

Gordon research conference program

Origin of life

January 7–12, 1996

Doubletree Hotel
Ventura, CA, USA

Origins of life on earth

Anastassia Kanavarioti, University of California, Santa Cruz, USA: **Chair**

Stanley Miller, University of California, San Diego, USA: **Efficient prebiotic synthesis of pyrimidines**

Alan Weiner, Yale University, USA: **Genomic tags and the evolution of genomic structure**

Polymers of life

Alan Schwartz, University of Nijmegen, The Netherlands: **Chair**

Albert Eschenmoser, ETH-Zürich, Switzerland: **Pyranosyl RNA**

Leslie Orgel, Salk Institute, USA: **Formation of polyamides on RNA templates, minerals and micelles**

James Ferris, Rensselaer Polytechnic Institute, USA: **Nucleotide polymerization on mineral surfaces**

Chemical self-replication

Gerald Joyce, Scripps Research Institute, USA: **Chair**

Günther von Kiedrowski, Universität Freiburg, Germany: **Self-replicating polynucleotide analogues**

Julius Rebek, Massachusetts Institute of Technology, USA: **Synthetic assemblies**

RNA-based evolution

Andrew Ellington, Indiana University, USA: **Chair**

Jack Szostak, Harvard Medical School, USA: ***In vitro* evolution of novel ribozymes**

David Bartel, Whitehead Institute, USA: **RNA-catalyzed RNA ligation**

Michael Yarus, University of Colorado, USA: **RNA-catalyzed aminoacylation**

Origin of the cell

John Rummel, Woods Hole Marine Biological Laboratory, USA: **Chair**

Luigi Luisi, ETH-Zürich, Switzerland: **Self-reproducing liposome systems**

Ford Doolittle, Dalhousie University, Canada: **Origin of the eucaryotic cell**

Deep molecular phylogeny

Mitchell Sogin, Woods Hole Marine Biological Laboratory, USA: **Chair**

Peter Gogarten, University of Connecticut, USA: **The last common ancestor**

Norman Pace, Indiana University, USA: **Deep branches of the Archaeal tree**

Gary Olsen, University of Illinois, USA: **Ancient diversification of polymerase proteins**

Earth's earliest biosphere

Andrew Knoll, Harvard University, USA: **Chair**

William Schopf, University of California, Los Angeles, USA: **Precambrian microbial life**

David DesMarais, NASA Ames Research Center, USA: **Isotopic signature of the ancient biosphere**

Exobiological exploration of Mars

John Kerridge, University of California, San Diego, USA: **Chair**

Jack Farmer, NASA Ames Research Center, USA: **Exploring for a Martian biosphere: the Global Surveyor Program and beyond**

Phillip Christensen, Arizona State University, USA: **Composition of the Martian surface**

Christopher McKay, NASA Ames Research Center, USA: **Analysis of the Mars soil oxidant**

A planetary basis for life

William Irvine, University of Massachusetts, USA: **Chair**

Robert Brown, Space Telescope Science Institute, USA: **Extrasolar planetary systems**

James Kasting, Penn State University, USA: **Circumstellar habitable zones**

Applications may be found in the September 1 issue of *Science* or requested from the conference chairman:

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