

**ACCADEMIA NAZIONALE DEI LINCEI**  
CENTRO LINCEO INTERDISCIPLINARE "BENIAMINO SEGRE"

**EUROPEAN MOLECULAR BIOLOGY ORGANIZATION**

Convegno internazionale sul tema

**BIOINFORMATICS AND COMPUTATIONAL BIOLOGY**

1 - 3 OTTOBRE 2004

COMITATO SCIENTIFICO: Tom BLUNDELL (University of Cambridge, UK), Peer BORK (European Molecular Biology Laboratory, Heidelberg), Maurizio BRUNORI (Università di Roma "La Sapienza"), Frank GANNON (European Molecular Biology Organization, Heidelberg), Cecilia SACCONI (Università di Bari), Janet THORNTON (European Bioinformatics Institute, Cambridge, UK), Anna TRAMONTANO (Università di Roma "La Sapienza")

**PROGRAMMA**

**Venerdì 1 ottobre**

- 17.00 Registrazione
  - 18.30 Welcome addresses
    - Frank GANNON (Heidelberg): EMBO activities
- Presiede: Maurizio BRUNORI
- 19.00 Barry HONIG (New York): Combining bioinformatics and biophysics to understand biological structure and function

**Sabato 2 ottobre**

**COMPUTATIONAL GENOMICS AND MOLECULAR BIOLOGY**

Presiede: Sören BRUNAK

- 9.00 Sören BRUNAK (Copenhagen): Introduction
- 9.15 Cecilia SACCONI (Bari): Comparative Genomics: tools and theories
- 9.45 Antoine DANCHIN (Parigi): Living Turing machines
- 10.15 Giorgio BERNARDI (Napoli): The neo-selectionist theory of Molecular Evolution: a brief report
- 10.45 Cyrus CHOTHIA (Cambridge, UK): The formation of pathways
  - 11.15 Intervallo

**COMPUTATIONAL STRUCTURAL BIOLOGY**

Presiede: Anna TRAMONTANO

- 11.45 Anna TRAMONTANO (Roma): Introduction
- 12.00 John MOULT (Rockville): SNPs, Protein Structure and Disease
- 12.30 Janet THORNTON (Cambridge, UK): Towards understanding enzyme catalysis and evolution through protein structures
- 13.00 Michael LEVITT (Stanford): Protein Structural Comparison and Classification
- 15.00 Frank GANNON (Heidelberg): EMBO matters

## **COMPUTATIONAL CELL BIOLOGY**

Presiede: Alfonso VALENCIA

- 15.30 Alfonso VALENCIA (Madrid): Introduction
- 15.45 Dennis BRAY (Cambridge, UK): Bacterial chemo-taxis: using computer models to unravel mechanism
- 16.15 Shoshana WODAK (Bruxelles): Transcriptional regulation of protein complexes in yeast
- 16.45 Marie-France CARLIER (Gif-sur-Yvette): A biomimetic motility assay provides insight into the mechanism of actin-based motility
  - 17.15 Intervallo

## **INDUSTRY CORNER**

Presiede: Cecilia SACCONI

- 17.45 Leopoldo FRATI (Milano), Pietro LEO (Bari): IBM activities in the Healthcare and Life Sciences domain and specific capabilities and innovative projects developed in Italy
- 18.15 Frank GANNON (Heidelberg): EMBO matters

### **Domenica 3 ottobre**

- 9.00 Frank GANNON (Heidelberg): EMBO matters

## **COMPUTATIONAL MOLECULAR MEDICINE**

Presiede: Janet THORNTON

- 9.30 Janet THORNTON (Cambridge, UK): Introduction
- 9.45 Antonino CATTANEO (Roma): Neurodegenerative diseases
- 10.15 Peer BORK (Heidelberg): Function prediction in 4D
- 10.45 Luis SERRANO (Heidelberg): Prediction of protein interactions based on homology modelling and energy calculation
  - 11.15 Intervallo
- 11.45 Janet THORNTON (Cambridge, UK): The Biosapiens Network of Excellence
- 12.30 **Tavola rotonda e discussione**
  - Presiede: Tom BLUNDELL (Cambridge, UK)

Con il contributo di: European Molecular Biology Organization; Centro Linceo Interdisciplinare

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