

Curriculum Vitae: Brooke R. Staveland

Helen Wills Neuroscience Institute
Knight Lab | Department of Psychology
Neuroeconomics Lab | Haas School of Business
University of California Berkeley | Berkeley, CA 94703
Phone: (831) 706-8565 | E-mail: bstavel@berkeley.edu

EDUCATION

Ph.D. in Neuroscience, Helen Wills Institute for Neuroscience
Thesis: Prefrontal-hippocampal dynamics underlying approach-avoidance conflict in humans: evidence from intracranial EEG
Specialization: Two-year specialization in clinical psychology, including coursework and administration of evidence-based treatments to clients at the UCB Psychology Clinic, under the supervision of a licensed psychologist
University of California Berkeley, Berkeley, CA
Estimated graduation date: Spring 2025

Bachelor of Science in Mathematics, *Summa Cum Laude*
The George Washington University, Washington, DC
Minor in Mind/Brain Studies, May 2017

Graduate of Budapest Semester in Cognitive Science Program
Eötvös Loránd University, Budapest, Hungary, Fall 2015

AWARDS/ FELLOWSHIPS

2021 National Science Foundation Graduate Research Fellowship
2022 Kavli Summer Institute in Cognitive Neuroscience Fellowship
2020 Bay Area Summer Institute in Computational Social Science Fellowship
2019 Helen Wills Neuroscience Training Fellowship
2016 Data MASTER Fellow
2016 Shenkman Award Recipient
2017 University Honors Program Graduate
2015 Recipient of the Knowledge in Action Career Internship Fund
Member of Pi Mu Epsilon, Honors Mathematical Society
Joint Undergraduate Math and Physics Scholar
George Washington University's Presidential Academic Scholarship
Dean's List

PUBLICATIONS

† These authors contributed equally to this work as first authors
‡ These authors contributed equally to this work as second authors

Staveland, B.R., Oberschulte, J., Kim-McManus O., Willie, J.T., Brunner, P., Dastjerdi, M., Lin J. J., Hsu M., Knight, R. T. (2024) Circuit dynamics of approach-avoidance conflict in humans. *Preprint – bioRxiv*.

Staveland, B.R.[†], Marciano, D.[†], Lin J., Saez I., Hsu M., Knight, R. T. (2023) Electrophysiological signatures of inequity-dependent reward encoding in the human OFC. *Cell Reports*.

Staveland, B.R.[†], Tozzi, L.[†], Holt-Gosselin, B.[†], Chesnut, M., Chang, S., Choi, D., Shiner, M., Wu, H., Sporns, O., Barch, D., Gotlib, I., Hastie, T., Kerr, A., Poldrack, R., Wandell, B., Wintermark, M., Williams, L.M. (2020) The human connectome project for disordered emotional states: protocol and rationale for a research domain criteria study of brain. *Neuroimage*.

Goldstein-Piekarski, A.N.[†], Ball, T.M.[†], Samara, Z.[‡], **Staveland, B.R.**[‡], Fleming, S.L.[‡], Keller, A.S.[‡], Grisanzio, K.A.[‡], Holt-Gosselin, B.[‡], Ma, J., Williams, L.M. (2021) Deriving biotypes for depression and anxiety using clinic-ready brain circuit metrics. *Biological Psychiatry*.

Llorens A.[†], Tzovara, A.[†], Bellier, L. Bhaya-Grossman, I., Bidet-Caulet, A., Chang, W.K., Cross, Z.R., Dominguez-Faus, R., Flinker, A., Fonken, Y., Gorenstein, M., Holdgraf, C., Hoy, C.W., Ivanova, M.V., Jimenez, R.T., Jun, Slama, K., **Staveland, B.R.**, Bassett, D.S., S., Kam, J. W. K., Kidd, C., Marcelle, E., Marciano, D., Martin, S., Myers, N.E., Ojala, K., Pinheiro-Chagas, P., Ries, S., Perry, A., Saez, I., Skelin, I., Buffalo, E.A., Fairhall, A.L., Kastner, S., Kopell, N.J., Lin, J.J., Nobre, A.C., Solbakk, A.K., Wallis, J.D., Wang, X.J., Yuval-Greenberg, S., Knight, R.T., Dronkers, N.F. (2021) Gender bias in academia: a lifetime problem that needs solutions. *Neuron*.

Keller, A.S., Leikauf J.E., Holt-Gosselin B, **Staveland B.R.**, Williams L.M. (2019) Paying attention to attention in depression. *Translational Psychiatry*.

Goldstein-Piekarski, A.N., **Staveland, B.R.**, Ball, T.M., Yesavage, J., Korgaonkar, M.S., Williams, L.M. (2018). Intrinsic functional connectivity predicts remission on antidepressants: A randomized controlled trial to identify clinically applicable imaging biomarkers. *Translational Psychiatry*.

TALKS

Staveland B.R. (2024). Prefrontal-hippocampal dynamics underlying approach-avoidance conflict in humans. *Cognitive Neuroscience Colloquium, UC Berkeley*

Staveland B.R., Williams, L.M. (2018). High-Resolution, Multimodal Data in MDD and Healthy Control Participants. Data Seeking Model Presentation, *Society of Biological Psychiatry, Computational Psychiatry Breakout Session*.

ABSTRACTS & PRESENTATIONS

Staveland B.R., Gomez, O., Kim-McManus O., Willie, J.T., Brunner, P., Dastjerdi, M., Lin J. J., Hsu M., Knight, R. T. (2024) Dynamic cortico-limbic networks underlie approach-avoidance conflict in humans. Abstract for poster presentation, *Society for Neuroscience*.

Staveland B.R., Oberschulte, J., Kim-McManus O., Willie, J.T., Brunner, P., Dastjerdi, M., Lin J. J., Hsu M., Knight, R. T. (2024) Joint longitudinal and survival modeling predicts avoidance decisions. Abstract for poster presentation, *Cognitive Neuroscience Society*.

Staveland B.R., Kim-McManus O., Willie, J.T., Brunner, P., Dastjerdi, M., Lin J. J., Hsu M., Knight, R. T. (2023) Prefrontal-limbic circuits during approach-avoidance conflict in a Pacman game. Abstract for poster presentation, *Society for Neuroscience*.

Staveland B.R., Kim-McManus O., Brunner, P., Lin J. J., Hsu M., Knight, R. T. (2022) Human hippocampal theta is elevated during approach-avoidance conflict in a Pacman game. Abstract for poster presentation, *Society for Neuroscience*.

Staveland B.R.[†], Marciano, D.[†], Lin J. J., Saez I., Hsu M., Knight, R. T. (2021) To share or not to share? iEEG evidence for state-dependent inequity encoding in the OFC. Abstract for poster presentation, *Society for Neuroscience*.

Staveland B.R.[†], Goldstein-Piekarski A.N.[†], Korgaonkar M.S., Williams L.M. (2016) Should we ignore the motion in emotion? Examining associations between head movement during an fMRI scan and anxiety depression symptoms. Abstract for poster presentation, *Society of Biological Psychiatry*.

Holt-Gosselin, B., **Staveland B.R.** [‡], Tozzi, L.[‡], Williams L.M. (2018) A Neural Circuit Classification of Depressed and Anxious Patients using HCP Protocols. Abstract for poster presentation, *Stanford Neuroscience Institute Symposium*.

Tozzi, L., **Staveland B.R.** [‡], Chang, S.E.[‡], Shiner, M.L.[‡], Choi, D.[‡], Holt-Gosselin, B.[‡], Williams L.M. (2018) Connectivity correlates of the negative valence domain in anxiety and depression: insights from the Human Connectome Project. Abstract for poster presentation, *Stanford Neuroscience Institute Symposium*.

RESEARCH EXPERIENCE

Summer 2024-Present

Summer Associate, Adjunct Staff at RAND

At RAND, I work with an interdisciplinary team to analyze the ethical, legal, and societal implications of emerging neurotechnology to assess and diagnose suicidal crises and other mental health disorders.

Winter 2018-
Fall 2019

Lead Research Systems Engineer at Stanford University's PanLab

Promoted from Research Assistant to coordinate cross-project technical logistics, including harmonizing fMRI scan protocols, scripting fMRI processing pipelines from preprocessing through PPI, RS, and supplemental network analysis, implementing new tasks, and training research assistants to use current protocols.

Fall 2017-
Winter 2018

Neuroimaging Research Assistant at Stanford University's PanLab

Under the supervision of Dr. Leanne Williams, led data acquisition, study coordination, and initial data processing of the Mapping Connectomes for Disordered Emotional States project, an extension of the Human Connectome Project.

Spring 2015-
Spring 2018

Research Intern at Stanford University's PanLab

Evaluated various fMRI preprocessing streams, wrote and implemented MATLAB scripts to apply a graph-theoretical analysis of fMRI images, and initialized graph-theoretical analysis of Resting-State Networks in MDD.

LEADERSHIP & SERVICE

2024-present

Support Specialist, RAINN

Support specialists work on RAINN's anonymous, confidential, and text-based hotline to help survivors in need of crisis support by being a listening ear, a soundboard for ideas that visitors want to discuss, and providing resources.

2019-2022

Mentor, ULAB

Mentor undergraduates in a yearlong replication and extension project in cognitive science, aimed at helping students without research experience get enough experience to qualify for formal RA positions.

2016-2017

Vice President, Association for Women in Mathematics

Promotes women in mathematics and other STEM fields by planning networking events and holding weekly study hours.

2016

Vice-President, Pi Mu Epsilon Gamma Chapter

Promotes excellence in mathematics by holding graduate admission panels and promoting topical lecture series.

PROGRAMMING & DATA ANALYSIS

Python • R • Git/GitHub • MATLAB • Machine Learning • Bayesian Model Fitting • Signal Processing • Survival Analysis • Parallelization • Large Dataset Management • Data Visualization • Online participant recruitment tools

REFERENCES

RAND

Cortney Weinbaum (weinbaum@rand.org) • Benjamin Boudreaux (bboudrea@rand.org)
Alison Athey (aathey@rand.org) • Alicia Locker (alocker@rand.org)

UC Berkeley

Robert Knight (rtknight@berkeley.edu) • Ming Hsu (rtknight@berkeley.edu)