

# Laura Segura Moye

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## Qualifications Summary

I am a detail-oriented, well-organized, and cooperative scientist interested in data science, consulting, and science writing. With over 6 years' experience in neuroscience research, I am an expert in chronic pain and in the opioid system, and I love translating complex science into digestible material for all audiences.

## Selected Skills

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- **Science communication**—ability to develop and execute presentations to scientific and non-scientific audiences, ability to write scientific reports and training material.
- **Due diligence**—ability to efficiently research materials needed to meet business goals, ability to function independently, lead a team, and work as a member of a team to execute projects.
- **Data analysis**—ability to perform and evaluate data, committed to accurate and detailed work delivered in a timely manner.

## Professional Scientific Experience

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### PhD Candidate, Neuroscience | *University of Illinois at Chicago* June 2014-January 2019

- Led the design, behavioral characterization, and pharmacological validation of a preclinical mouse model of migraine induced by traumatic brain injuries; characterized the behavioral and molecular effects of delta opioid receptor activation in models of migraine-associated pain.
  - *In vivo* skills: von Frey hair sensory sensitivity testing to assess pain, elevated plus maze to assess anxiety, novel object recognition task to assess learning and memory, modeling traumatic brain injury, modeling headache, craniotomy surgery
  - *Ex vivo* skills: Immunohistochemistry, qRT-PCR, western blot, RNAScope in situ hybridization, confocal microscopy
  - Established strong rapport with colleagues by teaching 3 undergraduate students, 1 medical student, 1 rotation student, 1 research technician, and 1 postdoctoral fellow.
  - Critically analyzed and interpreted results using a variety of statistical tests (t-test, ANOVA, RM ANOVA, GLM, proper post hoc tests) in GraphPad Prism, Excel, and SAS.
  - Used strong communication skills to prepare 5+ oral presentations, 5+ poster presentations, 1 published review, 1 peer-reviewed manuscript, 2 manuscripts in preparation, and 1 in-depth pain testing protocol.

### Biotechnology Equity Research Analyst Intern | *Aspire Capital, LLC* Aug 2017-Apr 2018

- One of 3 scientists selected to research top drug candidates from 5 microcap pharmaceutical companies, evaluate companies' stock market performances, and consult on overall investment potential.
  - Collected publicly available information on microcap companies, evaluated drug candidates within each company and across the biotechnology space, and determined the highlights and shortcomings of each drug candidate. Provided 5 slide decks of in-depth information on each microcap company, which was used by the team at Aspire Capital to determine future investments.

### BP-ENDURE Research Fellow | *National Institute of Health* May 2012-May 2014

- Selected as one of 40 participants nationwide for a fully funded 2-year research fellowship for high-achieving diverse talent based on leadership, academic success, and scientific potential.
  - Collaborated with graduate students to conduct scientific experiments related to neuroscience and prepared research findings for presentations at 2 conferences.

## Education

**Doctor of Philosophy in Neuroscience**

**June 2014-May 2019**

University of Illinois at Chicago

Relevant Coursework	Description
Drug Discovery	Surveyed epidemiology of public health issues and explored multiple ways of discovering novel pharmacotherapies.
Statistics	Studied statistical methods commonly used in biomedical sciences
SAS Workshops	Reviewed basic SAS coding for exploring large datasets.
Biostatistics	Analyzed public health databases using statistical methods in SAS.
Bioinformatics Workshop	Introduction to Linux and R computing systems, analyzing next generation sequencing data, specifically RNA-seq and metagenomics.

**Bachelor of Science in Neuroscience and Spanish**

**Aug 2011-May 2014**

Agnes Scott College

## Leadership and Public Service

**Marketing and Grants Consultant** | *Project Fierce Chicago*

June 2017-Present

- Collectively fundraised over \$160,000 in FY2017 (124% increase from FY2016) to open transitional housing for Chicago-based LGBTQ+ homeless youth.
- Actively participated on the stewardship committee, where I assisted with grant writing; and on the marketing committee, where I managed social media accounts for ongoing fundraising events.

## Selected Awards and Accomplishments

- Pat Tillman Foundation Scholar 2017-2019
- Provost Deiss Research Award 2017-2018
- Headache Trainees Tournament Nominee 2016
- Promoting Success in STEM Graduate Education (PASSAGE) Scholar 2014
- Dana Leadership Scholar 2013
- Bridge to Business Scholar 2013

## Peer-Reviewed Scientific Publications

1. **Moye, L. S.**, Novack, M. L., Tipton, A. F., Krishnan, H., Pandey, S. C., & Pradhan, A. A. (2018). The development of a mouse model of mTBI-induced post-traumatic migraine, and identification of the delta opioid receptor as a novel therapeutic target. *Cephalalgia*, 333102418777507. doi:10.1177/0333102418777507
2. Ben Aissa, M., Tipton, A. F., Bertels, Z., Gandhi, R., **Moye, L. S.**, Novack, M., . . . Pradhan, A. A. (2017). Soluble guanylyl cyclase is a critical regulator of migraine-associated pain. *Cephalalgia*, 333102417737778. doi:10.1177/0333102417737778
3. **Moye, L. S.**, & Pradhan, A. A. A. (2017). Animal Model of Chronic Migraine-Associated Pain. *Curr Protoc Neurosci*, 80, 9.60.61-69.60.69. doi:10.1002/cpns.33
4. **Moye, L. S.**, & Pradhan, A. A. (2017). From blast to bench: A translational mini-review of posttraumatic headache. *J Neurosci Res*, 95(6), 1347-1354. doi:10.1002/jnr.24001
5. Vicente-Sanchez, A., **Segura, L.**, & Pradhan, A. A. (2016). The delta opioid receptor tool box. *Neuroscience*, 338, 145-159. doi:10.1016/j.neuroscience.2016.06.028

6. Pradhan, A. A., Perroy, J., Walwyn, W. M., Smith, M. L., Vicente-Sanchez, A., **Segura, L.**, ..., Evans, C. J. (2016). Agonist-Specific Recruitment of Arrestin Isoforms Differentially Modify Delta Opioid Receptor Function. *J Neurosci*, 36(12), 3541-3551. doi:10.1523/jneurosci.4124-15.2016
7. Bartolotti, N., **Segura, L.**, & Lazarov, O. (2016). Diminished CRE-Induced Plasticity is Linked to Memory Deficits in Familial Alzheimer's Disease Mice. *J Alzheimers Dis*, 50(2), 477-489. doi:10.3233/jad-150650

### *Selected Oral Presentations*

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1. Delta opioid receptor activation regulates headache-associated pain. Neuroscience Institute Seminar, University of Illinois at Chicago. June 2018.
2. Identifying the role of peripheral delta opioid receptors in chronic migraine\*. International Narcotics Research Conference, Chicago, IL. July 2017. \*Invited to speak.
3. Characterization of a novel mouse model of post-traumatic headache\*. Headache Trainees Excellence Tournament. European Headache and Migraine Trust International Congress in Glasgow, UK. September 2016. \*One of 3 basic scientists invited to speak.
4. Stimulation of soluble guanylate cyclase triggers migraine-associated pain\*. National Enhancement of Underrepresented Academic Leaders Conference. University of Alabama-Birmingham. June 2015. \*Invited to speak.
5. Functional activity of the delta opioid receptor in  $\beta$ -arrestin 1 KO mice. PASSAGE Scholars Program Symposium. University of Illinois at Chicago. 2014.

### *Selected Poster Presentations*

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1. Delta opioid receptor activation inhibits cephalic allodynia in multiple models of headache. Society for Neuroscience, San Diego, CA. November 2018.
2. The delta opioid receptor as an emerging therapy for mTBI-induced headaches. Chicago Chapter of Society for Neuroscience. Chicago, IL. March 2017.
3. Delta opioid receptor as a target for migraine: CGRP co-expression and inhibition of medication overuse headache. G-protein Coupled Receptor Retreat, Chicago, IL. October 2016.
4. Characterization of a novel model of post-traumatic headache. Chicago Chapter of Society for Neuroscience. Chicago, IL. April 2016.
5. Stimulation of soluble guanylate cycle triggers migraine-associated pain. Society for Neuroscience. Chicago, IL. October 2015.