

## Stephen Francis Traynelis

### Address

Department of Pharmacology  
5025 Rollins Research Center, 1510 Clifton Road  
Emory University  
phone 404 727 0357 fax 404 727 0365  
email strayne@emory.edu

### Education

1984 West Virginia University, Morgantown, WV B.S. Chemistry  
1988 University of North Carolina, Chapel Hill, NC Ph.D. Pharmacology

### Research Training and Job Experience

1989-1991 University College London, London, UK. Postdoctoral Research  
with Prof. Stuart Cull-Candy, FRS, Department of Pharmacology  
1992-1994 Salk Institute, La Jolla, CA. Postdoctoral Research  
with Prof. Stephen Heinemann, Director of the Molecular Neurobiology Laboratory  
1994-2000 Assistant Professor, Department of Pharmacology, Emory University  
2000-2006 Associate Professor, Department of Pharmacology, Emory University  
2006- Professor, Department of Pharmacology, Emory University  
2021- Dean's Eminent Investigator, Emory University

### Scholarships, Awards, and Honors

2024 Emory School of Medicine Innovation for Impact Award  
2020 Fellow of the American Society of Pharmacology and Experimental Therapeutics  
2019 Ray Dingleline Research Impact Award  
2018 Hodgkin-Huxley-Katz Prize Lecture, the Physiological Society  
2017 2<sup>nd</sup> Millipub Club publication, Emory University (faculty with papers having >1000 citations)  
2015- The Faculty of 1000  
2015 The Emory 1%  
2014 Elected a Fellow of the American Association for the Advancement of Science (AAAS)  
2010 Founding member of Millipub Club, Emory University (faculty with papers having >1000 citations)  
2010 One in One Hundred Mentors, Office of Postdoctoral Education, Emory School of Medicine  
2008 Teaching Excellence Award, Dept Pharmacology, Emory School of Medicine  
2007 Javits Award from NINDS  
2007 1<sup>st</sup> Annual Distinguished Alumni Award in Chemistry, West Virginia University  
1997 President, Atlanta Chapter, Society for Neuroscience  
1995 John Merck Scholar  
1984 B.S. Chemistry, *Summa Cum Laude*  
1980 John Moore Chemistry Scholarship, West Virginia University (4 years)  
1980 West Virginia University Achievement Scholarship (4 years)  
1984 National Honor Societies: Phi Beta Kappa, Phi Kappa Phi, Golden Key

### National Committees and Service: Manuscript Reviewer

Editorial Board, Critical Reviews in Neurobiology (2003-2008)  
Editorial Board, Open Pharmacology Journal (2007-2012)  
Editorial Board, Molecular Brain (2007-2012)  
Editorial Board, Molecular Pharmacology (1996-99, 2006-2016)  
Editorial Board, Channels (2012-present)  
Associate Editor, Molecular Pharmacology (2008-2011)  
Editor-in-Chief, Molecular Pharmacology (2012-2016)  
Guest Editor for ACS Med Chem Letters Special Issue (2018)  
Reviewer for over 40 journals:

ACS Chemical Biology, ACS Med Chem Letters, American Journal of Physiology, Biochemistry, British Journal of Pharmacology, Communications Biology, Current Opinion in Structural Biology, eLife, EMBO

Journal, eNeuro, European Journal of Neuroscience, Experimental Eye Research, Expert Opinion on Therapeutic Patents, Glia, Journal of Biological Chemistry, Journal of Cell Science, Journal of Medicinal Chemistry, Journal of Neurobiology, Journal of Neurochemistry, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of Neuroscience Research, Journal of Neurological Sciences, Journal of Physiology, Molecular Brain, Molecular Pharmacology, Molecular Psychiatry, Neurobiology of Disease, Neuron, NeuroReport, Neuropharmacology, Neuroscience, Neuroscience Letters, Nature, Nature Communications, Nature Neuroscience, Nature Medicine, Neuroscience and Biobehavioral Reviews, NeuroSignals, PLoS Computational Biology, Science, Stroke, others

*National Committees and Service: Grant Review Boards and ad hoc Grant Reviews:*

1996	Ad hoc NIH Small Grant Program		
1996	Ad hoc NIH NRSA Special Study Section ZRG1-NEUB1		
2000	Ad hoc NIH Special Study Section – RFA		
2002	Ad hoc NIH MCDN4/NTRC Study Section		
2003	Ad hoc NIH MCDN3/BCST Study Section, 2003		
2005	Ad hoc NIH/NCRR COBRE Review Section		
2003-2005	NIH MCDN4/NTRC Study Section Regular Member		
2005-2006	NIH MCDN4/NTRC Study Section Chair		
2005/02/10	BSCT Regular TMP	Non-Standing Member	
2005/02/24	NTRC Regular REG	Standing Member	
2005/03/02	ZRR1 RI-8 (02) MLRV	Non-Standing Member	
2005/04/19	ZRG1 MDCN-L (03)	Non-Standing Member	
2005/06/13	NSD-C Regular AHR	Non-Member	
2005/06/14	NSD-C Other	OTH Non-Standing Member	
2005/06/16	NTRC Regular REG	Standing Member	
2005/10/13	NTRC Regular CHR	Standing Member	
2005/12/06	ZRG1 MDCN-G (91)	CHR Non-Standing Member	
2006/02/09	NTRC Regular CHR	Standing Member	
2006/04/10	ZRG1 MDCN-L (03)	CHR Non-Standing Member	
2006/06/08	NTRC Regular CHR	Standing Member	
2006/10/04	NTRC	TMP Non-Standing Member	
2006/12/11	ZRG1 MDCN-C (02)	SEP Non-Standing Member	
2006	Ad hoc NIH Intramural Review Program		
2007	NIH NIAID Neuroprotectants / Biodefense Research		
2007/06/27	ZRG1 MDCN-J (02)	SEP Non-Standing Member	
2007/07/11	ZRG1 MDCN-N (03)	SEP Non-Standing Member	
2007/09/27	NTRC	MLRV Non-Standing Member	
2007/11/27	ZNS1 SRB-S (16)	SEP Non-Standing Member	
2007/11/28	ZNS1 SRB-P (38)	SEP Non-Standing Member	
2008/06/05	CMBG Regular TMP	Non-Standing Member	
2008/08/04	ZNS1 SRB-W (31)	SEP Non-Standing Member	
2009/04/14	ZRG1 MDCN-N (02)	SEP Non-Standing Member	
2009/05/19	ZRG1 MDCN-G (02)	CHR Non-Standing Member	
2009/06/04	CMBG Regular TMP	Non-Standing Member	
2009/06/05	ZRG1 MDCN-E (95)	SEP Non-Standing Member	
2009/12/02	ZRG1 MDCN-P (02)	SEP Non-Standing Member	
2010/07/15	ZRG1 MDCN-A (04)	SEP Non-Standing Member	
2010/11/09	ZRG1 MDCN-B (91)	CHR Non-Standing Member	
2011/06/03	ZRG1 MDCN-P (91)	SEP Non-Standing Member	
2011/10/18	ZRG1 GGG-R (80)	MLRV Non-Standing Member	
2012/06/27	ZRG1 MDCN-N (04)	SEP Non-Standing Member	
2012/08/02	ZRG1 MDCN-J (04)	SEP Non-Standing Member	
2012/11/05	ZRG1 MDCN-P (57)	SEP Non-Standing Member	
2013/03/29	ZRG1 MDCN-P (57)	SEP Non-Standing Member	

2013/06/27	ZRG1 MDCN-J (04)	SEP	Non-Standing Member
2013/08/14	ZRG1 MDCN-C (04)	CHR	Non-Standing Member
2013/12/18	ZRG1 BDCN-N (02)	SEP	Non-Standing Member
2014/03/18	ZRG1 BCMB-A (51)	MLRV	Non-Standing Member
2014/08/08	ZRG1 MDCN-G (04)	CHR	Non-Standing Member
2015/04/23	ZRG1 MDCN-M (02)	SEP	Non-Standing Member
2015/06/11	NTRC Regular TMP		Non-Standing Member
2015/07/30	ZRG1 MDCN-G (04)	CHR	Non-Standing Member
2015/10/08	MNPS	MLRV	Non-Standing Member
2016/02/18	NTRC	TMP	Non-Standing Member
2016/10/03	MNPS	MLRV	Non-Standing Member
2017/02/16	ZAG1 ZIJ-P (M1)	SEP	Non-Standing Member
2017/02/16	ZAG1 ZIJ-P (M2)	SEP	Non-Standing Member
2019/03/27	ZMH1 ERB-M (03)	SEP	Non-Standing Member
2020/04/06	ZRG1 MDCN-G(03)	SEP	Non-Standing Member
2021/11/04	ZNS1 SRB-H(20)	R35	Non-Standing Member

Grant Review for the VA, NSF, International Organizations and Private Foundations

Ad hoc Civilian Research and Defense Foundation, 1996-1997

Ad hoc Reviewer VA grants, 2000

Ad hoc Reviewer for Singapore Biomedical Research Council, 2001-2002

Ad hoc Reviewer for Austrian FWF, 2003

Ad hoc Reviewer for Welcome Trust, 1998-2005

Ad hoc Reviewer for UK MRC, 1998, 2004

Ad hoc Reviewer for United States-Israel Binational Science Foundation, 2004

Ad hoc reviewer NSF, 2004

Ad hoc Reviewer for AIC International Collaborative Grant, 2004

Ad hoc Reviewer for Michael J Fox Foundation, 2009-2015

Ad hoc Reviewer for the Research Foundation – Flanders, 2020

Ad hoc Reviewer for Czech Science Foundation 2022

Ad hoc Reviewer for Knut and Alice Wallenberg Foundation 2022

Ad hoc Reviewer for the Florida, Pennsylvania Depts Health, 2021-2023

#### *National Committees, Consulting, Service, Startup activities*

Executive Committee Counciler, Atlanta Chapter, Society for Neuroscience (1995-1996)

President-elect, Atlanta Chapter, Society for Neuroscience (1996-1997)

President, Atlanta Chapter, Society for Neuroscience (1997-1998)

Co-founder, NeurOp Inc (2002)

Scientific Advisory Board, NeurOp Inc. (2002-2010)

Scientific Advisory Board, Mnemosyne Pharmaceuticals (2011)

Consultant Sage Therapeutics (2011-2012)

Consultant, NeurOp Inc. (2013-2016)

Consultant, Janssen Pharmaceuticals Inc. (2014-2021)

Consultant, Pfizer Inc. (2016-2017)

Consultant Boerringer-Ingelheim (2016-2017)

Director, Center for Functional Evaluation of Rare Variants (2016-present)

Scientific Advisory Board, Sage Therapeutics (2017-present)

AES Benchmark Steward – Area Lead (2018-2020)

Medical Advisory Board, *GRIN2B* Foundation (2018-present)

Medical Advisory Board, *CureGRIN* Foundation (2019-present)

Scientific Advisory Board, Eumentis Inc., (2020-present)

Scientific Advisory Board, Combined Brain (2021-present)

Board of Directors, NeurOp Inc. (2021-present)

Consultant, GRIN Therapeutic (2021-present)

Co-founder, Agrithera Inc (2022)

GRIN Therapeutics Variant Review Panel (2023-present)  
 Scientific Advisory Board, Neurocrine (2024-present)

*Professional Organizations*

American Association for the Advancement of Science  
 American Society for Pharmacology and Experimental Therapeutics  
 American Epilepsy Society  
 Biophysical Society (previous member)  
 American Society of Human Genetics (previous member)  
 Society for Neuroscience

*Competitive Fellowships and Development Grants/Awards*

2020 I<sup>3</sup> Venture Grant, Emory University (1 year)  
 2017 Emory University School of Medicine Synergy Award (1 year)  
 2013 NARSAD Distinguished Investigator Award (1 year)  
 2005 Michael J Fox Foundation (5 years)  
 2004 NARSAD Independent Investigator Award (2 year)  
 2002 Emory University Research Committee Grant (1 year)  
 2001 FRCP Advanced Technology Development Award (1 year)  
 2000 NARSAD Independent Investigator Award (2 year)  
 1999 Emory University Research Committee Grant (1 year)  
 1998 Burroughs-Wellcome Travel Award (1 year)  
 1997 Emory University Teaching Fund (1 year)  
 1995 American Epilepsy Society Research Starter Grant (1 year)  
 1995 John Merck Fund Faculty Development Award (4 years)  
 1995 Emory University Research Committee Grant (1 year)  
 1993 American Epilepsy Society Fellowship (Salk Institute, 1 year)  
 1992 National Research Service Award (Salk Institute, 1 year)  
 1990-4 Wellcome Trust, Brain Trust, and American Epilepsy Society Travel Awards  
 1989 National Research Service Award (University College London, 2 years)  
 1984-7 National Science Foundation Predoctoral Fellowship (3 years)

*Research Grants as Principal Investigator (active)*

2024	GRIN Therapeutics (PI Traynelis) Evaluating functional consequences fo GRIN variation	1/1/1 -- 12/31/2-24
2023	CureGRIN (PI Lal) GRI gene variant pathogenicity & function prediction models for enhanced genetic test interpretation and patient selection for clinical trials	7/1/2023 – 6/30/25
2023	NIH (PI Kennedy) Evaluating the functional impact of synaptic nanoarchitecture	9/1/2023 – 8/31/2028
2022	NIH-NIA (PI Liang) Subtype-selective NMDA ligands for Alzheimer's disease	3/1/2022 – 2/28/2027
2021	Simon's Foundation Director's Award ( PI Traynelis) A registry for clinical and functional data for variants in the GRIN gene family	6/1/2021 – 5/31/2025
2019	NIH-NINDS R35 NS111619 (PI Traynelis) Glutamate receptors and human neurological disease	5/1/2019 – 4/30/2027
2019	NIH-NINDS (Papa PI) Regulation of Motor Function in Parkinson's Disease	9/15/2019 – 5/31/2024
2019	NIH-NIMH (Cubells/Duncan) Psychosis-related Physiological and Neuronal Phenotypes in 22q11 Deletion Syndrome	9/1/2019 – 7/31/2024

*Research Grants as a co-PI, subcontract, or sponsor (completed)*

2021 NIH-R03 TR0033380

2015-2020 NIH-OD U54OD020351 (PI – Jackson Labs)  
 2019 AES Postdoctoral Fellowship: Subh Bhattacharya  
 2018-2019 NIH-NINDS NRSA 1F31NS106896 Predoctoral fellow Miranda McDaniel  
 2017-2018 Emory University Synergy Award (co-PI Traynelis, Koh)  
 2013-2015 NIH-NINDS NRSA 5F32NS086368 Postdoctoral Fellowship: Dr. Sharon Swanger  
 2012-2014 NIH-NINDS NRSA 5F32NS078873 Postdoctoral Fellowship: Dr. Alpa Khatri  
 2010-2012 NIH-NINDS NRSA 1F31NS07621 Predoctoral Fellowship: Stefka Gyoneva  
 2007-2011 NIH-R01 (PI – Dr. R Hall)  
 2006-2008 NIH-NINDS NRSA 1F31NS054515-01 Predoctoral Fellowship: Anna Goldsmidt  
 2006-2007 Benzon Foundation Fellowship Dr. Kasper Bo Hansen  
 2003-2008 NIH-NINDS NRSA NS36654-07S1 Predoctoral Fellowship: Cecily Hamill  
 2005-2006 Benzon Foundation Fellowship: Dr. Anders Kristensen  
 2005-2006 Epilepsy Society Fellowship: Dr. Shashank Dravid  
 2002-2005 NIH-NINDS NRSA 1F31NS43875 Postdoctoral fellowship: Dr. Justin Lee  
 2001-2003 NIH-NINDS NRSA 1F31NS42505 Predoctoral Fellowship: Candice Junge  
 2001-2002 Benzon Society Fellowship: Dr. Tue Banke  
 2001-2002 NIH-NIMH RO1 (PI – Dr. J.Conn)  
 1999-2001 NIH-NIMH NRSA 1F31NH11623 Predoctoral Fellowship: Melissa Gingrich  
 1998-2001 NIH-NINDS R01 (PI - Dr. J Conn)  
 1997-1999 NIH-NIMH R01 (PI - Dr. T Murray, subcontract)  
 1996 Novo Nordisk Support for Dr. Philip Wahl

*Research Grants as Principal Investigator (completed)*

2022 Janssen Pharmaceuticals (PI)  
 2019-2021 Biogen (PI)  
 2020 CureGRIN (PI)  
 2020-21 Allergan (PI)  
 2016-2020 NIH-NINDS R24 High Impact Neuroscience Resource Center  
 2016-2019 Citizens United for Research in Epilepsy (CURE)  
 2008-2019 NIH-NINDS R01 NS065371 (PI)  
 1996-2019 NIH-NINDS R01 NS036654 (PI)  
 2019 Allergan (PI)  
 2018 Navitor Pharmaceuticals (PI)  
 2017-2018 Janssen Pharmaceuticals (PI)  
 2014 Janssen Pharmaceuticals (PI)  
 2014 The Michael J Fox Foundation (PI)  
 2013 NARSAD Distinguished Investigator (PI)  
 2015 NIH-NINDS R01 NS068464 (PI)  
 2015 NIH-NIMH R21 MH094525 (PI)  
 2011 Lundbeck Research Grant (PI)  
 2011 NIH-NINDS R21 NS062204 (PI)  
 2008 Michael J Fox Found Target Validation Grant (PI)  
 2008 Pfizer Research Grant (PI)  
 2008 National Parkinson's Foundation (PI)  
 2006 Michael J Fox Fnd. Community Fast Track Grant for Parkinson's Disease (PI)  
 2009 NIH-NINDS R01 NS39419 (PI)  
 2008 Emory University Research Committee (PI)  
 2007 NIH-NINDS R21 NS057063 (PI)  
 2004 NARSAD (PI)  
 2004 NIH-NINDS Administrative supplement not-ns-04-001 (PI)  
 2004 Emory Intramural Pilot grant CCPDER Parkinsons Pilot grant (PI)  
 2003 NIH-NIMH MH062646 RO1 (PI)  
 2002 University Research Committee (PI)  
 2001 FRCP Award / Advanced Technology Development (PI)

2000-2002 NARSAD (PI)  
 1998 University Research Committee (PI)  
 1996-1997 NIH-NIMH R03 MH054759 (PI)  
 1995-1999 John Merck Award (PI)  
 1995-1999 NIH-NINDS R29 NS033777 (PI)  
 1995 Epilepsy Foundation of America Grant (PI)  
 1995 University Research Committee (PI)

*Peer-reviewed Papers Book chapters, and Invited Reviews*

\*  $\geq 100$  cites (77), \*\* top 1% for Pharmacology (2), H-index 73 (ISI) and 89 (Google), >34k citations (Google)

- \*1. Harden TK, Petch LA, **Traynelis SF**, Waldo GL (1985). Agonist-induced alteration in the membrane form of muscarinic cholinergic receptors. *J Biol Chem* 260: 13060-13066. PMID: 4055732
- \*2. Dingledine R, Boland LM, Chamberlin NL, Kawasaki K, Kleckner NW, **Traynelis SF**, Verdoorn TA (1988). Amino acid receptors and uptake systems in the mammalian central nervous system. *CRC Critical Reviews in Neurobiology* 4: 1-96. PMID: 2461808
- \*3. **Traynelis SF**, Dingledine R (1988). Potassium-induced spontaneous electrographic seizures in the rat hippocampal slice. *J Neurophysiol* 59: 259-277. PMID: 3343603
- \*4. **Traynelis SF**, Dingledine R (1989). Role of extracellular space in hyperosmotic suppression of potassium-induced electrographic seizures. *J Neurophysiol* 61: 927-938. PMID: 2723735
5. **Traynelis SF**, Dingledine R (1989). Modification of potassium-induced interictal bursts and electrographic seizures by divalent cations. *Neurosci Lett* 98: 194-199. PMID: 2565567
6. **Traynelis SF**, Dingledine R, McNamara JO, Butler L, Rigsbee L (1989). Effect of kindling on potassium-induced electrographic seizures in vitro. *Neurosci Lett* 105: 326-332. PMID: 2594218
7. Kawasaki K, **Traynelis SF**, Dingledine R (1990). Different responses of CA1 and CA3 regions to hypoxia in the rat hippocampal slice. *J Neurophysiol* 63: 385-394. PMID: 2158521
- \*8. **Traynelis SF**, Cull-Candy SG (1990). Proton inhibition of N-methyl-D-aspartate receptors in cerebellar neurons. *Nature* 345: 347-350. PMID: 1692970
- \*9. McBain CJ, **Traynelis SF**, Dingledine R (1990). Regional variation of extracellular space in hippocampus. *Science* 249: 674-677. PMID: 2382142
10. Cull-Candy SG, Wyllie DJA, **Traynelis SF** (1991). Excitatory amino acid gated channel types in mammalian neurons and glia, in "*Excitatory Amino Acids and Synaptic Transmission*", eds. H.Wheal and A.Thomson. Academic Press, London, pp.69-90.
- \*11. **Traynelis SF**, Cull-Candy SG (1991). Pharmacological properties and H<sup>+</sup> sensitivity of excitatory amino acid receptor channels in rat cerebellar granule neurones. *J Physiol* 433: 727-763. PMID: 1726797
- \*12. Silver RA, **Traynelis SF**, Cull-Candy SG (1992). Rapid time-course miniature and evoked excitatory currents at cerebellar synapses in situ. *Nature* 355: 163-166. PMID: 1370344
- \*13. Miller B, Sarantis M, **Traynelis SF**, Attwell D (1992). Potentiation of NMDA NMDA receptor currents by arachidonic acid. *Nature* 355: 722-725. PMID: 1371330
14. McBain CJ, **Traynelis SF**, Dingledine R (1992). High potassium induced synchronous bursts and electrographic seizures, in "*Models and Concepts in Epilepsy*", ed. P.A. Schwartzkroin, Cambridge Univ Press, Cambridge, pp 437-461.
15. Wyllie DJA, **Traynelis SF**, Cull-Candy SG (1993). Evidence for more than one type of non-NMDA receptor in outside-out patches from rat cerebellar granule cells. *J Physiol* 463: 193-226. PMID: 7504104
- \*16. **Traynelis SF**, Silver RA, Cull-Candy SG (1993). Estimated conductance of glutamate receptor-channels activated during EPSCs at the cerebellar mossy fiber-granule cell synapse. *Neuron* 11: 279-289. PMID: 7688973

- \*17. Pulchalski RB, Louis J-C, Brose N, **Traynelis SF**, Egebjerg J, Lin F, Kukekov V, Wenthold R, Rogers SW, Moran T, Morrison JH, Heinemann SF (1994). Selective RNA editing and subunit assembly of native glutamate receptors. *Neuron* 13: 131-147. PMID: 7519023
- \*18. Sullivan JM, **Traynelis SF**, Chen H-SV, Escobar W, Heinemann SF, Lipton SA (1994). Identification of two cysteine residues that are required for redox modulation of the NMDA subtype of glutamate receptor. *Neuron* 13: 929-936. PMID: 7524561
- \*19. **Traynelis SF**, Hartley M, Heinemann SF (1995). Control of proton sensitivity of the NMDA receptor by RNA splicing and polyamines. *Science* 268: 873-876. PMID: 7754371
- \*20. **Traynelis SF**, Wahl P (1997). Control of rat GluR6 glutamate receptor open probability by protein kinase A and calcineurin. *J Physiology* 503: 513-531. PMID: 9379408
21. Chung DS, Murphy TJ, **Traynelis SF**, Conn, PJ (1997). 4-methylthiohomobutyric acid activates a novel metabotropic glutamate receptor coupled to phosphoinositide hydrolysis. *J Pharmacol Exper Therapeutics* 283: 742-749. PMID: 9353394
- \*22. **Traynelis SF**, Jaramillo F (1998). Getting the most out of noise in the central nervous system. *Tr Neurosci* 21: 137-145. PMID: 9554720
23. Wahl P, Anker C, **Traynelis SF**, Egebjerg J, Rasmussen JS, Krogsgaard-Larsen P, Madsen U (1998). Antagonist properties of phosphono isoxazole amino acid (ATPO) at GluR1-4 AMPA receptor subtypes. *Mol Pharmacol* 53: 590-596. PMID: 9495827
- \*24. **Traynelis SF**, Burgess MF, Zheng F, Lyuboslavsky P, Powers J (1998). Control of voltage independent zinc inhibition of NMDA receptors by the NR1 subunit. *J Neurosci* 18: 6163-6175. PMID: 9698310
- \*25. Zheng F, Gingrich MB, **Traynelis SF**, Conn PJ (1998). Tyrosine kinase potentiates NMDA receptor currents by reducing tonic zinc inhibition. *Nature Neuroscience* 1: 185-191. PMID: 10195142
- \*26. Mott DD, Doherty JJ, Zhang S, Washburn MS, Fendley MJ, Lyuboslavsky P, **Traynelis SF**, Dingledine R (1998). Phenylethanolamines inhibit NMDA receptors by enhancing proton inhibition. *Nature Neuroscience* 1: 659-667. PMID: 10196581
27. **Traynelis SF** (1998). Software based correction of single compartment series resistance errors. *J Neurosci Meth* 86: 25-34. PMID: 9894783.
28. **Traynelis SF** (1998). pH modulation of ligand gated ion channels, in "*pH and Brain Function*", eds. K Kaila and B. R. Ransom, Wiley-Liss, Inc. New York, pp. 395-446.
- \*\*29. Dingledine R, Borges K, Bowie D, **Traynelis SF** (1999). The glutamate receptor ion channels. *Pharmacological Reviews* 51: 7-61. PMID: 10049997.
- \*30. Banke TG, Bowie D, Lee H-K, Haganir RL, Schousboe A, **Traynelis SF** (2000) Control of GluR1 AMPA receptor function by cAMP-dependent protein kinase. *J Neurosci* 20: 89-102. PMID: 10627585.
- \*31. Gingrich MB, Junge C, Lyuboslavsky P, **Traynelis SF** (2000). Potentiation of NMDA receptor function by the serine protease thrombin. *J Neurosci* 20: 4582-4595. PMID: 10844028.
- \*32. Gingrich MB, **Traynelis SF** (2000). Serine proteases and brain damage – is there a link? *TINS* 23:399-407. PMID: 10941185
- \*33. Low C-M, Zheng F, Lyuboslavsky P, **Traynelis SF** (2000). Molecular determinants of coordinated proton and zinc inhibition of NMDA NR1/NR2A receptors. *PNAS* 97: 11062-11067. PMID: 10984504
34. Banke TG, Greenwood J, Christensen JK, Liljefors T, **Traynelis SF**, Schousboe A, Pickering DS (2001). Identification of amino acid residues in GluR1 responsible for ligand binding and desensitization. *J Neurosci* 21: 3052-3062. PMID: 11312290
35. Mott DD, Erreger K, Banke TG, **Traynelis SF** (2001). Open probability of homomeric murine 5-HT3A serotonin receptors depends on subunit occupancy. *J Physiol* 535.2: 427-443. PMID: 11533135

- \*36. Mannaioni G, Marino MJ, Valenti O, **Traynelis SF**, Conn PJ (2001). mGluR1 and mGluR5 differentially regulate CA1 pyramidal cell function. *J Neurosci* 21: 5925-5934. PMID: 11487615
- \*37. Zheng F, Erreger K, Low C-M, Banke T, Lee CJ, Conn PJ, and **Traynelis SF** (2001) Allosteric interaction between the amino terminal domain and the ligand binding domain of NR2A *Nature Neurosci.* 4: 894-901. PMID: 11528420
38. Poisik OV, Mannaioni G, **Traynelis SF**, Smith Y, Conn, PJ (2003). Distinct Functional Roles of the Metabotropic Glutamate Receptors 1 and 5 in the Rat Globus Pallidus. *J Neurosci* 23: 122-130. PMID: 12514208
- \*39. Banke TG, **Traynelis SF** (2003). Activation of NR1/NR2B NMDA receptors. *Nature Neuroscience* 6:144-152. PMID: 12524545.
40. Bowie D, Garcia EP, Marshall J, **Traynelis SF**, Lange, GD (2003) Allosteric regulation and spatial distribution of kainate receptors bound to ancillary proteins. *J Physiol* 547: 373-385. PMID: 12562952
- \*41. Low CM, Lyuboslavsky P, French A, Le P, Wyatte K, Thiel WH, Marchan EM, Igarashi K, Kashiwagi K, Gernert K, Williams K, **Traynelis SF**, Zheng, F (2003) Molecular determinants of proton sensitive NMDA receptor gating. *Molecular Pharmacology* 63: 1212-1222. PMID: 12761330
- \*42. Jin R, Banke T, Mayer ML, **Traynelis SF**, Gouaux E (2003) Structural basis for partial agonist action at ionotropic glutamate receptors, *Nature Neuroscience* 6: 803-810. PMID: 12872125
- \*43. Junge CE, Sugawara T, Mannaioni G, Alagarsamy S, Conn PJ, Brat D, Chan P, **Traynelis SF** (2003) The contribution of protease activated receptor-1 to neuronal damage caused by transient focal ischemia. *PNAS* 100: 13019-13024. PMID: 14559973
- \*44. Sorensen SD, Nicole O, Peavy RD, Montoya LM, Lee CJ, Murphy TJ, **Traynelis SF**, Hepler JR (2003) Common signaling pathways link activation of murine PAR1, LPA, and S1P receptors to proliferation of astrocytes. *Mol Pharmacol* 64: 1199-1209. PMID: 14573770
45. Olson E, Lyuboslavsky P, **Traynelis SF**, McKeon R. (2004) PAR-1 deficiency protects against neuronal damage and neurological deficits after unilateral cerebral hypoxia/ischemia. *J Cereb Blood Flow Metab* 24: 964-971. PMID: 15356417
- \*46. Junge CE, Lee CJ, Hubbard KB, Zhang Z, Olson JJ, Brat D, Hepler JR, **Traynelis SF** (2004). Protease activated receptor-1 in human brain: localization and functional expression in astrocytes. *Experimental Neurology*, 188: 94-103. PMID: 15191806
- \*47. Erreger K, Chen P, Wyllie DJA, **Traynelis SF** (2004). Glutamate receptor gating *Critical Reviews in Neurobiology*, 16: 187-224. PMID: 15701057
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190. Bhattacharya S, Swanger SA, Chen W, Strong KL, Burger P, Wells G, Tankovic A, Hu C, Kusumoto H, Hansen KB, Millichamp JJ, **Traynelis SF**, Yuan H (2016) Mechanistic insights into agonist binding domain mutations in NMDA receptors underlying neurodevelopmental disorders. *Soc for Neurosci Abstr 42*.
191. Yuan H, Kosobucki GJ, Chen W, Schulien AJ, Tankovic A, Hu C, Kusumoto H, Li D, Marsh ED, Falk MJ, Aizenman E, **Traynelis SF** (2016) A *GRIN2D* Mutation in Transmembrane Domain M3 Associated with Severe Epileptic Encephalopathy. *American Epilepsy Society Annual Meeting*.
192. Kannan V, Hu C, Kusumoto H, **Traynelis SF**, Yuan H (2016) Molecular Mechanism of a *GRIN2A* M2 Mutation Associated with Early-onset Epileptic Encephalopathy and Potential Rescue Pharmacology. *American Epilepsy Society Annual Meeting*.
193. Lemke JR, Platzer K, Yuan H, Chen W, Hu C, Kusumoto H, Schütz H, Laube B, Heyne HO, Helbig KL, DiDonato N, Dobyns WB, **Traynelis SF** (2016) *GRIN2B* encephalopathy – novel phenotypic, genetic and functional aspects. *American Society for Human Genetics Meeting*, Abstract Control Number: 1601201745
194. **Traynelis SF** (2016) NMDA receptor function and human disease. *Annual Japanese Pharmacology Society Meeting*.
195. Strasdeit T, Haering SC, Bhattacharya S, Aslam M, von Engelhardt J, **Traynelis S**, Hollmann M (2017) Claudins: an unexpected source for more tetraspanning proteins acting as transmembrane AMPA receptor modulatory proteins. *The International Fall Meeting of the German Society for Biochemistry and Molecular Biology*.
196. Perszyk RE, Ogden KK, Strong KL, Liotta DC, **Traynelis SF** (2017) Channel open probability controls allosteric modulation of potency and efficacy. *Annual Biophysics Society Meeting*
197. **Traynelis, SF** (2017) Allosteric modulation of NMDA receptors. *FASEB Ion Channel Regulation SRC*
198. Bhattacharya S, Khatri A, Swanger SA, Hansen KB, Yuan H, **Traynelis SF** (2017) Triheteromeric GluN1/GluN2A/GluN2C NMDA receptors have unique pharmacological properties. *Soc Neurosci Abstr 43*.
199. Amador A, Bostick C, Boland M, Yuan H, Chen W, Myers S, **Traynelis SF**, Goldstein DB, Frankel WN (2017) Mouse models of childhood epilepsy caused by a *de novo* *GRIN2A* missense mutation. *Soc Neurosci Abstr 43*.
200. Yuan H, Zhang J, Tang W, Kusumoto H, Myers SJ, **Traynelis SF** (2017) De Novo NMDAR GRIN Mutations in M2 Channel Pore-Forming Domain Associated with Neurological Diseases. *ASHG: The American Society of Human Genetics Annual Meeting*, Oct. 17-21, Orlando, FL.
201. Myers SJ, Shaulsky G, Kim S, Yuan H, **Traynelis SF** (2017) Functional evaluation of rare variants in glutamate receptor GRIN, GRIA, GRIK, and GRID genes reveals a diversity of effects on receptor activity. *ASHG: The American Society of Human Genetics Annual Meeting*, Oct. 17-21, Orlando, FL.
202. Yuan H, Tang W, Zhang J, Kusumoto H, Myers SJ, **Traynelis SF** (2017) Functional properties of GRIN mutations in the M2 channel pore-forming domain associated with epileptic encephalopathy. *AES: 71th American Epilepsy Society Annual Meeting*, Dec. 01-05, Washington, DC.
203. Swanger SA, **Traynelis SF** (2017) GluN2-specific NMDA receptor regulation of synaptic transmission and excitability in the thalamus. *Soc Neurosci Abstr 43*.
204. **Traynelis SF**, Khatri A, Swanger SA, Bhattacharya S, Hansen KB (2017) Single channel properties of triheteromeric GluN1/GluN2A/GluN2C NMDA receptors are distinct from diheteromeric GluN1/GluN2A and GluN1/GluN2C. *Soc Neurosci Abstr 43*.
205. Perszyk RE, Strong KL, Epplin MP, Menaldino D, McDaniel MJ, Kusumoto H, Ogden KK, Bhattacharya S, Zhang J, Le P, Liotta DC, **Traynelis SF** (2017) Stereoselective actions of a positive allosteric modulator of NMDA receptors reflect unique structural determinants of action. *Soc Neurosci Abstr 43*.
206. Summer SL, Swanger SA, Acker TA, Zimmerman SS, Mosley CA, Menaldino DS, Liotta DC, **Traynelis SF** (2017) Series of GluN2C-GluN2D Selective Negative Allosteric Modulators of the NMDA-Receptor. *Southeastern Meeting of the American Chemical Society, Charlotte, NC*
207. Summer SL, Menaldino DS, Liotta DC, **Traynelis SF** (2017) Sulfonamide motif in NMDA receptor ligands. *Abstract for Meeting of the American Chemical Society Spring 2018 – New Orleans, LA*

208. **Traynelis, SF** (2017) Session: NMDA Receptors in Epilepsy: mutations, inhibitory circuits, and personalized medicine. Genetic variation of NMDA receptors and human disease. American Epilepsy Society, 71st *American Epilepsy Society Annual Meeting*, Invited Speaker, Washington DC Dec 3, 2017.
209. **Traynelis SF**, Strong KL, Epplin MP, Ogden KK, Kusumoto H, Bhattacharya S, Shaulsky G, Perszyk RE, Menaldino DS, Hansen KB, Wilding TJ, Camp CR, McDaniel MJ, Zhang J, Le P, Huettner JE, Liotta DC (2018) Novel positive allosteric modulators for NMDARs demonstrate enantiomer-specific actions. *Soc Neurosci Abstr 44*.
210. Amador A, Kanber A, Ozuruonye E, Owens S, Peters J, Olson H, Poduri A, Boland M, Goldstein D, **Traynelis SF**, Yuan H, Frankel WN, Yang M (2018) Mice with heterozygous missense mutation of Grin2a exhibit developmental delay, hyper-activity, learning deficits. *Soc Neurosci Abstr 44*.
211. Camp CR, **Traynelis SF** (2018) Loss of GluN2A activity promotes hyperexcitability in the mouse hippocampus: a model to understand epileptic activity in *GRIN2A* LOF Variants. *Soc Neurosci Abstr 44*.
212. Lumsden E, Troppoli TA, Myers SJ, Zanos P, Kim S, Aracava Y, Kehr J, Wang F-H, Schmidt S, Jenne CE, Lane M, Moaddel R, Morris P, Thomas C, **Traynelis SF**, Pereira EFR, Thompson SM, Albuquerque EX, Gould TD (2018) NMDA receptor inhibition is not a major determinant of the fast-onset antidepressant effects of the ketamine metabolite (2R,6R)-hydroxynorketamine. *Soc Neurosci Abstr 44*.
213. Bhattacharya S, Yi F, Khatri A, Swanger SA, Yuan H, Hansen KB, **Traynelis SF** (2018) Selective expression of triheteromeric NMDA receptors reveals unique properties. *Soc Neurosci Abstr 44*.
214. Behlmann A, Myers SJ, Kim S, Shaulsky G, Ross SM, Yuan H, da Silva C, Bean L, Ankala A, Askree S, **Traynelis SF**, Alexander J (2018) Functional Evaluation of Variants Identified Through Genetic Testing for Epilepsy: A Model using the GRIN Family Genes. *Annual Meeting of the American College of Medical Genetics and Genomics*
215. Myers SJ, Shaulsky G, Kim S, Yuan H, **Traynelis SF** (2018) Functional evaluation of rare variants in the family of glutamate receptor *GRIN* genes reveal a diversity of effects on receptor activity. *Annual Meeting of the American Society of Human Genetics*, Oct 2018.
216. Summer SL, Menaldino DS, **Traynelis SF**, Liotta DC (2018) The sulfonamide motif in NMDA receptor ligands. *ACS National meeting*.
217. Epplin M, Strong KL, Bacsa J, Butch CJ, Burger PB, Menaldino DS, Traynelis SF, Liotta DC (2018) Structure–activity relationship of a tetrahydroisoquinoline class of N–methyl–D–aspartate receptor modulators that potentiates GluN2B–containing N–methyl–D–aspartate receptors. *ACS National meeting*.
218. Li J, Tang W, Zhang J, Kannan V, Yuan H, **Traynelis SF** (2018) Evaluation of FDA-approved NMDAR-targeted medications on epilepsy-associated *GRIN* mutations located in M2 transmembrane domain. *American Epilepsy Society Annual Meeting*.
219. Tang W, **Traynelis SF**, Yuan H (2018) Rescue Pharmacology of loss-of-Function *GRIN* mutations associated with epileptic encephalopathy. *American Epilepsy Society Annual Meeting*.
220. Yuan H, XiangWei W, Kannan V, Jiang Y, **Traynelis SF** (2018) Functional evaluation of a *GRIN2D* missense mutation associated with epileptic encephalopathy. *American Epilepsy Society Annual Meeting*.
221. Zhu Z, Bozarth X, Zhang J, Tang W, Myers S, Dobyns W, **Traynelis SF**, Yuan H (2018) A loss-of-function de novo *GRIN1* variant associated with myoclonus and severe intellectual disability. *American Epilepsy Society Annual Meeting*.
222. XiangWeiW, Yuan H, Myers S, **Traynelis SF**, Jiang Y (2018) *GRIA* Variations associated with epilepsy and intellectual disabilities. *American Epilepsy Society Annual Meeting*.
223. Yuan H, Zhu Z, Epplin MP, Yi F, Summer SL, Mizu R, Hansen KB, Liotta DC, **Traynelis SF** (2019) Negative allosteric modulation of GluN1/GluN3A N-methyl-D-aspartate receptors. *Soc Neurosci Abstr 45*
224. Bhattacharya S, Hansen KB, **Traynelis SF** (2019) Unique pharmacological properties of GluN1/GluN2A/GluN2D triheteromeric receptors. *Soc Neurosci Abstr 45*.
225. Liu D, Myers SJ, Yuan H, **Traynelis SF** (2019) Functional effects of de novo GRIN variants in NMDA receptor M2 channel pore-forming loop associated with neurological diseases. *Soc Neurosci Abstr 45*.
226. Xu Y, XiangWei W, Kannan V, Bhattacharya S, Poduri A, Lemke JR, Myers SJ, Jiang Y, **Traynelis SF**, Yuan H (2019) Functional features of GRIN2D variants-related developmental and epileptic encephalopathy. *Soc Neurosci Abstr 45*.
227. Song R, Bozarth X, Zhang J, Tang W, Xu Y, Kim S, Myers SJ, Liu D, Dobyns W, **Traynelis SF**, Yuan H (2020) Myoclonus-associated GRIN1 variant: from molecular mechanism to rescue pharmacology. *American Epilepsy Society Annual Meeting*.

228. Song R, Myers SJ, **Traynelis SF**, Yuan H (2020) Translational study in disease-associated genetic variation in GRIN genes: from molecular mechanism to targeted therapy. 2021 *Southeast Regional Clinical Translational Science Conference (on line)*.
229. Park YM, Kristensen, AS, Hansen KB, Swanger, SA, Gyoneva S, **Traynelis SF**, Lee CJ (2020) Astrocytic PAR1 is critical for hippocampal CA1 dependent learning and memory *2020 Korea Society for Brain and Neural Science Meeting*.
230. Sinon C, Ghiglieria V, Campanellib F, Kochoian B, Yabumoto T, Bure C, Picconia B, Calabresi P, **Traynelis SF**, Papa S (2021) Dopamine depletion alters the GluN2A-subunit contribution to NMDA receptor currents in striatal projection neurons. *Soc Neurosci Abstr 47*.
231. Camp CR, Shapiro L, Hancock A, Vlachos A, Perszyk RE, Shariatzadeh N, Pelkey K, **Traynelis SF** (2021). The GluN2A subunit of the NMDA receptor modulates the rate of functional maturation in parvalbumin-positive interneurons. *Soc Neurosci Abstr 47*.
232. Perszyk RE, Kristensen AS, Lyuboslavsky P, **Traynelis SF** (2021) Three-dimensional missense tolerance ratio analysis. *Soc Neurosci Abstr 47*.
233. Kell SA, Pelly SC, **Traynelis SF**, Liotta DC, Myers SJ (2021) Inversion of negative allosteric modulator activity by single amino acid substitutions in GluN1/GluN2B NMDA receptors. *American Chemical Society Annual Meeting*.
234. Klockner C, Brunger T, Perez-Palma E, Krey I, Gramm M, Myers SJ, Yuan H, Stefanski A, May P, Sargent J, Park K, Ramsey AJ, Benke T, **Traynelis SF**, Lal D, Lemke JR (2021) *American Epilepsy Society Annual Meeting*.
235. Camp CR, Banke T, Xing H, Epplin MP, Fritzeimer R, Kim S, Zhang J, Liotta DC, Yuan H, **Traynelis SF** (2022) Modulation of GluN2D-containing NMDA Receptors May Be Restricted to a Unique Subtype of GABAergic Interneurons *Soc Neurosci Abstr 48*.
236. Xing H, Camp CR, Banke T, Epplin MP, Fritzeimer R, Kim S, Zhang J, Liotta DC, Yuan H, **Traynelis SF** (2022) A positive allosteric modulator of GluN2D-expressing N-methyl-D-aspartate receptor regulates CA1 pyramidal cell excitability via facilitating synaptic input from GABAergic interneuron *Soc Neurosci Abstr 48*.
237. Montanucci L, Xu Y, Brünger T, Bhattarai N, Song R, XiangWei W, Kim S, Allen JP, Teuscher D, Xie L, Mizu RK, Chen W, Klöckner C, Lemke JR, Myers SJ, Yuan H, **Traynelis SF**, Lal D (2022) Predicting pathogenicity and functional effects of missense variants in N-methyl-D-aspartate (NMDA) receptor encoding GRIN genes *American Epilepsy Society Annual Meeting*.
238. Teoh JJ, Camp CR, Ma L, Simka J, Petri S, François E, Yang M, Williams D, Lutz CM, Makinson CD, Gelinas J, **Traynelis SF**, Frankel WN (2022) A Mouse Model of GRIN2D Developmental and Epileptic Encephalopathy (DEE) reveals complex seizure phenotypes, deficits in inhibitory synaptic signaling, and hippocampal network hyperexcitability. *American Epilepsy Society Annual Meeting*.
239. Camp CR, Shapiro L, Vlachos A, Perszyk RE, Shariatzadeh N, White J, Sanchez R, Koh S, Escayg A, McBain CJ, Pelkey K, **Traynelis SF** (2022) The GluN2A Subunit of the NMDA Receptor Modulates the Rate of Functional Maturation in Parvalbumin-positive Interneurons. *Experimental Biology*.
240. Hodson LE, Myers SJ, **Traynelis SF**, Liotta DC (2022) Development of novel prodrugs to improve the formulation, pharmacokinetics and anticonvulsant actions of cannabidiol. *CGHI Bio Innovation Summit*
241. Akins NS, Fritzeimer RG, Paladugu S, Ullman EZ, Allen JP, Sheikh R, Nocilla KA, Maguire J, D'Erasmio MP, Bartsch PW, Sharma SK, **Traynelis SF**, Liotta DC (2023) Development and Mechanistic Insights of Thieno[2,3-d]pyrimidin-4-one-Based Positive Allosteric Modulators of the N-Methyl-D-Aspartate Receptor. *Gordon Research Conference*.
242. Ullman EZ, Perszyk RE, Zhang J, Paladugu S, Liotta DC, **Traynelis SF** (2023) Single channel characteristics of conductance and non-conductance modifying allosteric modulators of the NMDA receptor at the channel gate. *Winter Conference on Brain Research*.
243. Ullman EZ, Perszyk RE, Zhang J, Paladugu S, Liotta DC, **Traynelis SF** (2023) Single channel characteristics of conductance and non-conductance modifying allosteric modulators of the NMDA receptor at the channel gate. *ASPET*.
244. Zhang L, Shi E, Nie A, Xu Y, XiangWei W, Diaz ES, Lemke JR, Zhang G, Kheder A, **Traynelis SF**, Yuan H (2023) *De novo GRIN2D* variants in developmental and epileptic encephalopathy: molecular mechanism and rescue pharmacology. *American Epilepsy Society*.



245. Xing H, Akins N, Liotta DC, Yuan H, Hess EJ, **Traynelis SF** (2023) GluN2D-selective N-methyl-D-aspartate receptor modulators regulate excitatory postsynaptic currents in dorsal-lateral striatal cholinergic interneuron. *Society for Neuroscience Annual Meeting.*
246. Zhang L, Song R, Xing H, Banke TG, Diaz S, Allen AT, Beckley JT, Robichaud AJ, Quirk MC, Doherty JJ, Gourley SL, **Traynelis SF**, Yuan H (2023) Potentiation of NMDA receptors by a novel neuroactive steroid rectifies circuit and behavioral deficits in a mouse harboring the loss-of-function GRIN2B variant p.E413G. *Society for Neuroscience Annual Meeting.*
247. Xing H, Fritzscheier RG, Akins NS, Paladugu S, Sinon C, Perszyk RE, Liotta DC, Yuan H, **Traynelis SF** (2023) Enhancement of hippocampal interneuron excitability by a novel NMDA receptor positive allosteric modulator. *iGluR Meeting 2023.*
248. Akins NS, Fritzscheier RG, Paladugu S, Ullman E, Allen JP, Sheikh R, Nocilla KA, Maguire J, D'Erasmus MP, Bartsch PW, Sharma SK, **Traynelis SF**, Liotta DC (2023) First Disclosure of Thieno[2,3-d]pyrimidin-4-one-Based Positive Allosteric Modulators of the N-Methyl-D-Aspartate Receptor. *Gordon Research Conference, Medicinal Chemistry, Emerging Science to Enable Drug Discovery.*
249. Yuan H, Myers SJ, Perszyk RE, Zhang J, Kim S, Nocilla KA, Allen JP, Bain JM, Lemke JR, Lal D, Benke TA, **Traynelis SF** (2023) Classification of Missense Variants in the NMDAR *GRIN* Gene Family as Gain- or Loss-of-Function *American Epilepsy Society Annual Meeting.*
250. Xing H, Shi E, Song R, Zhang J, Perszyk RE, Camp CR, Tang W, Kannan V, Li J, Xu Y, Chen J, Li Y., Liang SH, **Traynelis SF**, Yuan H (2023) Divergent Responses of Seizure-related GRIN Variants Located in Pore-forming M2 Domain of NMDA Receptor to FDA-approved Drugs. *American Epilepsy Society Annual Meeting.*
251. Benke TA, Krey I, Lal D, Bain J, Lemke JR, Myers SJ, Yuan H, **Traynelis SF** (2024) Assessment of Functional and Clinical Characteristics of GRIN Variants in a Public Database: The GRIN Portal. *Winter Conference on Brain Research.*
252. Ullman EZ, Perszyk RE, Zhang J, Akins NS, Fritzscheier RG, Paladugu S, Liotta DC, **Traynelis SF** (2024) Unconventional Mechanisms of Novel Positive Allosteric Modulators of NMDA Receptors. *Winter Conference on Brain Research.*
253. Kim JH, Vlachos A, Mahadevan V, Chittajallu R, Hunt S, Banke TG, Liu D, Yuan H, Traynelis SF2, Liotta DC, Averbeck B, Pelkey K, McBain CJ (2024) Regulation of interneurons by excitatory GluN1/3A glycine receptors influences hippocampal network rhythms throughout development. *Society for Neuroscience Annual Meeting.*
254. Camp CR, Banke TG, Xing H, Yu K, Perszyk RE, Epplin M, Zhang J, Benke TA, Yuan H, Liotta DC, Traynelis SF (2024) The GluN2C/GluN2D NMDA Receptor Positive Allosteric Modulator (+)-EU1180-453 Enhances Interneuron Output. *Society for Neuroscience Annual Meeting.*
255. Xing H, Banke T, Zhang L, Yu K, Fritzscheier RG, Akins NS, Paladugu S, Liotta DC, Yuan H, Traynelis SF (2024) Enhancement of hippocampal interneuron excitability by a novel NMDA receptor positive allosteric modulator. *Society for Neuroscience Annual Meeting*
256. Muglia P, Bani M, Guerrini R, Jansen FE, Merckenschlager A, Specchio N, Veenma D, Lemke JR, Myers SJ, Traynelis SF, Somorai M, Leuchter B, Panzara M (2024) Pharmacokinetics, Safety/Tolerability, and Effect on Seizure Frequency and Behavior of Individually Titrated Radiprodil Doses in Children With GRIN-Related Disorder: Preliminary Multicenter Study Data. *American Epilepsy Society Annual Meeting.*
257. Muglia P, Bani M, Guerrini R, Jansen FE, Mall V, Merckenschlager A, Specchio N, Veenma D, Lemke JR, Myers SJ, Traynelis SF, Leuchter B, Panzara M (2024) Multicenter Study to Assess the Safety, Tolerability, Pharmacokinetics, and Effect on Seizure Frequency of Individually Titrated Doses of Radiprodil in Children with GRIN-Related Disorders. Congress ILAE (<https://www.ilae.org/congresses/15th-european-epilepsy-congress>)

*Patents (11) or pending applications (multiple)*

- 2008 **US Patent 7,375,136** “pH-dependent NMDA receptor antagonists” Traynelis SF, Liotta DC, Snyder JP, Altas Y, Mott D, Doherty JJ, Dingleline RJ.
- 2013 **US Patent 8,420,680** “NMDA receptor antagonists for neuroprotection” Liotta DC, Snyder JP, Traynelis SF, Wilson L, Mosley C, Dingleline RJ, Tahirovic Y, Myers SJ

- 2014 **US Patent 8,822,462** “Subunit selective NMDA receptor potentiators for the treatment of neurological conditions” Traynelis SF, Liotta DC, Santagelo RM, Garnier EC
- 2015 **US Patent 9,079,852B2** “NMDA receptor antagonists for neuroprotection” Liotta DC, Snyder JP, Traynelis SF, Wilson L, Mosley C, Dingleline RJ, , Tahirovic Y, Myers SJ
- 2017 **US Patent 9,737,522** “NMDA receptor modulators and uses related thereto” Traynelis SF, Praseeda Mullasseril, Ethel Garnier, Dennis C Liotta, Sommer Zimmerman
- 2019 **US Patent 10,273,214** “Subunit Selective NMDA Receptor Potentiators For The Treatment Of Neurological Conditions” Traynelis SF, Liotta DC, Santagelo RM, Garnier EC
- 2020 **US Patent 10,647,679** “N-methyl-D-aspartate Receptor (NMDAR) Potentiators, Pharmaceutical Compositions, And Uses Related Thereto” Katie LStrong, David Menaldino, Dennis C Liotta, Stephen F Traynelis, Rose M Freel, Epplin M
- 2021 **US Patent 11,117,882** “Pyrzoline dihydroquinolones, pharmaceutical compositions, and uses” Acker T, Liotta DC, Traynelis SF, Jing, Y.
- 2023 **US Patent 11,738,008** “N-methyl-D-aspartic acid receptor modulators”, Epplin MP, Liotta DC, Menaldino D, Traynelis SF.
- 2024 **US Patent 11,981,652 B2** “GluN2C/D subunit selective antagonists of the N-methyl-D-aspartate receptor.” Liotta D, Traynelis S, Jing Y.
- 2024 **US Patent 12,006,328** “Thieno[2,3-D]pyrimidin-4-one Derivatives as NMDAR Modulators and Uses Related Thereto” (2017) Traynelis SF, Liebeskind LS, Liotta DC, Garnier-Amblard, EC, Gangireddy, PR Serial No. 15/528,087
- 2020 “Positive Allosteric Modulation of GluN1/GluN3A N-methyl-D-aspartate Receptors” (2020) Traynelis SF, Liotta DL, Summer Samantha, Epplin M, Menaldino DS, McCallum A , Jacobs L
- 2020 “Negative Allosteric Modulation of GluN1/GluN3A N-methyl-D-aspartate Receptors” (2020) Traynelis SF, Liotta DL, Summer Samantha, Epplin M, Menaldino DS, McCallum A , Jacobs L
- 2022 “Systems and Methods enabling Pharmacology sample testing of patch clamp samples” (2022). Perszyk R, Forest CR, Jenkins A, Traynelis SF, Yip MC PCT/US22/24743
- 2024 “Subunit-selective N-methyl-D-aspartate receptor modulators and uses thereto” (2024) Liotta DC, Traynelis SF, Wilson LJ, Tahirovic YA, Fritzemeier RG, Akins NS, Paladugu S, Geng Kiafeng, Pugh KW, Lee H.

#### *Software Development:*

Modified Diffusional Analysis Software (1988), supplied to 2 laboratories  
 Synaptic Analysis Software "M / O / SE / SPEV" (1991-1995), supplied to 5 labs  
 Synaptic / Single Channel Modeling -Analysis Software "NPM" (1996-present), supplied to 56 labs  
 Ion Permeation Modeling Software (1996-present). Available by FTP on web (>50 downloads)  
 ChanneLab Ion Channel Kinetic Modeling Software (1996-present). Available from Emory University.  
 ChanneLab Ion Channel Teaching Workbook (2004). Available upon request from Emory University.  
 Oocyte Recording and Analysis Software (2017-2024). Available upon request from Emory University.  
 Ion Channel Idealization Software (2021).

#### *Seminars and Lectures*

1. University College London, London, UK. Host: Drs. Cull-Candy/Colquhoun 1988.
2. NIH, Bethesda, MD. Host: Dr. Mark Mayer 1990.
3. Duke University, Durham, NC. Host: Epilepsy Program Project 1990.
4. Max Planck Institut, Heidelberg, Germ. Host: Dr. Bert Sakmann, 1990.
5. University College London, London, UK. Host: Department of Pharmacology 1991.
6. Duke University, Durham, NC. Host: Epilepsy Program Project 1991.
7. Salk Institute, La Jolla, CA.. Host: Molecular Neurobiology Laboratory 1992.
8. University of California, San Francisco. Host: Dr. Roger Nicoll, 1992.
9. Duke University, Durham, NC. Host: Department of Neurobiology 1993.
10. University of North Carolina, Chapel Hill, NC. Host: Department of Pharmacology 1993.
11. Emory University, Atlanta, GA. Host: Department of Pharmacology 1993.
12. Iowa University, Iowa City, IA. Host: Department of Pharmacology 1994.
13. Emory University, Atlanta, GA. Host: Neuroscience Program 1994.
14. Novo Nordisk, Copenhagen, DK. Host: Department of Molecular Neurobiology 1994.

15. SFB Kolloquium, Goettingen, DE. Host: Dr. Michael Hollmann 1995.
16. Ciba-Geigy, Basel, SW. Host: Dr. Bernhard Bettler 1995.
17. SIBIA, Inc. La Jolla, CA. Host: Dr. Gonul Velicelebi. 1995.
18. Rush University, Chicago IL. Host Dr. Tom DeCoursey. 1995.
19. NIH. Bethesda, MD. Host: Dr. Chris McBain. 1996.
20. NIAAA-NIH. Bethesda, MD. Host: Dr. Li Zhang. 1996.
21. New York University, NY. Host: Margaret Rice. 1996.
22. University of Minnesota Neuroscience Program. Host: Summer Research Program. Aug, 1997.
23. University of Pittsburgh, Pittsburgh, PA. Host: Department fo Neurobiology. Oct. 1997.
24. Cornell University, Ithaca NY. Host: Department of Pharmacology. Nov 1997.
25. Yale University, New Haven, CT. Host: Department of Pharmacology. April. 1998.
26. Aarhus University, Dept Molecular Neurobiology. August, 1999.
27. Agora For Biosystems, Sigtuna Sweden. Aug, 1999
28. L'Ecole Normale Superieure, Paris France Host: Dr. Jacques Neyton. May, 2000
29. CNRS Caen, France: Host Dr. Denis Vivien. June, 2000
30. CNRS Montpellier, France. Host: Dr. Jean-Phillipe Pin. June 2000.
31. University Geneva, Switzerland. Host: Daniel Bertrand. June 2000.
32. SUNY Buffalo, NY, Dept Biophysics. Host: Dr. Anthony Auerbach. Dec 2000.
33. University of Florida, Department of Pharmacology. Host Dr. Roger Papke. Oct. 2001
34. Society for Neuroscience Satellite Symposium. Study of ion channel kinetics using Channelab. Nov, 2001.
35. NIAAA-NIH. Bethesda, MD. Host: Dr. Li Zhang. 2002.
36. University of Michigan, Neurosurgery. Host: Richard Keep. Mar, 2002.
37. SUNY Stonybrook. Host Stella Tsirka. April, 2002.
38. Univ Edinburgh, Scotland. Host: David Wyllie May 2, 2002
39. Neuropharmacology IDG Symposium, Edinburgh Scotland May 3, 2002.
40. Einstein University, New York. Host Dr. Suzanne Zukin. Oct 9, 2002.
41. Society for Neuroscience Satellite Symposium. Study of ion channel kinetics using Channelab. Nov, 2002.
42. Vanderbilt University, Dept Pharmacology. Host Heidi Hamm/Alex Brown. April 8, 2003.
44. University of Iowa, Dept Pharmacology. Host Johannes Hell, Sept 9, 2003.
45. Georgia Institute of Technology, School of Biology, Host: Nael McCarty, Sept 19, 2003
46. Society for Neuroscience Satellite Symposium. Fitting of macroscopic currents. Nov 7, 2003.
47. Dept Neurosurgery, Grand Rounds, Emory University School of Medicine, Jonathon Hall, Feb 2004
48. University of North Carolina. Host: JoAnn Trejo, Dept Pharmacology, June 1, 2004
49. Georgia Life Science Summit. Host Gary Brennaman, Georgia State University, July 29, 2004
50. Univ Minnesota, Dept Neuroscience, Lilian Yuan, Sept 24, 2004
51. Vanderbilt University, Dept Neurobiology, Sept 29, 2004
52. Annual Congress of Neurosurgical Surgeons Meeting, San Francisco, Platform speaker, Oct 2004
53. University Connecticut, Dept Physiology and Neurobiology. Nov 10, 2004
54. Emory University, Stroke Center, Nov 23, 2004
55. Winter Conference Brain Research, Symposium speaker and organizer, Jan 27, 2005
56. Emory University, Dept Physiology, Feb 17, 2005
57. University of Virginia, Dept Pharmacology, April 14, 2005
58. Emory University, Dept Regenerative Medicine, April 20, 2005
59. MBL Neurobiology Course, Woods Hole, June 15
60. Emory University, Frontiers in Neuroscience, Sept 22, 2005
61. SUNY Buffalo, Dept Physiology and Biophysics. Host: Zhen Yan , Oct 20, 2005
62. SUNY Stonybrook, Dept Neuroscience. Host Lonnie Wollmuth Oct 27, 2005
63. British Pharmacological Society, London, UK, Invited speaker For UCL Centennial Symposium, Dec 20, 2005
64. Invited Platform Speaker for 3rd Singapore International Neuroscience Conference 2006 (declined)
65. Winter Conference Brain Research, Symposium organizer and speaker, Jan 21, 2006
66. Georgetown University, Dept Pharmacology, Feb 8, 2006
67. University of Copenhagen, Dept Pharmacology, Mar 23, 2006
68. West Virginia University, Dept Chemistry, April 12, 2006
69. pH, CO<sub>2</sub> and Brain Function, nORDfORSK wired/ Finnish Graduate School, Helsinki, Sept 1, 2006 (declined)

70. University of Pittsburgh, Dept Neuroscience, July 18, 2006
71. Drexel University, Dept Pharmacology, Sept 18, 2006
72. Colorado State University, Dept Neuroscience, Sept 20, 2006
73. University of Colorado Denver Health Sciences, Dept Neuroscience, Sept 21, 2006
74. South Carolina Center for Genetics, Greenwood SC, Dec 13, 2006.
75. Winter Conference Brain Research, Symposium organizer, Jan 28, 2007
76. Northwestern University, Chicago University, Dept Physiology, Mar 23, 2007
77. Astra-Zeneca, Wilmington DE, April 23, 2007
78. Invited Speaker at Structure and Function of the Synapse, University of Iowa, June 4 2007.
79. Invited Speaker at the Olberman Institute, Structure and Function of the Synapse, June 5, 2007.
80. Parkinson's Disease Therapeutics Conference. Invited Speaker, New York, Oct 18, 2007.
81. Yale University, Department of Pharmacology. Host: James Howe. Nov 15, 2007.
82. Merck Research Laboratory, West Point. Host Ian Reynolds / Jonathon Kearn Dec 5, 2007
83. Winter Conference Brain Research, Symposium Speaker/Organizer, Jan, 2008.
84. University Alabama-Birmingham, Dept Neuroscience, Feb 22, 2008.
85. US-Japan Glial conference, Philadelphia PA Mar 17, 2008.
86. Pfizer, Groton CT Host: Dr. Frank Menniti, May 16, 2008.
87. Physiological Society, NMDA receptor symposium, Cambridge England July 14,2008
88. ACS meeting, Ligand gated ion channels, Philadelphia Aug 19, 2008.
89. Univ Pennsylvania, Philadelphia PA, Dept Physiology, Host: T. Hoshi Sept 18, 2008
90. Pharmaceutical University of Copenhagen, Denmark, Oct 22, 2008
91. Lundbeck Pharmaceuticals, Copenhagen, Denmark, Oct 23, 2008.
92. Cold Spring Harbor Laboratories, Glutamate gated ion channels, CSHL NY, June 12, 2009.
93. American Neurological Assoc, Symposium Speaker, Baltimore MD Oct 12, 2009
94. WFN World Congress on Parkinson's Disease, Symposium Speaker, Miami FL, Dec 16, 2009
95. Duke University, Dept NeuroBiology, Host Dr. Jim McNamara, Durham NC January 15, 2010
96. University of Tennessee-Memphis, Host Steve Tavalin, Memphis TN, Mar 30, 2010
97. Experimental Biology, PAR1 symposium (Chair, presenter), April 27, 2010
98. Lundbeck, Neuroscience and Discovery. Host Jan Egebjerg, Copenhagen Denmark May 27, 2010
99. Cold Spring Harbor Laboratories, Glutamate gated ion channels, CSHL NY, June 12, 2010.
100. Gordon Conference, Ion channels, Tilton NH, July 13 2010.
101. Vanderbilt University, Dept Pharmacology, Sept 7 2010.
102. Allosteric Modulator Drug Discovery Congress, San Diego CA, Nov 11-12, 2010
103. Johnson & Johnson, LAJolla CA, Host: Tim Lovenberg, June 14, 2011
104. Cold Spring Harbor Laboratories, Glutamate gated ion channels, CSHL NY, June 16, 2011.
105. Northwestern University, Host: Marco Martina, Chicago IL Sept 15, 2011.
106. Georgetown University, Host: Katherine Conant, Washington, DC Sept 27, 2011.
107. Boston University, Host David Farb. Boston, MA May 16, 2012.
108. American Chemical Society, August, 2012.
109. Annual Upstate New York Pharmacology Society, Buffalo NY May 13, 2013.
110. UNC Pharmacology Alumni Symposium, Chapel Hill NC May 16, 2013.
111. IUPS Congress, Symposium speaker, Birmingham UK, 24 July, 2013.
112. University College London, Host: Alasdair Gibb, London UK, 18 July 2013.
113. Lilly Research, Host: John Isaac, Windelsham, UK, July 19, 2013
114. Benzon Symposium, Copenhagen Denmark, August 2013.
115. Frontiers in Neuroscience, Emory University, Atlanta GA, Host: Neuroscience Program, Oct 25, 2013.
116. Department of Pharmacology, Emory University, Atlanta GA, Host: R. Dingleline, Nov 5, 2013.
117. 23<sup>rd</sup> Annual Neuropharmacology Conference, Elsevier, San Diego CA, Dec 8, 2013.
118. Notre Dame University, South Bend, Indiana Host: Francis Castellino Dec 1, 2013.
119. Vanderbilt University, Nashville TN, Host: Alex Brown, Feb 12, 2014.
120. Experimental Biology Symposium on Chemical Biology, San Diego CA. Chair Haian Fu, April 30, 2014.
121. Duke University, Durham NC. Host Jim McNamara, May 12, 2014.
122. Northwestern University, Chicago Ill, Host Geoff Swanson, May 14, 2014.
123. Northwestern University, Chicago Ill, Host Neurology, May 14, 2014.

124. Precision Medicine in Epilepsy, San Francisco, CA, Invited speaker, Sept 29, 2014.
125. Department of Neuroscience, University of Texas, Austin TX, Nov 7, 2014.
126. International Chemical Biology Symposium, Invited Speaker, San Francisco, Nov 18, 2014.
127. American Epilepsy Society, Seattle WA, Invited speaker, Dec 9, 2014.
128. University Alabama-Birmingham, Birmingham AL, Mar 19, 2015.
129. Emory University, Grand Rounds, Dept Neurology, Host Joash Lazarus, May 1, 2015.
130. Univ Michigan, Ann Arbor Michigan, Host Carrie Farrario, May 13, 2015.
131. Gordon Conference, Excitatory Synapses and Brain Function, Invited Speaker, June 10, 2015.
132. Biogen Idec, Invited Speaker, Host Stefka Gyoneva, Sept 3, 2015.
133. Pfizer, host Patrico O'Donnell, Groton Conn, Sept 30, 2015.
134. Banbury Conference on Epilepsy, Cold Spring Harbor, Invited Speaker, Nov 1, 2015.
135. Harvard University, Cambridge MA, Invited speaker, Host Ann Poduri, Feb 9, 2016.
136. The University of Georgia, Athens GA. Host Shelley Hooks. Feb 17, 2016.
137. National University fo Singapore, Singapore. Host Dr. Chian-ming Low. Mar 5, 2016.
138. The Japanese Pharmacological Society Symposium, Invited Speaker, Tokyo, Japan, Mar 9-11, 2016
139. Korean Institute of Science and Technology, Seoul Korea. Host Dr. C. Justin Lee. Mar 15, 2016.
140. Invited ASPET Symposium Speaker at EB "The Peer-review process" April 4, 2016
141. Invited ADDC-ASPET Symposium Speaker at EB, "Drug Discovery in Academia" April 7, 2016
142. UC Denver, Keystone faculty retreat. Host: Dept Pharmacology. April 14, 2016.
143. University of Pittsburg, Pittsburgh PA. Host Dr. Jon Johnson, April 22, 2016.
144. The Physiological Society / American Physiological Society, Invited Speaker Dublin Ireland, July 29, 2016.
145. Emory University Epilepsy Focus, Atlanta GA, Host: Sooky Koh, Sept 14, 2016
146. Tufts University, Host: Chris Dulla. Boston MA Oct 19, 2016.
147. 26<sup>th</sup> Neuropharmacology Conference. Invited speaker. San Diego, CA Nov 10, 2016
148. Winter Conference Brain Research, Symposium Speaker, Jan, 2017.
149. Peking University Pediatric Neurology Forum 2017, Beijing China, April 8, 2017.
150. University of Connecticut, Host: Anastasios Tzingounis. Storrs, Conn. April 19, 2017.
151. GRIN1 Variant Conference, Pittsburgh PA. Host: Parent organization June 15, 2017
152. FASEB Ion Channel Regulation, Host: Mark Dell'Acqua. Steamboat Springs, CO July 10, 2017.
153. Glutamate receptor Retreat, Host Susumu Tomita. Yale, New Haven, Conn August 8, 2017
154. American Epilepsy Society, Invited Speaker, Washington DC Dec 3, 2017.
155. Genentech, Host: Jesse Hanson. San Francisco, CA. May 15, 2018.
156. *GRIN1* Foundation, Invited Speaker, Teleconference, August 4, 2018.
157. *GRIN2B* Foundation, Invited Speaker, Atlanta GA, Sept 22, 2018.
158. Alex Brown Memorial Symposium, Invited Speaker, Vanderbilt University, Nov 5, 2018.
159. Winter Conference on Brain Research, Symposium Speaker, Jan 30, 2019.
160. Jaspers Epilepsy Meeting, Yosemite CA. Host: Mike Rogawski, Mar 7, 2019
161. Biogen, Invited seminar, Host: Tom Lanz, Cambridge MA, April 10, 2019
162. University of Texas Houston-Texas Medical Center, Invited seminar, Host: Vasanthi Jayarman, April 15, 2019.
163. Jilin City, Jilin Epilepsy Conference, June 1, Keynote Speaker. Ost Dr. Lin, June 1, 2019.
164. Changsa Medical School, June 7, 2019.
165. Physiological Society, Hodgkin-Huxley-Katz Prize Lecture, Aberdeen, Scotland, July 9, 2019.
166. 2019 GRIN variant meeting, Atlanta GA, Sept 13, 2019.
167. Department of Pharmacology, Northwestern Univ School of Med, Host: Al George. Chiacgo IL Sept 30, 2019.
168. Winter Conference on Brain Research, Symposium Speaker, Jan 27, 2020.
169. Mercer University, College of Pharmacy, Host: Nader H. Moniri, Feb 4, 2020.
170. Epilepsy Genetics Update, Cleveland Clinic, Host: Dennis Lal, Sept 13, 2020.
171. CureGRIN Meeting, Ask the Experts session, Host: Keith MacArthur, Sept 12, 2020.
172. Janssen Pharmaceuticals, LaJolla CA Host: Bartosz Balana, Nov 13, 2020.
173. NINDS Seminar, Bethesda MD, Host: Katherine Roche, Nov 16, 2020.
174. AES Symposium Vanquishing the VUS, Organizer Al George, Dec 4, 2020.
175. NINDS-Johns Hopkins Grand Rounds, Bethesda MD, Mar 16, 2021.
176. CRBS Bench to Bedside Workshop, McGill University. Host: Derek Bowie, Apr 22, 2021.
177. Neumora, Inc., Host: Nick Brandin, Dec 15, 2021.

178. Experimental Epilepsy Seminar Series, Host: Dmitri Kullman, Jan 19, 2022.
179. University of Manitoba, Host: Vern Dolinsky, April 22, 2022.
180. Praxis Precision Medicines, Host: Steve Petrou, June 20, 2022.
181. Invited speaker at the iGluR meeting, Aug 3, 2022.
182. Grin2B Foundation Annual Meeting, Host Liz Marfia-Ash , July 15, 2022.
183. Neurocrine, Host: Natalie Minassian, Oct 3, 2022.
184. Broad Institute, Host: Sean Moran, October 13, 2022.
185. GRIN Therapeutics, Host: Pierandrea Muglia, Amsterdam Netherlands, Jan 19, 2023.
186. CureGRIN Conference, Host: Keith Macarthur, Cambridge MA, March 25, 2023
187. Simons Foundation, Host: John Spiro, New York, NY, Mar 27, 2023.
188. University of Florence, Host Guido Mannaioni, Florence, Italy, June 8, 2023
189. Fondazione IRCCS Policlinico Gemelli Catholic Univ, Host Paolo Calabrese, Rome Italy, June 9, 2023.
190. GRIN2B Foundation Webinar, Sponsor, Liz Marfia-Ash host, Aug 2, 2023.
191. Molecular Psychiatry Association, Symposium organizer/speaker, Mar 6, 2024.
192. University of Toronto, Host: Mike Salter, April 9, 2024.
193. GRIN2B Foundation Annual Meeting, Denver CO, June 19, 2024.
194. iGluR meeting, Toronto, Invited speaker, August 12, 2024.
195. University of Iowa, Iowa City IA, Host: Stephanie Gantz, August 27, 2024.

*Trainees (Total 125; Position, year, current position/status/program)*

Elijah Z Ullman ^	Graduate Student	2019-	Emory graduate student
Chad Camp	Graduate student	2017-2023	Postdoctoral fellow, UC Denver
Miranda McDaniel	Graduate student	2015-2019	Freelance Scientific Writer
Riley Perszyk	Graduate student	2011-2018	Emory /Ga Tech Post doc
Gyoneva, Stefka	Graduate student	2009-2013	Biogen
Jenkins, Meag	Graduate student	2009-2012	Freelance Scientific Writer
Ogden, Kevin	Graduate student	2008-2014	Ocean Ridge Biosciences, Palm Beach FL
Katie Vance	Graduate student	2006-2012	Res Manager, Reg Med Ctr, Baton Rouge, LA
Natalie LaVasseur	Graduate student	2006-2007	Licensed Pharmacist
Orr, Anna	Graduate student	2003-2009	Assistant Professor, Weill Cornell Med Coll.
Hamill, Cecily ^	Graduate student	2001-2006	Physician, Brookline MA (Ophthalmology)
Erreger, Kevin	Graduate student	1999-2004	Assistant Professor, Vanderbilt
Junge, Candice	Graduate student	1998-2003	Research Scientist, Agensys
Gingrich, Melissa	Graduate student	1994-1999	High School Science Teacher
Lu Zhang	MD/PhD student	2022-2023	Dept Neurol, Xuanwu Hospital, China
Rui Song	MD/PhD student	2019-2021	Dept Neurology, Xiangya Hospital, China
Yuchen Xu	MD/PhD Student	2018-2020	Dept Neurology, Xiangya Hospital, China
Jan Zhongjian Zhu	MD/PhD Student	2017-2019	Xi'an Jiaotong University School of Medicine
Nana Liu	Visiting Grad Student	2019-2020	Peking Univ First Hospital, Beijing, China
Zhaoshi Zheng	Visiting Grad Student	2018-2019	Jilin University Third Hospital
Jia Li	Visiting Grad Student	2017-2019	Jilin University First Hospital
Wenshu Xianghuai	Visiting Grad Student	2017-2019	Peking Univ First Hospital, Beijing, China
Wendy Chen	MD/PhD Student	2015-2016	Dept Neurology, Xiangya Hospital, China
Mette H. Poulsen	Visiting Grad Student	2012	Postdoc Dept Drug Design and Pharmacol, Univ Copenhagen
Maiken Hedergaard	Visiting Grad Student	2010	Senior Consult Pharma IT, Hvidovre, DK.
Trine Kvist	Visiting Grad Student	2009	Team Leader at Novozymes, Farum, Denmark
Karen Anderson	Visiting Grad Student	2008	Analytical Chemist at ALK Abelló
Anders Kristensen	Visiting Grad Student	2003	Assoc Prof Dept Pharmacol Univ Copenhagen
Mai Holm	Visiting Grad Student	2000	Assoc Prof, Dept Biomedicine, Aarhus Univ
Tue Banke	Visiting Grad Student	1999	Assist Prof, Aarhus Univ, Denmark
Sabrina Smith	Visiting Grad Student	1995	Dept Pediatrics-Kaiser, Div Neurology-Penn

Varun Kannen	Visiting Med Student	2017	Emory Medical Student
Jonathon Vordzorgbe ^	Rotation Student	2021	Emory Medical/PhD Student
Elijah Ullman	Rotation Student	2019	Emory MSP Program
Kyeong Ran Jang	Rotation Student	2019	Emory MSP Program
Adam Hamilton	Rotation Student	2018	Emory Neuroscience program
Fu Hung Shiu	Rotation Student	2017	Emory Neuroscience program
Trisha Lala	Rotation Student	2017	Emory Neuroscience program
Danielle Cicka	Rotation Student	2017	Emory MD/PhD program
Dan Li	Rotation Student	2017	Emory MD/PhD program
Chad Camp	Rotation Student	2016	Emory MSP program
Lindsey Shapiro	Rotation Student	2016	Emory MSP program
Miranda McDaniel	Rotation Student	2015	Emory MSP program
Lauren Shapiro	Rotation Student	2013	Emory Neuroscience program
Riley Perszyk	Rotation Student	2011	Emory MSP program
Jake Winschel	Rotation Student	2010	Emory MSP program
Stefka Gyoneva	Rotation Student	2009	Emory MSP program
Abraham Mathai	Rotation Student	2008	Emory Neuroscience program
Eric Armstrong	Rotation Student	2008	Emory MSP program
Kevin Ogden	Rotation Student	2008	Emory MSP program
Niki Sawyer	Rotation Student	2008	Emory MSP program
Chris Mackinson	Rotation Student	2008	Emory MSP program
Katie Vance	Rotation Student	2007	Emory MSP program
Natalie LeVasseur	Rotation Student	2006	Emory MSP program
Sammy Ming Hin Lee	Rotation Student	2006	Emory Neuroscience program
Kate O'Toole	Rotation Student	2006	Emory MSP program
Elyse Katz	Rotation Student	2004	Emory MSP program
Anna Goldshmidt	Rotation Student	2003	Emory Neuroscience program
Amy Kostrezawa	Rotation Student	2003	Emory MSP program
Won Chung	Rotation Student	2003	Emory Neuroscience program
Bilge Kaylon	Rotation Student	2002	Emory Neuroscience program
Juan Rong	Rotation Student	2002	Emory Neuroscience program
Cecily Hamill	Rotation Student	2001	Emory MD/PhD Neuroscience
Kevin Erreger	Rotation Student	1999	Emory Neuroscience program
Candice Junge	Rotation Student	1998	Emory MSP program
Richard Peavey	Rotation Student	1996	Emory MSP program
Melissa Gingrich	Rotation Student	1995	Emory Neuroscience program
Shane Masters	Rotation Student	1995	Emory MSP program
Thomas Macek	Rotation Student	1995	Emory MSP program
Kim Nguyen	Postdoctoral Fellow	2024-	Postdoctoral fellow
Hao Xing	Postdoctoral Fellow	2021-	Postdoctoral fellow
Riley Perszyk	Postdoctoral Fellow	2018-2023	Postdoctoral fellow
John DiRaddo	Postdoctoral Fellow	2015-2016	Real Estate Invest. Co, New York, NY
Katie Strong	Postdoctoral Fellow	2015-2016	Knowles Intellectual Prop. Strategies
Subhrajit Bhattacharya	Postdoctoral Fellow	2015-	Auburn University, Auburn AL
Sharon Swanger	Postdoctoral Fellow	2012-	Virginia Tech, Roanoke VA
Katie Vance	Postdoctoral Fellow	2012	Res Manager, Reg Med Ctr, Baton Rouge, LA
Jenkins, Meag	Postdoctoral Fellow	2011-2013	Freelance Scientific Writer
Alpa Khatri	Postdoctoral Fellow	2010-2017	Emory Postdoctoral fellow
Praseeda Mullasseril	Postdoctoral Fellow	2007-2011	US FDA
Kasper Hansen	Postdoctoral Fellow	2006-2014	Assoc. Professor, Univ Montana
Anders Kristensen	Postdoctoral Fellow	2005-7	Professor, Dept Pharmac, Univ Copenhagen
Hongjie Yuan	Postdoctoral Fellow	2004-2012	Assistant Prof, Emory Univ Sch Med
Shashank Dravid	Postdoctoral Fellow	2003-7	Professor, Creighton Univ Sch Med

Manniaoni, Guido	Postdoctoral Fellow	2001-2004	Assoc Prof, Dept Neurosci, Univ Florence, IT
Nicole, Oliver	Postdoctoral Fellow	2001-2003	CNRS, Bordeaux France
Justin Lee	Postdoctoral Fellow	2000-2004	IBS Ctr Cognition and Sociality, Seoul Korea
Tue Banke	Postdoctoral Fellow	2000-2003	Aarhus University, Denmark
Chian-Ming Low	Postdoctoral Fellow	1999-2001	Assoc Prof, National University, Singapore
Burgess, Michelle	Postdoctoral Fellow	1996-1997	Environmental Health Scientist, Georgia
Philip Wahl	Postdoctoral Fellow	1995-1996	Lecturer at Technical Education, Copenhagen
David Mott	Postdoctoral Fellow	1994-1995	Assoc Prof, Univ South Carolina Sch Med
Iлона Krey	Visiting Scholar	2024	University of Leipzig, Leipzig germany
Lingling Xie	Visiting Scholar	2019-2020	Dept Neurol, Chongqing Med Univ, China
Ding Liu	Visiting Scholar	2019-2020	Dept Neurol, Xiangya Third Hospital, China
Weitung Tang	Visiting Scholar	2017-2018	Dept Neurology, Xiangya Hospital, China
Jin Zhang	Visiting Scholar	2017	Dept Neurology, 1 <sup>st</sup> Hosp, Shanxi Med Univ.
Yepes, Manuel	Visiting Scientist	2005	Professor, Emory University
Philip Chen	Visiting Scientist	2004	Lecturer, Royal Holloway, Univ London
David Wyllie	Visiting Scientist	2003	Professor, University of Edinburgh
Fang Zheng	Visiting Scientist	2001-2003	Associate Professor, Univ Arkansas Sch Med
Derek Bowie	Visiting Scientist	1999-2001	Professor, Dept Pharmacol, McGill Univ
Sam Zhang	Visiting Scientist	1999	Johns Hopkins, Baltimore (last known)
Hiroshi Kojima	Visiting Scientist	1996	RIKEN, Tokyo
Jennifer Powers	Visiting Scientist	1995-1996	Kennesaw State University
Halle Stewart	Undergraduate	2023-	Emory University
Minwoo Choie	Undergraduate	2023-	Emory University
Riesa Hoque	Undergraduate	2023	Emory University
Andrew Nie	Undergraduate	2022-	Emory University
Ian Huang	Undergraduate	2021-	Emory University
Ethan Shi	Undergraduate	2021-23	Emory University
Duke McDaniels ^	Undergraduate	2021-23	Emory University
Rehan Sheikh	Undergraduate	2021-23	Emory University
Meghana Mogalipuvvu	Undergraduate	2021	Emory University
Nima Shariatzadeh	Undergraduate	2019-20	Emory University
Brantley Holland	Undergraduate	2019-20	Emory University
James Allen	Undergraduate	2017-2019	Emory University
Shloka Parvatao	Undergraduate	2017-2018	Emory University
Lisa Rui	Undergraduate	2017-2018	Emory University
Ruth Mizu ^	Undergraduate	2016-207	Emory University
Michelle Bermudez	Undergraduate	2016-2017	Emory University
Karyn Ding	Undergraduate	2016-2017	Emory University
Joseph Ruiz	Undergraduate	2016	Emory University
Hannah Chen	Undergraduate	2016	Emory University
Colin Lamb	Undergraduate	2015-2017	Emory University
Peter Leistikow	Undergraduate	2015-2016	Emory University
Jordan Flowers ^	Undergraduate	2015-2016	Emory University
Chun Hu	Undergraduate	2015-2016	Emory University
Jillybeth Burgado	Undergraduate	2015	Emory University
Joseph Pecha ^	Undergraduate	2015	University fo Dallas
Kevin Sheth	Undergraduate	2015	Emory University
Parth Sheth	Undergraduate	2014-2015	Emory University
Hiro Kusumoto	Undergraduate	2014	Emory University
Anel Tankovic	Undergraduate	2013-2014	Emory University
Zhuocheng Justin Su	Undergraduate	2012-2013	VCU
Manish Karamchandani	Undergraduate	2013-2014	Emory University <i>Honors Thesis</i>
Gabi Fernandez-Cuervo ^	Undergraduate	2011	Univ Puerto Rico



Sara Dawit ^	Undergraduate	2009-2010	Clairmont College, Senior <i>Thesis</i>
Pranav Mahedevan	Undergraduate	2009	Emory University
Edward Marchan ^	Undergraduate	1999-2000	Emory University <i>Honors Thesis</i>
Chris Lalan	Undergraduate	1995	Emory University

^ *Under-represented minority*

*Dissertation or other Evaluation Committee Service (\* External Examiner): Total 63*

Jim Baer, Dorothy Chung, Melissa Gingrich, Dave Wolfe, Fernanda Laezza, Ellen Olson, Candice Junge, Kevin Erreger, Stan Nakanishi, Matt Fuller, Cecily Hamill, Vinayek Shanbhag, Natalie LeVasseur, Li Tin Chien, Anna Goldschmidt, Jenn Wilhelm, Meag Jenkins, Lisa Kreiner, Kelly McCoy, Katie Vance, Charity Duran, Kevin Ogden, Becky Meyers, Stephanie Ritter, Chris Mackinson, Jason Stephenson, Danny Infield, Paul Evans, Kristin Stout, Lauren DePoy, Riley Perszyk, Kyle Gerber, Michelle Giddens, Miranda McDaniels, Chad Camp, Lindsey Shapiro, Anthony Michael Downs, Kim Nguyen, Cara Mosley, Tim Acker, Rose Santangelo, Sommer Zimmerman, Katie Strong, Yao Jing, Peipei Ma, Matt Epplin, Samantha Summer, Lynnea Harris, Carolina Montez, Darian Williams, Chad Camp, Nick Harbin, Annie Goettemoeller, Elijah Ullman, Mighten Yip (GaTech), Cara Motz (GaTech), Kasper Hansen\* (Univ Copenhagen), Richard Clark\* (Univ Pittsburgh), Annabel Romero Hernandez\* (Cold Spring Harbor), Nathan Glasgow\* (Univ Pittsburgh), Maja Jessen\* (Univ Copenhagen), Olivier Nicole\* (Univ. Bordeaux, Habilitation), Yognmin Park\* (IBS School Seoul Korea)

*Teaching and Teaching-related University Service*

1994-1999	Local Area Network Coordinator for Department of Pharmacology
1994-2021	Contributor/Grader for Written Qualifying PhD exam (MSP and/or Neuroscience)
1994-1997	Lecturer in IBS 717 "Neuropharmacology"
1994-2006	Lecturer in IBS 750 "Molecular Neurobiology"
1994-present	Lecturer in IBS 531 "Principles and Approaches to Pharmacology"
1996-2007	Lecturer in IBS 532 "Allied Health Pharmacology (Physicians Assistants)"
2008-present	Lecturer in BAHS 504 "Introduction to Pharmacology for Anesthesiology Assistants"
1997-present	Lecturer in IBS 716 "Medical Pharmacology"
1997-2012	Lecturer in IBS 701 "Cell Surface Receptors"
1997-2014	Lecturer in IBS 704 "Ion Channels"
1998-2002	Lecturer in IBS 534 "Computational Neuroscience"
1998-2001	Lecturer IBS 520 "Advance Topics in Biochemistry"
2001	Lecturer in BMED 8120 "Physiologic Systems I"
2002	Lecturer, IBS502 "Molecular, Cellular, and Developmental Neuroscience"
2003	Lecturer, IBS511 "Introduction to Molecular Biology and Biochemistry"
2019-present	Lecturer in MSP Professional Development class.
2017-present	Teacher in Grant writing class (MSP Program)
2017-present	Teacher in Grant writing class (NS Program)
2015-present	Small Group Leader, Medical School
2024	Controlled Substances/Dangerous Drugs Workgroup

*Course Director*

1995	Co-director IBS 570R "Neurobiology Seminar Series"
1995	Director IBS 791R "Pharmacology Colloquium"; Organized Fall Seminar Series
1996	Director IBS 791R "Pharmacology Colloquium"
1996	Co-director IBS 570R "Pharmacology/Physiology Seminar Series"
2002	Director IBS701 "Cell Surface Receptors"
2002	Co-Director IBS502 "Molecular, Cellular, and Developmental Neuroscience"
2003	Co-Director IBS511 "Introduction to Molecular Biology and Biochemistry"
2004	Director, IBS701 "Cell Surface Receptors"
2004	Co-Director and Lecturer, IBS511 "Introduction to Molecular Biology and Biochemistry"
2007	Director IBS701 "Cell Surface Receptors"
2009	Director IBS701 "Cell Surface Receptors"
2009	Co-Director, IBS570 "MSP Student Seminars"

2010 Co-Director, IBS570 “MSP Student Seminars”  
2011 Co-Director, IBS570 “MSP Student Seminars”