



The Israel Society for Astrobiology and the Origin of Life (ILASOL)

29th Annual Meeting, Sunday April 17th, 2016

8:45 Ilse Katz Auditorium, Ben-Gurion University, Beer Sheva

8:45-9:05 *Refreshments & Gathering*

Session 1 – Astrobiology (Doron Lancet, Chair ; Amri Wandel, Organizer)

9:05-9:15 Gonen Ashkenasy (BGU)

Opening Remarks

9:15-9:45 Ravit Helled (TAU)

Methane-Rich Planets and the Characterization of Exoplanets

9:45-10:10 Sohan Jheeta (NoR HGT, LUCA)

Formation of Glycolaldehyde (HOCH₂CHO) from Pure Methanol in Astrophysical Ice Analogues

10:10-10:35 Joseph Gale (HUJI)

Is Liquid Water Essential for Life? A Reassessment

10:35-11:00 *Coffee break*

Session 2 – Evolution (Addy Pross, Chair)

11:00-11:40 Robert Pascal (CNRS Montpellier)

Identifying the Kinetic, Thermodynamic and Chemical Conditions for Stability and Complexity in Living Systems

11:40-12:05 Omer Markovitch (Newcastle)

Predicting Proto-Species Emergence in Complex Networks

12:05-12:30 Amir Aharoni (BGU)

Engineering a Species Barrier in Yeast

12:30-12:55 Jayanta Nanda (BGU)

Spontaneous Evolution of β -Sheet Forming Self-Replicating Peptides

12:55-14:05 *Lunch*

Session 3 – Origins of Order and Complexity (Gonen Ashkenasy, Chair; Tal Mor, Organizer)

14:05-14:15 Prof. Zvi HaCohen, Rector (BGU)

Greetings

14:15-14:45 Doron Lancet (WIS)

Composomics: a Common Biotic Thread

14:45-15:10 Avshalom Elitzur (IYAR)

Living State Physics: Does Life's Uniqueness Elude Scientific Definition?

15:10-15:35 Tal Mor (Technion)

Origins of Translation: Speculations about the First and the Second Code Word

15:35-16:00 Ilana Agmon (Technion)

Could Spontaneously Emerging Prebiotic Molecules Lead into Present Life? Could a Hurricane Assemble a Boeing 747?

16:00-16:20 *Coffee break*

Session 4 – Biochemistry and Prebiotic Chemistry (Omer Markovitch, Chair)

16:20-16:50 Enrique Peacock-Lopez (Williams)

Chemical Self-Replication and Complex Dynamics in Open Systems

16:50-17:15 Yitzhak Mastai (BIU)

Chiral Selection on Inorganic and Organic Surfaces

17:15-17:40 Yifat Miller (BGU)

Self-Organization of Amylin Peptide with Absence and with Presence of Metal Ions: Mechanisms Related to Type 2 Diabetes

17:40-18:05 Miri Krupkin (WIS)

The Origin of the Ribosome: A Vestige of a Prebiotic Bonding Machine Functioning within the Contemporary Ribosome

18:05-18:10 Nathaniel Wagner (BGU)

Closing Remarks

