

ASHLEY LAUREN JUAVINETT, PHD

University of California, San Diego
Division of Biological Sciences
Neurobiology Section
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EDUCATION

- 2011 – 2016 University of California San Diego (La Jolla, CA)
Ph.D. in Neuroscience
- 2007 – 2011 Lafayette College (Easton, PA)
B.S. in Neuroscience with Honors, Summa Cum Laude
Minor: Anthropology & Sociology

PROFESSIONAL APPOINTMENTS

- 2018 – present Assistant Teaching Professor, UC San Diego, Division of Biological Sciences
- 2016 – 2018 Postdoctoral Research Fellow, Cold Spring Harbor Laboratory

PEER-REVIEWED PUBLICATIONS

- Kim, E.J. Zhang, Z., Huang, L., Ito-Cole, T., Jacobs, M.W., **Juavinett, A.L.**, Senturk, G., Hu, M., Ku, M., Ecker, J.R., Callaway, E.M. (2020). Extraction of Distinct Neuronal Cell Types from within a Genetically Continuous Population. *Neuron*. doi: 10.1016/j.neuron.2020.04.018.
- Juavinett, A.L.**, Bekheet, G., Churchland, A.K. (2019). Chronically-implanted Neuropixels probes enable high yield recordings in freely moving mice. *eLife* 8:e47188. doi: 10.7554/eLife.47188.
- Juavinett, A.L.**, Kim, E.J., Collins, H.C., Callaway, E.M. (2019). A systematic topographical relationship between mouse lateral posterior thalamic neurons and their visual cortical projection targets. *Journal of Comparative Neurology*. doi: 10.1002/cne.24737.
- Musall, S.M. Kaufmann, M.T., **Juavinett, A.L.**, Gluf, S. Churchland, A.K. (2019). Single-trial neural dynamics are dominated by richly varied movements. *Nature Neuroscience* 22, 1677-1686. doi: 10.1038/s41593-019-0502-4.
- Juavinett, A.L.**, Nauhaus, I., Garrett, M.G., Callaway, E.M. (2017). Automated identification of mouse visual areas with intrinsic signal imaging. *Nature Protocols* 12(1):32-43. doi: 10.1038/nprot.2016.158.
- Kim, E.J., **Juavinett, A.L.**, Kyubwa, E.M., Jacobs, M.W., Callaway, E.M. (2015). Three Types of Cortical Layer 5 Neurons That Differ in Brain-wide Connectivity and Function. *Neuron* 88(6): 1253-67. doi: 10.1016/j.neuron.2015.11.002.
- Juavinett, A.L.**, Callaway, E.M. (2015). Pattern and Component Motion Responses in Mouse Visual Cortex. *Current Biology* 25(13): 1759-64. doi: 10.1016/j.cub.2015.05.028.
- Stewart, J.L., **Juavinett, A.L.**, May, A.C., Davenport, P.W., Paulus, M.P. (2015). Do You Feel Alright? Attenuated Neural Processing of Aversive Interoceptive Stimuli in Current Stimulant Users. *Psychophysiology* 52(2): 249-62. doi: 10.1111/psyp.12303

BOOKS, BOOK CHAPTERS, & REVIEWS

- Juavinett, A.L.** (2020). *So You Want to Be a Neuroscientist?* Columbia University Press (New York, NY).
- Baker, A., Kalmbach, B., Morishima, M., Kim, J., **Juavinett, A.L.**, Li, N. & Dembrow, N. (2018). Specialized Subpopulations of Deep-Layer Pyramidal Neurons in the Neocortex: Bridging Cellular Properties to Functional Consequences. *Journal of Neuroscience*, 38(24):5441-5455.
- Juavinett, A.L.**, Erlich, J., Churchland, A.C. (2018). Decision-making behaviors: weighing ethology, complexity, and sensorimotor compatibility. *Current Opinion Neurobiology* 49:42-50.
- Juavinett, A.L.**, Datko, M., Pineda, J. (2014). Rationale for Neurofeedback Training in Children with Autism. In *The Comprehensive Guide to Autism*, edited by Vinood B. Patel, Victor R. Preedy and Colin R. Martin.
- Pineda, J.A., **Juavinett, A.L.**, Datko, M. (2012). Self-regulation of brain oscillations as a treatment for aberrant brain connections in children with autism. *Medical Hypotheses* 79(6): 790-8.

INVITED TALKS AND WORKSHOPS

- Juavinett, A.L.** (2020). "Defining cell types by their electrophysiology." *Allen Institute Webinar*. Available here: <https://youtu.be/OQUOEKXPX8M>.
- Juavinett, A.L.** (2020). "Learning how to code while analyzing an open access electrophysiology dataset." *Faculty for Undergraduate Neuroscience Conference*.
- Juavinett, A.L.** (2019). "How to make the most of your PhD when you don't know what comes next." *Bernstein Computational Neuroscience PhD Symposium*.
- Juavinett, A.L.** (2018). "What tiny mouse brains can tell us about visual perception." *Lehigh Valley Society for Neuroscience Keynote Talk*.
- Juavinett, A.L.** (2017). "Layer 5 cells in visual cortex with defined projections have distinct response properties." *Society for Neuroscience Minisymposium*.

CONFERENCE POSTERS

- Juavinett, A.L.**, Bekheet, G., Churchland, A.K. "Multisensory enhancement during audiovisual looming responses in mice." *Society for Neuroscience Abstract*, November 2017.
- Juavinett, A.L.**, Kim, E.J., Collins, H. "A precise connectivity map between the mouse thalamic nucleus LP and visual cortical areas." *Society for Neuroscience Abstract*, November 2016.
- Juavinett, A.L.**, Kim, E.J., Callaway, E.M. "Exploring the function of the secondary visual nucleus of the mouse in vivo." *Janelia Thalamus and Corticothalamic Interactions Conference*, April 2015.
- Juavinett, A.L.**, Callaway, E.M. "Plaid motion responses in mouse V1 and extrastriate areas." *Society for Neuroscience Abstract*, October 2013.
- Juavinett, A.L.**, "From neurons to perception: Using art to elucidate the visual system." *Society for Neuroscience Theme H Abstract*, October 2013.
- Juavinett, A.L.**, Stewart, J.L., May, A.C., Migliorini, R., Tapert, S.F., Paulus, M.P. "An interoceptive view of the adolescent brain." *Society for Neuroscience Abstract*, October 2012.
- Stewart, J.L., **Juavinett, A.L.**, Shukla, A., Paulus, M.P. "Altered Interoceptive Processing during Inspiratory Breathing Load in Stimulant Users who Develop Problems versus Those who Do Not." *International Society of the Advancement of Respiratory Psychophysiology Abstract*, September 2012.
- Juavinett, A.L.**, Stewart, J.L., Shukla, A., Paulus, M.P. "Something feels different: Altered interoceptive processing in problem stimulant users versus Desisters." *College on Problems of Drug Dependence Abstract*, June 2012.

Juavinett, A.L., Reynolds, E. "Race, Crime, and the Power of Unconscious Stereotypes." Presented at Student Research in Social Justice Conference at Muhlenberg College & Lehigh Valley SfN, April 2011.

GRANTS & AWARDS

2013	National Science Foundation Graduate Research Fellowship Program
2012	National Science Foundation GK-12 Grant, Socrates Fellowship Program
2011	William C. Rappolt '67 & Walter Oechsle '57 Neuroscience Prize
2010	Amgen Foundation Scholar, Columbia University
2009	Kathryn Wasserman Davis Projects for Peace Grant

RESEARCH EXPERIENCE

2012 – 2016	Doctoral student, The Salk Institute for Biological Studies
2011 – 2012	Rotation student, UC San Diego Psychiatry
2012	Rotation student, UC San Diego Cognitive Sciences
2010 – 2011	Honors Thesis Student, Lafayette College
2010	Intern, Columbia University Motor Neuron Center
2008	Intern, Louisiana State University

TEACHING EXPERIENCE

2018 – present	Assistant Teaching Professor, UC San Diego
2015	Instructor, UC San Diego Psychology Department
2015	Visiting Educator, High Tech High San Marcos
2013 – 2015	UCSD Outreach Teacher Training Program
2012 – 2013	National Science Foundation GK-12 Socrates Fellow
2012	Teaching Assistant, UC San Diego, Dept. of Neuroscience
2008 – 2011	Northampton County Jail, Music Therapy Class Coordinator
2009	Santa Cruz County Jail, Kathryn W. Davis Projects for Peace Fellow

COMMUNITY & UNIVERSITY LEADERSHIP

2020 – present	STARTneuro Program Co-Director
2020 – present	BS/MS Program Director, UC San Diego
2019 – present	Neurobiology Major Faculty Advisor, UC San Diego
2014 – 2016	UC San Diego Neurosciences Admission Committee, Student Representative
2014 – 2016	Pint of Science San Diego, Organizing Team Member
2011 – 2014	Neurosciences Outreach Program, Member
2011 – 2014	Neurosciences Social Committee, Coordinator
2012 – 2013	Graduate Student Association, Neurosciences Representative
2011	The Franklin Institute, Philadelphia Science Festival Intern
2008 – 2009	Lafayette College Student Government, President

WRITING EXPERIENCE *

2020 – present	Blogger for Psychology Today (https://www.psychologytoday.com/us/blog/neuroscience-paths)
2018 – present	Writer for <i>The Spike</i> (https://medium.com/the-spike)
2017 – 2020	Assistant Editor & Writer, Massive Science
2016 – 2017	Contributor to Shmoop Online Anatomy & Physiology Course
2013 – 2016	Co-founder and Director of NeuWrite San Diego

2015
2013 – 2015
2013

Contributor to Anatomy & Physiology Coloring Book (Quarto)
Staff writer for Proteintech Blog
Staff writer for “Core Concepts” at Oxbridge Biotech Roundtable

* *Writing samples available at ashleyjuavinett.com/portfolio/writing/*