

Jacques Loeb Centre for the History and Philosophy of the Life Sciences

International Workshop

ORIGIN OF LIFE

Scientific, Historical and Philosophical Perspectives

W.A. Minkoff Senate Hall BGU Marcus Family Campus, Beer-Sheva

13-14 June 2011

For further information please contact: jloebcentre@bgu.ac.il

PROGRAMME

Monday, 13 June 2011

10:00

Reception

10:30-13:00

Rivka Carmi, President Ben-Gurion University of the Negev Welcoming Remarks

Ute Deichmann, Director Jacques Loeb Centre Ben-Gurion University of the Negev Origin of Life – From Spontaneous Generation to Asymmetric Catalysis: Introductory Remarks

Ramy Brustein, Ben-Gurion University of the Negev The Creation of the World – According to Science

Antonio Lazcano, Universidad Nacional Autónoma de México The Ghosts in the (Primitive) Soup: A Review of Some of the Debates that Shaped Early Discussions of the Origin and Nature of Life

13:00 - 14:00 Lunch Break

14:00 - 16:30

Purificación López-García, The University of Paris Metabolist versus Geneticist Views: Consequences for the Interpretation of the Tree of Life

Addy Pross, Ben-Gurion University of the Negev Extending Darwinian Theory to the Origin of Life

Dan Mishmar, Ben-Gurion University of the Negev The Ancient Collaboration between the Mitochondria and the Nucleus: The

Basis for Eukaryotic Life and Speciation?

16:30-17:00

Coffee Break

17:00-18:00

Ofer Bar-Yosef, Harvard University Lessons from the Archaeology of Human Evolution

18:00

Musical Interlude, Reception, and Dinner (at the University) for Invited Speakers

Tuesday, 14 June 2011

10:00-13:00

Michel Morange, Ecole normale supérieure, Paris The Recent Evolution of the Question "What Is Life?"

Raphael Falk, Hebrew University, Jerusalem Muller and Life

Siegfried Roth, University of Cologne The Origin of Life and the Problem of Defining the Organism

13:00- 14:00 Lunch Break

14:00-15:30

Ulrich Charpa, Ruhr-University, Bochum *Origin of Life: Conceptual Considerations*

Ahuva Gaziel, Hebrew University, Jerusalem Spontaneous Generation in Medieval Jewish Philosophy and Theology

15:30-15:45

Coffee Break

15:45-17:15

Manfred Laubichler, Arizona State University Developmental Evolution and Major Transitions: The Role of Developmental and Regulatory Processes in Understanding Major Transitions in the Evolution of Life

Omer Markovitch and Doron Lancet, Weizmann Institute of Science Origin of Life: The FAT Story

19:30

Dinner for invited speakers



ORIGIN OF LIFE

Hardly any topic in biology has changed its content so drastically as that of the origin of life. Its history includes claims of panspermia – the continuity of life in the universe – as well as assumptions, first put forward by Aristotle, and then repeated by the Church Fathers and by scientists until the end of the 19th century, that some forms of life are spontaneously generated from non-living material. In the 20th century, chemical, microbiological and molecular approaches prevailed in addressing the topic.

The workshop will focus on the origin of life on earth. It addresses the question from different scholarly and scientific perspectives. We expect this interdisciplinary discussion to also bring forward new insights regarding the question of what is life.

The Jacques Loeb Centre for the History and Philosophy of the Life Sciences, inaugurated on 4 March 2008, is engaged in advanced research covering relevant topics related to the life sciences. The Centre offers post-doctoral and graduate fellowships in the history and philosophy of modern biological, biochemical and medical sciences. It organises interdisciplinary seminars and international conferences.

The following international workshops have taken place:

- "Philosophies in Biology" (4-5 March 2008)
- "Darwinism and Functional Biology, Other Sciences, and the Humanities" (30 March-1 April 2009)
- "Understanding Scientific Progress: Developmental-Genetic Explanation of Evolution: Reflections on the History of Evolutionary Thought and Relations with Mechanistic Bioscience" (as a Batsheva Interdisciplinary Workshop) (8-9 June 2010)

Proceedings from the workshops were published as special editions/sections of:

- History and Philosophy of the Life Sciences 30 (2008)
- Journal for General Philosophy of Science 41 (2010)
- Developmental Biology (April 2011)

