Job Title	Postdoctoral Fellow (Imaging focus)
PVN ID	QC-2309-005879
Category	Research
Location	QUEENS COLLEGE
Department	Psychology
Status	Full Time
Annual Salary	$56,484.00 - $65,000.00
Hour(s) a Week	35
Closing Date	Nov 27, 2023 (Or Until Filled)

General Description

CUNY Queens College is currently accepting applications for two full-time, 2 to 5 years post-doctoral research scientist (contingent upon satisfactory performance) interested in the study of neurodevelopmental trajectory, human brain function and the characterization of brain development and maturation, as well as underlying biophysiological mechanisms in a birth cohort exposed to climate related disaster in utero. The overarching goal of this advanced training positions include 1) the delineation of anxiety and reactive aggression and related conditions in terms of behavioral epigenetics and computational neuroscience, 2) charting neuro-developmental trajectories of behavioral, cognitive, and psychopathological profiles, and 3) the identification of objective imaging-, cognitive- phenotypic-based markers of psychopathology, which will eventually serve to predict later outcome and/or guide clinicians in the selection of treatments.

The candidate will be expected to take a multidisciplinary approach to their work, drawing from a broad range of disciplines (e.g., clinical psychology, epidemiology, cognitive neuroscience, computer science, engineering, mathematics, neuropsychology). In order to facilitate this process, they will work as part of a multidisciplinary team collecting, analyzing, and integrating findings obtained from an ongoing NIH-funded longitudinal study of school-aged children exposed to Superstorm Sandy in utero. The project includes a variety of approaches: 1) scored biological and developmental data from the cohort, 2) neuroimaging of resting-state and task-based functional MRI, diffusion tensor imaging, cortical thickness, and volumetrics, and 3) pilot work on big data currently available in the scientific community. These contexts offer some protected time for analyses, as well as opportunities for study design and hands on data collection of typical awake MRI, phenotypic behavioral and cognitive observational and quantitative data, as well as initial hands-on training on grant writing.

The study has collaborations interdisciplinary components with CUNY Advance Sciences Research Center (ASRC), Child Mind Institute, Autism/ADHD center, CUNY City College in NY, and the Brain Institute at Icahn School of Medicine at Mount Sinai with the Queens College, CUNY overseeing the overall study.

Reporting to the overall PI, this is a full-time position located in two sites, Queens College, CUNY and CUNY ASRC.

Other Duties

Responsibilities:

- Work to supervise various teams working on the clinical and neurobehavioral assessments and brain scans.
- Work to identify objective markers of pathology in human brain function, development, and maturation using a combination of brain imaging and related approaches.
- Work in a multidisciplinary environment, drawing from a broad range of disciplines and imaging approaches.
- Participate in some aspects of data collection and supervise the quality of the data collection.
- Conduct data analysis.
- Supervise graduate & undergraduate research assistants.
- Manuscript writing, and assistance in grant writing and progress.

Qualifications

Qualifications:

- Completed Ph.D. in cognitive or clinical neuroscience, developmental epidemiology, biomedical engineering, computer science, clinical neuroscience, clinical psychology, mathematics, neuropsychology, bioinformatics, or related fields. ABD will be considered.
- Some programming experience in one or more languages (e.g., Python, C/C++, Matlab or similar platforms) preferred. The candidate must be willing to develop expertise in Python during the first year of the fellowship.
- A passion for uncovering underlying mechanisms.
- Interests in the effects of climate change on neurodevelopment in a human population.

Preferred Qualifications:

- Prior experience working with advanced analytic methods and strong computational skills.
- Competency in applying statistical analysis to scientific results.
- Experiences in working with financial and racial minorities.
- Competency in Spanish is a plus.