2021 Telluride Workshop on Physical Genomics and Transcriptional Engineering

(February 24 & February 26, ~30 min talk + 15 min discussion)

Organizers: Vadim Backman & Caroline Uhler

TSRC Host: Mark Kozak (970) 708-4426, Cindy Fusting (970) 708-5069

Location: Zoom

February 24: https://northwestern.zoom.us/j/97607309583

February 26: https://northwestern.zoom.us/j/96023689622

Wednesday February 24

9:00am:	Welcoming remarks from Vadim Backman
9:05am:	Emergent Cellular Ecosystems in Melanoma Revealed by Single Cell Analysis **Arjun Raj, University of Pennsylvania**
9.50am:	The Essential Role of RNA in Epigenetics **John Rinn, University of Colorado Boulder**
10.35am:	Break
10.50am:	Mechanical Control of Genome Organization and Cell-Fate Decisions **GV Shivashankar, ETH Zurich**
11.35am:	Homologous Locus Pairing is a Transient, Diffusion-Mediated Process in Meiotic Prophase **Andrew Spakowitz, Stanford University**
12:20pm:	Session Wrap-Up

Friday February 26:

9:00am:	Welcoming remarks from Vadim Backman
9:05am:	Genomes and AI - From Packing to Regulation Mechanobiology of Cell Reprogramming **Caroline Uhler, MIT**
9:50am:	A New Generation of Multiscale Models of Chromatin - Bottom Up Meets Top Down **Juan de Pablo, University of Chicago**

10:35am:	Break
10:50am:	Epigenetic Dynamics in Plant Reproduction **Mary Gehring, Whitehead Institute for Biomedical Research**
11:35am:	New Super-Resolution Microscopy Methods to Explore the 3D Organization of the Nucleome **Joerg Bewersdorf, Yale University**
12:20pm:	Modeling Chromatin Folding: From Population to Single Cell, and Back **Igal Szleifer & Kai Huang, Northwestern University**
1:05pm:	Session Wrap-Up