

Hao Zhu

Ph.D. Neuroscience

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Education

- 2019–2024 **Ph.D. in Cognitive Neuroscience**, New York University, New York, NY, USA
Dissertation: *Investigation of Motor-based Predictive Signals in Speech Production.*
Advisor: Xing Tian
- 2013–2017 **B.Sc. in Neural Science**, New York University / Shanghai, New York, NY, USA
Capstone: *Mental Imagery in Human Speech Production and Perception*

Academic Appointments

- 2024–present **Postdoctoral Fellow**, Brain and Mind Institute, The Chinese University of Hong Kong, Hong Kong SAR, China
Department of Linguistics and Modern Languages.
Advisors: Patrick C. M. Wong; Xiangbin (Shawn) Teng
- 2017–2019 **Research Associate**, NYU-ECNU Institute of Brain and Cognitive Science, Shanghai, China

Publications

- * Equal contribution.
- 2026 Li, X., Zheng, X., Wu, Y., **Zhu, H.**, Shu, Y., Tong, R., & Tian, X. *Motor-based prediction during preparation of hand movement modulates auditory processing in two distinct directions.* *NeuroImage*.
- 2024 Yang, F., **Zhu, H.***, Cao, X., Li, H., Fang, X., Yu, L., Li, S., Wu, Z., Li, C., Zhang, C., & Tian, X. *Impaired motor-to-sensory transformation mediates auditory hallucinations.* *PLOS Biology*.
- 2024 Yu, X., Li, J., **Zhu, H.**, Tian, X., & Lau, E. *Electrophysiological hallmarks for event relations and event roles in working memory.* *Frontiers in Neuroscience*.
- 2023 Han, Z., **Zhu, H.**, Shen, Y., & Tian, X. *Segregation and integration of sensory features by flexible temporal characteristics of independent neural representations.* *Cerebral Cortex*.
- 2022 Zheng, X., **Zhu, H.**, Li, S., & Tian, X. *The generic inhibitory function of corollary discharge in motor intention: Evidence from modulation effects of speech preparation on late components of auditory neural responses.* *eNeuro*.

- 2021 Yang, F., **Zhu, H.**, Yu, L., Lu, W., Zhang, C., & Tian, X. *Deficits in multi-scale top-down processes distorting auditory perception in schizophrenia*. *Behavioural Brain Research*.
- 2020 Li, S., **Zhu, H.***, & Tian, X. *Corollary discharge versus efference copy: Distinct neural signals in speech preparation differentially modulate auditory responses*. *Cerebral Cortex*.
- 2018 Yang, J., **Zhu, H.***, & Tian, X. *Group-level multivariate analysis in EasyEEG toolbox: Examining the temporal dynamics using topographic responses*. *Frontiers in Neuroscience*.

Presentations

- 2019 **Zhu, H.** (Presenter). *Corollary discharge versus efference copy: Distinct neural signals in speech preparation differentially modulate auditory responses*. Society for Neuroscience (SfN), Chicago, IL, USA.
- 2026 **Zhu, H.** (Presenter). *Auditory Network Integration and Neural Representations Collapse Under General Anesthesia: Evidence from Intracranial EEG and Self-Supervised Learning*. Cognitive Neuroscience Society (CNS), Vancouver, BC, Canada.

Teaching Experience

- 2021 Teaching Assistant, EEG Systems Laboratory, East China Normal University (Spring 2021)

Skills

- Technical Python; MATLAB; JavaScript; MEG/EEG/iEEG analysis; PCB & 3D printing; Web design; Computational modeling
- Languages English (fluent); Mandarin Chinese (native)

Awards and Honors

- 2026 Post-Doctoral Fellow Award, CNS 2026
- 2026 BMI Data Blitz Best Presentation Award, CUHK
- 2020 Dean's Conference Fund, NYU
- 2019 MacCracken Doctoral Fellowship, NYU
- 2019 NYU Shanghai Doctoral Fellowship, NYU Shanghai

References

- Patrick C. M. Stanley Ho Professor of Cognitive Neuroscience
Wong, Ph.D. Department of Linguistics and Modern Languages, The Chinese University of Hong Kong
Hong Kong SAR, China
- Xing Tian, Associate Professor of Neural and Cognitive Sciences
Ph.D. Department of Neural and Cognitive Sciences, New York University Shanghai
Shanghai, China
- Xiangbin Assistant Professor of Psychology
Teng, Ph.D. Department of Psychology, The Chinese University of Hong Kong
Hong Kong SAR, China