Institute of Medical Biology
A*STAR

SEMINAR ANNOUNCEMENT

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"Aneuploidy and adaptation in yeast experimental evolution"

Maitreya Dunham
University of Washington, Seattle

Abstract:
Having the wrong number of genes or chromosomes can cause profound effects for organisms. Many of these are problematic, which is why aneuploidy is associated with miscarriage and a variety of disorders. However, aneuploidy can also be an opportunity, driving adaptation in cancer cells and microbial pathogens. Furthermore, duplication of genes and even whole genomes serves as an important source of innovation in evolution over longer timescales. My lab uses experimental evolution of yeast as a platform for disentangling the costs and benefits of DNA copy number changes. In this talk I will discuss our new method for mapping driver genes contained within large amplicons, an approach which has given us new insights into the genetic basis of the fitness consequences of aneuploidy.

Biography: Maitreya Dunham is an Associate Professor in the Genome Sciences Department at University of Washington. Her group has studied aneuploidy and genome evolution in yeasts using experimental evolution and comparative genomics approaches since she established her lab as a Lewis-Sigler Fellow at Princeton University. She did her PhD work in Genetics with David Botstein at Stanford University, and attended MIT for her undergraduate degree.

Hosted by : Dr Giulia Rancati , Principal Investigator, IMB