CURRICULUM VITAE
Heather Snell, PhD

Education:

08/2005-05/2010 BA, English Literature (Minor in Latin), Louisiana State University, Baton Rouge, LA
08/2005-05/2010 BS, Biochemistry (Minor in Chemistry), Louisiana State University, Baton Rouge, LA
08/2010-05/2015 PhD, Biomedical Sciences, University of North Texas Health Science Center, Fort Worth, TX

Career/Academic Appointments:

01/2016-01/2022 Postdoctoral Fellow, Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Bronx, NY
01/2022-12/2023 Research Associate, Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Bronx, NY
01/2024-06/2024 Associate Research Scientist, Department of Neuroscience, Yale School of Medicine, New Haven, CT
01/2024-present Assistant Professor, Department of Neuroscience, Yale School of Medicine, New Haven, CT

Administrative Positions:

2022-2023 Assistant Director, Pelham Einstein Neuro Scholar (PENS) program, Albert Einstein College of Medicine, Bronx, NY

Professional Honors & Recognition:

International/National/Regional

2010-2012 Minority Opportunities in Research and Education (MORE) fellowship, UNTHSC, TX
2011 Society for Advancement of Chicanos and Native Americans in Science Travel Scholarship Award to National Conference
2011-2012 Institute for Aging and Alzheimer's Disease Research (IAADR) Associate Fellowship
2012 Summer Program in Neuroscience, Ethics, & Survival (SPINES) Fellow at the Marine Biology Laboratory (MBL), Woods Hole, MA
2013-2014 UNTHSC Graduate Student Association Scholarship
2013-2014 Institute of Aging and Alzheimer's Disease Research (IAADR) Fellowship
2014-2015 UNTHSC Neurobiology of Aging T32 Training Grant Fellowship
2014 FASEB MARC Program Poster/Oral Presentation Travel Award Experimental Biology National Conference
2014 Student Leadership Professional Development Fund (SL/PDF) Travel Award
2014-2015 UNTHSC Moorman Family Scholarship
2015 Neurobiology Course scholarship at Marine Biological Laboratory (MBL), Woods Hole, MA
2015-2017 UNTHSC Student Bridge Grant
2019 BRAINS (Broadening the Representation of Academic Investigators in NeuroScience) Fellow
2020-2022 Society for Neuroscience-Neuroscience Scholars Program Fellow
2022 HHMI/Janelia Research Campus Leading Edge Fellow
2022 The Grass Foundation Trustee Recognition Award
2022-2025 Allen Institute: Next Generation Leaders Council
2023-2024 Mentoring Institute for Neuroscience Diversity Scholars (MINDS) Fellow

Grant/Clinical Trials History:

Current Grants

Agency: NIH/NINDS

ID#: 1R21NS132111-01
Title: Assessing Synaptic and Intrinsic Effects of Patient-Derived ID-Associated CACNA1A Mutations Using Multiple Models
PI: Peri Kurshan PhD, Heather Snell PhD
Total costs: 252,000 (of which $102,000 indirects)
Project period: 05/01/2023 – 04/30/2025

Agency: Yale Alzheimer's Disease Research Center
ID#: 2024 Research Scholars Award
Title: Shared vs distinct cerebellar mechanisms of motor and cognitive impairment
PI: Heather Snell PhD
Total costs: $21,600 total costs (8% indirect rate to be used)
Project period: 05/01/2024 – 04/30/2025

Agency: The Lawarnce Family Fund
ID#: The Lawarnce Family Fund Award
Title: Shared vs distinct cerebellar mechanisms of motor and cognitive impairment in neuropsychiatric disorders
PI: Heather Snell PhD
Total costs: 100.000
Project period: 10/01/2024 – 09/30/2025

Agency: Brain and Behavior Research Foundation
ID#: Young Investigator NARSAD
Title: Shared vs distinct cerebellar mechanisms of motor and cognitive impairment
PI: Heather Snell PhD
Total costs: 70,000
Project period: 01/15/2025 – 01/14/2027

Past Grants

Agency: NAS/Ford Foundation
ID#: Postdoctoral grant
Title: Characterization of a Novel CACNA1A mutation resulting in motor and cognitive impairment
PI: Heather Snell, PhD
Total costs: 50,000 (includes indirects)
Project period: 06/01/2022 – 06/31/2023

Invited Speaking Engagements, Presentations, Symposia & Workshops Not Affiliated with Yale:

International/National

1. Gordon Research Conference on Cerebellum, Les Diablerets, 2019
2. Weill Cornell Medicine Frontiers in Neuropsychiatry Seminars (FINS) series, 2020
3. Vanderbilt SOM Gathering of Pharmacology and Cell signaling Research (GPCR) Invited postdoc seminar series, 2021
4. UNTHSC Spring 2021 Diversity Seminar Series, 2021
5. Summer Program in Neuroscience, Excellence and Success (SPINES), Marine Biological Laboratory, Woods Hole, MA, 2021
6. Brandeis: Invited Postdoctoral seminar, 2021
7. McGill University Department of Biology 2021 Seminar Series

8. California State University, Chico State BRAIN Alliance Talk, 2022
9. Yale Neuroscience Department: Seminars at Yale Neuroscience Advanced Postdoc Extramural Series (SYNAPSES), 2022
10. Harvard Medical School Neuroscience INCEPT (Interdisciplinary Neuroscience Colloquia of Extramural Postdoc Talks), 2022
11. Emory SOM Steve Warren Early Career Investigator Seminar Series, 2022
12. Ford Foundation/NASM: Conference of Ford Fellows, 2022
13. Weil Cornell Emerging Leaders In Neuroscience Seminar, 2023
14. Mount Sinai Neuroscience Seminars, 2023
15. Columbia University Annual Physiology Departmental Seminar Series, 2023
16. Stanford Wu Tsai Neurosciences Institute BELONG Seminar Series, 2023
17. Oregon Health & Science University Neuroscience Futures Seminar Series, 2023
18. University of Minn. Center for Cerebellar Structure/Function Seminar Series, 2023
19. Weill Cornell Emerging Leaders in Neuroscience Seminar, 2023
20. Gordon Research Seminar- Cerebellum, 2023
21. Mount Sinai Department of Genetics and Genomic Sciences, 2024
22. National Institute of Aging, 2024
23. Society for Research on the Cerebellum and Ataxia, Mumbai India, 2024
24. CACNA1A Round Table, 2024
25. UNTHSC Academia versus Industry Panel, 2024
26. The Rockefeller Inclusive Science Initiative (RiSi) Guest Lecturer, 2024

Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated with Yale:

International/National

1. **Snell H**, Gonzales EB. Allosteric Modulation of the Human GABA-A rho1 Receptor By ASIC Non-proton Ligands. Society for the Advancement of Chicanos and Native Americans in Science National Conference, Los Angeles 2014 (Oral presentation).
2. **Snell H**, Vitenzon A, Tara E, Khodakhah K. Disruption of Purkinje Cell Pacemaking Underlies Attacks in Episodic Ataxia Type 2. Gordon Research Conference, Cerebellum, Les Diablerets, 2019 (Symposium).
3. **Snell H**, Vitenzon A, Tara E, Khodakhah K. Mechanism of Stress-Induced Attacks in Episodic Ataxia Type 2. Black in Neuro Conference, Virtual, 2020 (Oral presentation).

Professional Service

Review Panels:
Scientific Review Officer (SRO):
Einstein College of Medicine Junior Investigator Research Award (2019)

Journals:
Ad Hoc Reviewer
Dystonia, Cerebellum, Nature Communication

Professional Organizations:
Society for Neuroscience
2011-present Member

Janeway Society
2024-present Member

Black in Neuroscience
2021-present Mentor

Mentored Trainees

High school
Julia Kischkat (2018)
Georgia Kiriakou (2018)
Alesandra Martin (2018-2019)
Jack Silvers (2019)
Chenelle Gordon (2019-2020)
Isabel Orama (2020-2021)
Samantha Kucerak (2021)
Jordan Corley (2022)

Undergraduate
Marissa Costa (2017)
Alesandra Martin (2022)
Dhakiya Knights (2024)
Sabrina Mo (2024)

Postdoctoral Fellows
Nichelle Jackson (2024)
Jacob Stagray (2024)

Bibliography:

Peer-Reviewed Original Research

1. **Snell HD** and Gonzales EB (2015) Amiloride and GMQ allosteric modulation of the GABA-A ρ1 receptor: influences of the intersubunit site. J Pharmacol Exp Ther. June; 353(3): 551-559. PMID: 25829529 doi: 10.1124/jpet.115.222802 https://jpet.aspetjournals.org/content/353/3/551.long
2. **Snell HD** and Gonzales EB (2016) 5-(N, N-Hexamethylene) amiloride is a GABA-A ρ1 receptor positive allosteric modulator. Channels Nov-Dec; 10(6): 498-506. doi: 10.1080/19336950.2016.1207021 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5034777/
3. Zuo Z, Smith RN, Chen Z, Agharkar AS, **Snell HD**, Huang R, Liu J, Gonzales EB (2018) Identification of a unique Ca2+-binding site in rate acid-sensing ion channel 3. Nat. Commun. April; 9:2082 doi: 10.1038/s41467018-04424-0 https://www.nature.com/articles/s41467-018-04424-0
4. **Snell HD*,** Vitenzon A*, Tara E*, Chen C, Tindi J, Jordan B, Khodakhah K (2022) Mechanism of Stress-Induced attacks in an Episodic Neurologic Disorder. *Science Advances*. April; 8(16) doi: 10.1126/sciadv.abh2675 https://www.science.org/doi/10.1126/sciadv.abh2675
5. **Snell HD**, Vitenzon A, Tara E, Buschmann-Vera J, Khodakhah K (In Prep) Mechanism underlying Caffeine-Induced motor impairment in an Episodic Neurological Disorder.

Book Chapters

1. T.D. Graves, **H.D. Snell**, K. Khodakhah, R. C. Griggs, and J.C. Jen. The Episodic Ataxias. Neurologic Channelopathies. Elsevier. 2024. Edited by Michael G. Hanna