



BROWN
Alpert Medical School

**Clinical Psychology Training Programs at Brown: A Consortium of the
Providence VA Medical Center, Lifespan, and Care New England
Postdoctoral Fellowship Training Program
Postdoctoral Fellowship Description: RESEARCH FOCUS**

Title: Post-Doctoral Fellowship in Clinical Neuroscience

APA-accredited: ___ YES ___ X ___ NO

Site: Brown University

Supervisor(s): Jennifer Barredo, Ph.D.

The goal of this fellowship is to provide training in clinical neuroimaging. The Department of Psychiatry and Human Behavior is seeking an outstanding candidate with a strong background in neuroscience, psychology, or cognitive science. This position is ideal for scientists seeking to transition from basic to clinical neuroscience. Training goals will be met by the fellow's engagement in clinical neuroimaging research investigating a broad range of psychological disorders, psychiatric illnesses, and treatment modalities. The fellowship is based in the newly founded Clinical Neuroimaging Research Program, directed by Jennifer Barredo, Ph.D. in the Department of Psychiatry and Human Behavior (DPHB). The fellowship will be physically housed at Butler Hospital and funded through Brown. Under Dr. Barredo's mentorship, the fellow will assist with the design and implementation of research initiated by faculty affiliated with the DPHB and Brown University's Carney Institute. The program's growing portfolio includes research centered on suicide and self-harm, impulsivity and sensation seeking, risk taking in youths, and mechanisms of treatment response. The program is also affiliated with Brown University's COBRE Center for Nervous System Function, Butler Hospital's COBRE Center for Neuromodulation, and the Center *for* Neurorestoration and Neurotechnology at Providence VA Medical Center. This exceptionally collaborative environment provides a wealth of opportunities for pilot funding that can help successful fellows transition to a subsequent faculty appointment and/or program leadership role.

Eligibility

Applicants with a Ph.D. or equivalent degree in one of the brain sciences (e.g., neuroscience, cognitive science, psychology) are encouraged to apply. Applications from experienced postdoctoral researchers are also welcome. Prior experience with human neuroimaging (e.g., task fMRI, rsfMRI, MRI, DTI), proficiency in a relevant programming language (e.g., Python, MATLAB), and experience using shells and command line tools are required. Fellows should also have experience using one or more neuroimaging analysis (e.g., SPM, FSL, FreeSurfer, FMRIPrep) and experimental presentation (PsychoPy, Psychtoolbox, Eprime) software packages. A strong background in either computational modeling or systems management is not required, but desirable. Successful candidates will have: 1) previous neuroimaging research published in peer-reviewed journals, 2) the ability to independently develop research questions, and 3) strong interpersonal skills. In addition, the eligible candidate will have no contraindications to entering Zone 4 of a 3T MRI scanner.

Fellowship Aims

1. Provide training in clinical neuroimaging in the context of mental health research
2. Enable refinement of neuroimaging skills and development of expertise in computational methodologies
3. Promote development of scientific program management skills
4. Develop competency in scientific communication, grant preparation and submission

Fellowship Timeline

Start date will be determined on an individual basis. Anticipated start is June 2022; however, there may be flexibility if a suitable candidate is identified before that date. The duration of the fellowship is 1-3 years contingent upon satisfactory progress in each of the previous years. Fellows will begin developing their own pilot research project during year one and will apply for internal or external funding during the fellowship's second year. The fellowship may be extended to year three for candidates receiving competitive evaluations on an earlier funding submission. In addition to external funding mechanisms (e.g., K or equivalent awards), candidates are invited to compete for DPHB and Carney Institute internal funding opportunities for postdoctoral fellows who qualify for mentored research support:

<https://www.brown.edu/carney/zimmerman-fund-scientific-innovation-awards-brain-science>
<https://www.brown.edu/carney/cobre-center-nervous-system-function-pilot-project-applications>
<https://www.butler.org/services/cobre/>
https://www.providence.va.gov/research/CfNN/CfNN_Seed_Funding.asp

Research Activities (90%)

Ninety percent of the fellow's time will be devoted to research, academic/didactic, and professional training experiences. The fellow will participate in the following activities:

- Core service (scanner operation, implementation of devices or procedures at MRI facilities) (15%)
- Mentorship and training junior research staff (10%)
- Development of neuroimaging workshops (5%)
- Development, implementation of analytic pipelines for fMRI, structural, and diffusion MRI (25%)
- Manuscript preparation and submission and conference attendance (20%)
- Development of independent research and grant applications (15%)

Clinical Activity Plan

Clinical activities will not be offered as part of this fellowship experience.

Path toward licensure: YES _____ NO X _____

Didactics Plan (10%)

Post-Doctoral Seminars: The fellow will be required to participate in the post-doctoral research seminar series through the Brown University Postdoctoral Training Program.

Didactics:

DPHB Academic Grand Rounds (monthly)

Postdoctoral Fellowship Training Program Core Seminars (monthly, year 1)

Participation in lab meetings (weekly)

Supervision and Evaluation

Supervision in the form of one-hour individual meetings with Dr. Barredo will occur 1-2 times per week. The Fellow will develop individualized training goals and objectives in collaboration with Dr. Barredo at the beginning of the fellowship year. Every 6 months for the duration of the fellowship, the fellow and Dr. Barredo will provide formal evaluations, and evaluations of the program relative to the goals and learning objectives of the fellowship.

Resource Requirements

Fellow will be provided with the following resources:

- Shared office space
- A personal desktop computer and project specific software
- Internet access
- Telephone
- Conference travel support

Reporting and approval

This fellowship will be part of the Research Fellowship Program (RFP). The position has been discussed and approved by the Training Committee.

Associate Director, Research Fellowship Program

Director, Postdoctoral Fellowship Training Program