

Seminar

Exploring Gene Expression Regulation at High Resolution

Mridusmita Saikia

Cornell University, New York

Gene expression is regulated by factors both extrinsic and intrinsic to the cell. Extrinsic factors include environmental cues, such as nutrient availability, temperature, oxygen etc. Within the organism, cells communicate by sending and receiving signaling molecules that trigger signaling cascades that cause changes in transcription and/or translation of the genetic code. Additionally, epigenetic factors also affect gene expression, often leading to heterogeneous outcome in genetically homogeneous cells. My research goal is to understand various mechanisms of gene expression regulation and their role in the etiology of human diseases. I am applying next generation sequencing based approaches such as RNA-seq, and ribosome profiling, in addition to other biochemical, genomic, and systems biology based approaches to address these important biological questions.

Wednesday, Dec 28th 2016

4:00 PM (Tea/Coffee at 3:45 PM)

Seminar Hall, TCIS