

# Fall 2016 CPLC/Biophysics Graduate Student and Postdoc Symposium

Thursday, Oct. 27th – Interaction Room (204), Loomis Lab

Student Hosts: David Fraebel, Manish Shankla, and Karl Decker

8:30 a.m. Continental Breakfast

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8:50 a.m. **Alexander Barclay** (Rienstra group)

Structural investigation of  $\alpha$ -synuclein fibrils from Parkinson's disease brain tissue

9:10 a.m. **David Winogradoff** (Aksimentiev group)

The molecular mechanism of nucleosome breathing

9:30 a.m. **Tatyana Perlova** (Gruebele group)

Shedding light on *E. coli* phototaxis

9:50 a.m. Coffee Break

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10:00 a.m. **Nick Sherer** (Kuhlman group)

Modeling the effect of mutation rate landscapes on mutation rate evolution

10:20 a.m. **Myung Hyun Jo** (Ha group)

Ultra-sensitivity in force sensing for cell adhesion

10:40 a.m. **Chi Xue** (Goldenfeld group)

Even parasites have parasites: Oscillatory population dynamics of mobile genetic elements in your genome

11:00 a.m. Coffee Break

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11:10 a.m. **Chang Cui** (Lu group)

A designed metalloenzyme achieving the catalytic rate of a native enzyme

11:30 a.m. **Stuart Rose** (Crofts group)

Natural MD model of the bc<sub>1</sub> complex for determination of gating mechanisms

11:50 a.m. **Tao Jiang** (Tajkhorshid group)

Characterizing the lipid permeation track and the mechanism of phospholipid translocation in a calcium-activated scramblase

12:10 p.m. **Yeon Youn** (Selvin group)

Application of small, size-equalized fluorescent quantum dots for glutamate receptor tracking in live-neuron imaging

12:30 p.m. Voting for best speakers, lunch, and announcement of best speaker prizes