

Non-Mendelian inheritance and stress responses symposium: An open discussion across the tree of life

24 January 2023 9:00-15:30

The Steinhardt Museum of Natural History, Tel Aviv University

- 9:00-9:30 Arrival and registration
9:30-9:35 Welcome address **Judith Berman**
9:35-10:05 Keynote talk **Dan Jarosz**
Protein self-assembly as a driver of stress-induced adaptation from molecules to ecosystems

Session 1: Mediators of non-mendelian inheritance

- 10:05-10:15 Session overview **Tzachi Pilpel**
10:15-10:30 **Oded Rehavi** Transgenerational Small RNA Inheritance
10:30-10:45 **Dan Mishmar** Mitochondrial-nuclear co-evolution and coregulation in health and disease
10:45-11:00 **Markus Ralser** Emerging roles of metabolic cell-cell interactions in generating phenotypic heterogeneity
11:00-11:20 Discussion
11:20-11:45 Coffee break

Session 2: Mechanisms of stress responses

- 11:45-11:55 Session overview **Shula Michaeli**
11:55-12:05 **Ruth Hirschberg** Dynamics of bacterial adaptation under prolonged resource exhaustion
12:05-12:20 **Uri Ben David** Aneuploidy as stress inducer and stress reducer in human cancer
12:20-12:45 **Amir Mitchell** Microbiome adaptation to chemotherapy drugs and its potential impact on the treated host
12:45-13:05 Discussion

13:05-14:00 Lunch and speed dating

Session 3: Persistence, Tolerance, Resistance

- 14:00-14:10 Session overview **Uri Alon**
14:10-14:25 **Yossi Yarden** The bacterial SOS Response: relevance to treatment of patients with lung cancer
14:25-14:40 **Nathalie Balaban** Understanding drug response in the framework of the disrupted cell
14:40-14:55 **Ronen Ben-Ami** Lost in translation: what will it take to introduce microbial tolerance and persistence into clinical trials
14:55-15:15 Discussion
15:20-15:25 Concluding remarks **Yaara Oren**