

## Postdoctoral Neuroscientist Positions, Division of Pre-Clinical Innovation

NCATS' Division of Pre-Clinical Innovation seeks applications from qualified candidates – with experience in physiology and pathology of the nervous system – to fill postdoctoral neuroscience positions in the Division's 3-D Bioprinting Group in Rockville, Maryland. The selected candidates will help establish a portfolio of functional, neuronal 3-D tissue models as human-based, tissue-in-a-well screening platforms for the development of therapeutics for pain, addiction or overdose. Ideal candidates must have expertise in neuroscience, electrophysiology techniques, *in vitro* neuronal models, and neuronal stem cells. Experience using the techniques necessary to develop cell-based functional central nervous system and peripheral nervous system assays for drug testing using tissues – including extracellular recording (field potential or multi-unit), electrophysiology analysis, calcium imaging, and neural stem cell and primary cell culture – is required. Experience in the physiology and pathology of pain, addiction or overdose also is required.

The candidates will work as part of a multidisciplinary team of innovative scientists, using cutting-edge biofabrication methodologies – including 3-D bioprinting, quantitative cell imaging, histology, assay development, drug screening, data science and other cutting-edge “omics” technologies – to develop tissue-in-a-well assays for drug discovery and development. Candidates should be a self-motivated, driven, thorough and careful experimentalists with the ability to multitask, think independently and work in a highly creative, interactive and fast-paced environment. They also will be expected to work independently as well-trained problem solvers in 3-D tissue biofabrication, including architectural and physiological validation of the tissues. Effective communication and presentation skills are required. The incumbents will keep accurate and complete records of all scientific experiments according to established procedures and ensure that these records and raw data are properly retained. They will draft technical reports, manuscripts and patent applications, and present work to internal and external collaborators as needed. The incumbents also must be eligible to work in the U.S. with whomever NCATS collaborates worldwide.

Each applicant to this postdoctoral position must possess a Ph.D. in neuroscience, cell biology, molecular biology, pharmacology, pathology or a related discipline with relevant experience in neuroscience. Experience in techniques such as histology, quantitative analysis of microscopy images, and time-lapse microscopy is highly desired. Additional experience in physiology and pathology of pain, addiction or overdose, optogenetics microscopy, or tissue engineering or bioprinting techniques will be considered favorably.

Interested individuals should send a cover letter, a curriculum vitae with a bibliography, a one-page research proposal/plan for a 3-D bioprinted tissue model for pain, addiction, overdose or blood-brain barrier to be used for compound testing, and the contact information of at least three references to [NCATSbioprinting@mail.nih.gov](mailto:NCATSbioprinting@mail.nih.gov).

Review of applications will begin immediately and continue until this position is filled.