



University of Roma Tre  
Department of Biology

# **Molecular Evolution in the Genomic Era**

*September 29<sup>th</sup> - October 1<sup>st</sup>*

A Meeting sponsored by:

**University of Roma Tre  
“Genome Biology and Evolution”  
International Union of Biological  
Sciences (IUBS)**

# **Organizing Committee**

Paolo Ascenzi  
Giorgio Bernardi  
Fabio Polticelli  
Roberta Melissano  
Caterina Nuvoli

# **Scientific Committee**

Giorgio Bernardi  
Takashi Gojobori  
William Martin  
Fabio Polticelli

Registration is free. If you plan to attend the meeting please register sending an e-mail to the address [gbernardi@uniroma3.it](mailto:gbernardi@uniroma3.it) or [polticel@uniroma3.it](mailto:polticel@uniroma3.it).

## **PROGRAM**

**September 29<sup>th</sup>**

**4.00 pm  
Opening Lecture**

**Chairman  
Prof. Maurizio Brunori**

**Prof. Werner Arber**  
“Molecular Darwinism in the microbial world”

**Aula Magna - University of Roma Tre  
Via Ostiense, 159**

**All the other presentations will take place at  
the Department of Biology,  
University of Roma Tre, V.le G. Marconi 446**

# September 30<sup>th</sup>

<b>Takashi Gojobori</b> (Mishima, Japan) Evolutionary Origin of Camera-type eye	9.00-9.30
<b>Norihiro Okada</b> (Tokyo, Japan) Speciation by Sensory Drive: its Generality in Cichlids of Lake Victoria	9.30-10.00
<b>Manyuan Long</b> (Chicago, USA) The Phenotypic Effects of New Genes and Evolution of Development	10.00-10.30
<b>Coffee break</b>	10.30-11.00
<b>Duccio Cavalieri</b> (Florence, Italy) Using next generation sequencing to understand the evolution of multicellularity in <i>S. cerevisiae</i>	11.00-11.30
<b>James Mc Inerny</b> (Maynooth, Ireland) The Public Goods Hypothesis for the Evolution of Life on Earth	11.30-12.00
<b>Marta Wayne</b> (Gainesville, USA) Separate not equal: sex, gene expression, and the discriminating genome	12.00-12.30
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<b>William Martin</b> (Duesseldorf, Germany) The impact of mitochondria on eukaryote genome evolution	15.00-15.30
<b>John Archibald</b> (Halifax, Canada) One Plus One Equals One: Endosymbiosis and Genome Mosaicism in Eukaryotic Microorganisms	15.30-16.00
<b>Martin Embley</b> (Newcastle, United Kingdom) Reductive evolution of mitochondrial homologues in parasitic protists	16.00-16.30
<b>Coffee Break</b>	16.30-17.00
<b>Charlie Baer</b> (Gainesville, USA) The mutational landscape of <i>Caenorhabditis</i>	17.00-17.30
<b>Marilù Chiusano</b> (Salerno, Italy) Intriguing issues on a reference plant species	17.30-17.45
<b>Kamel Jabbari</b> (Paris, France) Title to be announced	17.45-18.00
<b>Fabio Polticelli</b> (Rome, Italy) Molecular evolution of the polyamine oxidase family of proteins. A structural biologist perspective	18.00-18.30
<b>Mauro Fasano</b> (Milan, Italy) Sequence analysis of serum albumins reveals the molecular evolution of ligand recognition properties	18.30-19.00

# October 1<sup>st</sup>

<b>Giorgio Bernardi</b> (Rome, Italy) The vertebrate genome: a view from above	9.00-9.30
<b>Maria Costantini</b> (Naples, Italy) Mapping structural variations on Venter's chromosomes: new insights into genetic diseases and genomic rearrangements	9.30-10.00
<b>Miriam Di Filippo</b> (Salerno, Italy) Chromatin accessibility during apoptotic DNA fragmentation	10.00-10.15
<b>Paolo Cozzi</b> (Milan, Italy) Segmenting the human genome	10.15-10.30
<b>Coffee break</b>	10.30-11.00
<b>Thomas Bettecken</b> (Muenchen, Germany) Nucleosome sequences in species and isochores	11.00-11.30
<b>Marcello Buiatti</b> (Florence, Italy) Context driven multilevel selection	11.30-12.00
<b>Adam Eyre-Walker</b> (Brighton, United Kingdom) Selection on Base Composition in Bacteria and Mitochondria	12.00-12.30
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<b>Fernando Alvarez-Valin</b> (Montevideo, Uruguay) Orphan orfogenic ORFs in the extremely compartmentalized genome of the African parasite <i>trypanosome vivax</i>	15.00-15.30
<b>Wojciech Makalowski</b> (Muenster, Germany) The evolution of U12-type intron containing genes	15.30-16.00
<b>Izabela Makalowska</b> (Poznan, Poland) Retrogenes and their evolutionary potential	16.00-16.30
<b>Coffee break</b>	16.30-17.00
<b>Luisa Bernà</b> (Florence, Italy) Fast evolving Tunicates, patterns and rates of amino acid evolution	17.00-17.15
<b>Laura Gil Alberdi</b> (Madrid, Spain) Evolution of nucleolar interactions between the genome and proteins of nuclear matrix	17.15-17.30
<b>Vittorio Sgaramella</b> (Trento, Italy) Somatic and germ-line genomic variation: sex as a filter	17.30-18.00