Selina Baeza Loya

Curriculum Vitae

Committee on Neurobiology, University of Chicago
Department of Neurobiology, MC-0928 (520) 576-8493
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Chicago, IL 60637

Education

Ph.D. candidate, University of Chicago, Neurobiology, 2016-present
Advisor: Dr. Ruth Anne Eatock

B.A., Rice University, Cognitive Sciences (Honors) and Spanish and Portuguese, 2016

Other Education

Neuromatch Academy, three-week intensive online course in computational neuroscience. July 13-31st, 2020

Current Support

2019-2022 HHMI Gilliam Fellowship for Advanced Study ($150,000 over 3 years)

Awards and Honors

2019 Ford Fellowship (declined)
2018 Society for Neuroscience, Neuroscience Scholars Program (NSP) Associate
2018 Paul and Daisy Soros Fellowship for New Americans, Finalist
2017 Initiative for Maximizing Student Development (IMSD) Grant, The National Institute of General Medical Sciences (NIGMS)

Original Reports

Baeza-Loya, S., Velasquez, K.M., Molfese, D.L., Viswanath, H., Curtis, K.N., Thompson-Lake, D.G.Y., Baldwin, P.R., Ellmore, T.M., De La Garza, R. and Salas, R., (2016). "Anterior cingulum white matter is altered in tobacco smokers". The American Journal on Addictions, 25(3), pp.210-214.

Baeza-Loya, S., Viswanath, H., Carter, A., Molfese, D.L., Velasquez, K.M., Baldwin, P.R., Thompson-Lake, D.G., Sharp, C., Fowler, J.C., De La Garza, R. and Salas, R., (2014). "Perceptions about e-cigarette safety may lead to e-smoking during pregnancy". Bulletin of the Menninger Clinic, 78(3), pp.243-252.

Academic Research

University of Chicago, Advisor: Dr. Ruth Anne Eatock, present
Department of Neurobiology, Biological Sciences Division

- Investigating the contributions of sodium current diversity to action potential waveforms and firing patterns of vestibular afferent neurons
- Modeling impact of different ionic currents on spike timing regularity using single compartment HH based formulations

Baylor College of Medicine, Advisor: Dr. Ramiro Salas, 2013-2016
Menninger Department of Psychiatry and Behavioral Sciences

- Developed relational analysis using PGMRA web server for psychiatric data and neuroimaging data in patients with major depressive disorder
- Determined relationship of altered cingulate cortex anatomical connectivity with comorbid major depressive disorder and substance abuse disorder in clinical patients

• Analyzed anterior cingulate cortex diffusion tensor imaging connectivity in patients with nicotine, cocaine, and alcohol addiction
• Investigated perceptions regarding e-cigarettes and e-cigarette smoking during pregnancy

Duke University, Advisor: Dr. Cynthia Kuhn, Dr. David Walker, 2015
Duke Institute for Brain Science, Department of Pharmacology and Cancer Biology
• Chronic ethanol administration desensitizes of adenosine A1 receptors as shown through an altered response to adenosine agonists in sudden darkness locomotor activity in adult rats

Posters and Presentations

Baeza Loya, S., and Eatock, R.A. Persistent and resurgent sodium currents in mouse vestibular ganglion neurons. Association for Research in Otolaryngology. San Jose, CA. January 24-29, 2020; Baltimore, MD. February 9-13, 2019.

Baeza Loya, S., and Eatock, R.A. Impact of diverse Na_V currents on vestibular ganglion neuron firing patterns. Society for Neuroscience. Chicago, IL. October 18-23, 2019; San Diego, CA. November 3-7, 2018.

Baeza Loya, S., Velasquez, K., Salas, R. Altered cingulum connectivity in patients with major depressive disorder and substance use disorder. Rice Undergraduate Research Symposium (RURS). Houston, Texas. April 13, 2016

Baeza Loya, S., Walker, Q. D., Kuhn, C. The behavioral effects of alcohol mediated adenosine receptor function. BioCORE Symposium. Durham, North Carolina. July 2015.

Baeza Loya, S., Velasquez, K., Salas, R. The Dynamic Neurological Patterns of Behavior: Anatomical and functional brain connectivity in nicotine addicts" Selina Baeza-Loya, Ramiro Salas Ph.D., Kenia. Annual Biomedical Research Conferences for Minority Students (ABRCMS). San Antonio, Texas. November 12-15, 2014.

Teaching Experience

Teaching assistant, Marine Biological Laboratories, Biology of the Inner Ear, 2019. (Directors: Ruth Anne Eatock, Andrew Groves, and Philip Joris)

Teaching assistant, College of the University of Chicago: (1) Cellular Neuroscience, Instructors: Ruth Anne Eatock, Wei Wei, 2018. (2) Systems Neuroscience, Instructor: Dave Freedman, 2019.

Outreach and Activities

Student Representative, Biological Sciences Division Committee on Equitable Admissions, University of Chicago, 2020

Steering Committee Member, Neuroscience Early Stage Scientists Training Program, University of Chicago, 2020 - present

Board Member, UChicagoGRAD Diversity Advisory Board (DAB), University of Chicago, 2017- 2020

Admissions Committee, UChicago Committee in Neurobiology and Computational Neuroscience, 2017-2018

Director of Recruitment, Graduate Recruitment Initiative Team (GRIT), University of Chicago, 2017 – 2018

Executive Team Member, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) UChicago Chapter, 2017-2018

Conferences Organized

"Midwest Regional SACNAS Conference at UChicago". University of Chicago. April 28th, 2018. Organized by Christina Roman, Selina Baeza Loya, and Jay Pittman.