



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

25th annual meeting December 25th, 2011

09:00 Botnar auditorium, Weizmann Institute of Science

9:00-9:10 Opening Remarks

Session 1 – Evolution (chair: Gonen Ashkenasy)

9:10 - 9:45 Addy Pross (BGU) Towards a General Theory of Evolution

9:45-10:05 Edward N. Trifonov and Zakharia M. Frenkel (HU) Origin and Evolution of Genes and Genomes via Everlasting Triplet Expansions

10:05-10:25 Gonen Ashkenasy (BGU) Experimental Results Linking Peptides to the Origin of Life

10:25-10:45 Omer Markovitch and Doron Lancet (WIS) Network Motifs in Prebiotic Metabolic Networks

10:45-11:05 *Coffee break*

Session 2 – Protein (chair: Meir Lahav)

11:05-11:45 Keynote speaker: Ada Yonath (WIS) A Vestige of an RNA Apparatus with Bonding Capabilities Functions within the Modern Ribosome

11:45-12:05 Assaf Gottlieb and David Horn (TAU) Common Peptides Study of Aminoacyl-tRNA Synthases

12:05-12:25 Dan S. Tawfik (WIS) Thoughts and Some Data on the Evolution of the Early Protein Forms

12:25-12:45 Nathaniel Wagner, Boris Rubinov and Gonen Ashkenasy (BGU) A Model for the Origin of Homochirality in Polymerization and Beta Sheet Formation

12:45-13:25 *Free Lunch*

Session 3 – Astro (chair: Amri Wandel)

13:25-14:00 Tsvi Mazeh (TAU) Kepler and Corot mission (extrasolar planets)

14:00-14:20 Akiva Bar-Nun (TAU) The Contribution of Comets to the Volatiles Inventory of the Primitive Earth

14:20-14:35 Amri Wandel (HUJI) The Impact of Kepler on the Chances of Extraterrestrial Life

14:35-14:55 Eran Ofek (TAU) Finding Extrasolar Planets Using Microlensing

14:55-15:15 Uri Malamud (TAU) Modeling the Structure and Evolution of Icy Objects

15:15-15:35 *Coffee break*

Session 4 – Emergence (chair: Doron Lancet)

15:35-16:00 Sarah E. Maurer (SDU) Structures on the Edge of Stability and Their Implications for the Origin of Life

16:00-16:20 Omer Shenkman (BGU) Can Life Evolve from Petroleum?

16:20-16:40 Arie S. Issar (BGU) An Interdisciplinary General Conceptual Model to Explain Altruism in the Bio-World

16:40-17:00 Malcolm Schrader (HUJI) A Novel Approach to Prebiotic Synthesis of Proteins

17:00 Closing Remarks

<http://www.ilasol.org.il/>

