

Post-Doctoral Fellowship examining the neuroimmunologic impact of HIV and substance misuse at the Gaskill Lab in the Department of Pharmacology and Physiology at Drexel University in Philadelphia, PA, USA.

Successful candidates will join the research laboratory of Dr. Peter J. Gaskill in the Department of Pharmacology and Physiology. The Gaskill lab examines the effects of neurotransmitters and neurotransmitter modulating substances on immune function, with a particular interest in the neurotransmitter dopamine. These studies primarily focusing on the role of myeloid lineage cells in HIV infection and inflammation. Dr. Gaskill's research uses a combination of molecular and cell biology alongside high-content image analysis to evaluate dopamine and dopaminergic-drug induced changes in HIV infection dynamics and a variety of changes in myeloid cell activity, including changes in NF-kB activity or inflammasome activity, changes in cell morphology, alterations in phagocytic activity and the production of cytokines or reactive oxygen species. These studies use a number of distinct myeloid systems, including various cell lines, primary human macrophages derived from the blood as well as distinct tissues, and inducible-pluripotent stem cell derived macrophages and microglia. The Gaskill lab prides itself on thorough, careful research and the end goal of these projects is a comprehensive understanding of the pathways and mechanism(s) involved in the processes being examined.

The post-doctoral fellow will be expected to know or learn these techniques and use them to run independent projects within the labs' areas of focus. The specific projects will vary depending on the particular interests of the post-doc as well as the specific needs of the lab, but Dr. Gaskill and the post-doc will work together to develop projects that help advance the post-doc's career. These projects will most likely involve the use of iPSC to simulate brain and other organ specific myeloid cells, and the use of high-content image analysis to evaluate changes in cellular function and/or HIV infection dynamics. This individual will also be expected to expand and develop these areas of interest in the process of defining a unique research niche that they will build on to develop their own research program once they move on from the lab. In addition to their research, the post-doctoral fellow will be expected to work with other lab members, helping them learn new techniques, experimental design, and analysis, and supporting the lab by actively working to maintain a healthy, safe, and productive working environment. The post-doc will also disseminate their data by attending conferences and submitting data papers and reviews and will be expected to submit fellowships and actively work towards the career objectives defined by the post-doc and Dr. Gaskill in their regular meetings.

QUALIFICATIONS

Required Education: PhD

Required Major / Concentration: Biology, Biochemistry, Chemistry, Neuroscience, Virology

Required Years of Experience: 5 + (including PhD work)

Other Requirements: Proactive attitude, strong interpersonal skills, able to respond well to constructive criticism, strong interest in neuroimmunology, familiarity with molecular and cell biology techniques, willing to work with and around primary human blood and HIV, working knowledge of statistics, proficiency with Word, Excel, PowerPoint, GraphPad

Additional Qualifications (preferred but not required): Cell culture of myeloid lineage cells and/or human primary cells, expertise in assays examining dopamine in immune cells, experience in iPSC differentiation, experience in microscopy and image analysis programs (high content experience ideal), familiarity / experience in bioinformatic analysis of large scale data sets, familiarity / experience in Python

If interested please apply at the Drexel human resources page for this application, which is found at this link

<https://secure.dc4.pageuppeople.com/apply/820/gateway/Default.aspx?c=apply&sJobIDs=503458&SourceTypeID=796&sLanguage=en-us>