

Modeling Biomolecular Structures, Interactions, and Functions

Telluride Science Research Center

Telluride Intermediate School, 725 W. Colorado, Telluride, CO 81435

TSRC Director, Nana Naisbitt, 970-708-0004; TSRC Asst Director, Rory Sullivan, 970-708-4542

Sunday, June 30, 2013

Evening Event

Time	Event	Location	Notes
6:00 - 9:00 PM	Sunday Night Welcome Reception	New Sheridan Bar, 231 W Colorado Avenue	**Drink specials and free pool for TSRC participants on Sunday evenings

Monday, July 1, 2013

Morning Session

Time	Speaker	Title	Notes
8:15 - 8:45 AM	Breakfast at TSRC		
8:45 - 9:00 AM	Introduction		
9:00 - 10:00 AM	Eberhard Voit Georgia Tech	"Wanted: The best models in Systems Biology"	
10:00 - 10:15 AM	Break		
10:15 - 11:15 AM	Jeff Skolnick Georgia Tech	"Possible origin of protein biochemical function"	
11:15 - 11:30 AM	Break		
11:30 - 12:30 PM	Olivier Lichtarge Baylor College of Medicine	"Some evolutionary calculus results on sequence and function"	
12:30 - 12:45 PM	Break		
12:45 - 1:30 PM	Discussion	How can we go from molecules to cells?	Eberhard Voit, Jianpeng Ma, Ilya Vakser
1:30 PM	Break Until Evening Session		

Evening Session

Time	Speaker	Title	Notes
6:15 - 7:15 PM	Ilya Vakser University of Kansas	"Knowledge Based modeling of PPI"	
7:15 - 7:30 PM	Break		
7:30 - 8:30 PM	Robert Jernigan Iowa State University	TBA	
8:30 - 8:45 PM	Break		
8:45 - 9:15 PM	Discussion	"What are the challenges in going from molecular to physiological function?"	Nick Grishin, Christine Orgeno, Olivier Lichtarge
9:15 PM	Adjourn		

Tuesday, July 2, 2013			
Morning Session			
Time	Speaker	Title	Notes
8:30 - 9:00 AM	Breakfast at TSRC		
9:00 - 10:00 AM	Christine Orengo University College London	"How do protein functions evolve and how can we use evolutionary relationships to predict protein functions"	
10:00 - 10:15 AM	Break		
10:15 - 11:15 AM	Nick Grishin UT Southwestern	"Evolutionary classification of protein domains"	
11:15 - 11:30 AM	Break		
11:30 - 12:30 PM	Qian Cong UT Southwestern Medical Center	TBA	
12:30 - 1:30 PM	Discussion over Lunch	Informal Discussion	Catered by Zest ** This lunch was included in the registration fee.
1:30 PM	Adjourn		
Evening Event			
Time	Event	Location	Notes
6:00 - 7:15 PM	Telluride Town Talk	Sheridan Opera House, 110 N Oak Street	

Wednesday, July 3, 2013			
Morning Session			
Time	Speaker	Title	Notes
8:30 - 9:00 AM	Breakfast at TSRC		
9:00 - 10:00 AM	Julie Mitchell University of Wisconsin	"Banded Electrostatics and DNA Binding Site Prediction"	
10:00 - 10:15 AM	Break		
10:15 - 11:15 AM	Nir Ben-Tal Tel Aviv University	"Prediction of structure, function and motion in membrane proteins: It works sometimes"	
11:15 - 11:30 AM	Break		
11:30 - 12:30 PM	Istvan Kolosovary D. E. Shaw Research	"Conceptual framework for performing simultaneous fold and sequence optimization of reduced-representation protein models"	
12:30 - 1:30 PM	Discussion over Lunch	Informal Discussion	Catered by Zest ** This lunch was included in the registration fee.
1:30 PM	Adjourn		

Evening Event			
Time	Event	Location	Notes
6:00 - 7:15 PM	TSRC Picnic	Ah Haa School for the Arts, 300 South Townsend	

Thursday, July 4, 2013

Morning Session

Time	Speaker	Title	Notes
8:30 - 9:00 AM	Breakfast at TSRC		
9:00 - 10:00 AM	Jianpeng Ma Baylor College of Medicine	"Enhanced sampling and its application in structural refinement"	
10:00 - 10:15 AM	Break		
10:15 - 11:15 AM	John Klepeis D. E. Shaw Research	"Developing force fields to run on specialized hardware"	
11:15 - 11:30 AM	Break		
11:30 - 12:30 PM	Nicholas Schafer Rice University	"Folding, Binding and Misfolding with AWSEM"	
12:30 - 12:45 PM	Break		
12:45 - 1:30 PM	Discussion	How can we build better force fields?	John Klepeis, Robert Jernigan, Julie Mitchell
1:30 PM	Break Until Evening Session		

Evening Session

Time	Speaker	Title	Notes
6:15 - 7:15 PM	Daisuke Kihara Purdue University	"Machine learning approach for protein structure modeling"	
7:15 - 7:30 PM	Break		
7:30 - 8:30 PM	Dima Kozakov Boston University	"Global sampling of macromolecular association energy landscapes using Fast Fourier Transforms and their generalizations"	
8:30 - 8:45 PM	Break		
8:45 PM	Adjourn		

Friday, July 5, 2013

Morning Session

Time	Speaker	Title	Notes
8:30 - 9:00 AM	Breakfast at TSRC	Session Wrap-up	
9:00 AM	Meeting Adjourns		

Jianpeng Ma
Baylor College of
Medicine

