Genetics and Genomics (G2) Seminar Series

INSTITUTE FOR GENOME SCIENCES AND SOCIETY
TEXAS A&M UNIVERSITY

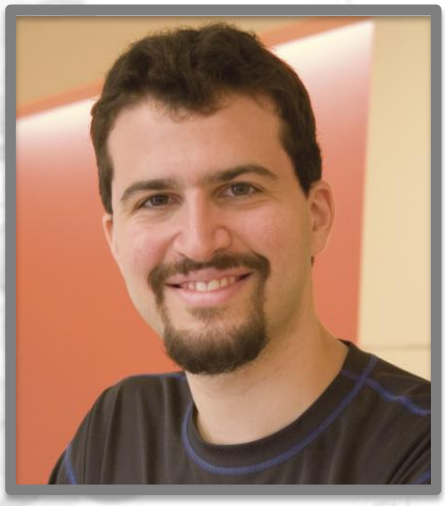
The Interdisciplinary Faculty of Genetics
Genetics Graduate Student Association

A 3D Code in the Human Genome

Dr. Erez Lieberman Aiden

Department of Genetics

Baylor College of Medicine



Dr. Lieberman Aiden directs the Center for Genome Architecture where his team explores all aspects of genome structure - from the 1D sequence of the bases to the 3D folding that enables them to fit inside the nucleus of a cell. He was part of a team of scientists from the University of Massachusetts Medical School and MIT that first suggested human DNA folds into a fractal globule rather than an equilibrium globule. This finding explains how each cell's genome is able to be heavily compacted without forming a knot. Dr. Lieberman Aiden and coworkers invented a variant of chromosome conformation capture called "Hi-C" which produces a genome-wide measure of contact probabilities that point to a 3-dimensional genome structure. This technique combines existing chromosome capture methodology with next-generation sequencing, enabling an all-versus-all measure of chromatin contacts. Dr. Lieberman Aiden has won multiple awards and is listed as one of 35 top innovators under 35 by Technology Review.

Host: GGSA

Monday, March 19, 2018

4:00 p.m.

Auditorium/Room 108

BioBio Building

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

Genetics

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

For more information, contact Tamara Torres at 979.458.2284 or tamara.torres@tamu.edu