manitoba neuroscience network

Contribution of thioredoxin-interacting protein to chronic stress-induced cellular damage

SEMINAR & VISITING SPEAKER SERIES

DATE
Friday, November 29, 2019
9:00AM

LOCATION
PX236/238 PsycHealth Builiding

SPEAKER
Dr. Jun-Feng Wang
PhD

Associate Professor
University of Manitoba,
Department of Pharmacology & Therapeutics

BIO

Dr. Jun-Feng Wang received a Ph.D. in Neuroscience at Peking University Health Science Center and completed post-doctoral training in Neuroscience at the University of California, San Francisco and McMaster University. Dr. Wang held academic appointments at the Centre for Addiction and Mental Health in Toronto, and the University of British Columbia before coming to the University of Manitoba in March 2012. Currently he is Associate Professor in the Department of Pharmacology and Therapeutics at the University of Manitoba. Dr. Wang's research focuses on depression and Alzheimer's disease, specifically on the role of oxidative damage in the pathophysiology and treatment of these disorders.

ABOUT

Dr. Wang's research aims to understand the role of oxidative stress in depression and Alzheimer's disease and to determine if activation of endogenous antioxidant defenses has potential for the treatment of these diseases. Increasing evidence indicates that mitochondrial dysfunction is associated with depression and Alzheimer's disease. Mitochondrial dysfunction is the major source for production of reactive oxygen species that cause oxidative stress and facilitate the neuroinflammation process. Dr. Wang's laboratory is examining how cysteine oxidative modification affects synaptic proteins, subsequently causing their functional change; and establishing whether the thioredoxin antioxidant system and its regulatory factors inhibit oxidative stress, neuroinflammation, depressive-like behaviours and impairment of learning and memory in depression and Alzheimer's disease.

OBJECTIVES

1. To understand the contribution of oxidative stress to chronic stress-caused cellular damage.

2. To evaluate the role of thioredoxin-interacting protein in chronic stress-caused cellular damage.

3. To discuss thioredoxin-interacting protein as a therapeutic target for depression treatment.

For more information:

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