Raveena Chhibber

PhD Candidate
University of Washington, Seattle

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Education

PhD Candidate in Neuroscience
UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON, September 2021 – Present

B.S. in Neuroscience and Behavioral Biology
EMORY UNIVERSITY, ATLANTA, GEORGIA, May 2018

Research Experience

Neuroscience PhD Candidate, PIs: John Tuthill and Bing Brunton
University of Washington, Seattle, Washington, September 2021-Present
Projects: Flexible coordination of locomotion dynamics in Drosophila; Measuring ground reaction forces from freely walking flies on a micro-scale column array

Lab Coordinator, PI: Samuel Sober
Emory University, Atlanta, Georgia, August 2019-August 2021
Projects: Computational principles of Bengalese Finch vocal learning; Spike sorting algorithms for single and multiunit recordings

Information Analyst II, PI: Gregory Berns; Supervisor: Ashley Prichard
Emory University, Atlanta, Georgia, March 2016-May 2019
Projects: Neural representations of odor processing in canines; *Neural representations of language processing in canines*; *Neural learning across modalities in canines*

Lab Assistant, PI: Eric Hunter; Supervisor: Dario Dilernia
Yerkes National Primate Center, Vaccine Center, Atlanta, Georgia, May 2015-October 2016
Projects: Validating genetic sequence reconstruction algorithm in Human Leukocyte Antigen Genes using family trios

Fellowships & Awards

January 2025	Finalist – Best Student Talk Award, *Society for Integrative and Comparative Biology Annual Meeting,* Atlanta, GA.
March 2024	Best Talk Award, *Hendrickson Trainee Symposium*, University of Washington.
April 2020	Fellow, *National Science Foundation Graduate Research Fellowship Program*.
December 2017	Summer Fellow, *Irene and Eric Simon Brain Research Foundation Summer Fellowship*
20214-2018	Dean's List/Honor List, *Emory University*

Publications

Ashley Pritchard, **Raveena Chhibber,** Jon King, Kate Athanassiades, Mark Spivak, and Gregory S. Berns.(2021) 2D or not 2D? An fMRI study of how dogs visually process objects. *Animal Cognition.* doi:10.1007/s10071-021-01506-3

Ashley Pritchard, **Raveena Chhibber,** Kate Athanassiades, Veronica Chiu, Mark Spivak, and Gregory S. Berns. (2021) The mouth matters most: A functional magnetic resonance imaging study of how does perceive inanimate objects. *Journal of Comparative Neurology.* doi: 10.1002/cne.25142

Ashley Pritchard, **Raveena Chhibber,** Jon King, Kate Athanassiades, Mark Spivak, and Gregory S. Berns. (2020) Decoding odor mixtures in the dog brain: an awake fMRI study. *Chemical Senses.* doi:10.1093/chemse/bjaa068

Ashley Pritchard, Peter. F. Cook, Mark Spivak, **Raveena Chhibber,** and Gregory S. Berns. (2018) Awake fMRI reveals brain regions for novel word detection in dogs. *Frontiers in Neuroscience.* doi:10.3389/fnins.2018.00737

Ashley Pritchard, **Raveena Chhibber,** Kate Athanassiades, Mark Spivak, and Gregory S. Berns. (2018) Fast neural learning in dogs: A multimodal sensory fMRI study. *Scientific Reports.* doi:10.1038/s41598-018-32990-2

Presentations

Jul. 2025	NeuroAI: Neuroscience and Artificial Intelligence, *Poster*, "How Flies Walk: Motor Control and Muscle Coordination in Walking Flies" (Seattle, WA)
Jun. 2025	SOAR-BISCCITS: BioInspired Sensing Computing and Control with International Teams, *Lightening Talk Speaker*, "Motor Control of Walking in Drosophila" (Boulder, CO)
Mar. 2025	Mechanistic Cognitive Neuroscience Workshop for Junior Scientists, *Speaker*, "Blue Skies: How does the physics of the world constrain animal size?" (Ashburn, VA)
Mar. 2025	Mechanistic Cognitive Neuroscience Workshop for Junior Scientists, *Poster*, "Flexible Leg Muscle Recruitment in Walking *Drosophila*" (Ashburn, VA)
Jan. 2025	Society for Integrative and Comparative Biology Annual National Conference, *Speaker*, "Flexible Coordination of Leg Muscles in Walking *Drosophila*" (Atlanta, GA)
Jun. 2024	Neural-Inspired Sensing and Control Multidisciplinary Research Program of the University Research Initiative Telecon, *Speaker*, "Flexible Motor Control of Walking *Drosophila*" (Virtual)
May 2024	Neuroscience 450: Undergraduate Journal Club in Quantitative Neuroscience, *Speaker*, "How Flies Walk", (Seattle, WA)
May 2024	Sponberg Lab, *Invited Talk*, "Flexible Coordination of Muscle Activity during Walking", (Atlanta, GA)
Mar. 2024	Hendrickson Trainee Symposium, *Speaker*, "Flexible Motor Control of Walking *Drosophila*" (Seattle, WA)
Mar. 2024	Coffee and Connections, *Chalk Talk*, "Understanding Muscle Coordination Variability in Walking Flies" (Seattle, WA)
May 2019	Graduate Research Interdisciplinary Team of Scholars Methods Aside, *Speaker*, "Decoding how dogs smell". (Atlanta, GA)
Nov. 2018	Society for Neuroscience, *Poster*, Awake fMRI of dogs reveals mechanisms for processing 2D representations of 3D objects (San Diego, CA.)
Nov. 2017	Society for Neuroscience, *Poster*, Associative Learning with Awake Dog fMRI: When Frabjous, Flamingo or Fragrance Foretell Food. (Washington, DC.)
May 2017	Neuroscience and Behavioral Biology Symposium, *Poster*, "Good Dog: Reevaluating Semantic Processing in Dogs." (Atlanta, GA)
Oct. 2016	American Society of Human Genetics, *Poster*, "Validation of a novel, high-throughput HLA-I genotyping method based on phased, full-length sequencing". (Vancouver, BC, Canada)
Jun. 2016	Boston Genomics Festival, *Poster*, "A novel high-throughput HLA genotyping based on phased full-length Next-Generation Sequencing". (Boston, MA)

Mentorship & Outreach

2024-Present	Curriculum Committee, Neuroscience Program, University of Washington
2024-Present	Events Committee, Neuroscience Program, University of Washington
2021-Present	Volunteer, NSF GRFP Peer Review Workshop, University of Washington
2020-2024	Girls who Code, Volunteer Teacher, Seattle and Atlanta
Aug. 2022 – Dec. 2022	Graduate Teaching Internship, University of Washington, Seattle, WA.
Oct. 2021 – Present	Mentor, Neuroscience Mentorship Program, University of Washington, Seattle, WA.
June 2022 – Present	Undergraduate Mentor, Neuroscience Undergraduate Reading Program, Seattle, WA.
2022	SAHI Panelist, Emory University
Summer 2015, 2016	Program Lead, iEducate, Houston, Texas