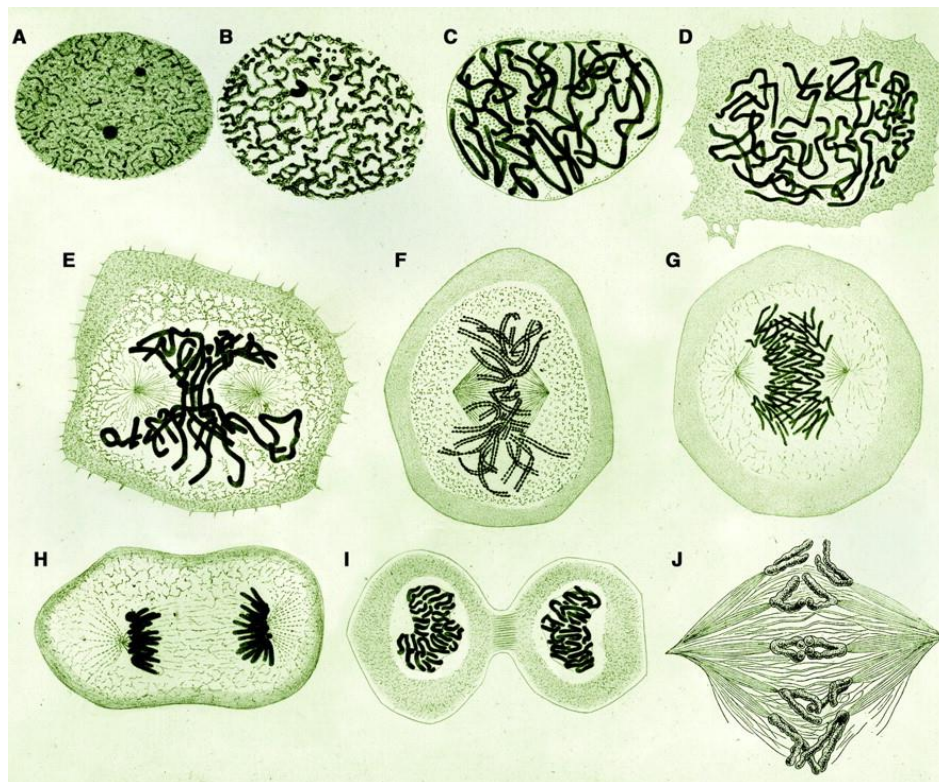


Cell Division & Differentiation

February 24- March 7, 2014



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, groups of 2 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, public discussion of the results and peer-review. The project work will represent the main student evaluation instrument for this course.

Program

Week 1 (Feb 24- Feb 28)

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-10:00		Mitosis Helder Maiato (Room C)	Chromosome organization and centromeres Paula Coelho (Room C)	Kinetochores Reto Gassmann (Room C)	Centrosomes, Cilia and Disease Fanni Gergely (Room C)
10:00-11:00	Cell Cycle Regulation & Checkpoints Claudio Sunkel (Room C)				
11:00-12:00		Cytokinesis Ana Carvalho (Room C)	Centrosomes Paula Coelho (Room C)	Ageing and Aneuploidy Elsa Logarinho Room C)	
12:00-13:00	Course overview & Project assignment (Room C)				IBMC Seminar: "The making of a mitotic spindle with or without centrosomes" Fanni Gergely (Main room)
13:00-14:00	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break
14:00-16:00	Microscopy Overview Paula Sampaio (Room C)	Projects			
16:00-17:00	Visit microscopes				
17:00-	Projects				

Week 2 (March 3-March 7)

	Monday	Tuesday	Wednesday	Thursday	Friday				
9:00-11:00	Epithelial cell polarity Eurico Morais de Sá (Room C)	Projects	Projects	Projects	Projects discussion (Main Room)				
11:00-12:00	Spindle orientation and early development Monica Gotta (Room C)				Projects	Projects	Projects	Projects discussion (Room C)	
12:00-13:00									IBMC Seminar: <i>“Microtubule end binding proteins provide new insight into dynamic instability”</i> Thomas Surrey (Main room)
13:00-14:00	Lunch break				Lunch break				
14:00-16:00	Projects				Projects	Projects	Projects	Projects discussion (Room C)	
16:00-17:00									Closing session and course evaluation (Room C)
17:00-18:00									Beer party

Microscopy Overview

Monday 24/02, 14:00-16:00 (visit to the microscopes: 2 groups, 2x 30 min rotations)

Scanning confocal, Spinning-disk confocal

Paula Sampaio

Laser microsurgery, wide-field/3D-deconvolution,

Marin Barisic

Faculty & Invited Speakers

<p>Claudio Sunkel Instituto de Biologia Molecular e Celular Instituto de Ciencias Biomedicas de Abel Salazar, Universidade do Porto (cesunkel@ibmc.up.pt)</p>	<p>Helder Maiato Instituto de Biologia Molecular e Celular Faculdade de Medicina, Universidade do Porto (maiato@ibmc.up.pt)</p>
<p>Reto Gassmann Instituto de Biologia Molecular e Celular Faculdade de Medicina, Universidade do Porto (rgassmann@ibmc.up.pt)</p>	<p>Ana Carvalho Instituto de Biologia Molecular e Celular Faculdade de Medicina, Universidade do Porto (anacarvalho@ibmc.up.pt)</p>
<p>Paula Sampaio Instituto de Biologia Molecular e Celular Universidade do Porto (sampaio@ibmc.up.pt)</p>	<p>Jorge Ferreira Instituto de Biologia Molecular e Celular Universidade do Porto (jferreir@med.up.pt)</p>
<p>Marin Barisic Instituto de Biologia Molecular e Celular Universidade do Porto (marin.barisic@ibmc.up.pt)</p>	<p>Paula Almeida Coelho Department of Genetics University of Cambridge (pa327@cam.ac.uk)</p>
<p>Fanni Gergely CRUK Cambridge Institute University of Cambridge (Fanni.Gergely@cruk.cam.ac.uk)</p>	<p>Thomas Surrey University College London (Thomas.Surrey@cancer.org.uk)</p>
<p>Monica Gotta Universite de Geneve (Monica.Gotta@unige.ch)</p>	<p>Eurico Morais de Sá Instituto de Biologia Molecular e Celular Universidade do Porto (eurico.sa@ibmc.up.pt)</p>
<p>Elsa Logarinho Instituto de Biologia Molecular e Celular Universidade do Porto (elsa.logarinho@ibmc.up.pt)</p>	<p>Paulo de Castro Aguiar Instituto de Biologia Molecular e Celular Universidade do Porto (pauloaguiar@fc.up.pt>)</p>
<p>Pedro Resende Instituto de Biologia Molecular e Celular Universidade do Porto</p>	<p>Cláudia Pereira Instituto de Biologia Molecular e Celular Universidade do Porto</p>
<p>Ana Marta Silva Instituto de Biologia Molecular e Celular Universidade do Porto</p>	<p>Fung-Yi Chan Instituto de Biologia Molecular e Celular Universidade do Porto</p>
<p>Joana Macedo Instituto de Biologia Molecular e Celular Universidade do Porto (joana.macedo@ibmc.up.pt)</p>	