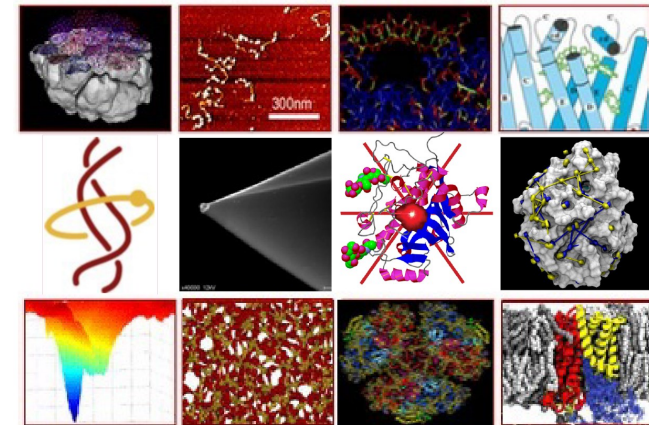


Arizona State University

Center for Biological Physics

BioPhest 2015



BioPhest 2015  **ARIZONA STATE UNIVERSITY**

May 2, 2015



Funding provided by
Center for Biological Physics

Arizona State University

Center for Biological
Physics

Physical Sciences, F Wing,
Room 123

550 E Tyler Mall,
Tempe, AZ 85287-1504
480-965-4073

BioPhest 2015 Organizers:

Ashini Bolia,

Wayne Christenson,

Oliver Beckstein,

Banu Ozkan

Robert Ros

Conference Coordinator:

Deanna Clark

8:00-8:55 AM Registration and Continental Breakfast in PSF 186

8:55 AM Welcome from **Robert Ros**, Director of ASU Center for Biological Physics

Session 1: Ashini Bolia, Chair

9:00-9:25 AM **Sean Seyler**
seyler@asu.edu

Path Similarity Analysis: a method for quantifying macromolecular transition paths

9:25-9:50 AM **Ioanna Zoi**
ioannazoi@email.arizona.edu
Homologous enzymes have distinct reaction paths

9:50-10:15 AM **Dmitry Matyushov**
dmitrym@asu.edu
Is thermodynamics OK for bioenergetics?

10:15-10:45 AM COFFEE BREAK

Session 2: Udeep Chawla, Chair

10:45 -11:10 AM **Ashini Bolia**
abolia@asu.edu

How hinge flexibility alters the glycan binding affinity of Cyanovirin

11:10-11:35 AM **Sara Vaiana**
sara.vaiana@asu.edu

Evidence for Internal Friction in Disordered Proteins of the Ct Family

11:35-12:00 AM **Zahra Bahrami Dizicheh**
zbahrami@asu.edu

Conversion of a b Type Cytochrome to a c Type: Unnatural Amino Acid Incorporation into Cytochrome b562

12:00-2:00 PM LUNCH BREAK and POSTER SESSION

Session 3: David Dotson, Chair

2:00-2:25 PM **Jinghui Luo**
jluo16@asu.edu

Deterministic absolute negative mobility induced for micron-sized particles in a microfluidic device

2:25-2:50 PM **Joshua Sadar**
jsadar@asu.edu

Impedance-Tuned Nanogaps for Single-Molecule Detection and Characterization

2:50-3:15 PM **Bryant Doss**
bldoss@asu.edu

AFM indentation reveals actomyosin-based stiffening of metastatic cancer cells during invasion into collagen I matrices

3:15-3:45 pm COFFEE BREAK

Session 4: Wayne Christenson, Chair

3:45-4:10 PM **Soohyun Lee**

kevin7shlee@email.arizona.edu

Applications of Solid-State NMR Spectroscopy in Membrane Biophysics

4:10-4:35 PM **Michael Pittman**
mikecpitman@gmail.com

Dual Catalysis Role of Rhodopsin in Signal Transduction: A New Model for GPCR Signaling

4:35-5:00 PM **Parthasarathi Rath**
prath@asu.edu

Biophysical studies of the Sensing Domain of the human Transient Receptor Potential Melastatin - 8 (hTRPM8) ion channel

5:00-5:10 PM Closing Remarks and Poster Prize Announcement by **Oliver Beckstein**