

Haichao Wang

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Education

University of Illinois at Urbana Champaign

Doctor of Philosophy in Neuroscience

Master of Engineering in Bioengineering

Bachelor of Science in Biochemistry

Expected May 2029

May 2024

May 2023

Research Experience

Graduate Research

Auerbach Lab, University of Illinois at Urbana Champaign

Aug 2024 - Present

- Investigated the role of inhibitory and excitatory neurons in the auditory cortex using optogenetically modified mice by comparing behavioral and electrophysiological data.
- Assisted Auditory system development with auditory brainstem responses, behavior test, and electrophysiological recording across ages in autistic rats.

Undergraduate Research

Auerbach Lab, University of Illinois at Urbana Champaign

Nov 2021 - May 2023

- Collected the operant conditioning task data in genetically modified autistic rats.
- Conducted comparative behavioral analyses between wild-type and autistic phenotype rats.
- Assessed auditory brainstem responses in rat models of tuberous sclerosis complex and fragile X syndrome to evaluate auditory circuit and perceptual disruptions.

Work Experience

Research Assistant

Auerbach Lab, University of Illinois at Urbana Champaign

May 2023 - Aug 2024

- Orchestrated data collection processes for auditory operant conditioning tasks.
- Created and refined task designs for sound detection and discrimination studies.
- Managed laboratory inventory and was responsible for daily maintenance protocols.

Awards

Biochemistry Undergraduate Distinction

May 2023

University of Illinois at Urbana Champaign, School of Molecular and Cellular Biology

- Recognized outstanding academic standing in undergraduate study and research.

C. Ladd Prosser Outstanding Achievement Award

Apr 2023

University of Illinois at Urbana Champaign, Department of Molecular and Integrative Physiology.

- Recognized outstanding performance in conducting research in an MIP lab research.

Fellowship

Summer Undergraduate Research Fellowship

May 2022

University of Illinois at Urbana Champaign, School of Molecular and Cellular Biology.

- Collaborated with faculty, graduate students, and research staff over eight to 12 weeks during the summer. Wrote a thesis to share with faculty and sponsors at the end of the research experience.

Presentation

“Analyzing Circuit Disruption in Rat Autism Models of FXS and TSC using ABR”

Apr 2023

University of Illinois at Urbana Champaign Undergraduate Research Symposium

“Analyzing Auditory Circuit and Perceptual Disruptions in Rat Models of Autism”

Feb 2023

University of Illinois at Urbana Champaign MCB Graduate Research Retreat

Volunteering

Beckman Institute 2023 Open House Volunteer

Apr 2023

- Engaged visitors with an interactive sound reaction challenge game, enhancing their experience and understanding of the auditory system processing.