

Program for the 2018 Telluride workshop Chromatin Structure and Dynamics

(July 30 – August 3, 30 min talk + 15 min discussion)

Organizers: Yawen Bai & Greg Bowman

TSRC Hosts: Kristen Redd, (970) 708-0827; Mark Kozak, (970) 708-4426

Location: Telluride Intermediate School, 725 West Colorado Ave Telluride CO 81435

Sunday July 29, 2018

6:00-8:00 pm **Phoenix Bean**, 221 W Colorado Ave, Telluride, CO 81320
Meet and greet – a TSRC representative will be on hand to answer questions. Cash bar and food available for purchase; family & guests welcome

Monday July 30, 2018

8:00-8:45 am Breakfast at TSRC
8:45-9:00 am Welcome (TSRC staff)

Nucleosome structure, recognition and epigenetics

9:00-9:45 am Nucleosome by cryo-EM
Mario Halic

9:45-10:30 am Structural code for epigenetic specification of the CENP-A nucleosome
Yawen Bai

15 min break

10:45-11:30 am Structural basis for activation of Gcn5's HAT activity by Ada2
Song Tan

11:30-12:15 pm Deciphering the nucleosome interactome
Robert McGinty

Afternoon Hiking/free time

Chromatin binding factors

7:00-7:45 pm Genome-wide and single-molecule study of nucleosome displacing factors in yeast
Lucy Bai

7:45-8:30 pm Nonreciprocal regulation between reprogramming transcription factors revealed by single molecule imaging
Shixin Liu

15 min break

8:45-9:30 pm Molecular mechanisms of epigenetic regulation
Tatiana Kutateladze

Tuesday July 31, 2018

8:00-9:00 am Breakfast

Lunch on your own

Chromatin packaging and organization

1:00-1:45 pm A decisive role of linker DNA in chromatin folding
John van Noort

1:45-2:30 pm Structure and dynamics of telomeric chromatin
Nikolay Korolev

15 min break

2:45-3:30 pm Topological polymorphism of chromatin fibers: Interplay between
nucleosome spacing, DNA linking number and 3D folding
Victor Zhurkin

3:30-4:15 pm Coarse grained modeling of chromatin organization
Bin Zhang

15 min break

4:30-5:15 pm Bridging chromatin nanoimaging and molecular modeling - What
can we learn about chromatin packing as a regulator of
transcription?
Vadim Backman

5:15-6:00 pm Phase separation in chromatin organization and function
Richard Kriwacki

7:00-8:00 pm Group dinner (location to be determined)

Wednesday August 1, 2018

7:30-8:30 am Breakfast at TSRC

Chromatin structure in vivo

08:30-9:15 am DNA accessibility is not the primary determinant of chromatin-mediated gene regulation
David Clark

9:15-10:00 am Correlation analysis of single nucleosome dynamics reveals compact chromatin domain organization in living cells
Kazuhiro Maeshima

15 min break

10:15-11:00 am Exploring in situ chromatin contacts with sequencing-based tools: RICC-seq and ChAR-seq
Viviana Risca

11:00-11:45 am Genome wide measurement of DNA flexibility
Aakash Basu

15 min break

12:00-12:45 pm G-quadruplexes in chromatin: human oncogene promoters and telomeres
Danzhou Yang

Afternoon Hiking/free time

6:00 pm-dark TSRC Picnic at the tent behind the Telluride Intermediate School (725 W Colorado Ave.); family and guests welcome free of charge

Thursday August 2, 2018

7:30-8:30 am Breakfast

Chromatin remodeling

8:30-9:15 am Regulation and action of the Chd1 chromatin remodeler
Greg Bowman

9:15-10:00 am Dynamics and regulation of ATP-dependent chromatin remodeling
Sebastian Deindl

15 min break

10:15-11:00 am Structure and mechanism of action of Chd chromatin remodelling
ATPases
Tom Owen-Hughes

11:00-11:45 am Mechanism of chromatin remodeling: local DNA distortion without
notable histone deformation
Zhucheng Chen

Lunch on your own

2:00-2:45 pm Structural comparison of INO80 and SWR1 nucleosome
complexes
Dale Wigley

2:45-3:30 pm Mechanism and regulation of the INO80 chromatin remodeling
complex
Blaine Bartholomew

15 min break

3:45-4:30 pm The molecular mechanism of CSB protein
Dong Wang

Evening free time/dinner on your own

2018 Telluride Workshop on Chromatin Structure and Dynamics

Friday August 3, 2018

8:00-9:00 am Breakfast at TSRC

9:00 am **Informal gathering/discussion**
Problems to be solved in near future/collaborations

Participants

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