Hunter M. Allen

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Education

The University of Texas at Austin, Austin, TX **May 2011**
Bachelor of Science degree in Neurobiology

Baylor College of Medicine, Houston, TX **Jul. 2012 to Apr. 2015**
Doctor of Philosophy in Neuroscience (no degree received)

Work Portfolios

Project Blog: http://blog.fluxinspired.com

GitHub: hmallen (https://www.github.com/hmallen)

Proficiencies

Research and Technical Skills:

- Basic laboratory techniques
- Microsoft Office
- Soldering and circuit prototyping
- Computer/general hardware construction and repair

Computer Science & Engineering:

- General: UNIX, networking, penetration testing, server adminstration, FreeNAS
- Programming languages: Arduino, Python, shell scripting
- Embedded Systems: Arduino, BeagleBone, Raspberry Pi
- Web Design: Drupal, HTML 5, CSS 3, MySQL, PHP
- Other: RF engineering, amateur radio (callsign: KG5CKI), circuit design, CAD & CNC milling, 3D printing

Professional Experience

Dr. S. John Mihic Laboratory **Apr. 2009 to May 2011**
Waggoner Center for Alcohol and Addiction Research, The University of Texas at Austin, Austin, TX

- **Undergraduate Research:** Used oocyte voltage-clamp electrophysiology and mutagenesis experiments to study the structure and function of ligand-gated ion channels in the cys-loop family of receptors as well as the effect of alcohol and volatile anesthetics on the function of the receptors

Dr. Hui-Chen Lu Laboratory **May 2013 to Apr. 2015**
Cain Foundation Laboratories, Baylor College of Medicine, Houston, TX

- **Graduate Student:** Employed a wide range of laboratory techniques, including immunohistochemistry, fluorescence and multi-photon microscopy, and electrophysiology in the study of NMNAT2, a protein linked to neuronal maintenance and neurodegenerative disorders such as Alzheimer's disease.

Dr. Hui-Chen Lu Laboratory **Apr. 2015 to Present**
Linda and Jack Gill Center for Biomolecular Science, Indiana University Bloomington, Bloomington, IN

- **Head of Multi-photon Microscopy:** Manage operation of the multi-photon microscope, conducting active research, aiding in experimental design, and training new users on microscope operation.
- **Research Technician:** Train researchers in basic laboratory techniques and assist in troubleshooting issues with research equipment and software.
- **IT and Computer Specialist:** Manage all IT and computer operations in the lab, including technical support, building/administration of a private data server, and construction/management of the laboratory website (http://www.lulaboratory.com). Frequently use programming skills to facilitate data acquisition and analysis in ongoing laboratory research.

Publications

Welsh, B.T., Allen, H.M., Bayly, M.D., and Mihic, S.J. (2017) *Disruption of a putative intersubunit electrostatic bond enhances agonist efficacy at the human α1 glycine receptor*. Brain Research. **1657**, 148-155.

Ali, Y.O., Allen, H.M., Yu, L., Li-Kroeger, D., Bakhshizadehmahmoudi, D., Hatcher, A., et al. (2016) *NMNAT2:HSP90 Complex Mediates Proteostasis in Proteinopathies*. PLoS Biology. 14(6):e1002472.

Welsh, B.T., Kirson, D., Allen, H.M., and Mihic, S.J. (2010) *Ethanol enhances taurine-activated glycine receptor function.* Alcoholism: Clinical and Experimental Research. **34**, 1634-1639.

Honors and Distinctions

Reddit Science "Ask Me Anything" (AMA) **Dec. 2016**
The New Reddit Journal of Science, https://redd.it/5gznlm, https://doi.org/10.15200/winn.148111.15041

- Featured scientific researcher in an open online Q&A session: "PLOS Science Wednesday: Hi reddit, we're Hui-Chen Lu, Yousuf Ali, Hunter Allen and we found that people with the NMNAT2 protein had greater resistance to cognitive decline – Ask Us Anything!"

In Vivo School Newsletter **Jan. 2011**
School of Biological Sciences, The University of Texas at Austin, Austin, TX

- One of three undergraduate researchers profiled in the annual School of Biological Sciences newsletter