

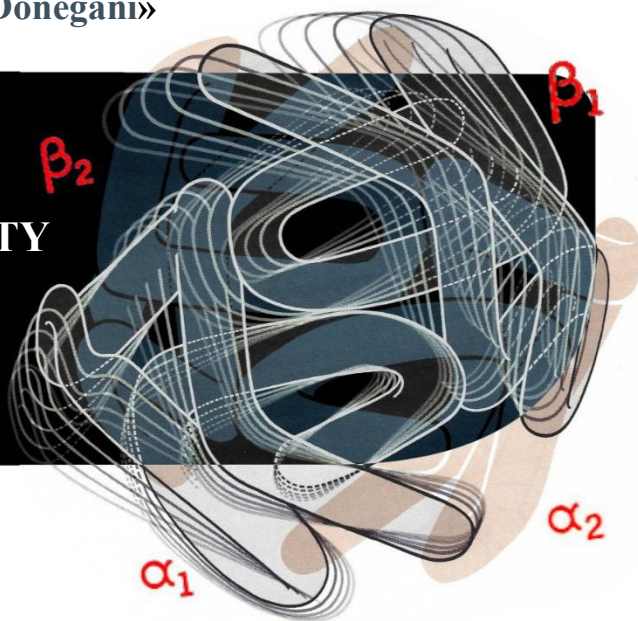


Accademia Nazionale dei Lincei

Fondazione «Guido Donegani»

PROTEIN DYNAMICS, COMPLEXITY AND FUNCTIONAL CONTROL

*A Conference dedicated to the memory of
Professor Martin Karplus (1930-2024)*



Rome (IT) - 24 November 2026
Palazzo Corsini, Via della Lungara 10

Proteins are dynamic molecular systems whose function emerges from the interplay of structure, fluctuations and conformational transitions. This symposium, inspired by the pioneering work of Martin Karplus, will bring together experimentalists and theoreticians to discuss recent advances in protein dynamics, energy landscapes and functional regulation. Bridging physics, chemistry, biophysics and biomedicine, the meeting will explore how molecular dynamics and complexity shape biological function from individual proteins to large supramolecular assemblies and cellular systems

*Scientific
Organizing
Committee*

*M. Brunori
E. Carafoli
J-P. Changeux
W.A. Eaton
A. Fersht
S. Gianni*

Invited Participants

Lucia BANCİ - University of Florence, Sesto Fiorentino, Italy
Maurizio BRUNORI - Linceo, Sapienza University of Rome, Rome, Italy
Ernesto CARAFOLI - Linceo, University of Padua, Padua, Italy
Marco CECCHINI - University of Strasbourg, Strasbourg, France
Jean-Pierre CHANGEUX - Linceo, Institut Pasteur, Paris, France
William A. EATON - Linceo, National Institutes of Health, Bethesda, MD, USA
Sir Alan R. FERSHT - Linceo, MRC Laboratory of Molecular Biology, Cambridge, UK
Stefano GIANNI - Sapienza University of Rome, Rome, Italy
Steven McKNIGHT - University of Texas Southwestern Medical Center, Dallas, TX, USA
Roland NETZ - Freie Universität Berlin, Berlin, Germany
Giorgio PARISI - Linceo, Sapienza University of Rome, Rome, Italy
Sir John E. WALKER - Linceo, MRC Mitochondrial Biology Unit, Univ. of Cambridge, UK
Kurt WÜTHRICH - Linceo, ETH Zürich, Zürich, Switzerland

Info

convegni@lincei.it

Participation to the Conference is free. **Registration** is compulsory:
<https://www.lincai.it/it/manifestazioni/protein-dynamics>



PROGRAMME

- 09:30** ***WELLCOME** by **President R. Antonelli** and **Vice-President C. Doglioni***
- 09:50** ***CHAIR** - **Sir Alan R. FERSHT (UK)**: *General outlook.**
- 10:10** ***Kurt WÜTHRICH (CH)**: *Allosteric mediation of intramolecular dynamics in GPCR transmembrane signaling.**
- 11:00** ***Lucia BANCI (I)**: *Cellular structural biology**
- 11:40** ***COFFEE BREAK***
- 12:00** ***Jean-Pierre CHANGEUX (F)** and **Marco CECCHINI (F)**: *Allosteric mechanisms of synaptic transmission at atomic resolution: from early functional data to present day molecular dynamics**
- 13:00** ***LUNCH BREAK***
- 14:00** ***CHAIR** - **Ernesto CARAFOLI (I)***
- 14:00** ***Sir John E. WALKER (UK)**: *The dynamic control of ATP Synthase**
- 14:50** ***Stefano GIANNI (I)**: *Transient misfolding and dynamic communication in multidomain proteins**
- 15:30** ***William A. EATON (USA)**: *Retrospective on explaining hemoglobin function and pathology with theoretical models**
- 16:10** ***COFFEE BREAK***
- 16:20** ***Roland NETZ (D)**: *Conformational dynamics, memory effects and internal friction in fast folding proteins**
- 17:00** ***Maurizio BRUNORI (I)**: *Elogio dell'imperfezione: a role for packing defects**
- 17:30** ***Steven McKNIGHT (USA)** **Pending**. *How do protein domains of low sequence complexity assist in the dynamics of cell morphology?**
- 18:00** ***Giorgio PARISI (I)**: *Complexity and Biological Organization**
- END OF MEETING**