

Postdoctoral Bioengineering Positions, Division of Pre-Clinical Innovation

NCATS' Division of Pre-Clinical Innovation seeks applications from qualified candidates to fill postdoctoral bioengineering positions in the Division's 3-D Bioprinting Group in Rockville, Maryland. The selected candidates must have expertise in bioengineering, biofabrication and biomaterials to 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. Applicants with additional expertise in 3-D bioprinting, cell imaging and use of human primary or induced pluripotent stem cell-derived cells will receive preferential consideration.

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 experimentalist 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 bioengineering, cell biology, molecular biology, pharmacology, pathology or a related discipline relevant to 3-D tissue models. Candidates with previous experience developing and characterizing complex 3-D cell-based functional assays – including work in areas such as organoids or biofabricated tissues, biomaterials, microfluidics systems, cell imaging, histology and engineering of cells with biosensors – as well as experience using bioprinting techniques will be considered favorably. Candidates with a strong background in bioengineering of living human tissue models and 3-D bioprinting are encouraged to apply.

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.

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