



Boston Children's Hospital



HARVARD
MEDICAL SCHOOL

Post-Doctoral Research Fellowship in the Ebrahimi-Fakhari Lab
Department of Neurology/Neurobiology, Boston Children's Hospital, Harvard Medical School

Research Focus: Cell Biology of Hereditary Spastic Paraplegia - Functional Genomics & Drug Discovery

Description: In the Ebrahimi-Fakhari lab, our mission is to use cutting-edge research techniques to understand and treat rare neurological disorders in children. Our goal is to build a translational research platform that can take discoveries from the bedside to the bench and back. Through our commitment to collaboration, mentorship, and scientific excellence, we strive to make a lasting impact on the patients we serve. We are recruiting Post-Doctoral Research Fellows to expand our work on high-throughput platforms for functional genomics screens and drug discovery in cellular and *in vivo* models of hereditary spastic paraplegia.

We are looking for talented trainees who are passionate about disease-oriented translational research. We are particularly interested in colleagues with a background in molecular biology, cell biology, neuroscience, gene editing and/or work with transgenic mouse lines.

Recent work from our group: [Pubmed](#)

- Saffari et al. High-Content Small Molecule Screen Identifies a Novel Compound That Restores AP-4-Dependent Protein Trafficking in Neuronal Models of AP-4-Associated Hereditary Spastic Paraplegia. Res Sq [Preprint]. 2023 <https://pubmed.ncbi.nlm.nih.gov/37398196/>
- Chen et al. Intrathecal AAV9/AP4M1 gene therapy for hereditary spastic paraplegia 50 shows safety and efficacy in preclinical studies. J Clin Invest. 2023 <https://pubmed.ncbi.nlm.nih.gov/36951961/>
- Davies et al.. AP-4-mediated axonal transport controls endocannabinoid production in neurons. Nat Commun. 2022 <https://pubmed.ncbi.nlm.nih.gov/35217685/>

Qualifications:

- Ph.D. or M.D./Ph.D. in Neurobiology, Cell Biology, Genomics or a related field.
- Proficiency in data analysis.
- Excellent written and verbal communication skills.
- Demonstrated ability to work independently and collaboratively within a team.
- While not required, applicants with experience in *in vitro* disease modeling in cell lines, primary cells and iPSC-derived neurons, *in vivo* disease modeling in transgenic mice, viral vectors, gene editing, immunocytochemistry and high-throughput microscopy, protein biochemistry, transcriptomics/proteomics and scientific programming languages are preferred.

Diversity, Equity and Inclusion: Our lab embraces all kinds of diversity, including race, ethnicity, gender, sexual orientation, socioeconomic background, disability, and religion. We're committed to ensuring everyone can succeed in their pursuit of the advancement of biomedical knowledge.

About Boston Children's Hospital and Harvard Medical School: Boston Children's Hospital is a global leader in pediatric healthcare. Affiliated with Harvard Medical School, we provide an unparalleled environment for scientific advancement, fostering collaboration and innovation in pursuit of improving children's health worldwide.

Application: Please submit the following documents to def.lab@childrens.harvard.edu.

1. One-page cover letter outlining your research experience and listing three specific aims that you would consider working on with our group.
2. Curriculum vitae (CV), including a list of publications.
3. Contact information for three professional references.