

RAJVI AGRAVAT

Address

Institute for Neuroscience
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Education

The University of Texas at Austin, TX

Expected 2027

Doctor of Philosophy (Ph.D.), Major: Neuroscience
Advisor: Dr. Liberty Hamilton

May 2016 to 2020

New York Institute of Technology, NY

Bachelor of Sciences (B.S.), Major: Biological Sciences

Research Experience

- Hamilton Lab, The University of Texas at Austin, TX** May 2023 – Present
Graduate Research Assistant; Advisor: Dr. Liberty Hamilton
Project 1: Auditory Attention in a Gaming and Cycling Dual Task
Project 2: Neural Representation of Acoustic Features in Speech and Music in the Human Brain
- Developmental Cognitive Neuroscience Lab, The University of Texas at Austin, TX** Jan – May 2023
Rotation Student; Advisor: Dr. Jessica Church-Lang
Project: Analyzing fMRI Responses in Children During Academic and Executive Function Tasks to Inform Classroom Interventions
- Hamilton Lab, The University of Texas at Austin, TX** Aug – Dec 2022
Rotation Student; Advisor: Dr. Liberty Hamilton
Project: Auditory Attention in a Gaming and Cycling Dual Task
- Laboratory of Neurogenetics of Language, The Rockefeller University, NY** Aug 2020 – Jun 2022
Research Assistant; Advisor: Dr. Erich Jarvis
Project: Functional Representation of Larynx in the Primary Motor Cortex of Mice
- Department of Psychiatry Irving Medical Center, Columbia University, NY** Nov 2019 – Feb 2020
Research Intern; Advisor: Dr. Kristina Denisova
Project: Impact of Prenatal Medication Exposure on Neurodevelopment: Investigating Risk Factors for Autism Spectrum Disorder in High-Risk Infants
- Department of Molecular, Cellular, and Developmental Biology, Yale University, CT** Jul – Aug 2019
Research Intern; Advisor: Dr. Haig Keshishian
Project: Microbeam Laser Ablation of Motoneurons and Synapse Formation in *Drosophila*
- Department of Biological and Chemical Sciences, New York Institute of Technology, NY** Oct – May 2020
Senior Research Assistant; Advisor: Dr. Niharika Nath
Project: Antibacterial Efficacy of Organosulfur Compounds Against *Klebsiella pneumoniae*, *Escherichia coli*, and *Pseudomonas aeruginosa*
- Kokilaben Dhirubhai Ambani Hospital, India** Jun – Jul 2019
Observer; Advisor: Dr. Hrishikesh Sarkar, Dr. Yuvika Kamdar
Discipline: Neurosurgery, Neuropsychology

Research Assistant; Advisor: Dr. Eleni Nikitopoulos

Project: Behavioral and Genetic Insights into Kinship and Social Structures of Wild Monkeys

Preprints

Agravat, R. K., Desai, M, Field, A. M, Foox, G, Georges, S, Leisawitz, J, Asghar, S, Anderson, A. E, Clarke, D, Tyler-Kabara, E. C, Watrous, A. J, Weiner, H. L, Hamilton, L. S. Neural Selectivity for Speech Over Music in Pediatric Auditory Cortex Using Intracranial EEG (*in prep.*)

Vargas, C. D. M., **Agravat, R. K.**, Waidmann, E. N., Bochalis, C., Bermudez, H., Giannakopoulos, T., & Jarvis, E. D. (2024). A Functional and Non-Homuncular Representation of the Larynx in the Primary Motor Cortex of Mice, a Vocal Non-Learner. In bioRxiv (p. 2024.02.05.579004). <https://doi.org/10.1101/2024.02.05.579004> (*pre-print*)

Presentations

1. ***The University of Texas System-wide Brain Research Summit 2024***

R. Agravat, M. Desai, G. Foox, A. Field, A. Anderson, D. Clarke, E. T. Kabara, H. Weiner, L. Hamilton. Neural Encoding of Acoustic Features Across Speech and Music in the Human Brain. Austin, TX: The University of Texas System-wide Brain Research Summit, 2024.

2. ***Advances and Perspectives in Auditory Neuroscience (APAN), 2024***

R. Agravat, M. Desai, G. Foox, A. Field, A. Anderson, D. Clarke, E. T. Kabara, H. Weiner, L. Hamilton. Neural Encoding of Acoustic Features Across Speech and Music in the Human Brain. Chicago, IL: Advances and Perspectives in Auditory Neuroscience, 2024.

3. ***Society for Neuroscience (SfN), Neuroscience 2024***

R. Agravat, M. Desai, G. Foox, A. Field, A. Anderson, D. Clarke, E. T. Kabara, H. Weiner, L. Hamilton. Neural Encoding of Acoustic Features Across Speech and Music in the Human Brain. 2024 Neuroscience. Chicago, IL: Society for Neuroscience, 2024.

4. ***UT Austin CARE Research Day (UT CARE), 2024***

R. Agravat, M. Desai, G. Foox, A. Field, A. Anderson, D. Clarke, E. T. Kabara, H. Weiner, L. Hamilton. Comparing Speech and Music Encoding Models. 2024 Research Day: UT Austin Cellular and Clinical Applied Rehabilitation Research and Engineering.

5. ***Society for Neuroscience (SfN), Neuroscience 2022***

C.D.M. Vargas, **R. Agravat**, E. Jarvis. Mouse Motor Cortex Can Influence Vocal Musculature. 2022 Neuroscience. San Diego, CA: Society for Neuroscience, 2022.

6. ***Society for Neuroscience (SfN), Neuroscience 2021***

R. Agravat, C.D.M. Vargas, E. Jarvis. Connectivity and Neuroanatomy of the Orofacial Motor Cortex and Laryngeal Motor Cortex for Vocal Modulation in Mice. 2021 Neuroscience. Chicago, IL: Society for Neuroscience, 2021.

7. ***Sigma XI Virtual Science Scholars' Symposium 2020***

"Anti-bacterial effects of organosulfur compounds against gram-negative bacteria" **R. Agravat**

8. ***Symposium of University Research and Creative Expression 2019***

"Chiral Sensing of Natural Products via Chiroptical Spectroscopy" **R. Agravat**

Mentoring

1. **SAGES Women in STEM + STEM Muse Mentorship Program** **The University of Texas at Austin, TX**

Feb – Jul 2023

Mentor (Undergraduate Mentee: Melis Demiralp)

2. **Neuroscience Undergraduate Reading Program (NURP)** Jan – Apr 2023
The University of Texas at Austin, TX
Graduate Student Mentor (Undergraduate Mentee: Ai-Vy Le)
3. **Letters to a Pre-scientist** Aug 2022 – Jun 2023
STEM Pen Pal

Leadership and Activities

4. **UT Cellular to Clinical Applied Rehabilitation Research and Engineering (CARE)** Nov 2023 – Present
The University of Texas at Austin, TX
Student Board Member
5. **Institute for Neuroscience, The University of Texas at Austin, TX** Jan 2022
Student Buddy
6. **Biology Academic Conference for Emerging Scholars (BioAcCES)** Oct 2021
Volunteer Reviewer
7. **Graphic Design and Printing Shop, New York Institute of Technology, NY** Sept 2017 – May 2020
Student Manager
8. **Telangana Jagruthi International Youth Leadership Conference, India** Jan 18-21, 2019
International Delegate

Teaching

9. **Department of Biological Sciences, New York Institute of Technology, NY** Fall 2019
Undergraduate Teaching Assistant, Bioethics

Awards and Scholarships

1. **Reimagining Professional Development Award, UT Austin** Fall 2024
2. **Travel Award, Advances and Perspectives in Auditory Neuroscience (\$1000)** Fall 2024
3. **Travel Award, Society for Neuroscience (\$1500)** Fall 2024
4. **INS Travel Award, Cold Spring Harbor Lab** Summer 2024
Genetics and Neurobiology of Language (\$2900)
5. **SLHS Travel Award, Cold Spring Harbor Lab** Summer 2024
Genetics and Neurobiology of Language (\$500)
6. **Reimagining Professional Development Award, UT Austin** Fall 2023
7. **Texas SLH Foundation (TSHA) Elizabeth Wiig Research Award (\$1000)** 2024
8. **UT INS Graduate Fellowship (\$40,000 per year)** 2022-2027
9. **Dr. Barbu Kestanband Annual Scholarship (\$5000)** 2018

10. **The NYIT Scholarship** (*\$16000 per year*)

Sept 2016 – May 2020

11. **NYIT Dean's List**

Spring: 2017, 2018, 2019, 2020

12. **NYIT Presidential Honor's List**

Fall 2019

Languages and Skills

Python (Pandas, NumPy, Matplotlib), R, MATLAB, LaTeX, MS Office

Adobe Audition, Illustrator, Audacity, Freeview, Praat, Qualtrics

Fully trilingual in English, Hindi, and Gujarati

Community Service

Volunteer at **Austin Animal Shelter**, Austin, USA

Rotaract Club, Mumbai, India

Causes: Protecting the environment and supporting education

Interact Club, Mumbai, India

Causes: Cleanliness, fighting disease, and education

Children's Movement for Civic Awareness, Mysore, India

Causes: Children's education, civic awareness