

The 23rd Annual Meeting of The Israel Society for Astrobiology and the Study of the Origin of Life (ILASOL)

13 December 2009, Botnar Auditorium, Weizmann Institute of Science

Session 1

- 9:00-9:05 Doron Lancet (WIS) Opening Remarks
9:05-9:25 Amri Wandel (HUJ) **The Fermi-SETI paradox: when should we expect ET to call?**
9:25-9:55 Sonja Prohaska (Leipzig University, Germany) **The definition of genes**
9:55-10:25 Ilana Agmon (TEC, HUJ) (with Ada Yonath, WIS) **Identification of the prebiotic translation apparatus within the contemporary ribosome**
10:25-10:55 Peter Stadler (Leipzig University, Germany) **Simulating the origins of metabolism**

10:55-11:10 Coffee Break

Session 2

- 11:10-11:40 J. Peter Gogarten and Gregory P. Fournier (University of Connecticut, USA) **Rooting the ribosomal tree of life using the early expansion of the genetic code**
11:40-12:10 Shmuel Pietrokovsky (WIS) **Insert, fracture, break and scatter - gene fission by inteins and homing endonucleases**
12:10-12:40 Eshel Ben-Jacob (TAU) **Origin of bacterial Self-Organization and Swarming Intelligence**

12:40-1:20 Lunch

Session 3

- 1:20-1:50 Akiva Bar Nun and Gideon Fleminger (TAU) **Chemical evolution - the case of beta-galactosidase**
1:50-2:20 Ohad Carny and Ehud Gazit (TAU) **Self-assembling short peptides: significance for prebiotic molecular evolution**
2:20-2:50 Gonen Ashkenasy (BGU) **Replication of short and simple peptides and its relevance to the origin of life**

2:50-3:05 Coffee Break

Session 4

- 3:05-3:35 Tereza Pereira de Souza and Pier Luigi Luisi (Friedrich-Schiller-Universität Jena, Germany) **Vesicles as model compartments for the study of minimal cells and origin of life**
3:35-4:05 Maya Kleiman and Emmanuel Tannenbaum (BGU) **Diploidy and the selective advantage for sexual reproduction in unicellular organisms**