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La lingua ufficiale del simposio è l'inglese, è previsto un servizio di traduzione simultanea.

Il simposio è rivolto ai medici ed è gratuito.

Poiché l'evento è a numero chiuso, è indispensabile l'iscrizione al Simposio, almeno 20 giorni prima dell'evento, esclusivamente mediante la presente scheda, da inoltrare a mezzo fax al n. 039.6985030 o per e-mail a: laura.billo@named.it

3rd INTERNATIONAL SYMPOSIUM

Biophysical Aspects of Complexity in Health and Disease

Lugano | October 4 2014

PALAZZO DEI CONGRESSI
Piazza Indipendenza, 4

Scientific Committee

L. BRIZHIK
A. FOLETTI
A. LISI
J. POKORNY
G. H. POLLACK
C. ROSSI
F. SCHOLKMANN
C. SONNENSCHNEIN
J.A. TUSZYNSKI

Chair

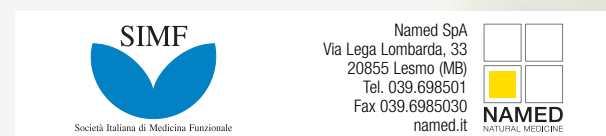
A. FOLETTI

Organizing Committee

A. FOLETTI (chair)
A. LISI
S. GRIMALDI
C. ROSSI
G. CELLA

In cooperation with

- Area di Ricerca di Tor Vergata, National Research Council-CNR, Rome, Italy.
- Center for the Study of Complex Systems, Department of Applied and Medicinal Chemistry, University of Siena, Italy.
- Clinical Biophysics International Research Group, Lugano, Switzerland.
- Named
- LIR



preliminary program

3rd INTERNATIONAL SYMPOSIUM

Biophysical Aspects of Complexity in Health and Disease



Lugano | October 4 2014

PALAZZO DEI CONGRESSI
Piazza Indipendenza, 4

3rd International Symposium

Biophysical Aspects of Complexity in Health and Disease

Lugano, Switzerland, October 4 2014

This conference will bring together researchers in the life sciences and in the physical sciences to discuss aspects of biophysics and medicine that can contribute to a system or integrative, approach to biological organization and processes involved in health disease dynamics.

The aim is to contribute to build bridges between sciences in order to increase opportunities of communication between the physical sciences and life sciences.

This Symposium is becoming a stimulating opportunity for communication among sciences to yield the growth of this new trans-disciplinary area of knowledge.

A number of distinguished and innovative scientists from both life sciences and physical sciences will present overview suitable also for non-specialists of research area that impact integrative biology and informative medicine.

The invited lecturers together with the contributing talks are intended to stimulate and promote a change of paradigm in life sciences in the light of complexity as a proposed unifying tool.

Topics that are relevant to the meeting include: Intracellular biophysical signalling pathways and cell-cell communication,

Coherence in Biological System, Quantum Electro Dynamic, Biophotonics, Bioresonance, Informative Medicine and Physical Methods for studying cellular and systemic processes.

International
scientific committee

Larissa Brizhik
Bugolyubov Institute for Theoretical Physics, Kyiv, Ukraine.

Alberto Foletti
Clinical Biophysics International Research Group, Lugano, Switzerland.
Institute of translational Pharmacology, National Research Council-CNR, Rome, Italy.

Antonella Lisi
Head of Unit Planning and development of New Interdisciplinary Therapeutic Strategies Institute of Translational Pharmacology, C.N.R., Rome, Italy.

Jirí Pokorný
Institute of Photonics and electronics, v.v.i., Academy of Sciences of the Czech Republic, Prague, Czech Republic.

Gerald H. Pollack
Department of Bioengineering, University of Washington, Seattle, USA.

Claudio Rossi
Department of Chemical and Medicinal Sciences and Centre of Complex Systems, University of Siena, Siena, Italy.

Felix Scholkmann
Biomedical Optics Research Laboratory (BORL), Division of Neonatology, University Hospital Zurich, Zurich, Switzerland.

Carlos Sonnenschein
Tufts University School of Medicine, Department of Integrative Physiology and Pathobiology, Boston MA, USA, and Centre Cavailles, Ecole Normale Supérieure, Paris, France.

Jack A. Tuszynski
Department of Oncology, Faculty of Medicine & Dentistry, University of Alberta, Edmonton, Alberta, Canada.
Department of Physics, University of Alberta, Edmonton, Alberta, Canada.

Organizing committee:
A. Foletti (Chair); A. Lisi; S. Grimaldi; C. Rossi; G. Cella.

preliminary
Program
Saturday October 4 2014

8.30-9.00 Registration.

BRIDGING SCIENCES IN UNDERSTANDING
BIOLOGICAL COMPLEXITY:

9.00-9.30 **LARISSA BRIZHIK**
Bugolyubov Institute for Theoretical Physics, Kyiv, Ukraine.

“Physics of Alive as Complex Coherent Nonlinear Quantum Phenomenon.”

9.30-10.00 **FELIX SCHOLKMANN**
Biomedical Optics Research Laboratory (BORL), Division of Neonatology, University Hospital Zurich, Zurich, Switzerland.

“Two Emerging Topics Regarding Long-Range Physical Signaling in Biosystems: Electrical Signal Propagation in Membrane Nanotubes, and Communication between Neurons through Endogenous Electric Fields.”

10.00-10.30 **JIRÍ POKORNÝ**
Institute of Photonics and Electronics, Academy of Sciences of the Czech Republic, Prague, Czech Republic.

“Pathology of Reduced Coherent Energy States in Living Cells.”

10.30-11.00 **IGOR JERMAN**
Institute Bion, Ljubljana, Slovenia.

“Biological Coherence as a Basis of Organism’s Intelligence in Combating Disease”.

11.00-11.20 **Coffee Break**

BIOPHYSICAL INFORMATION IN COMPLEX
DISEASE DYNAMICS

11.20-12.00 **CARLOS SONNENSCHN**
Tufts University School of Medicine, Department of Integrative Physiology and Pathobiology, Boston MA, USA, and Centre Cavailles, Ecole Normale Supérieure, Paris, France.

“The Tissue Organization Field Theory (TOFT). A Theory for Development and Cancer.”

12.00-12.30 **JUANITA MATHEWS**
Postdoctoral fellow at Tufts Center for Regenerative and Developmental Biology as a member of Dr. Michael Levin’s research group, TUFTS University, Boston, USA.

“Endogenous Gradients of Resting Potential Encode Instructive Patterning Information During Embryogenesis, Regeneration, and Cancer.”

12.30-13.00 **ANA SOTO**
Tufts University School of Medicine, Department of Integrative Physiology and Pathobiology, Boston MA, USA, and Centre Cavailles, Ecole Normale Supérieure, Paris, France.

“Physical Determinants of Morphogenesis and Carcinogenesis.”

13.00-13.30 **JACK A. TUSZYNSKI**
Department of Oncology, Faculty of Medicine & Dentistry, University of Alberta, Edmonton, Canada.
Department of Physics, University of Alberta, Edmonton, Canada.

“A Strategy to Identify Optimal Protein Targets for Drug Development Toward the Control of Cancer Diseases.”

13.30-14.30 **Lunch**

LIGHT’S AND WATER’S DYNAMICS
IN HEALTH AND DISEASE:

14.30-15.10 **ROELAND VAN WIJK**
Meluna Research / Sino Dutch Centre for Preventive and Personalized Medicine.
Leiden University, Leiden, The Netherlands.

“Biophotons in Health and Disease.”

15.10-16.10 **GERALD H. POLLACK**
Department of Bioengineering, University of Washington, Seattle, USA.

“The Fourth Phase of Water: Implications for Health.”

16.10-16.30 **Coffee Break**

BIOPHYSICAL INFORMATION IN
MEDICAL APPLICATION:

16.30-17.00 **MARIO LEDDA**
Institute of Translational Pharmacology, National Research Council-C.N.R., Rome, Italy.

“Biophysical Strategies in Regenerative Medicine.”

17.00-17.30 **PAOLO BARON^{1,3}**
& MARINA CIPOLLONE^{2,3}
¹General Practitioner, Palmanova, Italy.
²Orthopaedist, Chieti, Italy.
³Clinical Biophysics International Research Group.

“Biophysical Therapies: a Tailored and Systemic Tool in Daily Medical Practice.”

17.30-18.00 **IDA FERRARA^{1,3}**
& MARINA SALVI^{2,3}
¹Gynecologist, Naples, Italy.
²Gynecologist, Rome, Italy.
³Clinical Biophysics International Research Group.

“Biophysical Therapies in Gynaecology: Clinical Applications and Future Perspectives.”

18.00-18.30 **ALBERTO FOLETTI**
Clinical Biophysics International Research Group, Lugano, Switzerland.
Institute of Translational Pharmacology, National Research Council-C.N.R., Rome, Italy.

“Toward a Personalized Biophysical Approach to Stress Related Diseases and Successful Aging.”

18.30 General Discussion and Closing Remarks.