

Workshops Current trends in Biomedicine

The Biology of Intracellular Bacterial Pathogens

un
i Universidad
Internacional
de Andalucía

A

Scope

Many intracellular bacterial pathogens are important infectious agents inflicting serious diseases in humans and animals. Some of these bacteria cause serious diseases such as tuberculosis, tularemia, typhoid fever, brucellosis, the flu-like illness called Q-fever, Rocky-Mountain spotted fever, and pneumonia, among others. These bacterial pathogens exhibit distinct intracellular lifestyles depending on the eukaryotic cell that they encounter and have evolved multiple strategies for evading host immune defences. Despite the variation of intracellular bacterial pathogens and their diverse modes of interaction with the eukaryotic cell, discrete 'obligatory stages' have been repeatedly observed and constitute 'paradigms' that define the Biology of this selected group of successful pathogens. This workshop will essentially focus on the most recent advances on these 'paradigms', including: the pathogen-driven *entry* process into phagocytic or non-phagocytic eukaryotic cells, the *intracellular survival* ensured by sophisticated mechanisms of evasion of host cell defences, and, the *replication* or *maintenance (persistence)* within vacuolar compartments or the cytosol of the infected cell. Other aspects that will be discussed are the impact of single-cell and 'real-time imaging' technologies, the metabolic readjustments contributing to the adaptation of these pathogens to live inside eukaryotic cells, and the mechanisms by which bacteria regulate gene expression during the transition from the extracellular environment to the intracellular niche.

Format of the Workshop

The workshop will bring together 17 speakers and a maximum of 33-35 participants, to form a group of around 50 people. The scientific programme will start in the morning of Monday, October 24th, and will end around noon on Wednesday, October 26th. 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.

Organized by:

Jorge E. Galán
Yale University School of Medicine. New Haven, USA.

Francisco García-del Portillo
Centro Nacional de Biotecnología, CNB-CSIC. Madrid, Spain.

Speakers

David J. Clarke. Department of Microbiology, University College Cork. Cork, Ireland.

Pascale Cossart. Institut Pasteur, Unité des Interactions Bactéries-Cellules, Département de Biologie Cellulaire et Infection, INSERM U604, INRA USC2020. Paris, France.

B. Brett Finlay. Michael Smith Laboratories, Department of Microbiology and Immunology and Department of Biochemistry and Molecular Biology, University of British Columbia. Vancouver, BC, Canada.

Jorge E. Galán. Section of Microbial Pathogenesis, Yale University School of Medicine. New Haven, CT, USA.

Francisco García-del Portillo. Departamento de Biotecnología Microbiana, Centro Nacional de Biotecnología, CNB-CSIC. Madrid, Spain.

Jean-Pierre Gorvel. Centre d'Immunologie de Marseille-Luminy, CNRS UMR 6102, INSERM U631, Université de la Méditerranée. Marseille, France.

Wolf-Dietrich Hardt. Institute of Microbiology, D-BIOL, ETH Zürich. Zürich, Switzerland.

Jonathan C. Howard. Institute for Genetics, University of Cologne. Cologne, Germany.

John D. McKinney. Global Health Institute, Swiss Federal Institute of Technology (EPFL). Lausanne, Switzerland.

Thomas F. Meyer. Department of Molecular Biology, Max Planck Institute for Infection Biology. Berlin, Germany.

Lalita Ramakrishnan. Departments of Microbiology, Medicine and Immunology, University of Washington. Seattle, WA, USA.

Craig R. Roy. Section of Microbial Pathogenesis, Yale University School of Medicine. New Haven, CT, USA.

Eric J. Rubin. Department of Immunology and Infectious Diseases, Harvard School of Public Health. Boston, MA, USA.

David G. Russell. Department of Microbiology and Immunology, College of Veterinary Medicine, Cornell University. Ithaca, NY, USA.

William Sullivan. Department of Molecular, Cell and Developmental Biology, University of California Santa Cruz. Santa Cruz, CA, USA.

Guy Tran Van Nhieu. Unité de Communication Intercellulaire et Infections Microbiennes, INSERM U971, Collège de France. Paris, France.

Raphael H. Valdivia. Department of Molecular Genetics and Microbiology, and Center for Microbial Pathogenesis, Duke University Medical Center. Durham, NC, USA.

Baeza, Spain
• 24th-26th October
2011

Deadline:
2nd September 2011

Venue:
Sede Antonio Machado
Universidad Internacional de Andalucía
Palacio de Jabalquinto
Plaza de Santa Cruz, s/n
23440 Baeza (Jaén), Spain
Tel: +34 953 74 27 75
Fax: +34 953 74 29 75
E-mail: baeza@unia.es

Workshop coordinator:
Joaquín Torreblanca
Universidad Internacional de Andalucía
j.torreblanca@unia.es

More information and application:
<http://www.unia.es/biomedicine>

