**MACROMOLECULAR CROWDING**

Preliminary Schedule

Monday June 26 to Friday June 30

Organizers: Simon Ebbinghaus and Tom Record

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

TSRC Hosts: Kristen Redd and Mark Kozak, (970) 729-8375

6/26/2017 (Monday) Session 1:

**Crowders, cosolutes and pressure, Chair: Andrea Soranno**

8:00-8:30am BREAKFAST@TSRC Meeting site

8:30-9:15am **Pierandrea Temussi**, The Emperor's New Clothes: myths and truths of crowding

9:15-10:00am **Margaret Cheung**, Critical phenomena in the temperature-pressure-crowding phase diagram of a large protein

TEA/COFFEE BREAK

10.30-11.15am **Roland Winter**, Combined Effects of Crowding, Osmolytes, Temperature and Pressure on the Conformational and Free Energy Landscape of Proteins and Nucleic Acids

11.15-12.00am **Zhou, Huan-Xiang,** Atomistic modeling of protein liquid-liquid phase separation

5:00-5:45pm **M. Thomas Record**, Chemical Interactions and Physical Excluded Volume Interactions of Solutes with Biopolymers

5:45-6.30pm **Simon Ebbinghaus,** Protein folding - Crowders, osmolytes and ions

6/27/2017 (Tuesday) Session 2:

**Crowders and polymers, Chair: Arnold Boersma**

8:00-8:30am BREAKFAST@TSRC Meeting site

8:30-9:15am **Andrea Soranno,** Single-molecule spectroscopy of intrinsically disordered proteins in crowded environments

9:15-10:00am **Timothy M. Lohman,** Glutamate Promotes SSB Protein-Protein Interactions via Intrinsically Disordered Regions

TEA/COFFEE BREAK

10.30-11.15am **Klaus Huber**, Camouflaged but Active – Experiments on Component Behavior in Solutions of Binary Colloid-Polymer Mixtures

11.15-12am **Daniel Harries**, Mechanistic insights into macromolecular stabilization by solutes: from depletion to bridging

12.00-12.45am **Stephane Longeville**, TBA

6:00pm Town Talk and Open House, Telluride Intermediate School, 725 W Colorado Ave.

6/28/2017 (Wednesday) Session 3:

**Crowding heterogeneity, Chair: Stefan Klumpp**

8:00-8:30am BREAKFAST@TSRC Meeting site

8:30-9:15am **Yuji Sugita,** Theoretical and computational studies of heterogenous crowding effects

9:15-10:00am **Matthias Roos,** Brownian Dynamics of Globular Proteins under Macromolecular Crowding

TEA/COFFEE BREAK

10.30-11.15am **Matthias Weiss**, Crowding heterogeneity in biological fluids

11.15-12am **Annalisa Pastore,** Sorrows and delights of in cell NMR

6:00pm TSRC Picnic/BBQ, Telluride Intermediate School, 725 W Colorado Ave.

6/29/2017 (Thursday) Session 4:

**Crowding in the cell, Chair: Margaret Cheung**

8:00-8:30am BREAKFAST@TSRC Meeting site

8:30-9:15am **Michael Feig**, Protein diffusion under crowded conditions from simulation and experiment

9:15-10:00am **Gideon Schreiber**, Enzyme activity in living cells

TEA/COFFEE BREAK

10.30-11.15am **Mikael Oliveberg**, How proteins experience the cellular interior

11.15-12am **Stefan Klumpp**, Crowding effects on molecular machines and protein folding

5:00-5:45pm **Arnold Boersma,** Engineering genetically-encoded sensors to determine physical chemical parameters in living cells

5:45-6.30pm **German Rivas** Dividing the crowd - impact of crowding on the biochemical organization of minimal bacterial divisomes

6/30/2017 (Friday)

8:00-8:30am BREAKFAST@TSRC Meeting site

8:30-10:00am Open discussions

TEA/COFFEE BREAK