

# Cosmos Life

Consciousness  
Culture

## SCIENCE AND TODAY'S VISIONS OF THE WORLD

VENICE, MARCH 11-13, 2005  
SEDE DI PALAZZO FRANCHETTI

“Scientists should think about their speciality within the framework of modern culture to provide not only specific knowledge, but also some general ideas” (Jacques Monod, 1970).

“At the dawn of the third millennium, scientists claim their right to intervene in a field, which was once considered to be under the exclusive competence and jurisdiction of philosophers and churchmen: the field of values” (Rita Levi Montalcini, 2002).

### FRIDAY, MARCH 11<sup>TH</sup> 2005

#### 09.00 - 10.00 OPENING SESSION

Leopoldo Mazzaroli

Istituto Veneto di Scienze, Lettere ed Arti, Venice

Walter Erdelen

UNESCO, Paris

Giorgio Bernardi

Stazione Zoologica Anton Dohrn, Naples

Ernesto Carafoli

Università degli Studi, Padua

Jean-Paul Poirier

Academia Europaea, Paris

Motonori Hoshi

International Union of Biological Sciences

Rita Levi-Montalcini

CNR - Istituto di Neurobiologia e Medicina

Molecolare, Rome

#### 10.00 - 11.00 *Chair:* Bernardino Fantini

University of Geneva

Christian de Duve

Institute of Cellular Pathology, Brussels

*Life between chance and necessity*

#### 11.00 - 11.30 Coffee break

#### 11.30 - 12.30 *Chair:* Takashi Gojobori

National Institute of Genetics, Mishima

Giorgio Bernardi

Stazione Zoologica Anton Dohrn, Naples

*An ultra-darwinian view of evolution*

#### 12.30 - 14.30 Lunch Break

#### 14.30 - 15.45 *Chair:* Giorgio Morpurgo

Università degli Studi, Perugia

Emile Zuckerkandl

Institute of Molecular Medical Sciences, Palo Alto

*Complexity, intelligent design, and nature's cunning*

Antoine Danchin

Institut Pasteur, Paris

*Is the computer metaphore relevant to describe*

*living organisms?*

#### 15.45 - 17.00 *Chair:* Gian Antonio Danieli

Università degli Studi, Padua

Pier Luigi Luisi

Università degli Studi di Roma 3, Rome

*From the origin of life on Earth to synthetic biology*

Douglas Wallace

University of California, Irvine

*Ancient origins-modern diseases:*

*the mitochondrial connection*

#### 17.00 - 17.15 Coffee break

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ISTITUTO VENETO DI SCIENZE, LETTERE ED ARTI



STAZIONE ZOOLOGICA ANTON DOHRN

#### UNDER THE AUSPICES OF:

Academia Europaea

International Union of Biological Sciences IUBS

International Society of Molecular Evolution ISME

#### ORGANIZING COMMITTEE

Giorgio Bernardi

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Padua

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Venice

Giovanni Giacometti

Padua

Ladislav Kovac

Bratislava

Howard Moore

Venice

Pierre Papon

Paris

**17.15 - 18.30** *Chair:* Vittorio Sgaramella  
Parco Tecnologico Padano - CERSA, Lodi

Benno Müller-Hill  
University of Cologne  
*In praise of fundamental biological research*

Werner Arber  
University of Basle  
*Practical and philosophical values of scientific knowledge*

**18.30 - 20.00** **TAVOLA ROTONDA (in lingua italiana)**  
Giorgio Bernardi  
Stazione Zoologica Anton Dohrn, Naples  
Ernesto Carafoli  
Università degli Studi, Padua  
Giovanni Giacometti  
Università degli Studi, Padua  
Piergiorgio Odifreddi  
Università degli Studi, Turin  
Vittorio Sgaramella  
Parco Tecnologico Padano - CERSA, Lodi

**SATURDAY, MARCH 12<sup>TH</sup> 2005**

**9.00 - 10.30** *Chair:* Orio Ciferri  
Università degli Studi, Pavia

Daniel Hartl  
Harvard University, Cambridge  
*Reshaping life: the biology and technology of food*

Rita Colwell  
University of Maryland, College Park  
*Climate and human health: the cholera paradigm*

**10.30 - 11.00** Coffee break

**11.00 - 12.30** *Chair:* Talal Younès  
IUBS, Paris

Motonori Hoshi  
Keio University, Yokohama  
*Individuality and sexuality*

Marvalee Wake  
University of California, Berkeley  
*Integrative Biology: an approach to the analysis of complexity*

*Chair:* Pierre Lasserre  
University of Paris VI

Arturo Falaschi  
ICGEB, Trieste  
*Scientific cooperation with the developing world*

Gabriel Macaya  
University of Costa Rica, San José  
*Doing science in small national scientific communities*

**12.30 - 14.30** Lunch Break

**14.30 - 16.30** *Chair:* Lucio Luzzatto  
Istituto Nazionale per la Ricerca sul Cancro, Genoa

Takashi Gojobori  
National Institute of Genetics, Mishima  
*The evolutionary origin of a brain*

Alain Prochiantz  
CNRS - Ecole Normale Supérieure, Paris  
*To be and not to be an animal*

Elkhonon Goldberg  
New York University  
*Human brain and the civilized mind*

**16.30 - 17.00** Coffee break

**17.00 - 18.30** *Chair:* Howard Moore  
UNESCO-ROSTE, Venice

Graziano Fiorito  
Stazione Zoologica Anton Dohrn, Naples  
*A point of view on behavior and its flexibility*

Pierre Gilles de Gennes  
Institut Curie, Paris  
*The nature of memory objects in the brain*

Hideaki Koizumi  
Advanced Research Laboratory, Saitama  
*Developing the Brain. An approach towards learning and educational sciences by functional imaging*

**SUNDAY, MARCH 13<sup>TH</sup> 2005**

**9.00 - 10.30** *Chair:* Piergiorgio Odifreddi  
Università degli Studi, Turin

Pierre Papon  
Ecole Supérieure de Physique et Chimie Industrielles, Paris  
*Space, time and matter: scientific challenges for a new vision of the physical reality and their cultural dimensions*

Alec Boksenberg  
Cambridge University  
*An observer's vision of the universe*

John Barrow  
Cambridge University  
*Simplicity and complexity*

**10.30 - 10.45** Coffee break

**10.45 - 13.00** *Chair:* Howard Moore  
UNESCO - ROSTE, Venice

Ladislav Kovac  
Comenius University, Bratislava  
*Humans transcending biology: epistemology of artifacts*

Lucio Luzzatto  
Istituto Nazionale per la Ricerca sul Cancro, Genoa  
*Gene transfer in human cells: medical, ethical and emotional implications*

Elliott Sober  
University of Wisconsin, Madison  
*Science, selfishness, and human nature*

*Chair:* Giovanni Giacometti  
Università degli Studi, Padua

Pierre Gilles de Gennes  
Institut Curie, Paris  
*The tribulations of inventors*

Susan Greenfield  
Oxford University  
*Selling science to society*

**13.00 - 14.00** Lunch Break

**14.00 - 16.10** *Chair:* Ernesto Carafoli  
Università degli Studi, Padua

Alessandro Schiesaro  
King's College, London  
Poeta creator: *poetry creates the world*

Richard Ernst  
ETH, Zurich  
*Arts and sciences, fascinating aspects of Tibetan paintings*

Arthur I. Miller  
University College London  
*Abstract Art, Abstract Science*

Piergiorgio Odifreddi  
Università degli Studi, Turin  
*Zero, and nothing else*

**16.10 - 16.25** TRANSFER TO SAN VIDAL CHURCH

**16.25 - 17.00** Jörg Rasche  
German Association for Analytical Psychology, Berlin  
*Music, love and gravitation. Mozart and the physics of enlightenment*

**17.00 - 17.15** CONCLUDING REMARKS

Giorgio Bernardi  
Stazione Zoologica Anton Dohrn, Naples



Istituto Veneto  
di Scienze Lettere  
ed Arti

Durante il convegno sarà proiettato il filmato  
*Il divenire animale nel cinema*,  
di Gian Piero Brunetta e Mirko Melanco,  
Prodotto da: MART di Rovereto e DAMS di Padova

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