

Annie Liu

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EDUCATION and TRAINING

GRADUATE:

Ph.D. Neuroscience – University of Pittsburgh, Pittsburgh, PA 2013-Present
Center for Neuroscience at the University of Pittsburgh
Center for the Neural Basis of Cognition
Advisor: Dr. Nathan Urban
Thesis topic: Post-synaptic targets of the M72 glomerular module

M.D. – University of Pittsburgh, Pittsburgh, PA 2011-Present
Medical Scientist Training Program (MSTP)

UNDERGRADUATE:

B.A. – Northwestern University, Evanston, IL 2007-2011
Biological Sciences, Departmental Honors
Advisors: Dr. Nelson Spruston, Dr. Daniel A. Nicholson
Thesis topic: Analysis of basal and apical dendrites of CA1 pyramidal neurons
Minor: International Studies

MEMBERSHIP in PROFESSIONAL and SCIENTIFIC SOCIETIES

American Medical Association 2011-Present
Society for Neuroscience 2010-Present

FELLOWSHIPS and AWARDS

Semi-finalist, Social Venture Competition 2013
University of Chicago Booth School of Business, Chicago, IL

Academic Year Undergraduate Research Grant 2011
Northwestern University, Evanston, IL
Topic: Comparison of hippocampal apical and basal dendrites using array tomography

Summer University Research Grant 2010
Northwestern University, Evanston, IL
Topic: Comparison of hippocampal apical and basal dendrites using array tomography

Cullen Trust for Higher Education Fellowship Travel Award 2010
Texas Medical Center, Houston, TX

Weinberg College Summer Research Grant 2009
Northwestern University, Evanston, IL
Topic: Synaptic structure in CA1 basal dendrites

International Group Research Fellowship in Global Health 2009
Northwestern University, Evanston, IL
Topic: Non-governmental organization employment of RUTF products to address malnutrition in Malawi

Program for Biological Sciences Summer Research Grant 2008
Northwestern University, Evanston, IL
Topic: Effect of A β 42 Production on Hippocampal Synaptic Receptor Expression

Sylvia N. Shure Endowed Scholarship 2007-2011
Northwestern University, Evanston, IL

J.G. Nolan Endowed Scholarship 2007-2011
Northwestern University, Evanston, IL

National Merit Finalist 2007

PUBLICATIONS

Refereed articles

1. Van Laar VS, Roy N, **Liu A**, Rajprohat S, Arnold B, Dukes AA, Holbein CD, Berman S. (2015). Glutamate excitotoxicity in neurons triggers mitochondrial and endoplasmic reticulum accumulation of Parkin, and, in the presence of antioxidants, mitophagy: Implications for the roles of oxidative stress and bioenergetics in Parkinson's disease. *Neurobiology of Disease* 74:180-93. PMID: 25478815.
2. Menon V, Musial T, **Liu A**, Kath Y, Kath W, Nicholson D, Spruston N. (2013). Basal synaptic strength and distribution in CA1 pyramidal neurons are regulated to normalize synaptic input. *Neuron* 80(6):1451-63. PMID: 3873729.

Abstracts submitted to meetings

1. **Liu A**, Urban NN. Effects of odorant exposure on the M72 glomerular module. In: Society for Neuroscience Annual Meeting 2015; Chicago, IL. (Poster Presentation).
2. Burton SD, LaRocca G, **Liu A**, Cheetham CE, Urban NN. Deep short-axon cells regulate multi-glomerular activation patterns in the mammalian main olfactory bulb. In: Society for Neuroscience Annual Meeting 2015; Chicago, IL. (Poster Presentation).
3. Burton SD, LaRocca G, **Liu A**, Urban NN. Deep short-axon cells mediate interglomerular disinhibition in the mammalian main olfactory bulb. In: Association for Chemoreception Sciences Annual Meeting 2015; Fort Myers, Florida. (Poster Presentation).
4. **Liu A.**, Geramita M, Urban NN. Characterization of postsynaptic targets of M72 odorant receptor expressing olfactory sensory neurons via local electroporation. In: Society for Neuroscience Annual Meeting 2014, Washington, D.C. (Poster Presentation).
5. **Liu A.**, Boiko J., Anderson A., Gordon R. Women in science and medicine association: An overview of student implemented professional development programming at the University of Pittsburgh. In: American Physician Scientist Association Annual Meeting 2014, Chicago, IL. (Poster Presentation).
6. Gordon RA, Anderson AJ, **Liu A**, Boiko JR. Women in science and medicine association: Innovative student-directed professional development for physician-scientists at the University of Pittsburgh. In: Learn, Serve, Lead 2014: The AAMC Annual Meeting; Chicago, IL. (Poster Presentation).
7. **Liu A.**, Wolke M., Vasquez P., Musial T., Nicholson D. Array tomographic analysis of dendrites of GFP-expressing and dye-injected neurons in aged and young animals [abstract]. In: Society for Neuroscience Annual Meeting 2011, Washington, D.C. (Poster Presentation).
8. Malhotra S., Kao A., **Liu A.**, Estes R., Pitrak D. Benefits of HAART in a minority, urban clinic compared to a published randomized, controlled trial [abstract]. In: International AIDs Conference on HIV Pathogenesis, Treatment and Prevention 2007, Sydney, Australia. (Abstract nr CDB243).

SERVICE

Screening Committee University of Pittsburgh MSTP, Pittsburgh, PA	2015-Present
Interviewing Committee University of Pittsburgh MSTP, Pittsburgh, PA	2014-2015
Leadership Board , Women in Science and Medicine Association University of Pittsburgh School of Medicine, Pittsburgh, PA	2013-Present
Correspondence Committee University of Pittsburgh MSTP, Pittsburgh, PA	2013-2014
Mentorship Committee University of Pittsburgh MSTP, Pittsburgh, PA	2012-2013
Peer Mentor , Faculty and Students Together University of Pittsburgh School of Medicine, Pittsburgh, PA	2012-2013
HIV Counselor Women's Center and Shelter of Greater Pittsburgh, Pittsburgh, PA	2012-2013
Student Representative , Northwestern Engagement Coalition Northwestern University, Evanston, IL	2009-2011
Programming Committee , Northwestern University Conference on Human Rights Northwestern University, Evanston, IL	2008-2011
Mentor for Inorganic Chemistry , Gateway Science Workshop Northwestern University, Evanston, IL	2009-2011