Kim, J., Blundell, J. & **Powell, C.M.** (2007) Learning-induced GluR1 phosphorylation in the hippocampus resembles that induced by LTP. **Journal of Biological Chemistry**, 282, 18100-18107. NIHMSID64518 PMID17472959
- Hawasli, A.H., Benavides, D.R., Nguyen, C., Kansy, J., Hayashi, K., Chambon, P., Greengard, P., **Powell, C.M.**, Cooper, D.C., & Bibb, J.A. (2007) Cyclin-dependent kinase 5 governs learning and synaptic plasticity via regulation of NMDA receptor degradation. **Nature Neuroscience**, 10(7):880-886. NIHMSID64520 PMID17529984
- Kwon\*\*, C., Luikart\*\*, B.W., Powell\*\*, C.M.**, Zhou, J., Matheny, S.A., Zhang, W., Li, Y. Baker, S.J., & Parada, L. (2006) Pten Regulates Neuronal Arborization and Social Interaction in Mice. **Neuron** 50, 377-388. **\*\*Equal Contribution** NIHMSID64515 PMID16675393
- Cai, W., Blundell, J., Han, J., Greene, R.W., **Powell, C.M.** (2006) Post-reactivation Glucocorticoids Impair Recall of Established Fear Memory. **Journal of Neuroscience** 26, 9560-9566. NIHMSID64517 PMID16971540
- Powell, C.M.**, Schoch, S., Monteggia, L., Barrot, M., Matos, M., Sudhof, T.C., & Nestler, E.J. (2004) The Presynaptic Active Zone Protein RIM1 $\alpha$  is Critical for Normal Learning and Memory, **Neuron** 42, 143-153. NIHMSID64512 PMID15066271
- Monteggia, L., Barrot, M., **Powell, C.M.**, Berton, O., Nagy, A., Greene, R.W., & Nestler, E.J. (2004) Essential Role of BDNF in Adult Hippocampal Function. **PNAS** 101, 10827-10832. PMC490019
- Torabi, A.M., Mendelsohn, D., **Powell, C.M.** (2004) Multilevel Intramedullary Spinal Neurocysticercosis with Eosinophilic Meningitis. **Archives of Neurology** 61 (5), 770-772. NIHMSID64513 PMID15148157
- Powell, C.M.**, Johnston, D., & Sweatt, J.D. (1994) Autonomously active protein kinase C in the maintenance Phase of N-methyl-D-aspartate receptor-independent long-term potentiation. **Journal of Biological Chemistry** 269, 27958-27963. NIHMSID341158 PMID7691728
- Powell, C.M.** (1994) Autonomously Active Protein Kinase C in the Maintenance Phase of N-Methyl-D-aspartate Receptor-independent Long Term Potentiation. Doctoral Dissertation, Baylor College of Medicine.
- Chen, S.J., Klann, E., Gower, M.C., **Powell, C.M.**, Sessoms, J.S., & Sweatt, J.D. (1993) Studies with synthetic peptide substrates derived from the neuronal protein neurogranin reveal structural determinants of potency and selectivity for protein kinase C. **Biochemistry** 32, 1032-1039. PMID8424923
- Sessoms, J.S., Chen, S.J., Chetkovich, D.M., **Powell, C.M.**, Roberson, E.D., Sweatt, J.D., & Klann, E. (1992-93) Ca<sup>2+</sup>-induced persistent protein kinase C activation in rat hippocampal homogenates. **Second Messengers and Phosphoproteins** 14, 109-126. PMID1345337

## **REVIEW ARTICLES**

- Powell, C.M. (2009) Disparate Diseases Due to Copycat Copy Number Variations. **Archives of Neurology**, 66(9): 1158-1159. NIHMSID341151 PMID19752307
- Powell, C.M.** & Blundell, J. (2007) "The Persistence of Memory Persistence: A Surreal Delay in Memory Consolidation". **Cellscience Reviews** 3(4), 41-48.

**Powell, C.M.** & Miyakawa, T. (2006) Schizophrenia-relevant Behavioral Testing in Rodent Models: A Uniquely Human Disorder? ***Biological Psychiatry*** 59, 1198-1207. NIHMSID64516 PMID16797265

**Powell, C.M.** (2006) Gene Targeting of Presynaptic Proteins in Synaptic Plasticity and Memory: Across the Great Divide. ***Neurobiology of Learning and Memory*** 85, 2-15. NIHMSID64514 PMID16230036

## **BOOK CHAPTERS**

**Powell, C.M.** PTEN and Autism with Macrocephaly (2012) **Powell, C.M.** & Monteggia, L.M. eds., Oxford University Press

**Powell, C.M.** (2012) Shank Gene Family and Autism (2012) Powell, C.M. & Monteggia, L.M. eds., Oxford University Press

**Powell, C.M.** & Boucard, A. Neuroligins and Neurexins: Bridging the Synaptic Cleft in Autism (2012) Powell, C.M. & Monteggia, L.M. eds., Oxford University Press

**Powell, C.M.** Introduction (2012) Powell, C.M. & Monteggia, L.M. eds., Oxford University Press

**Powell, C.M.** & Boucard, A. Neuroligins and Neurexins: Synaptic Bridges Implicated in Autism (2010) Blatt, G. editor, in ***The Neurochemical Basis of Autism*** Springer Science & Business Media, LLC.

Kaesler, P. & **Powell, C.M.** (2008) "Key Molecules: RIMs" in ***New Encyclopedia of Neuroscience***, Adelman, G. and Smith, B.H. eds., Elsevier Ltd. Kidlington, Oxford.

C. M. Powell and P. E. Castillo. (2008) Presynaptic Mechanisms in Plasticity and Memory. In J. David Sweatt (Ed.), Molecular Mechanisms of Memory. Vol. [4] of ***Learning and Memory: A Comprehensive Reference***, 4 vols. (J.Byrne Editor), pp. [741-770] Oxford: Elsevier.

## **BOOKS**

*The Autisms: Molecules to Model Systems.* **Powell, C.M.** & Monteggia, L.M. eds., Oxford University Press, 2012.

## **INVITED LECTURES**

**Phelan-McDermid Syndrome: Autism Due to Shank3 Mutations/Deletions**, Banbury Conference Center Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 2013

**Workshop in Autism Spectrum Disorders Lecturer**, Banbury Conference Center Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 2013

**Indiana University Purdue University of Indianapolis**, Department of Pediatrics Seminar, Indianapolis, IN 2012

**Neurobiology of Autism Disorders, Neuroscience School of Advanced Studies**, San Quirico d'Orcia, Siena, Italy, 2012

**Phelan-McDermid Syndrome Foundation Scientific Meeting**, Orlando, FL, 2012

**Frontiers in Stress and Cognition: From Molecules to Behavior**, Ascona, Ticino, Switzerland, 2012

**Alzheimer's Disease Center Symposium**, Dallas, TX, 2012

**Pfizer, invited seminar on drug discovery in animal models of autism**, Groton, CT, 2011



**Children's Medical Center of Dallas, Pediatric Grand Rounds**, Dallas, TX, 2011

**Mount Sinai School of Medicine Translational Neuroscience Seminar**, New York, NY, 2011

**American Society of Pharmacology and Experimental Therapeutics**, Autism Therapeutics, Washington, DC, 2011

**Vanderbilt University, Department of Pediatrics Research Conference**, Nashville, TN, 2011

**Texas Children's Neurology Grand Rounds, Texas Children's Hospital**, Houston, TX, 2011

**Roche, invited seminar on drug discovery in genetic autism models**, Basel, Switzerland, 2010

**Foundation of Synapse and Neurocircuit Pathology Symposium**, Tokyo, Japan, 2010

**ANA Derek-Denny Brown New Member Symposium**, San Francisco, CA, 2010

**Hartwell Foundation Annual Meeting**, Ithaca, NY, 2010

**NIMH Workshop on Synaptic Biology and Schizophrenia**, Washington, DC, 2010

**International Meeting for Autism Research**, selected speaker, Philadelphia, PA, 2010

**University of Oregon, Neuroscience Seminar**, Eugene, OR, 2010

**UT Southwestern Neurology Grand Rounds**, Dallas, TX 2010

**Winter Conference on Brain Research, Panel Speaker**, Breckenridge, CO, 2010

**University of Alabama, Birmingham, Neuroscience Seminar**, Birmingham, AL, 2010

**Emory University and Children's Healthcare of Atlanta**, Special Seminar, Atlanta, GA, 2009

**MIT Picower Institute for Learning and Memory**, Neuroscience Seminar, Boston, MA, 2009

**"Summer Workshop The Pathomechanisms of Brain Diseases: New Technologies and Approaches"**  
sponsored by Ministry of Education, Culture, Sports, Science and Technology of Japan, Sapporo, Japan, 2009

**International Symposium: New Approach for Molecular Neuropathology**, Tokyo, Japan, 2009

**Special Neuroscience Seminar**, Hiroshima University, Hiroshima, Japan, 2009

**Selected Speaker, International Meeting for Autism Research**, Chicago, IL 2009

**Hartwell Foundation Annual Meeting**, Baltimore, MD, 2009

**Selected Speaker, American Academy of Neurology** (work also included in Scientific Program Highlights Plenary Session), New Genetics: The Future of Neurology, Seattle, WA, 2009

**Astra-Zeneca, invited seminar on mouse models of neuropsychiatric disorders**, Wilmington, DE, 2009

**Winter Conference on Brain Research** symposium chair and invited speaker in 2 different symposia, Copper Mountain, CO, 2009

**American College of Neuropsychopharmacology invited Panel Speaker**, Scottsdale, AZ, 2008

**Psychogenics Inc. Invited Seminar on Autism Mouse Models**, New York, 2008.

**Society for Neuroscience Minisymposium on Mouse Models of Autism and Related Disorders--**  
symposium chair and speaker, Washington, DC, 2008

**University of Toronto Physiology Seminar Series** invited speaker, Toronto, Canada, 2008

**Hartwell Foundation Annual Meeting**, Memphis, TN, 2008

**Gordon Research Conference**, "Neurobiology of Brain Diseases: Circuit Dysfunction and Neurodegeneration" invited speaker, Oxford, UK, 2008

**International Meeting for Autism Research**, selected speaker, London, England, 2008

**UCSF Gallo Center Neuroscience Seminar Series** invited speaker, San Francisco, CA, 2008

**American Academy of Neurology Autism Integrated Neuroscience Session** invited speaker, Chicago, IL, 2008

**Neurobiology of Learning and Memory Meeting**, Park City, Utah, 2008

**Hot Topics Session, ACNP Meeting**, Boca Raton, FL, 2007

**Young Investigator Travel Awardee Breakout Session, American College of Neuropsychopharmacology (ACNP) Meeting**, Boca Raton, FL, 2007

**Molecular and Cellular Cognition Society Annual Meeting**, San Diego, CA, 2007

**Young Investigator Talk, NIH-sponsored Shared Neurobiology of Autism and Related Disorders Meeting**, University of Southern California, Los Angeles, CA, 2007

**AUPN/ANA/NINDS MD/PhD Student Mentoring Workshop**, Bethesda, MD, 2007

**Synapses: From Molecules to Circuits & Behavior CSHL Meeting**, Cold Spring Harbor, NY, 2007

**University of Texas Dallas Neuroscience Seminar**, Dallas, TX, 2007

**University of Texas Health Science Center at Houston, Neuroscience Seminar Series**, Houston, TX, 2006

**Winter Conference on Brain Research Invited Panel speaker**, Steamboat Springs, CO, 2006

**Asian Molecular and Cellular Cognition Society Annual Meeting Invited Speaker**, Yokohama, Japan, 2005

**Riken Brain Science Institute**, Wako, Japan, 2005

**University of Kyoto**, Kyoto, Japan, 2005

**Tokyo Agricultural University**, Tokyo, Japan, 2005

**International Congress on Schizophrenia Research, Animal Models as Strategies for Discovery Symposium** invited speaker, Savannah, GA, 2005

**Baylor College of Medicine Dept. of Cell and Molecular Biology Seminar Series**, Houston, TX, 2005

**Baylor College of Medicine Dept. of Psychiatry Grand Rounds**, Houston, TX, 2004

**University of California San Francisco Dept. of Neurology Special Seminar**, San Francisco, CA, 2004

**Molecular and Cellular Cognition Society Annual Meeting**, "Presynaptic Proteins and Presynaptic Function in Cognition", San Diego, CA, 2004

**Emory University Medical School Center for Neurodegenerative Disease**, Atlanta, GA, 2004

**Vanderbilt University Medical School Neurology Research Seminar**, Nashville, TN, 2004

**Washington University Medical School Neuroscience Seminar**, St. Louis, MO, 2004

**Northwestern Medical School Dept. of Neurology Seminar**, Chicago, IL, 2004

**U.T. Southwestern Medical Center Dept. of Neurology Grand Rounds**, Dallas, TX, 2003

## **PARTICIPATION IN NATIONAL/INTERNATIONAL MEETINGS**

**Co-Organizer** Banbury Meeting on Phelan-McDermid Syndrome: Autism Due to Shank3 Mutations/Deletions, Banbury Conference Center Cold Spring Harbor Laboratory, Cold Spring Harbor, NY (2013)

**Moderator, Autism Spectrum Disorders Press Conference SFN Meeting**, San Diego, CA (2013)

**Chair, Clinical Neuroscience Social at SFN Meeting**, San Diego, CA (2013)

**Chair, Clinical Neuroscience Social at SFN Meeting**, New Orleans, LA (2012)

**Proposed, Organized and Chaired SFN Symposium** "Autism at the Synapse: Human Genetics and Animal Models of Shank Mutations", Washington, DC (2011)

**Proposed, Organized and Chaired IMFAR Symposium** "Shank3 and Autism", San Diego, CA (2011)

**Proposed, Organized, and Chaired ACNP Meeting Panel** on "Novel Treatment Targets from Preclinical Models of Neurodevelopmental Disorders", Miami, FL (2010)

**Selected Speaker, ANA Derek-Denny Brown New Member Symposium**, San Francisco, CA (2010)

**Selected Speaker, International Meeting for Autism Research**, Philadelphia, PA (2010)

**Selected Speaker, International Meeting for Autism Research**, Chicago, IL (2009)

**Selected Speaker, American Academy of Neurology**, New Genetics: The Future of Neurology, Seattle, WA (2009)

**Proposed, Organized, Chaired, and Spoke, Minisymposium on Animal Models of Autism and Related Disorders, Society for Neuroscience Meeting**, Washington, DC, (2008)

**Selected Speaker, International Meeting for Autism Research**, London, UK (2008)

**Invited Speaker, Gordon Conference on Neurobiology of Disease**, Oxford, UK (2008)

**Selected Speaker, Molecular and Cellular Cognition Society**, San Diego, CA (2007)

**Selected Speaker, Synapses: From Molecules to Circuits & Behavior Meeting Cold Spring Harbor Laboratory**, Cold Spring Harbor, NY (2007)

**Invited Panel Speaker, Winter Conference on Brain Research**, Steamboat Springs, CO (2006)

**Invited Speaker, Asian Molecular and Cellular Cognition Society**, Yokohama, Japan (2005)

**Invited Symposium Speaker, International Congress on Schizophrenia Research**, Savannah, GA (2005)

**Selected Speaker, Molecular and Cellular Cognition Society**, San Diego, CA (2004)

## **MANUSCRIPT REVIEW/EDITORIAL ACTIVITIES**

**Reviewer:** Nature, Nature Genetics, Neuron, Science Translational Medicine, PNAS, Journal of Neuroscience, Cell Reports, Brain, Annals of Neurology, Archives of Neurology, Biological Psychiatry, Journal of Clinical Investigation, American Journal of Psychiatry, Neuropsychopharmacology, Autism Research, Hippocampus, Translational Psychiatry, Neurobiology of Learning and Memory, Genes, Brain, and Behavior, Learning and Memory, Human Molecular Genetics, Molecular Psychiatry, Experimental Neurology, Synapse, Cerebral Cortex, Neuropharmacology, Psychopharmacology, Journal of Neural Transmission, Behavioral Brain Research, Frontiers in Behavioral Neuroscience, Journal of Neuroscience Research, International Journal of Developmental Neuroscience, Brain Pathology, Behavioral Neuroscience, Neuroscience Letters, British Journal of Pharmacology, Neuroimage: Clinical, Neuroscience Research, Neuroscience Bulletin, Brain Research Bulletin, Journal of Investigative Medicine, NeuroSignals, Acta Pharmacologica Sinica, Expert Opinion on Drug Discovery

**Autism Book Editor, *The Autisms: Molecules to Model Systems*, Oxford Press, 2013**

**Editorial Board Member, Autism Open Access Journal, 2011-present**

**Editorial Board Member, *World Journal of Psychiatry*, 2011-present**

**Review Editor, *Frontiers in Neurogenomics*, 2009-present**

**Review Editor, *Frontiers in Behavioral Neuroscience*, 2008-present**

**Member of External Editorial Advisory Board:** Science and Technology Group Publishers, Alexandria, Egypt

## **GRANT REVIEW ACTIVITIES**

**Autism Speaks Weatherstone Predoctoral Fellowship Grant Review Panel, 2014**

**Elected Chair of DOD CDMRP Autism Research Program Integration Panel, 2013-present**

**Scientific Advisory Board for Pitt-Hopkins Foundation, 2012-present**

**DOD, CDMRP Neurofibromatosis Res. Prog. Biological & Behavioral Sciences Peer Review Panel, 2012**

**Molecular Neurogenetics Study Section (MNG), 6/2012**

**ZRG1 ETTN-H (50) R PAR 12-010 and PAR 12-011:** "Competitive Revision Applications for Research Relevant to the Family Smoking Prevention and Tobacco Control Act", 6/2012

**NIH Special Emphasis Grant Review Panel** for NIH/ZRG1 MDCN-P(57) "Molecular and Cellular Substrates of Complex Brain Disorders", 3/2012, 6/2012, 10/2012, 3/2013, 6/2013

**Autism Science Foundation Grant Review, 2012**

**U. K. Biotechnology and Biological Sciences Research Council Grant Review, 2011**

**Autism Speaks Weatherstone Predoctoral Fellowship Grant Review Panel, 2011**

**NIH Director's Early Independence Award (DP5) Special Emphasis Grant Review Panel, 2011**

**Alzheimer's Association International Research Grant Program Reviewer, (2011-2012)**

**NIMH Special Emphasis Grant Review Panel** for ZMH1 ERB-L "Biobehavioral Research Awards for Innovative New Scientists (BRAINS)", 2011

**Autism Speaks Foundation Pilot Grant Review Panel, 2010**

**Scientific Advisory Council for Phelan McDermid Syndrome Foundation (22q13 deletion syndrome), 2010-present**

**NIMH Special Emphasis Grant Review Panel** for ZMH1 ERB-L (04) S, "Biobehavioral Research Awards for Innovative New Scientists (BRAINS)", 2010

**DOD, CDMRP Autism Research Program Integration Panel, 2009-present**

**DOD, CDMRP Autism Research Program Grant Review Panel, 2009**

**NIH Grant Review Editorial Board** for ZMH1 ERB-C (A1) ARRA Autism Review #2, 2009

**NIH Special Emphasis Grant Review Panel** for ZMH1 ERB-B (A1) ARRA Autism Review #3, 2009

**NIH Special Emphasis Grant Review Panel** for ZMH1 ERB-S (A1) ARRA Autism Review #1, 2009

**NIMH Special Emphasis Grant Review Panel** for ZMH1 ERB-L-06 "Biobehavioral Research Awards for Innovative New Scientists (BRAINS)", 2009

**NIMH Special Emphasis Grant Review Panel** for 2008/10 ZMH1 ERB-C (09) S, "Interdisciplinary Developmental Science Centers for MH: Mature Centers & Formative Centers", 2008

**NIMH Special Emphasis Grant Review Panel** for 2008/10 ZMH1 CNF-E (02) S Conference Grants, 2008

**NIMH Special Emphasis Grant Review Panel** for RFA MH-08-050 "Mouse Models Containing Human Alleles: Novel Tools to Study Brain Function", 2007

**Ad Hoc Grant Reviewer:** (1) Health Research Council of New Zealand--International Investment Opportunities Fund, Comitato Telethon Fondazione ONLU, Milan, Italy; (2) Israel Science Foundation (ISF); (3) VAMC Merit Review Application; (4) VIDI Innovational Research Incentives Scheme—Netherlands; (5) Alzheimer's Disease Center Pilot Projects, UT Southwestern Medical Center; (6) Legacy Heritage Institute Rambam Medical Center, Haifa, Israel

## **TEACHING/EDUCATION ACTIVITIES**

### **The University of Texas Southwestern Medical Center**

**Course Co-director, Cognitive Neuroscience Graduate Student Journal Club, 2011-present**

**Director, Neurology Resident Research Track Program, 2011-present**

**Co-director, Dept. of Neurology Grand Rounds, 2008-2013**

**Co-director, Joint Psychiatry/Neurology Clinical Neuroscience Lecture Series, 2008-2013**

**Course Director for Neurology Resident Basic Neuroscience Lecture Series, 2006-present**

**Course Co-director, Learning, Memory, and Plasticity Neuroscience Graduate Student Journal Club, 2007-2011**

**Director, Joint Neuroscience Seminar Series, Dept. of Neurology speakers, 2006-2014**

**Panel for Neurology Residents on Careers in Academic Neurology, 2010-2011**

**Lecturer in Fundamentals of Neuroscience Graduate Course** (Hippocampus/Learning and Memory), 2008-present

**Lecturer in Neuropharmacology Graduate Course** (Memory and Dementia, Neuropharmacology of Seizures), 2002-present

**Lecturer for Neurology Resident Basic Neuroscience Lecture Series** (CSF & Cerebral Blood Flow Regulation, Biochemistry), 2003-present

**Research Integrity Discussion Group Leader** (graduate school core course, 1-2 sessions/yr) 2004-present

**Lecturer in MS1 Medical Neuroscience Course** (Autism: Clinical/Basic Correlation), 2010-present

**Neurology Live Patient Oral Board Exam Practice 2003-present**

**Lecturer for Psychiatry Resident's Research Track Seminar** (Memory and Dementia), 2011-2012

**Lecturer in MS1 Medical Neuroscience Course** (Learning and Memory, Basic Mechanisms), 2004-2009

**Lecturer for Neurology Resident Vignette Conference (1-2 noon lectures/yr)** 2002-2006

**Lecturer for Psychiatry Resident "Advanced Neuroscience" Lecture Series** (Memory and Cognition: Preclinical Perspective), 2004-2007

**Lecturer in MS2 - Clinical Medicine: Principles and Practice**, 2002-2008

**Lecturer in MS2 – Neurology Live Patient Demonstration**, 2006-2008

**Lecturer for Psychiatry Resident's Research Track Seminar** (Neurobiology of Seizures), 2003

### **University of California, San Francisco**

Lecturer for Medicine Intern Ambulatory Care Rotation, 1999-2001  
Editor/Collator "Little Black Book" for Residents, 2001

### **Baylor College of Medicine**

Teaching Assistant, Medical Neuroscience Course (voluntary), 1990  
Teaching Assistant, Cellular Neurophysiology Course (voluntary), 1991  
Consultant and Outside Neuroscience Lecturer, Brain Link Project (for elementary school children; voluntary), 1993-94

### **Louisiana State University**

Zoology Laboratory Teaching Assistant (paid position), 1985-86  
Biology Laboratory Teaching Assistant (paid position), 1986

## **PROFESSIONAL ORGANIZATIONS AND SERVICE**

**American Neurological Association (ANA)—Elected 2010**

**ANA Career Development Task Force—2012-present**

**ANA Education Committee Member—2010-2012**

**ANA Annual Meeting Abstract Reviewer—2011, 2012, 2013**

**American College of Neuropsychopharmacology (ACNP)—Elected Associate Member, 2009, Elected Member, 2011**

**American Academy of Neurology (AAN)**

**Association for Psychological Science (APS)**

**International Society for Autism Research (INSAR)**

**Molecular and Cellular Cognition Society (MCCS)**

**Society for Neuroscience (SfN)**