

The First Metabolostasis Conference

Jul 11–13, 2023
Online Conference

9:00AM – 1:00PM Eastern Day Time
3:00PM – 7:00PM Central European Time
4:00PM – 8:00PM Israel Standard Time



Organizing Committee: Dana Laor Bar-Yosef, Tal Yehuda, Ehud Gazit

	Tuesday, 11/07/2023	Wednesday, 12/07/2023	Thursday, 13/07/2023
3:45PM – 4:00PM Israel Standard Time	Gathering	Gathering	Gathering
Session	1 Molecular self-assembly: physical-chemical perspective	3 Metabolite accumulation and self-assembly in health and disease	5 Biomolecular self-assembly and crystallization
	Chair: Gal Finkelstein	Chair: Shon Levkovich	Chair: Hanaa Adsi
	Opening remarks: Ehud Gazit, Tel Aviv University		
4:00PM – 4:30PM	Biophysics of protein and peptide phase transitions Tuomas Knowles , University of Cambridge	Pharmacological chaperones for the treatment of inborn metabolic diseases: function follows form Søren W. Gersting , University Medical Center Hamburg – Eppendorf	Simple hydroxybenzene molecules as thermally stable catalysts Meital Rechtes , Hebrew University of Jerusalem
4:30PM – 5:00PM	Can we achieve programmable self-assembly? Insights from predictive molecular models Damien Thompson , University of Limerick	Clues for inherited metabolic disease understanding – the Soroka experience Orna Staretz-Chacham , Soroka University Medical Center	X-ray powder diffraction analysis for biochemistry Davide Levy , Tel Aviv University
5:00PM – 5:30PM	Bioinspired materials for medical applications Lihi Adler-Abramovich , Tel Aviv University	Location, location, location: peroxisome metabolism in a cellular context Einat Zalckvar , Weizmann Institute of Science	Supramolecular chirality and hydration of nucleoside crystals Valery Andrushchenko , Czech Academy of Sciences
5:30PM – 6:00PM	Metabolite self-assembly: physiology, pathology and nanotechnology Ehud Gazit , Tel Aviv University	The metabolostasis network in physiology and pathology Dana Laor Bar-Yosef , Tel Aviv University	Revisiting biocrystallization: purine biocrystals are widespread in eukaryotes Jana Pilátov , Charles University
6:00PM – 6:30PM	Break	Break	Break
Session	2 New building blocks, physical properties and mechanisms of assembly	4 Amyloid proteins: a double-edged sword	6 Chemical evolution and the origin of life
	Chair: Om Shanker Tiwari	Chair: Keila Kaplan	Chair: Poulami Chakraborty
6:30PM – 7:00PM	Amyloid-like fibrils of lipids: potential pathogenic agents in sphingolipidoses that can promote Parkinson's disease Daniel Segal , Tel Aviv University	A novel high-throughput in vivo predictor for small molecules that disrupt amyloid formation Peter Roy , University of Toronto	Evolution of primordial peptides Moran Frenkel-Pinter , Hebrew University of Jerusalem
7:00PM – 7:30PM	Bio piezoelectricity: a building block approach from amino acids, peptides and proteins? Tofail Syed , University of Limerick	Use and abuse of functional amyloid: how to control and direct protein self-assembly Daniel Otzen , Aarhus University	RNA and Protein – a match made in the hadean Loren Williams , Georgia Tech
7:30PM – 8:00PM	Bioanalytical approaches to investigate the early stages of amino acid and metabolite aggregation Thanh Do , University of Tennessee	Resilience against protein aggregation in Alzheimer's disease through Metabolostasis Priyanka Joshi , University of California, Berkeley	Peptide self-assembly mediated by liquid-liquid phase separation Chengqian Yuan , Institute of Process Engineering
			Concluding remarks: Dana Laor Bar-Yosef, Tel Aviv University

For more details: <https://www.gazitlab.sites.tau.ac.il/events/the-first-metabolostasis-conference>



Link to the meeting: <https://tau-ac-il.zoom.us/j/89170619016>

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