

# **Students' Annual Webinar**

## **Identifying regulators of stress-induced mitochondrial biogenesis**

### **Aravind H**

Mitochondrial content and function are tightly regulated in cells. To identify novel regulators of mitochondrial content in vivo in *Drosophila*, we performed a genetic screen using a collection of lethal mutants on the X-chromosome. We found that mutations in 15 nuclear-encoded mitochondrial genes resulted in a compensatory increase in mitochondrial biogenesis. A similar compensatory increase in mitochondrial content has been previously observed in mouse respiratory chain deficient mutants as well as in mitochondrial diseases like MELAS. In the talk, I will describe the genetic and transcriptomic approaches that we are currently employing to identify the regulators of stress-induced mitochondrial biogenesis.

***Thursday, May 19<sup>th</sup> 2022***

***4:00 PM***