

Post-Doctoral Scientist Position Available in Translational Neuroscience

**Institute for Genomic Medicine (IGM):
Hester Laboratory**

**Abigail Wexner Research Institute
Nationwide Children's Hospital**

**The Ohio State University
Columbus, OH, United States**

Hester Lab Research Interests: Translational Neuroscience, Human iPS Cells, Brain Organoids, 3D Bioprinting, 3D Imaging, Multi-Electrode Array Electrophysiology, Neural Circuitry Modeling, OMICs Technologies, Genome Editing, Bioengineering, Molecular Mechanisms of Epilepsy, Brain Injury, and Autism.



The Hester Lab is accepting applications for a Post-Doctoral Scientist (applicants either with a PhD or MD from backgrounds either in Neuroscience, Biomedical or Tissue Engineering, or Molecular, Cellular, and Developmental Biology will be considered, additional backgrounds in Genomics/Bioinformatics/Statistics is a plus).

Our team is part of the Institute for Genomic Medicine (IGM) at the Abigail Wexner Research Institute at Nationwide Children's Hospital, which is at the forefront of using genomic sequencing in the clinical setting to predict best health outcomes for patients and is one of the driving forces shaping precision medicine. Led by a team of internationally-renowned genomic medicine scientists, IGM is housed in the campus' newest research building, spanning ~25,000 square feet of laboratory and office space in a highly interactive setting.

Our passion and vision is to rapidly translate research discoveries into lasting treatment options for pediatric patients afflicted with neurological disease.

We utilize a multidisciplinary approach in our research that encompasses genomic medicine, neuroscience, stem cell biology, biochemistry and molecular genetics to investigate the dynamic nature of the developing mammalian brain both in the context of disease and injury and under normal physiology. There have been major advances in identifying the genetic basis of neurodevelopmental disorders such as autism and pediatric epilepsy. However, a critical knowledge gap still remains, how do genetic mutations contribute to the molecular mechanisms involved in these complex disorders?

To address this knowledge gap, our team is leveraging several key technological tools that include the use of: human brain organoid models, genome editing tools, OMICs technologies, and the use of novel transgenic mouse models to move the field forward in autism and pediatric epilepsy research. We are using these innovative tools as a platform to test our hypotheses for understanding how gene mutations contribute to the molecular mechanisms that drive the pathogenesis of these neurological disorders.

The long-term goal of our research program is to identify molecular mechanisms of neurodevelopmental disorders that will allow us to develop targeted therapies to improve health outcomes and quality of life for pediatric patients. A central area of research emphasis is to develop advanced high content imaging platforms to analyze complex deep phenotypes in diseased human cerebral organoids for screening and identification of potential therapeutic candidates.

Ultimately, the passion and vision of the Hester Lab is to rapidly translate research discoveries into lasting treatment options for pediatric patients afflicted with neurological disease. If you share this passion and vision, please send your CV, a cover letter, names of 3 references with contact information, and a one page statement of your research interests to Mark.Hester@nationwidechildrens.org

Please include "Translational Neuroscience Postdoc Position" in the subject line. Competitive applications will be evaluated when they are received and the position will remain open until the position is filled.

Qualifications

What Are We Looking For?

- Must be a team player with strong communication and organizational skills.
- PhD or MD in Biomedical Sciences or related discipline.
- Performs advanced molecular and biological experiments: designs, plans, executes, interprets data, and generates figures.
- Assist with supervision and training of graduate students and junior scientists.
- Author publications in appropriate refereed scientific journals.
- Present findings at local and national professional meetings.
- Work towards establishing research independence by preparing proposals for external grant funding.

Why Nationwide Children's Hospital?

The moment you walk through our doors, you can feel it. When you meet one of our patient families, you believe it. And when you talk with anyone who works here, you want to be part of it, too. Welcome to Nationwide Children's Hospital, where ***Passion Meets Purpose***.

Here, ***Everyone Matters***. We're 12,000 strong. And it takes every single one of us to improve the lives of the kids we care for, and the kids from around the world we'll never even meet. Kids who are living healthier, fuller lives because of the knowledge we share. We know it takes ***a Collaborative Culture*** to deliver on our promise to provide the very best, innovative care and to foster new discoveries, made possible by the most groundbreaking research. Anywhere.

Ask anyone with a Nationwide Children's badge what they do for a living. They'll tell you it's ***More Than a Job***. It's a calling. It's a chance to use and grow your talent to make an impact that truly matters. Because here, we exist simply to help children everywhere. Nationwide Children's Hospital. ***A Place to Be Proud***.