

CPLC/Biophysics Graduate Student & Postdoc Symposium

Monday, May 4, 2015 - Room 1005 Beckman Institute

Student Hosts: Tao Jiang and Nicholas Sherer

Organization: Schulten group

8:30 a.m. Continental Breakfast

9:00 a.m. **Angela Barragan Diaz** (Schulten group)
Molecular aspects of the Q-cycle: Quinol binding and proton-coupled electron transfer

9:15 a.m. **Sang Hak Lee** (Selvin group)
Single molecular observation of diffusive dynamics of NMDA receptors in live neurons using super-resolution imaging and tracking

9:30 a.m. **Hu Jin** (Song group)
Spectral analysis of nucleosome positioning sequences

9:45 a.m. Coffee Break and Raffle #1

10:00 a.m. **Gloria Lee** (Kuhlman group)
Quantitative characterization of a transposable element response function

10:15 a.m. **Zhaleh Ghaemi** (Luthey-Schulten group)
Local and global effects of positively-charged mutants on spliceosomal U1A protein-stem loop 2 RNA complex

10:30 a.m. **Parisa Hosseinzadeh** (Lu group)
Design of a single protein that expands the entire 2V range of physiological redox potentials

10:45 a.m. Coffee Break and Raffle #2

11:00 a.m. **Luke Cuculis** (Schroeder group)
Direct observation of TALE protein dynamics reveals a two-state search mechanism

11:15 a.m. **Enes Kotil** (Jakobsson group)
Simulation of an evolutionary arms race between evolvable RNA therapy and a population of evolving pathogenic bacteria

11:30 a.m. **Javier Baylon** (Tajkhorshid group)
Dissecting molecular details of drug-drug interaction in membrane-bound cytochrome P450

11:45 a.m. Coffee Break and Raffle #3

12:00 a.m. **Chen-Yu Li** (Aksimentiev group)
Ionic conductivity, structural deformation, and programmable anisotropy of DNA origami in electric field

12:15 a.m. **Ruopei Feng** (Gruebele group)

Behavioral analysis of zebrafish larvae swimming in three dimensions

12:30 a.m. **Digvijay Singh** (Ha group)

Real-time observation of DNA recognition by the RNA-guided endonuclease Cas9 using single-molecule FRET

12:45 a.m. Voting for best speaker prize, lunch, and announcement of best speaker prize