

HANDS-ON WORKSHOP

EPITHELIAL SYSTEMS: PHYSIOLOGY AND PATHOPHYSIOLOGY

An initiative of the ECFS Basic Science Working Group

FCUL, Lisboa (Portugal) 18 – 22 July 2016

Includes lectures, tutorials and hands-on practicals. Open to 12 participants

- Learn about the latest developments in the field
- Acquire practical skills on:
 - ✓ production, cultivation and characterization of epithelial cells
 - ✓ collection of nasal cells
 - ✓ Cultivation of intestinal organoids
 - ✓ functional approaches to assess CFTR
- Discuss your project with the experts

Faculty: Margarida Amaral (FCUL, Lisboa, Portugal); Jeff Beekman (University of Utrecht, The Netherlands); Luka Clarke (FCUL, Lisboa, Portugal); Michael Gray (University of Newcastle, UK); Martin Hug (University of Freiburg, Germany); Karl Kunzelmann (University of Regensburg, Germany); Paulo Matos (FCUL, Lisboa, Portugal); Rob Tarran (University of North Carolina; NC, USA)

Topics

Cell Culture of Epithelial Cells, Tissues and Organoids
Polarized Cells: Characteristics & Pathways
Cystic Fibrosis: a Disease of Multiple Epithelial Tissues
Physiology of Airway Surface Liquid
Organoids as Model Systems to Epithelia
Physiology of the Airway Epithelial Cells
Physiology of the Intestinal Epithelial Cells
Physiology of the Pancreas and Sweat Gland
Electrophysiology techniques

Lab work and tutorials

Culture of Primary Human Nasal Cells
Airway Surface Liquid Microscopy Measurements
Culture of Intestinal Organoids
Immunofluorescence of Epithelial Cells & Tissues
Differentiation & Regeneration Assays
Organoids Swelling Assay
Ussing Chamber Analysis of Native Tissues and Polarized Epithelial Cells

To apply send a CV, letter of motivation and recommendation letter to [Simão Luz \(sfluz@fc.ul.pt\)](mailto:sfluz@fc.ul.pt) until **20 May 2016**.

More infos at: www.ciencias.ulisboa.pt/ES_PP2016

The following National Patients Organizations could offer a travel grant upon application.

The Netherlands – contact: <http://www.ncfs.nl/onderzoek/subsidie/stage>

Belgium – contact: ulrike@muco.be

Germany – contact: SHafkemeyer@muko.info

Italy - contact: michele.samaja@gmail.com