



RESEARCH CONFERENCES

COST- ESF Conference

Systems Chemistry II: Evolution and Systems

Anna Grand Hotel, Balatonfüred (Lake Balaton) • Hungary
18-23 October 2009

Chair: **Eörs Szathmáry** - Collegium Budapest, HU

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

The conference will focus on the unifying organisational and dynamic principles that link systems chemistry with other fields of science. Presentations will go beyond chemistry, but will also allow participants to learn new ways of thinking about chemistry.

Systems theory has laid the conceptual foundations of contemporary approaches. Systems biology combines these approaches with theoretical advances and bioinformatics databases. 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 was universally accepted thanks to the modern synthesis, which unites Darwinian reasoning with classical and population genetics. We are now experiencing a phase of extended evolutionary synthesis deepening and expanding the modern synthesis. Evolution and development (evo-devo) and the theory of niche construction contribute to this advance. 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.



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Invited Speakers will include:

Robert Auger - London School of Hygiene and Tropical Medicine, UK

Ference Darvas - Thalesnano, HU

Albert Eschenmoser - ETH Zurich, CH

Chrisantha Fernando - Sussex U., Brighton, UK

Herb Gintis - Santa Fe Inst., US

Frigyes Károlyházy - Eötvös U. Budapest, HU

Stuart Kauffman - Calgary U., CA

Doron Lancet - Weizmann Inst., Rehovot, IL

Niles Lehman - Portland State U., US

Pier Luigi Luisi - Rome U., IT

William Martin - Düsseldorf U., DE

John Odling-Smee - Oxford U., UK

Balázs Papp - BRC Szeged, HU

Sergei Rodin - Beckman Research Inst., City of Hope, US

Mauro Santos - UAB Barcelona, ES

Peter Schuster - U. of Vienna, AT

Luc Steels - SONY Lab. Paris, FR

Dan Tawfik - Weizmann Inst., Rehovot, IL

Günter von Kiedrowski - Ruhr U. Bochum, DE

Günter Wagner - Yale U., US

Michael Yarus - Colorado U., Boulder, US

Application Form & Programme available from

www.esf.org/conferences/09332

Closing Date for Application **27 July 2009**

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