

Postdoctoral Fellowship —CAR T-cell Neurotoxicity

A postdoctoral fellowship opportunity is currently available in the Division of Neurotoxicology, National Center for Toxicological Research (NCTR) of the U.S. Food and Drug Administration (FDA) located on the Jefferson Laboratories Campus in Jefferson, Arkansas – just outside of Little Rock.

The successful candidate will participate in a multi-disciplinary project to develop and characterize a human-relevant model to evaluate neurotoxicity induced by chimeric antigen receptor (CAR) T-cells. The project aims to evaluate if neurological adverse events observed after CD19 CAR T-cell therapies can be replicated in an in vitro setting, using new alternative methods. The model uses patient-derived induced pluripotent stem cells (hiPSCs) and microphysiological systems (organ chips) to recreate the pediatric and adult neurovascular unit.

The candidate will collaborate with FDA investigators at NCTR and other FDA centers. During the project, the candidate will be actively encouraged to present the research at internal and external meetings and publish the findings in peer-reviewed journals.

The qualified candidate should be currently pursuing or have received a doctoral degree in one of the relevant fields (e.g., neuroscience, toxicology/genetic toxicology, cellular and molecular biology, biomedical science). The degree must have been received within five-years of the appointment start date.

Preferred skills:

- Thorough knowledge in the areas of cellular and molecular biology, neuroscience, and toxicology.
- Thorough knowledge of CAR T-cell therapies.
- Thorough knowledge in blood-brain barrier/neurovascular unit physiology.
- Prior experience in hiPSCs culture, differentiation, and characterization.
- Prior experience with the use of microphysiological systems or organ chips.
- Previous experience in cellular and molecular biology methods (cell culture, western blot, PCR, ELISA, immunocytochemistry).
- Previous experience in confocal microscopy.
- Candidates should be highly motivated with demonstrated excellent written and oral communications skills and the ability to work as part of a multidisciplinary team.

Candidates must have lived in the United States for at least 36 out of the past 60 months. (36 months do not have to be consecutive.)

For more information contact the Principal Investigator:

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