

**2007  
WORKSHOPS  
CURRENT TRENDS  
IN BIOMEDICINE**ORGANIZED JOINTLY BY  
THE UNIVERSIDAD INTERNACIONAL DE ANDALUCÍA  
AND THE INSTITUTO DE SALUD CARLOS III**STRESS, STRESS RESPONSES  
AND MECHANISMS  
OF EVOLVABILITY****BAEZA, SPAIN 22-24 OCTOBER 2007****ORGANIZED BY****JESÚS BLÁZQUEZ**

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**IVAN MATIC**

Necker Institute, University René Descartes-Paris 5. Paris, France.

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Baylor College of Medicine. Houston, USA.

**SCOPE**

The goal of this workshop is to bring together leading workers in several different disciplines of modern molecular biology whose work is affecting our understanding of how biological evolution works, and its consequences for human health. Several recent advances have revealed molecular processes that have the potential to accelerate evolution under stress, specifically when organisms are poorly adapted to their environments. This includes both stress-induced and stochastic mechanisms of generation of diversity, both phenotypic (protein) and genetic, upon which natural selection acts. Cellular stress responses are important to both. Other recent findings indicate that genomes may have evolved mutable and less-mutable regions, such that genetic change, when it occurs, may produce more adaptive

outcomes. Evolved mechanisms that can affect rates or directions of future evolution are called "evolvability" mechanisms. These lines of research add newly appreciated layers of apparent regulation to the framework of Darwinian selection of favorable variants. Mechanisms affecting evolution underpin many aspects of human health from host-pathogen interactions and antibiotic resistance, to tumor formation and development in stress-provoking microenvironments. This workshop will bring together workers in mutation, phenotypic variation mechanisms, stress responses, and related topics, particularly those in which molecular mechanisms are being addressed, with the goal of identifying biological themes or strategies, which may have elements in common.

**FORMAT OF THE  
WORKSHOP**

The workshop will bring together 16 speakers and a maximum of 50 participants (including speakers). The scientific programme will start in the morning of Monday, October 22, and will end around noon on Wednesday, October 24. Ample time for informal discussion will be reserved. Participants will be invited to present a poster.

**VENUE OF THE  
WORKSHOP**

The workshop will be held in Baeza, at the "Sede Antonio Machado", a XVII century building turned into a Conference Centre of the Universidad Internacional de Andalucía (UNIA). This Seat includes a recently restored residence, where participants will be accommodated. Baeza is a World Historic Heritage town, renowned for its Renaissance and Gothic buildings.

**DEADLINE: 7 SEPTEMBER 2007**

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AND APPLICATION**<http://www.unia.es/BiomedicineWorkshops/workshops2007.htm>