manitoba neuroscience network

Studying neurodevelopmental disorders using human stem cell-derived models

SEMINAR & VISITING SPEAKER SERIES

DATE Friday, May 31st, 2024

TIME 11:00 AM to 12:00 AM

LOCATION APOTEX 050

SPEAKER

Karun Singh, PhD

Senior Scientist, Krembil Research Institute, University Health Network Assoc. Prof, Faculty of Medicine, University of Toronto

ABSTRACT

This talk will discussed the use of mouse and patient-derived neural 3D organoid/assembloid models, in combination with multi-omic approaches, to study neurodevelopmental and adult neurological disorders. The focus will be on studying genetic risk factors for neurological disorders, and identifying molecular/cellular mechanisms of disease. The long-term goal is to utilize these platforms to study disease etiology, and develop regenerative medicine approaches such as genetic therapies.

BIO

Dr. Singh is a Senior Scientist in the Donald K. Johnson Eye Institute and Krembil Research Institute, located with University Health Network (UHN) since 2020. He is an Associate Professor in the Departments of Ophthalmology and Vision Sciences, and Laboratory Medicine and Pathobiology (LMP) at the Faculty of Medicine, University of Toronto. Prior to this, he was at McMaster University from 2012-2020 where he was a Scientist and Neural Program Lead at the Stem Cell and Cancer Research Institute, The David Braley Chair in Stem Cell Research, and an Associate Professor in the Department of Biochemistry and Biomedical Sciences at McMaster University. His lab utilizes patient-derived neural 3D organoid/assembloid models, in combination with multi-omic approaches, to study neurodevelopmental and adult neurological and vision disorders. The long-term goal is to utilize these platforms to study disease etiology, and develop regenerative medicine approaches such as genetic therapies. He holds national and international funding from CIHR, NSERC, SCN, NFRF, ERARE, ERA-NET and the Ontario Brain Institute.

For more information:

T: 204-235-3939
E: info@manitobaneuroscience.ca

Twitter: @karunsinghneuro

Hôpital St-Boniface Hospital
RECHERCHE • RESEARCH
Division of Neurodegenerative Disorders

Health Sciences Centre Winnipeg

University of Manitoba