CPLC/CBQB Graduate Student & Postdoc Symposium

Tuesday, November 6, 2018 – Beckman Institute Room 5602

Organizers: Angela Barragan, Andres Arango and Yongjae Lee

8:20 a.m. Breakfast and Registration

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8:45 a.m. **Mayank Boob (Martin Gruebele Group)**

Critical Phenomena in the temperature-pressure-crowding phase diagram of a large protein 9:00 a.m. **Shashank Pant (Emad Tajkhorshid Group)**

Microscopic Characterization of Membrane Binding and Lipid-Protein Interactions in PH Domain Using Advanced Simulations Techniques

9:15 a.m. **Ikenna Okafor (Taekjip Ha Group)**

Insights into the mechanism of expansion of genome engineering landscape by engineered Cas9s and non-canonical gRNAs

# 9:30 a.m. Veronika Dubinkina (Sergei Maslov Group)

What’s love got to do with it? Stable marriage in microbial ecosystems

9:45 a.m. Coffee Break

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10:00 a.m. **Derek Ping (Seppe Kuehn Group)**

Hitchhiking, collapse, and contingency in phage infections of migrating bacterial populations 10:15 a.m. **Yiyang Lu (Roy D. Dar Group)**

Time-lapse single-cell drug screening for noise in gene expression yields suppressors of HIV reactivation

10:30 a.m. **Lauren Carnevale (Aditi Das Group)**

Inhibition of Endocannabinoid Metabolism by Virodhamine 10:45 a.m. **Manish Shankla (Alek Aksimentiev Group)** DNA delivery over the edge of graphene

11:00 a.m. Coffee Break

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11:15 a.m. **Zhiru Liu (Nigel Goldenfeld Group)**

Self-similarity in the co-evolutionary dynamics of speciation and niche construction 11:30 a.m. **Evan N. Mirts (Yi Lu Group)**

A designed heme-[4Fe4S] metalloenzyme that catalyzes sulfite reduction like the native enzyme 11:45 p.m. **Wooyoung Moon (Jun Song Group)**

Novel machine learning approach for learning the binding specificity of oncogenic transcription factor family members

# 12:00 p.m. Tyler M. Earnest (Zaida Luthey-Schulten Group)

Integration of Reaction-Diffusion Master Equation and Brownian Dynamics Methodologies to Simulate a Minimal Cell

12:15 p.m. Voting for best speaker prize, lunch, and announcement of best speaker prize