Nathan G. Glasgow, Ph.D.

University of Pittsburgh
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EDUCATION

2016 - present Postdoctoral Associate
Department of Neurobiology, University of Pittsburgh, Pittsburgh, PA

2010 - 2016 Ph.D., Neuroscience
Center for Neuroscience, University of Pittsburgh, Pittsburgh, PA

2006 - 2010 BS, Biology
University of Toledo, Toledo, OH

RESEARCH EXPERIENCE

2016 - present University of Pittsburgh, Pittsburgh, PA
Postdoctoral Associate, Lab of Nathan Urban, Department of Neurobiology

- Investigating the mechanisms of biophysical diversity among the principal cells of the mammalian olfactory bulb
- Integration of whole-cell recordings from acute slices of rodent olfactory bulb with computational compartmental models and generalized linear models

2011 - 2016 University of Pittsburgh, Pittsburgh, PA
Predoctoral Fellow, Lab of Jon W. Johnson, Department of Neuroscience

- Investigating mechanisms of action of the clinically relevant NMDA receptor channel blockers memantine and ketamine
- Whole-cell patch-clamp recordings from transiently transfected HEK cells and computational kinetic modeling

2011 University of Pittsburgh, Pittsburgh, PA
Rotation Student, Lab of Thanos Tzounopoulous, Department of Otolaryngology

- Investigated the role of endocannabinoid signaling in the auditory brainstem of control and tinnitus-model mice
- Whole-cell recordings from acute slices of mouse auditory brainstem

2010 University of Pittsburgh, Pittsburgh, PA
Rotation Student, Lab of Jon W. Johnson, Department of Neuroscience

2008 - 2010 University of Toledo, Toledo, OH
Undergraduate Researcher, Lab of Robert Steven, Department of Biological Sciences

- Investigated protein interactions involved in synaptic transmission in *C. elegans* using mutant screens, molecular cloning, and behavioral analysis

PUBLICATIONS

1. Chen M, Tian S, **Glasgow NG**, Gibson G, Yang X, Shiber CE, Funderburgh J, Watkins S, Johnson JW, Schuman JS, Liu H. (2015) Lgr5^{+} amacrine cells possess regenerative potential in the retina of adult mice. *Aging Cell*. 14(4):635-43.

2. Johnson JW, **Glasgow NG**, Povysheva NV. (2015) Recent insights into the mode of action of memantine and ketamine*. Curr Opin Pharmacol*. 20:54-63.

3. **Glasgow NG**, Siegler Retchless B, Johnson JW. (2015) Molecular bases of NMDA receptor subtype-dependent properties. *J Physiol*. 593(1):83-95.

4. **Glasgow NG**, Johnson JW. (2014) Whole-cell patch-clamp analysis of recombinant NMDA receptor pharmacology using brief glutamate applications. *Methods Mol Biol*. 1183:23-41.

5. Clarke RJ, **Glasgow NG**, Johnson JW. (2013) Mechanistic and structural determinants of NMDA receptor voltage-dependent gating and slow Mg^{2+} unblock. *J Neurosci*. 33(9):4140-50.

SELECTED ABSTRACTS & PRESENTATIONS

1. **Glasgow NG**, Johnson JW. (2016) Inhibition of NMDA receptors by the uncharged form of memantine. *Soc. Neurosci. Abstr*. 219.13.

2. **Glasgow NG**, Azofeifa A, Johnson JW. (2015) Memantine and ketamine differentially alter desensitization kinetics of NMDA receptors. *Soc. Neurosci. Abstr*. 206.11.

3. **Glasgow NG**, Azofeifa A, Johnson JW. (2015) Memantine and ketamine differentially alter desensitization kinetics of NMDA receptors*. Ionotropic Glutamate Receptor Retreat*, University at Albany SUNY, Albany, NY.

4. **Glasgow NG**, Azofeifa A, Johnson JW. (2014) Voltage dependence of NMDA receptor inhibition by memantine and by ketamine depend on duration of glutamate application and on receptor subtype. *Soc. Neurosci. Abstr*. 501.08.

5. **Glasgow NG**, Azofeifa A, Johnson JW. (2014) Mechanism of NMDA receptor inhibition by memantine and by ketamine*. Ionotropic Glutamate Receptor Retreat*, University at Buffalo, Buffalo, NY.

6. **Glasgow NG**, Johnson JW. (2013) Synaptic-like glutamate applications reveal NMDA receptor subtype-dependent inhibition by memantine and ketamine. *Soc. Neurosci. Abstr*. 514.23.

7. **Glasgow NG**. (2013) Inhibition of recombinant NMDA receptors depends on duration of glutamate application. *Ionotropic Glutamate Receptor Retreat*. Cornell University, Ithaca, NY.

8. **Glasgow NG**, Shiber CE, Johnson JW. (2012) The functional role of intersubunit interactions between intramembrane regions of NMDA receptors. *Soc. Neurosci. Abstr*. 428.08.

HONORS & AWARDS

2014 - 2016	F31 MH105056 Ruth L. Kirschstein NRSA Individual Predoctoral Fellowship, NIMH
2012 - 2014	T32 NS073548 Center for Pain Research, University of Pittsburgh
2011 - 2012	T32 NS007433 Center for Neuroscience, University of Pittsburgh
2010	*Magna cum laude*, University of Toledo
2008	Undergraduate Summer Research Fellow, University of Toledo
2006 - 2010	Tower Excellence Scholarship (Full Tuition), University of Toledo

MENTORING EXPERIENCE

2014 - 2015	Andrea Azofeifa Undergraduate Research Associate Mentored her project investigating memantine interaction with NMDA receptors

OTHER EXPERIENCE & PROFESSIONAL MEMBERSHIP

2015	MMBioS Cell Modeling Workshop, Pittsburgh Supercomputing Center
2014	AAAS Catalyzing Advocacy in Science and Engineering Workshop
2013 - 2014	Admissions Committee Member, Center for Neuroscience, University of Pittsburgh
2012 - present	Member, Society for Neuroscience
2012	Teaching Assistant, Neurophysiology, Dept. of Neuroscience, University of Pittsburgh
2011 - present	University of Pittsburgh Brain Program (neuroscience outreach and advocacy through presentations to local middle and high schoolers)
2011 - 2012	Representative, Department of Neuroscience Graduate Student Organization, University of Pittsburgh
2010 - present	Member, American Association for the Advancement of Science