

## PostDoc in Computational Psychiatry at Brown University

Applications are invited for an NIH funded postdoctoral position in Computational Psychiatry at the [Carney Institute for Brain Science](#) at Brown University with [Prof. Frederike Petzschner](#) in collaboration with [Prof. Michael Frank](#), [Prof. Thomas Serre](#) and [Prof. Steven Rasmussen](#).

### What will you be doing?

You will undertake high-quality, high-impact research in the area of computational psychiatry at the new [Center for Computational Brain Science](#) at Brown University.

Your work will focus on the development and optimization of behavioral tasks and computational models aimed at characterizing perception and learning, in both the mentally well and unwell (e.g., investigating their interplay with mood & (psycho)somatic symptom dynamics). The goal is to develop novel markers (i.e., individual characteristics of time perception, interoception and reward learning) and interventions based on computational brain research that will be leveraged in concrete clinical applications.

You will be supported by a team of professionals — software engineers, designers and scientists — to deploy these tests on our own smartphone application, which includes physiological measurements. The project is highly interdisciplinary and takes a new approach to combining basic computational research with translational technology. Thus, we welcome diverse perspectives and will encourage you to contribute your own ideas throughout all aspects of research and application development.

### What is special about this position?

In addition to performing traditional postdoctoral duties, you will become an innovator in the Brainstorm program at Carney. The program is unique in that it aims at merging the best of both worlds: A strong academic basis for new discovery with the support and infrastructure typical in industrial settings, including seed funds, team support (see above), business training and support to build spin-off companies. It thus serves as a launching pad for both researchers who wish to

pursue classical academic careers as well as those who are entrepreneurial and would like to explore other paths.

As an innovator, you will also be part of an interdisciplinary team consisting of PIs and PostDocs from a number of fields. Your role will thus allow you to also contribute to other application-oriented brain science projects across research laboratories.

## Interested in applying?

### What we are looking for:

You need to hold a PhD in neuroscience, psychology, cognitive science or a quantitative field (e.g., computer science, engineering, physics) (if not already held, the degree must have been obtained by the agreed start date). You also need to have expertise in computational methods, either in the study of learning (e.g., Bayesian models, reinforcement learning) and/or perception (e.g., psychophysics), as well as proficiency in programming (e.g., Matlab, Python). Additional experience with machine learning techniques, EEG, commercialization, and/or clinical populations is a plus.

We are embarking on a new line of research that will benefit from a variety of viewpoints and different domain knowledge across multiple levels of analysis, including basic perceptual processing, mood and emotions, decision-making and physiology. As such, if your past work is not directly related to our lab's core research on Computational Psychiatry or if you have been working primarily with animal models, you might still be a great fit for this position.

### Additional Requirements:

Please note, to comply with NIH rules, fellows must be US citizens or have permanent resident status.

### Timeline:

The initial appointment is for 2 years.

Start date: 1st of July 2021

### Ready to apply?

Please submit a detailed scientific curriculum vitae, which may include any mentoring, outreach, or policy experiences, a statement of research interests and goals, & three contacts for references to Frederike Petzschnier, PhD ([frederike\\_petzschner@brown.edu](mailto:frederike_petzschner@brown.edu)).