



Title-42 Staff Scientist
Section on Critical Brain Dynamics
Laboratory of Systems Neuroscience
National Institute of Mental Health
National Institutes of Health
Department of Health and Human Services
Bethesda, MD

The National Institute of Mental Health (NIMH), a major research component of the National Institutes of Health (NIH), and the Department of Health and Human Services (DHHS) is seeking exceptional candidates for a **Staff Scientist** position in the Intramural Research Program (IRP), Section on Critical Brain Dynamics (CBD) in the Laboratory of Systems Neuroscience. CBD conducts research studies on the principles of cortical dynamics, specifically on the organization of neuronal population activity in the context of sensory processing and cortical coding. CBD studies integrate a wide range of imaging and electrophysiological recording technologies, including 2-photon imaging (2PI), high-density microelectrode arrays (MEA), and patch-clamp electrophysiology. CBD recently implemented an all-optical approach using advanced spatial-light modulation and 2PI to study cortical population dynamics in the behaving transgenic mouse. Mathematical approaches from statistical physics and statistical mechanics are commonly used to analyze high-dimensional data sets.

Qualifications

Candidates must have a Ph.D. in neuroscience, physics, or a related discipline; postdoc experience in 2PI, or electrophysiology, and in the application of high-dimensional data analyses, and familiarity with all-optical interrogation. Proficiency with major 2PI neuroimaging packages (e.g., Suite2P, MLSpikes), strong programming skills (e.g., Matlab, Python), and experience with machine-learning methods and related tools, high-performance computing clusters, and data/code sharing platforms, are required.

Position Duties

The Staff Scientist's primary responsibilities will include performing independent research related to the study of cortical function in the context of critical dynamics. In addition, the individual will support and train lab members, develop analysis pipelines, establish and conduct collaborative research, attend and present at national and international meetings, and assist in writing manuscripts. Salary will be commensurate with education and experience.

How to Apply

Applicants should send curriculum vitae and three letters of recommendation to Dr. Dietmar Plenz, NIMH, PNRC, Bldg. 35-3A1000, Bethesda, MD 20892-1366, 301-402-2249, plenzd@mail.nih.gov.

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The NIH is dedicated to building a diverse community in its training and employment programs and encourages the application and nomination of qualified women, minorities, and individuals with disabilities.