FALL 2022

Biochemistry and Molecular Biology Brown Bag Series

Ayat Azzam

Master Student

"A novel role of Lipin1 in the regulation of expression and function of nNOS"

Tuesday, November 15, 2022

11:00 AM

135 Oelman Hall

Lab: Hongmei Ren Ph.D.

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https://science-math.wright.edu/biochemistry-and-molecular-biology

Abstract:

“A novel role of Lipin1 in the regulation of expression and function of nNOS”

Duchenne muscular dystrophy (DMD) is a severe and progressive muscular dystrophy caused by mutations in the dystrophin gene in the skeletal muscles. Dystrophin stabilizes sarcolemma and assembles neuronal nitric oxide synthase (nNOS) into the dystrophin associated protein complex on the sarcolemma. The absence of dystrophin triggers delocalization of nNOS and contributes to misregulation of muscle development, blood flow, muscle fatigue and inflammation. Lipin1, an enzyme that catalyzes the conversion of phosphatidic acid to diacylglycerol, was reduced in skeletal muscles of patients with DMD and mdx mouse model of DMD. In this study, we explored the role of lipin1 in the regulation of nNOS expression and function.