# Forum on Biological Networks

### Monday, June 21

Chair: Chao Tang

08:30-09:40 Gary Stormo (Washington University Medical School)

**Experimental and Computational Methods for Studying Gene Regulation** 

09:40-10:30 Gene Bryant (Sloan-Kettering)

The dynamics of chromatin structure and transcription complex assembly upon gene induction

10:30-10:50 Break

10:50-11:40 Debora Marks (Harvard University)

# Gene Regulation by MicroRNAs

11:40-12:30 Runsheng Chen (Institute of Biophysics, Chinese Academy of Science)

# **Protein-protein Interaction Network**

**Chair: Chris Sander** 

14:30-15:40 Erin O'Shea (Howard Hughes Medical Institute, UC-San Francisco)

# Systems Analysis of Signaling in Budding Yeast

15:40-16:00 Break

16:00-16:50 Leihan Tang (Hong Kong Baptist University)

Intra and inter-pathway correlations from microarray gene expression data

16:50-17:40 analysisYuhai Tu(IBM)

Towards quantitative understanding of bacterial chemotax

# Wednesday, June 23

Chair: Erin O'Shea

08:30-09:40 Liping Zhao (Shanghai Jiao Tong University)

**Ecological Genomics for Structural Dissection of Complex Microbial** 

**Communities** 

09:40-10:30 Hongkui Deng (College of Life Science, PKU)

To be confirmed

10:30-10:50 Break

10:50-11:40 Chao Tang (NEC Laboratories America)

The cell cycle of the budding yeast

11:40-12:30 Qi Ouyang (Center for Theoretical Biology, Peking University)

**Stability Analysis of Cell Cycle Network** 

Chair: Yunyu Shi

14:30-15:40 Chris Sander (Memorial Sloan-Kettering Cancer Center )

#### **Pathways**

15:40-16:00 Break

16:00-16:30 Zuhong Lu (Southeast University)

Some Considerations of Biomolecular Networks: Features and Methods

16:30-17:10 Yaoqi Zhou (University at Buffalo, State University of New York)

Structure-based mapping of protein-protein interaction network

17:10-17:40 Luhua Lai (Center for Theoretical Biology, Peking University)

The metabolic network of arachidonic acid and drug design against inflammation

#### Friday, June 25

**Chair: Leihan Tang** 

08:30-09:40 Brian Yeh (University of California, San Francisco)

Construction of Synthetic Signaling Circuits Using Modular Recombination

09:40-10:30 David Arnosti (Michigan State University)

Information display by transcriptional enhancers: intelligent enhanceosomes or flexible billboards?

10:30-10:50 Break

10:50-11:40 Fengzhu Sun (University of Southern California)

## Integrative approaches for protein function prediction

11:40-12:30 Ping Ao (University of Washington)

Phage as the "hydrogen atom" in modern molecular biology: what we

have learnt and what we can learn

Chair: Luhua Lai

14:00-14:50 Shoudan Liang (NASA Advanced Supercomputing)

Simple Math Is Enough: Two Examples of Inferring Functional

**Associations from Genomic Data** 

14:50-15:40 Jin Wang (Citigroup, US)

Stochastic dynamics of genes