

1st NCBI CBB Scientific Retreat – May, 2013
38A Lister Hill Auditorium
Organizers: Teresa Przytycka, Anna Panchenko, and Ivan Ovcharenko

10AM-12 PM Session 1

Genome Evolution Chairs: Yuri Wolf and Lakshminarayan Iyer

Max Burroughs – The ubiquitin modification system: lessons for the evolution of protein modification systems

Alex Lobkovsky - Probing the mechanisms that shape the diversity of prokaryotes' gene repertoires

Pere Puigbo - Thinking in phylogenetic forests

Eugene Koonin - Comparative genomics rewrites evolution textbooks: a “postmodern synthesis” of Evolutionary Biology?

1PM-3PM Session 2

Challenges in the comparative analysis of biomolecular sequences and structures

Chairs: Mileidy Gonzalez Delgado and Aron Marchler-Bauer

Stephen Altschul - Dirichlet Mixtures and the Topography of Amino Acid Multinomial Space

E. Michael Gertz - Structure modeling of disease-causing human mutations in the interleukin-10 and interleukin-21 receptors

Yongmei Pan - Characterizing the protein-ligand interactions of the Cdc2-like kinase 4 (Clk4) chemical probe through molecular modeling

Tom Madej - A novel method for structural comparison of biological assemblies

3:30PM-5:30PM Session 3

Biomedical Data Analysis: Text Mining, Topic Modeling, and Network Analysis Chairs:

Yoo-Ah Kim and Zhiyong Lu

Haibin Liu - Generalizing an Approximate Subgraph Matching-based System to Extract Events in Molecular Biology and Cancer Genetics

Chih-Hsuan Wei - Text Mining for Biocuration: automatic tools for annotating bio-entities from literature

Dong-Yeon Cho - Dissecting Cancer Heterogeneity with a Probabilistic Genotype-Phenotype Model

Aleksandar Stojmirovic - ITM Probe: a framework for information flow in networks