

Genetics and Genomics (G2) Seminar Series



**INSTITUTE FOR GENOME
SCIENCES AND SOCIETY**
TEXAS A&M UNIVERSITY

The Interdisciplinary Faculty of Genetics
Genetics Graduate Student Association



The evolution of large-scale genome structure

Dr. Heath Blackmon

Department of Biology, Texas A&M University

The most basic divisions of the genome are its separation into chromosomes and its division among the sexes. However, we lack an explanation for many empirical observations even at this simple level. Using results from both phylogenetic comparative analyses and theoretical population genetics I distinguish among possible mechanisms of chromosome number evolution and present a new model for the evolution of sex chromosomes. This work demonstrates that changes in chromosome number are likely deleterious. Furthermore, I show that the resolution of sexual antagonism can have striking impacts on sex chromosome evolution. Recognition of this impact provides insight into the evolution of meiotic mechanisms, fusions, and translocations.



Monday, September 11, 2017

4:00 p.m.

Auditorium/Room 108

BioBio Building

Refreshments at 3:30 p.m. in the lobby.

Seminar co-hosted with the Ecology & Evolutionary
Biology (EEB) Seminar Series

Genetics

Texas A&M Institute for Genome
Sciences and Society (TIGSS)