

Riley E. Perszyk

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Education:

<u>Emory University, Atlanta, GA</u> Ph.D. student, Biological and Biomedical Sciences, Molecular and Systems Pharmacology (MSP)	2011-present
<u>Georgia Institute of Technology, Atlanta, GA</u> BS in Mechanical Engineering, Highest Honors	2005-2009

Research Experience:

<u>Dissertation Research</u> Dr. Stephen Traynelis, Department of Pharmacology, Emory University	2012-present
<u>Lab Rotations</u> Dr. Stephen Traynelis, Dr. Nael McCarty, Dr. Shannon Gourley, Emory University	2011-2012
<u>Research Assistant</u> Dr. Andrew Jenkins, Department of Anesthesiology, Emory University	2010-2011

Fellowships:

<u>Predocutorial fellow, Pharmacological Sciences Training Grant</u> Emory University, NIH T32 GM008602	2012-2013
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Teaching Experience:

<u>Graduate Teaching Assistant (TA) – Emory University</u> Introduction to Pharmacology – Graduate course	2013
<u>Guest Lecturer, Introduction to Pharmacology (Graduate level course)</u> Lecture Title – “NMDA Receptor Modulator Screening: A Case Study”	2013
<u>Undergraduate Honors Thesis – Laboratory Mentor (Sotimehin A.)</u>	2013

Academic Honors:

<u>Division Fellowship, Graduate Div. of Biological and Biomed. Sciences</u> Emory University, GA, USA	2011-2016
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Service:

MSP Student Seminar - Coordinator	2013-2014
MSP Recruitment – Committee Member	2014
MSP Alumni Symposium - Organizer	2014
Emory Spokes Council - Bicycling community and advocacy group - President	2015-2017
MSP Alumni Symposium – Committee Member	2016
SHARE: Druid Hills - Neighborhood advocacy group - Committee Member	2016

Publications:

- Hansen K.B., Tajima N., Risgaard R., **Perszyk R.E.**, Jorgensen L., Vance K.M., Ogden K.K., Clausen R.P., Furukawa H., and Traynelis S.F. (2013). Structural Determinants of Agonist Efficacy at the Glutamate Binding Site of NMDA Receptors. *Molecular Pharmacology*. DOI: 10.1124/mol.113.085803

2. DePoy, L. M., **Perszyk, R. E.**, Zimmermann, K. S., Koleske, A. J., & Gourley, S. L. (2014). Adolescent cocaine exposure simplifies orbitofrontal cortical dendritic arbors. *Frontiers in Pharmacology*, 5. DOI: 10.3389/fphar.2014.00228
3. Katzman B. M., **Perszyk R. E.**, Yuan H., Tahirovic Y. A., Sotimehin A. E., Traynelis S. F. and Liotta D. C. (2015). "A novel class of negative allosteric modulators of NMDA receptor function." *Bioorganic & Medicinal Chemistry Letters* 25(23): 5583-5588. DOI: 10.1016/j.bmcl.2015.10.046
4. **Perszyk R.E.**, DiRaddo J.O., Strong K.L., Low C.M., Ogden K.K., Khatri A., Vargish G.A., Pelkey K.A., Tricoire L., Liotta D.C., Smith Y., McBain C.J. and Traynelis S.F. (2016). "GluN2D-containing NMDA receptors mediate synaptic transmission in hippocampal interneurons and regulate interneuron activity." *Molecular Pharmacology*. DOI: 10.1124/mol.116.105130
5. **Perszyk R.E.**, Katzman B.M., Traynelis S.F. and Liotta D.C. A class of positive and negative NMDA receptor allosteric modulators share a common binding site. *In Preparation*.

Abstracts:

1. **Perszyk R.E.**, Williams C.A., and Jenkins A. (2011) A conserved asparagine between loops A and E of anion ligand-gated channels is critical for GABA(A) receptor function. Biophysical Society Meeting.
2. Katzman B.M., **Perszyk R.E.**, Traynelis S.F., and Liotta D.C. (2013) A novel class of negative allosteric modulators of NMDA receptor function. Society for Neuroscience.
3. **Perszyk R.E.**, Katzman B.M., Liotta D.C., and Traynelis S.F. (2013) A novel class of positive allosteric NMDA receptor modulators. Society for Neuroscience.
4. **Perszyk R.E.**, Gangireddy P.K.R., Garnier-Amblard E.C., Swanger S.A., Fernandez-Cuervo G., Liebeskind L.S. and Traynelis S.F. (2014) Mechanism of action of a novel series of drug-like N-methyl-D-aspartate receptor positive allosteric modulators and their effects in hippocampal CA1 neurons. Society for Neuroscience.
5. **Perszyk R.E.**, DiRaddo J.O., Strong K.L, Low C.M., Tankovic A., Liotta D.C. and Traynelis S.F. (2015) (+)-CIQ, the active enantiomer of CIQ, potentiates GluN2D-containing NMDA receptors in hippocampal interneurons. Gordon Research Conference, Excitatory Synapses & Brain Function.
6. **Perszyk R.E.**, DiRaddo J.O., Strong K.L, Low C.M., Tankovic A., Liotta D.C. and Traynelis S.F. (2015) (+)-CIQ, the active enantiomer of CIQ, potentiates GluN2D-containing NMDA receptors in hippocampal interneurons. Iontropic Glutamate Receptor Retreat.
7. **Perszyk R.E.** and Traynelis S.F. (2016) The inhibitory/excitatory balance of the hippocampus is influenced by NMDARs and modulated by NMDAR PAMs. Iontropic Glutamate Receptor Retreat.
8. **Perszyk R.E.**, Ogden K.K., Strong K.L, Liotta D.C. and Traynelis S.F. (2017) Channel open probability controls allosteric modulation of potency and efficacy. Biophysical Society Meeting.