



**Computational Approaches to  
the Analysis of Biomolecular Sequences,  
Structures and Their Functions  
and Applications to Biotechnology and  
Clinical Data Studies**

[26 - 27 Mar 2020]



**ORGANIZING COMMITTEE**

**Co-Chairs**

Igor N. Berezovsky  
Bioinformatics Institute (BII) - A\*Star

Frank Eisenhaber  
Bioinformatics Institute (BII) - A\*Star

Lars Nordenskiöld  
Nanyang Technological University

**Members**

Kwok Pui Choi  
National University of Singapore

Louxin Zhang  
National University of Singapore

# Computational Approaches to the Analysis of Biomolecular Sequences, Structures and Their Functions and Applications to Biotechnology and Clinical Data Studies

(23 - 25 Mar 2020)

## Monday, 23 Mar 2020

Time	Title	Speaker
0900-0930	Registration	
0930	Chair: Frank Eisenhaber, Bioinformatics Institute - A*Star, Singapore	
0930-0950	Welcome by Organizers	
0950-1030	About the limited potential, yet instrumental role of computational biology and the target identification bottleneck due to the decline in biomolecular mechanism discovery after 2000	Frank Eisenhaber Bioinformatics Institute - A*Star, Singapore
1030-1100	Group Photo & Coffee Break	
1100-1145	Antibody engineering, scientific phone apps, viral research, and device prototyping in APD lab	Antibody engineering, scientific phone apps, viral research, and device prototyping in APD lab
1145-1200	A holistic view of proteins: impact on antibody engineering and drug discovery	Chinh Tran-To Su Bioinformatics Institute - A*Star, Singapore
1200-1315	Lunch Reception at IMS	
1315-1330	Registration	
1330	Lunch Reception at IMS	
1330-1400	Deriving structure profiles corresponding to functional loops in proteins	Melvin Yin Bioinformatics Institute - A*Star, Singapore
1400-1430	Melvin Yin Bioinformatics Institute - A*Star, Singapore	Swati Sinha Bioinformatics Institute - A*Star, Singapore
1430-1500	Coffee Break	
1500-1600	Evolutionary lessons learned from transcriptome data	Evolutionary lessons learned from transcriptome data

Tuesday, 24 Mar 2020		
Time	Title	Speaker
0900-0930	Registration	
0930	Chair: Igor N. Berezovsky, Bioinformatics Institute - A*Star, Singapore	
0930-1030	Abeta chaperones in Alzheimer's disease: friends or foes	Konstantin Pervushin Nanyang Technological University, Singapore
1030-1100	Coffee Break	
1100-1200	Tutorial: Modeling allostery: global protein structural changes in response to local perturbations	Zhen Wah Tan Bioinformatics Institute - A*Star, Singapore
1200-1315	Lunch Reception at IMS	
1315	Registration	
1330	Chair: Igor N. Berezovsky, Bioinformatics Institute - A*Star, Singapore	
1330-1430	3D genome: from organization to function	Amartya Sanyal Nanyang Technological University, Singapore
1430-1500	Coffee Break	
1500-1600	Tutorial: Capturing communities in diffusive chromatin polymers via Markov state modeling and transition path theory	Tutorial: Capturing communities in diffusive chromatin polymers via Markov state modeling and transition path theory

Wednesday, 25 Mar 2020		
Time	Title	Speaker
0930	Research and Discussion	