



LODOPP COST ACTION TRAINING SCHOOL

BIOINFORMATICS AND FLOW CYTOMETRY

Venue and dates

- School of Medicine. Campus Universitario, University of Alcalá. 28871 Alcalá de Henares. Madrid. Spain
- 12TH-18TH SEPTEMBER 2010

Organizers:

LODOPP COST BMBS Action [BM0802](#)

European Bioinformatics Institute (EBI)

Course coordinators

Dr. [A. Jiménez-Ruiz](#). University of Alcalá. Alcalá de Henares. Madrid. Spain

Dr. [E. Scoulica](#). School of Medicine, University of Crete. Greece

Dr. [G. van Zandbergen](#). Clinical University Ulm. Germany

Local Host: [Universidad de Alcalá](#).

Background and objectives

LODOPPnet comprises 15 COST member countries encompassing over 30 groups at the forefront of research into the death mechanisms of protozoan parasites.

An apoptosis-like cell death process has been recognized in the causative agents Malaria, sleeping sickness and leishmaniasis and could exist in many more species. Sharing knowledge, definition and methods is a crucial step to dissect mechanisms that are unique to the parasites. The driving force behind the Action is the urgent need to develop a framework for researching this novel area. This will enable scientific/technological advances that will contribute to the development of new therapies and control methods for the devastating diseases caused by parasitic protozoans.

Training schools are one of the most important tools to reach our objectives. According to our experience, bioinformatics and flow cytometry are among the most relevant techniques needed to increase our knowledge in the field. This is the reason why we have chosen these two topics for our first training school.

Practical issues

COST Action will reimburse the registration fee and up to 450 € for travel expenses.

The process of grant payment procedure will be clarified by the COST office. This amount will be paid AFTER the course.

CONTENTS

The course will consist of five days of lectures and practical activities. Provisional program:

BIOINFORMATICS:

Lecturers:

Lecturers from EMBL-EBI

Federico Gago (University of Alcalá, Spain)

- Introduction to databases at the EBI
- Protein Sequence Databases
- Sequence Searching and Alignment
- Structure to Function
- Small molecules in Bioinformatics

APPLIED FLOW CYTOMETRY

Lecturers:

Alberto Álvarez Barrientos (University of Extremadura, Spain)

- Leishmaniasis: Cell Death and Proliferation studies by flow cytometry
- Host-parasite relationship. Analysis by flow cytometry
- Drug evaluation on parasites by flow cytometry
- Functional Analysis of Protozoa by flow cytometry
- Detection and quantification of protozoa by flow cytometry

BASIC SORTING OF PARASITES

Lecturers:

Ger van Zandbergen (University of Ulm, Germany)

- MACS based separation of apoptotic and viable parasites (for example *Leishmania*)

Admission

The course is designed for a maximum of 20 participants, students or researchers working on protozoan parasites. A good knowledge of the English language is a pre-requisite.

Specific selection criteria: gender balance, balanced distribution by countries.

Registration fee

After confirmation of admission, students will be kindly asked to pay a registration fee of 228€. This fee covers lodging and meals and will be reimbursed by the COST office once the training school has finished.

Accommodation

The organizers will provide for lodging and meals in [Residencia Giner de los Rios](#).

Applications

Applicants should send a letter indicating their institute and a short abstract with their research interests to:

Antonio.jimenez@uah.es

please write in the e-mail subject: **application to COST BM0802 Training School**

Deadline for applications: 10 July 2010