Stanford



Thomas Hainmueller, MD, PhD

Instructor, Psychiatry and Behavioral Sciences

CLINICAL OFFICE (PRIMARY)

- **Psychiatry**

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Bio

BIO

Dr. Thomas Hainmueller is a board-certified, fellowship-trained interventional psychiatrist with Stanford Health Care. He is an instructor in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine.

He diagnoses and treats a range of behavioral health conditions, including depression, anxiety disorders, obsessive-compulsive disorder (OCD), and disorders at the intersection of neurology and psychiatry.

Dr. Hainmueller is an expert in various neuromodulation treatments, including deep brain stimulation (DBS), transcranial magnetic stimulation (TMS), electroconvulsive therapy (ECT), and vagal nerve stimulation (VNS). He also specializes in rapid-acting medication approaches, such as ketamine, as well as traditional psychiatric medications. He partners with patients to develop individualized treatment plans that focus on their unique needs and preferences.

Dr. Hainmueller's approach is informed by his background in circuit neuroscience research. This branch of neuroscience studies how the brain uses networks of neurons and circuits to process information. Building on a background in neuronal circuits supporting emotions and memory, he investigates the effects of DBS and other neuromodulation treatments on mood and anxiety disorders. His active research projects span preclinical mechanistic studies of neuronal circuit function to innovative clinical protocols for DBS.

His research findings have been published in Nature, Science, Neuron, and other peer-reviewed journals. Dr. Hainmueller has presented to his peers at international and national meetings, including the annual meetings of the American College of Neuropsychopharmacology and Society for Neuroscience.

He serves as an invited ad hoc reviewer for several editorial boards, including Science, Proceedings of the National Academy of Sciences, the American Journal of Psychiatry, Nature Communications, and the Journal of Neuroscience.

Dr. Hainmueller is a member of the American Psychiatric Association and the Society for Neuroscience.

CLINICAL FOCUS

- Psychiatry

ACADEMIC APPOINTMENTS

- Instructor, Psychiatry and Behavioral Sciences

HONORS AND AWARDS

- Young Investigator Grant, Brain and Behavior Research Foundation
- Mentored Clinical Scientist Research Career Development Award, National Institute for Mental Health
- MD-Thesis Scholarship, Else Kröner Fresenius Foundation, Albert Ludwig University of Freiburg, Freiburg, Germany
- MD/PhD Scholarship, Spemann Graduate School of Biology and Medicine, Albert Ludwig University of Freiburg, Freiburg, Germany
- Outstanding Resident Award, National Institute of Mental Health
- Resident Research Award, New York County Psychiatric Society
- Travel Award, American College of Neuropsychopharmacology

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Society for Neuroscience (2015 - present)
- Member, American Psychiatric Association (2023 - present)

PROFESSIONAL EDUCATION

- Board Certification: Psychiatry, American Board of Psychiatry and Neurology (2025)
- Fellowship: Stanford University Psychiatry and Behavioral Sciences (2026) CA
- Residency: NYU Grossman School of Medicine Internal Medicine Residency (2025) NY
- Medical Education: Albert Ludwigs Universitaet Freiburg (2017) Germany

Publications

PUBLICATIONS

- **Dentate gyrus interneurons modulate winner-take-all network dynamics in freely behaving mice.** *Neuron*
  Hainmueller, T., Heynold, E. A., Paleologos, N., Raikov, I. G., Soltesz, I., Buzsáki, G.
  2026

- **PARADOXICAL NETWORK-MEDIATED EXCITATION DURING OPTOGENETIC STIMULATION OF INHIBITORY INTERNEURONS IN THE MOUSE DENTATE GYRUS**
  Hainmueller, T., Heyhold, A., Paleologos, N., Buzsaki, G.
  SPRINGERNATURE.2026

- **Calcium-permeable AMPA receptors govern PV neuron feature selectivity** *NATURE*
  Hong, I., Kim, J., Hainmueller, T., Kim, D., Keijser, J., Johnson, R. C., Park, S., Limjunyawong, N., Yang, Z., Cheon, D., Hwang, T., Agarwal, A., Cholvin, et al
  2024; 635 (8038): 398-+

- **Perpetual step-like restructuring of hippocampal circuit dynamics.** *Cell reports*
  Zheng, Z. S., Huszár, R., Hainmueller, T., Bartos, M., Williams, A. H., Buzsáki, G.
  2024; 43 (9): 114702

- **Selection of experience for memory by hippocampal sharp wave ripples** *SCIENCE*
  Yang, W., Sun, C., Huszar, R., Hainmueller, T., Kiselev, K., Buzsaki, G.

2024; 383 (6690): 1478-1483

- **Subfield-specific interneuron circuits govern the hippocampal response to novelty in male mice** *NATURE COMMUNICATIONS*
  Hainmueller, T., Cazala, A., Huang, L., Bartos, M.
  2024; 15 (1): 714
- **Case report: Anti N-methyl-D-aspartate autoimmune encephalitis following a mildly symptomatic COVID-19 infection in an adolescent male.** *Frontiers in psychiatry*
  Hainmueller, T., Lewis, L., Furer, T.
  2023; 14: 1270572
- **The hippocampus converts dynamic entorhinal inputs into stable spatial maps** *NEURON*
  Cholvin, T., Hainmueller, T., Bartos, M.
  2021; 109 (19): 3135-+
- **Dentate gyrus circuits for encoding, retrieval and discrimination of episodic memories** *NATURE REVIEWS NEUROSCIENCE*
  Hainmueller, T., Bartos, M.
  2020; 21 (3): 153-168
- **Parallel emergence of stable and dynamic memory engrams in the hippocampus** *NATURE*
  Hainmueller, T., Bartos, M.
  2018; 558 (7709): 292-+
- **Joint CP-AMPA and group I mGlu receptor activation is required for synaptic plasticity in dentate gyrus fast-spiking interneurons** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Hainmueller, T., Krieglstein, K., Kulik, A., Bartos, M.
  2014; 111 (36): 13211-13216