



EUROPEAN CYTOGENETICISTS ASSOCIATION (E.C.A.) European Advanced Postgraduate Course in Classical and Molecular Cytogenetics

Director: Professor Jean-Michel Dupont, Paris - France

Objectives

This course was started by Professor Jean Paul Bureau 15 years ago and has been held in Nîmes under his directorship ever since. It is designed to provide advanced training in constitutional, haematological, and oncological cytogenetics to medical graduates, pharmacists, pathologists, biologists, health professionals and researchers, with an academic qualification. The students will be trained to identify genetic abnormalities for diagnosis and prognosis, and for fundamental and applied research using both classical and molecular cytogenetic techniques. The course is co-organized by E.C.A. and two French Universities, either as a stand-alone course with only the theoretical part or as a University Diploma including both theoretical and practical training. In 2012, the course was given **42 European CME credit points** (ECMEC, European Accreditation Council for Continuing Medical Education). An application for CME points will also be made for 2013.

Topics see the other side.

Practical information

Theoretical training: A ten-day course held in February/March of each year.

Venue: Faculty of Medicine, Nîmes, France. *Accommodation:* a hotel close to the Medical Faculty.

Official language: English.

Practical training: A training of maximum 2 months in a laboratory of your choice. A list of laboratories is provided during the theoretical course.

Assessment: There is an examination in June and another one in September (rescue session) for those students who are registered at one of the universities for a diploma.

Examination format: a written test (three questions) and an oral examination including a presentation (10-15 min) related to the practical training. At the end of each session the results of the examination are assembled by the administration, signed by the examiners, and sent to the Dean of the Faculty where the student is registered.

Registration

Registration opens in September and closes on January 30th.

To register please send a letter of application together with your CV by e-mail to one of the organizers mentioned below. If you are accepted you will receive a registration form.

Université Paris-Descartes

Prof. Jean-Michel DUPONT
Laboratoire de Cytogénétique,
Groupe Hospitalier Cochin
Saint Vincent de Paul
123 Bd Port Royal, 75014 Paris, FRANCE
e-mail: jean-michel.dupont@cch.aphp.fr

Université de Montpellier / Nîmes

Prof. Thierry LAVABRE-BERTRAND
Laboratoire de Biologie Cellulaire
et Cytogénétique Moléculaire
Faculté de Médecine Montpellier-Nîmes,
Avenue Kennedy, 30900 Nîmes, FRANCE
e-mail: tlavabre@univ-montp1.fr

Registration fees

Payment can be made either by bank transfer, or a cheque drawn on a French bank.

E.C.A. registration includes hotel accommodation in Nîmes (on the basis of a shared double room, an extra fee will be charged for a single room).

Theoretical course only

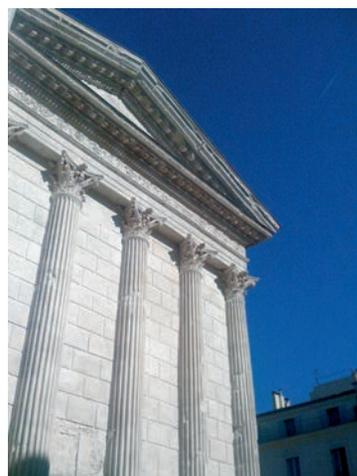
E.C.A. registration: €1000 for E.C.A. members
and €1100 for non-E.C.A. members.

Theoretical course and practical training

E.C.A. registration: €650 for E.C.A. members and
€750 for non-E.C.A. members. In addition
University registration: varies from €850 (if paid
by individuals) to €1400 (if paid by institutions)
and depends also on individual status (experience,
citizenship of a European Union country).



Nîmes arena



Maison carrée

2013 Course

This approximately 70 hour theoretical part of the course attempts to cover the field of cytogenetics in the broadest sense. The topics can be divided into the following categories:

Technical aspects:

Cell culture techniques; Chromosome staining methods (Q-, G-, C-, R- banding and high resolution banding); Methods and principles of Fluorescence In Situ Hybridization (FISH) and MFISH; New methods in cytogenetics (QPCR, MLPA, QMPSF).

Line Array CGH; Production and use of molecular probes; Laboratory quality assessment.

Clinical cytogenetics:

Basics: Frequency of chromosome disorders; Cell cycle, mitosis and meiosis, gametogenesis; Heterochromatic and euchromatic variants; ISCN 2009; Numerical chromosome abnormalities; Origin of aneuploidy; Mosaicism; Chimaeras; Origin and consequences of structural abnormalities: translocations, inversions, insertions, deletions, rings, markers; Risk assessment for balanced abnormalities; X inactivation, numerical and structural abnormalities of the X and the Y; Mechanism of formation of chromosome abnormalities.

Clinical: Phenotype of common autosomal and gonosomal aneuploidies; Chromosome abnormalities in recurrent abortions; Microdeletion syndromes; Uniparental disomy and its consequences; Genomic imprinting; Genetic counselling and ethical issues in cytogenetics.

Prenatal diagnosis: Indications, methods and interpretation; Risk assessment for chromosomal abnormalities; Non-invasive methods using DNA-PCR and foetal cells in maternal blood; Pre-implantation diagnosis.

Cancer Cytogenetics: Molecular approach to cancer cytogenetics; Predisposition to cancer, Chromosome instability syndromes; Chromosome mutagenesis; Solid tumors; Clinical application in onco-haematology.

Other:

Genome architecture; Structure of chromatin; Heterochromatin and its relation to chromosome banding; Evolution and plasticity of the human genome; Animal cytogenetics; Plant cytogenetics.

The students will have an opportunity to evaluate the course.

The **European Cytogeneticists Association** offers two **fellowships** for the **European Advanced Postgraduate Course in Classical and Molecular Cytogenetics** to candidates of excellence. The Education Committee of the E.C.A. will select the suitable candidates. The fellowships include the E.C.A. registration fees of the course (theoretical or theoretical and practical). This includes accommodation during the theoretical course in Nîmes but not during the practical training in one of the participating laboratories. The fellowships **do not include** any travel expenses or the university registration fees.