

# **International Workshop:**

## **Complex biomolecular networks: structure, evolution, and function**

**September 6-9, 2005**

[Montauk Yacht Club,](#)  
Long Island, New York

### **Conference Agenda**

(All talks are presented at the Vanderbilt Room)

#### Monday, September 5th

Arrival at Conference Location

Dinner Available from 7:00pm to 9:00pm in the Lobby Patio

Tuesday, September 6th

Date	Time	Speaker	Title
Continental Breakfast-Vanderbilt Room (7:45am-8:45am)			
(AM)	8:45-9:00	Sergei Maslov	Opening remarks
	9:00-9:50	Wen-Hsiung Li	Protein Function, Connectivity, Duplicability and Dispensability
	9:55-10:45	Andreas Wagner	The evolvability of robustness in cellular circuits
	10:50-11:05	Coffee break	
	11:05-11:55	Mark Gerstein	Computational Proteins: Understanding Protein Function on a Genome-scale using Networks
Lunch - Lobby Patio (12:00 noon-1:00pm)			
(PM)	1:00-1:50	Yuri Wolf	Unifying measures of gene function and evolution
	1:55-2:45	Itai Yanai	Integrating space and time to understand how a genetic network determines development
	2:50-3:10	Coffee break	
	3:10-4:00	Shamil Sunyaev	Lessons from a small scale analysis of protein networks: relating evolution to function and phenotype
	4:05-4:55	I. King Jordan	Evolution of mammalian gene sequence and gene expression networks
	5:00-5:30	Mohan Madan Babu	Genomic analysis reveals rapid evolution of transcriptional regulatory networks in prokaryotes
Dinner - Il Mare Ristorante (6:30pm-8:30pm)			

Wednesday, September 7th

Date	Time	Speaker	Title
Continental Breakfast-Vanderbilt Room (8:00am-9:00am)			
(AM)	9:00-9:50	Eugene Shakhnovich	Evolution or Physics? Scale-free networks in biomolecular structure and interactions
	9:55-10:45	Ron Shamir	Modeling, inference and evolution in bionetworks
	10:50-11:05	Coffee break	
	11:05-11:55	Fritz Roth	Analysis of I) <i>S. cerevisiae</i> synthetic-lethal interactions and II) a high-throughput experimental map of protein interaction in humans"
Lunch-Lobby Patio (12:00noon-1:00pm)			
(PM)	1:00-1:50	Reka Albert	Modeling a the <i>Drosophila</i> segment polarity genes: continuous, synchronous Boolean, and asynchronous Boolean approaches
	1:55-2:45	Nicholas Ingolia	Topology and Robustness in <i>Drosophila</i> Segment Polarity.
	2:50-3:10	Coffee break	
	3:10-4:00	Denis Vitkup	Context-based correlation in the context of cellular networks.
	4:05-4:55	Stefan Bornholdt	Reliable gene regulation: Reproducible dynamics from noisy circuits
	5:00-5:30	Susan Atlas	The 'dressed protein': reconstructing regulatory pathways in context.
	5:30-6:00	Claire Christensen	Large-Scale Inference and Graph-Theoretical Analysis of Gene-Regulatory Networks in the Bacterium <i>B. subtilis</i>
Dinner-II Mare Ristorante (6:30pm-8:30pm)			

Thursday, September 8<sup>th</sup>

Date	Time	Speaker	Title
Continental Breakfast-Vanderbilt Room (8:00am-9:00am)			
(AM)	9:00-9:50	Sarah A. Teichmann	Evolution of Protein Interactions in Complexes and Networks
	9:55-10:45	Erik van Nimwengen	Scaling laws in the functional content of genomes: Evidence of universal evolutionary constants?
	10:50-11:05	Coffee break	
	11:05-11:55	Leonid Mirny	What can structure of the metabolic network tell us about function and evolution?
	Lunch-Lobby Patio (12:00noon-1:00pm)		
(PM)	1:00-1:50	Kris Gunsalus	Predictive models of molecular machines involved in <i>C. elegans</i> early embryogenesis.
	1:55-2:45	Andrey Rzhetsky	Distributed thinking about molecular networks in biomedical communities
	2:50-3:10	Coffee break	
	3:10-4:00	Ilya Mazo	Molecular Networks in Mammals: Extraction from Literature and Pathway Analysis
	4:05-4:55	Iaroslav Ispolatov	Dimers in evolution and topology of protein-protein interaction networks
Dinner-II Mare Ristorante (6:30pm-8:30pm)			

Friday, September 9th

Date	Time	Speaker	Title
(AM)	Continental Breakfast-Vanderbilt Room (8:00am-9:00am) Lunch boxes would be available at Vanderbilt Room 7:30am-9:30am		
Departure			