



## STANFORD UNIVERSITY SCHOOL OF MEDICINE

### POSTDOCTORAL POSITION IN COMPUTATIONAL NEUROIMAGING FOR ADVANCING A NEW MODEL OF PSYCHIATRIC DISORDER

#### JOB DESCRIPTION

We are seeking a well-trained postdoctoral scientist who is motivated to develop and apply expertise in using computational approaches with rich functional neuroimaging data in order to develop brain circuit-based models of mood and related disorders. The position will require experience in quantification of functional neuroimaging data and in data-driven, machine-learning techniques, such as cluster analysis algorithms. This position would have the opportunity to jump immediately into the analysis of large and deep datasets, and to drive publications from the outcomes. These datasets come from the existing PanLab databank, as well as from the ongoing study funding this position. Because the data are high-dimensional and span multiple levels of measurement, there are opportunities to think creatively about new approaches to fusing functional neuroimaging data with behavioral data and symptom phenotypes. In the same people, we acquire functional neuroimaging under multiple resting and task conditions, behavioral data from cognitive testing, responses within virtual reality environments, self-reported symptoms and traits, and smartphone passive sampling. Measurements are also repeated multiple times over the period of the ongoing study. A deep knowledge of neuroimaging, and experience in functional neuroimaging analysis will be essential, as is a deep knowledge of computational approaches. Familiarity with psychological concepts and/or experience with human subject data would also be desirable.

This position is available as part of a study funded under the NIH Common's fund.

It will be based at Stanford, within the William's PanLab, and work within an excellent and inter-disciplinary team of faculty investigators, postdocs and research coordinators.

#### REQUIRED SKILLS AND EXPERIENCE

Ph.D. or M.D./Ph.D. in computational science, cognitive neuroscience/neuroimaging or related fields.

1. Profound experience in statistical analysis and computational approaches.
2. High level experience with functional magnetic resonance imaging.
3. A demonstrated capacity to drive first author publications.
4. A clear motivation to pursue research in computational neuropsychiatry and the related fields of affective neuroscience and neuroimaging applied in psychiatry.
5. Self-motivated with a preference for working within an inter-disciplinary, collaborative environment

#### ABOUT THE PRINCIPAL INVESTIGATORS

The supervising PI for this position is Dr. Leanne Williams. The co-PI is Dr. Jun Ma, University of Illinois-Chicago (UIC).

For more information about Dr. Williams, see [her Stanford page here](#).

#### APPLICATIONS

Applications with a cover letter addressing requirements, a resume and at least three referees to [engagestudy@stanford.edu](mailto:engagestudy@stanford.edu).

The position is open until filled. However, because of funding timelines and project milestones we are seeking to fill this position by September 2017