

Weizmann Institute – Tsinghua University

Workshop on Nano-Bio Engineering Science

February 26-27, 2018

Botnar Auditorium- Arthur and Rochelle Belfer Building
Weizmann Institute of Science

This workshop will discuss a broad range of topics within the fast-emerging science of Bio-Nano engineering, including tissue engineering, superhydrophobic surfaces, crack formation, bio-inspired materials, nano-scale self-assembly, synthetic biology and cell mechanics. It is hoped more generally to encourage contacts and collaborations between the Weizmann Institute and Tsinghua University, one of China's leading Institutions of higher learning.

PROGRAM

Monday 26th February

08.00	Gathering and Coffee
08.30	Opening & welcome Michal Neeman Quanshui Zheng
08.45	Quanshui Zheng , Tsinghua University Scale down for robust and extreme hydrophobicity
09.15	Eran Bouchbinder , Weizmann Institute of Science Instability in dynamic fracture and the failure of the classical theory of cracks
09.45	Ming Ma , Tsinghua University Controllable Robust Superlubricity on Microscale
10.15	Rafal Klajn , Weizmann Institute of Science Controlling self-assembly of nanomaterials using external fields
10.45	Coffee break & posters
11.15	Xiqiao Feng , Tsinghua University Oscillating Dynamics of Collective Cells
11.45	Nir Gov , Weizmann Institute of Science Modeling Collective Migration of Cellular Clusters
12.15	Lunch
13.30	Hongwei Wang , Tsinghua University CryoEM of proteins using phase plate electron microscopy
14.00	Sharon Wolf , Weizmann Institute of Science Advances in Cryogenic Scanning Transmission Electron Microscopy and Tomography
14.30	Yiguo Wang , Tsinghua University Coordinated regulation of glycolysis, oxidative phosphorylation and mitophagy
15.00	Hagen Hofmann , Weizmann Institute of Science Mapping a network of intrinsically-disordered proteins
15.30	Tea break & posters
16.00	Cunjing Lv , Tsinghua University Marangoni effect at fluid interfaces: some perspectives and applications

16.30	Jacob Klein , Weizmann Institute of Science Biolubrication, gene regulation and osteoarthritis
17.00	Guoqing Hu , Chinese Academy of Sciences Interactions between inhaled nanoparticles and pulmonary surfactant

Tuesday 27th February

08.00	Gathering and Coffee
08.30	Benjamin Geiger , Weizmann Institute of Science Mechanics of invasive migration of metastatic cancer cells
09.00	Li Yu , Tsinghua University Migrasome and Migracytosis
09.30	Gilad Haran , Weizmann Institute of Science Understanding microsecond functional dynamics of proteins with single-molecule FRET
10.00	Sam Safran , Weizmann Institute of Science Nuclear envelope rupture and chromatin release in confined cells
10.30	Coffee break & posters
11.00	Luping Xu , Tsinghua University Microfluidic DNA combing (μ DC) technology for quantitative DNA damage analysis
11.30	Daniel Wagner , Weizmann Institute of Science Inspirational multiscale biological composites
12.00	Guoqiang Chen , Tsinghua University Next Generation Industrial Biotechnology based on Halophiles
12.30	Ulyana Shimanovich , Weizmann Institute of Science Protein self-assembly in bio-inspired materials
13.00	Concluding Remarks
13.15	Lunch

Registration & Poster Abstract Submission

Deadline: February 21, 2018

Register at: Talylo@weizmann.ac.il

Organizing Committee **Jacob Klein** | Chair, Weizmann Institute of Science
Quanshui Zheng | Tsinghua University
Sam Safran | Weizmann Institute of Science
Yifeng Cao | Weizmann Institute of Science
Weifeng Lin | Weizmann Institute of Science

Secretariat

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