**Program for the 2014 Telluride workshop**

**Chromatin Structure and Dynamics**

(August 4-8th, 30 min talk + 15 min discussion)

**Organizers:** Yawen Bai & Greg Bowman

**TSRC Hosts:** Nana Naisbitt, 970-708-0004 & Rory Sullivan, 970-708-4542

**Location:** Telluride Intermediate School, 725 W. Colorado Ave

**Sunday August 3, 2014**

6:00-8:00 pm Reception at Arroyo Wine Bar, 220 E. Colorado Ave

Cash Bar (no food), TSRC representative will be on hand to answer questions; family & guests welcome

**Monday August 4, 2014**

8:00-9:00 am Breakfast at TSRC

**Nucleosome structure and dynamics**

9:00-9:45 am Structure of the MMTV-A nucleosome core particle

 **Tim Richmond**

9:45-10:30 am DNA sequence-dependent promises by the nucleosome kept

and broken

**Curt Davey**

15 min break

10:45-11.30 am Chromatin architecture: how local factors (LH, NRL, tail modifications) profoundly affect global structure

**Tamar Schlick**

11:30-12:15 am Regulation of nucleosome unwrapping dynamics

**Michael Poirier**

Afternoon Hiking/free time

7:00-7:45 pm Dynamics of nucleosome interactions revealed by NMR and computer modeling

**Lars Nordenskiöld**

7:45-8:30 pm Nucleosome unwinding and rewinding: Free energy landscapes, first passages, and time-resolved transition paths

 **Simon Mochrie**

15 min break

8:45-9:30 pm The kinetics and thermodynamics of phenotype: unwinding and rewinding nucleosomes containing mutant histones

**Lynne Regan**

9:30-10:00 pm Flipping of the handedness of tetrasomes

**Orkide Ordu**

**Tuesday August 5, 2014**

Morning Hiking/free time

**Chromatin remodeling**

1:15-2:00 pm Structural and mechanistic studies of Ino80 family remodellers

 **Dale Wigley**

2:00-2:45 pm Molecular mechanism underlying nucleosome spacing by ISWI-family remodelers

**Xiaowei Zhuang**

15 min break

3:00-3:45 pm Mechanisms of ATP-dependent chromatin remodeling

**Geeta Narlikar**

3:45-4:30 pm How the Chd1 remodeler responds to nucleosome barriers

 **Greg Bowman**

 15 min break

4:45-5:30 pm No need for a power stroke in ISWI-mediated nucleosome sliding

 **Felix Mueller-Planitz**

6:00-7:15 pm TSRC Town Talk at the Conference Center in Mountain Village

7:45 pm- Group dinner (voluntary, not covered by the registration fee)

**Wednesday August 6, 2014**

8:00-8:30 am Breakfast at TSRC

**Histone modifications and chaperones**

08:30-9:15 am Chemical inhibitors targeting reversible lysine modifications

**Phil Cole**

9:15-10:00 am Structural studies of chromatin factors and enzymes in complex with the nucleosome

**Song Tan**

 15 min break

10:15-11:00 am Structural basis of preferential recognition of H2A.Z by histone chaperones

**Zheng Zhou**

11:00-11:45 am A molecular mechanism for sNASP-guided histone H3-H4 chaperoning

**Andreas Ladurner**

15 min break

12:00-12:45 pm Histone transfer among chaperones

**Mair Churchill**

Afternoon Hiking/free time

6:00 pm-dark TSRC Picnic at the Ah Haa Art School, located at 300 S Townsend; family and guests welcome free of charge **Thursday August 7, 2014**

7:30-8:30 am Breakfast

**Chromatin Architecture**

8:30-9:15 am Locking in the chromatin foundation of the centromere

**Ben Black**

9:15-10:00 am Structural basis of different binding modes of linker histones and

their implications for higher-order chromatin structures

**Yawen Bai**

 15 min break

10:15-11:00 am Topological polymorphism of the two-start nucleosome fibers as revealed by stereochemical analysis

 **Victor Zhurkin**

11:00-11:45 am Higher-order chromatin structures and mechanisms of epigenetic regulation

**Guohong Li**

 15 min break

12:00-12:45 pm A quantitative understanding of chromatin unfolding

 **John van Noort**

Afternoon Hiking/free time

**Chromatin dynamics in vivo**

7:00-7:45 pm ATP-dependent chromatin remodelling at insulator elements

**Tom Owen-Hughes**

7:45-8:30 pm The yeast ISW1, CHD1 and RSC chromatin remodellers have additive effects on global chromatin structure

 **David Clark**

15 min break

8:45-9:30 pm Cell-type-specific chromatin tools allow us to profile terminally differentiated cells

**Carla Margulies**

9:30-10:15 pm Mechanism of decoupling divergent gene pairs in budding yeast

 **Lu Bai**

**Friday August 8, 2014**

8:00-9:00 am Breakfast at TSRC

**Informal gathering**

**Participants**

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