Computational Approaches to the Analysis of Biomolecular Sequences, Structures and Their Functions and Applications to Biotechnology and Clinical Data Studies (23–27 Mar 2020)

Name and Affiliation	Talk Title
Ganesh Srinivasan Anand National University of Singapore, Singapore	Whole viral particle metastability and dynamics by HDX mass spectrometry (Video)
Peter J. Bond Agency for Science, Technology and Research, Singapore	Multiscale modelling approaches to large systems in biology: understanding infectious diseases and the host response (Video)
Frank Eisenhaber Agency for Science, Technology and Research, Singapore	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 (Video)
Samuel Gan Agency for Science, Technology and Research, Singapore	Antibody engineering, scientific phone apps, viral research, and device prototyping in APD lab
Gerhard Grüber Nanyang Technological University, Singapore	Amino acid sequence insertions or deletions inside Mycobacterium tuberculosis's respiratory complexes provide fitness for the pathogen and new pathways for TB-drug development
Kaicheng Liang Agency for Science, Technology and Research, Singapore	Tutorial: Computational imaging with deep learning: biomedical focus (Video)
Alexander Lyubartsev Stockholm University, Sweden	Multiscale modeling of macromolecular systems by structure-based coarse-graining (Video)
Marek Mutwil Nanyang Technological University, Singapore	Evolutionary lessons learned from transcriptome data (Video)
Mahsa Paknezhad Agency for Science, Technology and Research, Singapore	Tutorial: Reinforcement learning and its biomedical applications (Video)
Konstantin Pervushin Nanyang Technological University, Singapore	Abeta chaperones in Alzheimer's disease: friends or foes? (Video)

Name and Affiliation	Talk Title
Firdaus Samsudin Agency for Science, Technology and Research, Singapore	To bind or not to bind: IgM versus IgG in Pertuzumab and Trastuzumab
Amartya Sanyal Nanyang Technological University, Singapore	3D genome: from organization to function
Swati Sinha Agency for Science, Technology and Research, Singapore	Discovery of an antifungal compound BII-Rafflesfungin: a computational perspective
Chinh Tran-To Su Bioinformatics Institute - A*Star, Singapore	A holistic view of proteins: impact on antibody engineering and drug discovery
Zhen Wah Tan Agency for Science, Technology and Research, Singapore	Tutorial: Modeling allostery: global protein structural changes in response to local perturbations (Video) Tutorial: Capturing communities in diffusive chromatin polymers via Markov state modeling and transition path theory (Video)
Rohan Williams National University of Singapore, Singapore	Sequence similarity networks: a working model for defining the 'known-unknowns' of gene function in microbiomes
Lim Soon Wong National University of Singapore, Singapore	A genome assembly quality assessment measure that integrates contiguity, completeness, and correctness