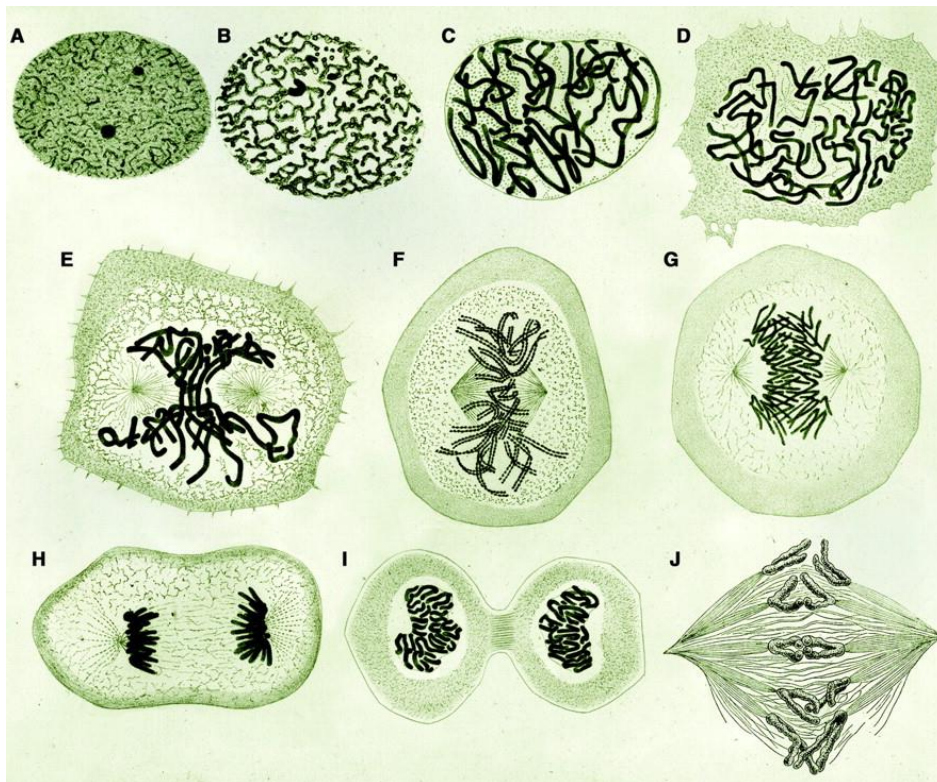


# *Cell Division & Differentiation*

*May 22- June 2, 2017*



*Course Coordinator: Helder Maiato*

# Objectives

In this course, students will be exposed to key lectures on leading-edge, cell division/differentiation-related topics by world-renowned experts. These lectures will cover fundamental concepts but will be specially oriented towards the identification of present challenges in the field and how they are being experimentally addressed. Lectures will be complemented with a short microscopy overview. From the first day of the course, the students will team up with a teaching assistant and will be assigned a research project to be carried out during the two weeks of the course. This includes the preparation of the necessary reagents, design and execution of experimental work, interpretation of the data and preparation of a short written report. The report will represent the main student evaluation instrument for this course.

# Program

## Week 1 (May 22 – May 26)

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-11:00	<b>Mitosis</b> Helder Maiato (Room B)	<b>Kinetochores</b> Reto Gassmann (Room B)	<b>Cell Polarity</b> Eurico Morais de Sá (Room B)	<b>Projects</b>	
11:00-12:00	<b>Spindle Assembly Checkpoint</b> Carlos Conde (Room B)	<b>Ageing and Aneuploidy</b> Elsa Logarinho (Room B)	<b>Cytokinesis</b> Ana Carvalho (Room B)		
12:00-13:00				<b>Cell Cycle Regulation</b> Claudio Sunkel (Room B)	<b>i3S Seminar</b> MITOTIC SPINDLE ASSEMBLY: BASIC PRINCIPLES AND FACILITATING MECHANISMS Alexey Khodjakov (Mariano Gago)
13:00-14:00	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break
14:00-15:30	<b>Quantitative Microscopy</b> António Pereira (Room B)	<b>Projects</b>			
15:30-16:30	<b>Visit microscopes</b> António Pereira, Paula Sampaio & André Maia				
17:00-19:00	<b>History of Biology</b> Manuel Mota (Room B)				

## Week 2 (May 29-June 2)

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-12:00	Projects	Projects		Symposium: Forces in Cell Biology  (organized by Jorge Ferreira)  (9h45-18h00)  (Corino de Andrade)	Projects conclusion and reporting
12:00-13:00	Seminar THE HUMAN CENTROMERE, A PARADIGM IN EPIGENETIC INHERITANCE Lars Jansen (Room A)				
13:00-14:00	Lunch break				
14:00-18:00	Projects				

### Visit microscopes

Monday 22/05, 15:30-16:30 (visit to the microscopes: 3 groups, 3x 20 min rotations)

#### STED and Laser microsurgery

António Pereira

#### Scanning confocal, Spinning-disk confocal and wide-field/3D-deconvolution

Paula Sampaio

#### High-content screening microscope

André Maia

## Faculty & Invited Speakers

<b>Claudio Sunkel</b> i3S, Universidade do Porto (cesunkel@ibmc.up.pt)	<b>Helder Maiato</b> i3S, Universidade do Porto (maiato@ibmc.up.pt)
<b>Reto Gassmann</b> i3S, Universidade do Porto (rgassmann@ibmc.up.pt)	<b>Ana Carvalho</b> i3S, Universidade do Porto (anacarvalho@ibmc.up.pt)
<b>Elsa Logarinho</b> i3S, Universidade do Porto (elsa.logarinho@ibmc.up.pt)	<b>Eurico Morais de Sá</b> i3S, Universidade do Porto (eurico.sa@ibmc.up.pt)
<b>António Pereira</b> i3S, Universidade do Porto (apereira@ibmc.up.pt)	<b>Carlos Conde</b> i3S, Universidade do Porto (CConde@ibmc.up.pt)
<b>Paula Sampaio</b> i3S, Universidade do Porto (sampaio@ibmc.up.pt)	<b>Alexey Khodjakov</b> Wadsworth Center Albany, NY , USA (alexey.khodjakov@health.ny.gov)
<b>André Maia</b> i3S, Universidade do Porto (andre.maia@i3S.up.pt)	<b>Lars Jansen</b> Instituto Gulbenkian de Ciência (ljansen@igc.gulbenkian.pt)
<b>Manuel Mota</b> Universidade de Évora (mmota@uevora.pt)	<b>Martial Balland</b> LiPhy, Grenoble, France
<b>William Roman</b> (iMM, Lisboa, Portugal)	<b>Christophe Guilluy</b> (IAB, Grenoble, France)
<b>Buzz Baum</b> (UCL, London, UK)	<b>Jorge Ferreira</b> (i3S, Porto, Portugal)
<b>Floris Bosveld</b> (Institut Curie, Paris, France)	<b>Marin Barisic</b> (DCRC, Copenhagen, Denmark)
<b>Yohanns Bellaiche</b> (Institut Curie, Paris, France)	