Postdoc Fellowship in Human and Mouse Models of Autism

K. Singh Laboratory, McMaster University

Position

A CIHR-funded postdoctoral fellowship is available in modeling Autism Spectrum Disorders (ASDs) and related disorders using Human Neurons and Mouse *in vivo* models. The position is within the laboratory of Karun Singh (sccri.mcmaster.ca), and involves close collaboration with investigators at the Hospital for Sick Children in Toronto. The goal of our program is to study how ASD risk genes and mutations disrupt brain development and function. In addition to genetic mouse models, postdoctoral fellows will be trained on cellular programming and Crispr/Cas9 gene editing techniques to generate patient-specific neurons. We utilize electrophysiology, biochemistry, high-resolution imaging and RNA sequencing for analysis.

Requirements

The successful candidate will be responsible for developing and driving their own research project, expected to collaborate, and mentor trainees. Qualified candidates should have some experience in a neuroscience lab. Any specific experience in animal and cellular models, electrophysiology, biochemistry is an asset. The candidate must possess a record of scientific publications (with at least one first author publication), organizational skills, self-motivation, communication skills and the ability to work in a team environment.

Contact information

Interested applicants should send a cover letter (statement of interest), CV (including publications, funding, etc), and the names of 2 references to singhk2@mcmaster.ca

Description of the Stem Cell and Cancer Research Institute

The SCC-RI is the only human-dedicated stem cell institute in Canada and has three research themes: Cancer, Blood and Neural. The Neural Research Program focuses on studying neurological disorders with an emphasis on using Human neurons, high-throughput drug screening and next-generation sequencing. The SCC-RI is a shared laboratory environment with 8 Faculty members, over 70 trainees, postdocs and staff with a strong history of high-impact publications. For more information, please see our new website (sccri.mcmaster.ca).

Relevant Publications:

1. Kwan, V., Hung, C.L., White, S., Hoszapfel, N.T., Walker, S., Murtaza, N., Unda, B.K., Yuen, R.K.C., Habing, K., Milsom, C., Hope, K., Truant, R., Scherer, S.W. and **Singh, K.K***. DIXDC1 phosphorylation and control of dendritic morphology is impaired by rare genetic variants. Accepted and in press at ***Cell Reports***. *corresponding author.
2. Lee, J.H#, Mitchell, R.R#., McNicol, J.D., Shapovalova, Z., Laronde, S., Tanasijevic, B., Milsom, C., Casado, F., Fiebig-Comyn, A., Collins, T.J., **Singh, K.K.**, Bhatia M (2015). Single Transcription Factor Conversion of Human Blood Fate to NPCs with CNS and PNS Developmental Capacity. ***Cell Reports***. 11(9):1367-76. #equal contributions.