

Systems Chemistry II: Evolution and Systems

Anna Grand Hotel • Balatonfüred, Lake Balaton • Hungary
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Chair: **Eörs Szathmáry**, Collegium Budapest, HU

Vice-Chair: **Dieter Schinzer**, University of Magdeburg, DE

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Preliminary Programme

Systems theory has laid the conceptual foundations of contemporary approaches. Systems biology is the marriage of these approaches with theoretical advances and databases of bioinformatics. Systems chemistry is a new field dealing with the analysis and synthesis of autocatalytic chemical systems. The roots of biological evolvability also lie within systems chemistry.

Darwin's now celebrated theory of evolution by natural selection got universally accepted when the Modern Synthesis was worked out about sixty years ago, uniting Darwinian reasoning with classical and population genetics. Now we are experiencing a phase of an extended evolutionary synthesis in which the Modern Synthesis is extended in width and depth. Evolution and development (evo-devo) and the theory of niche construction develop the theory in depth. Systems chemistry, evolutionary economics, possible evolutionary approaches to brain dynamics and some conceptualisations of linguistic phenomena apply the idea of evolutionary units and the Darwinian dynamics into areas where such thinking is novel and surprising. The meeting will bring together experts from all these fields in order to approach the power of evolutionary thought in many of its ramifications.

Invited Speakers will include

▪ Chrisantha Fernando

University of Sussex, Brighton, UK

▪ Herb Gintis

Santa Fe Institute, US

▪ Frigyes Károlyházy

Eötvös University Budapest, HU

▪ György Kampis

Eötvös University Budapest, HU

▪ Stuart Kauffman

University of Calgary, CA

▪ Doron Lancet

Weizmann Institute of Science, Rehovot, IL

▪ Niles Lehman

Portland State University, US

▪ Pier Luigi Luisi

University of Rome, IT

▪ William Martin

Heinrich-Heine University Düsseldorf, DE

▪ John Odling-Smee

University of Oxford, UK

▪ Balázs Papp

Biological Research Center Szeged, HU

▪ Sergei Rodin

The Beckman Research Institute, City of Hope, US

▪ Mauro Santos

Autonomous University Barcelona, ES

▪ Peter Schuster

University of Vienna, AT

▪ Luc Steels

SONY Lab Paris, FR

▪ Dan Tawfik

Weizmann Institute of Science, Rehovot, IL

▪ Günter von Kiedrowski

Ruhr University Bochum, DE

▪ Albrecht von Müller

Parmenides Foundation, DE

▪ Günter Wagner

Yale University, US

▪ Michael Yarus

University of Colorado at Boulder, US