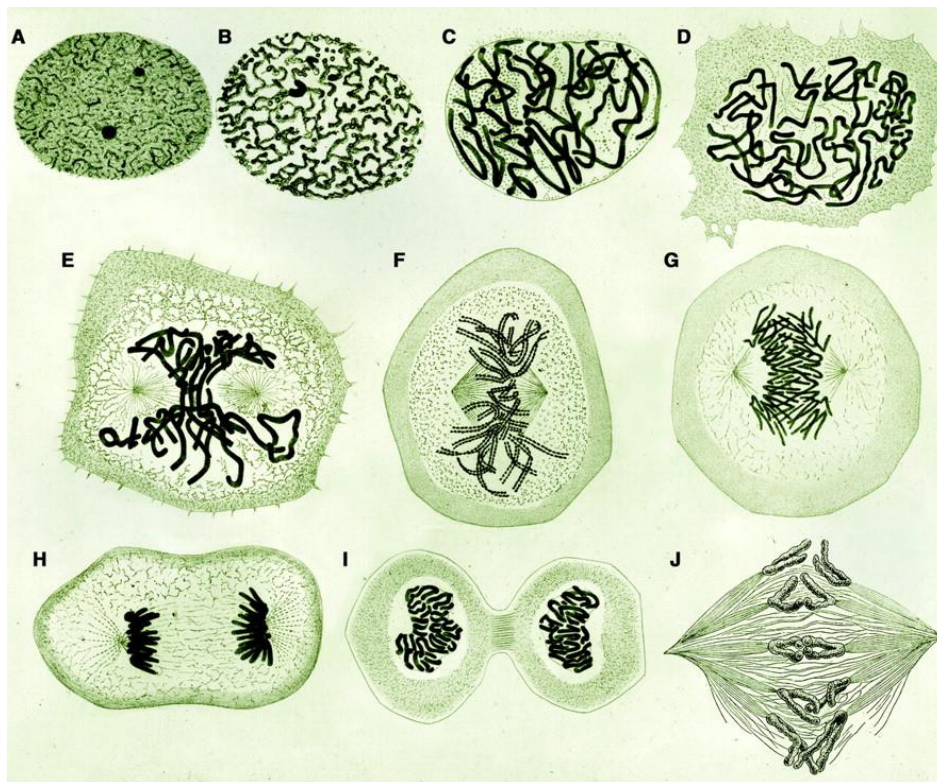


Cell Division & Differentiation

March 21- April 1, 2016



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

Program

Week 1 (March 21- March 24)

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-11:00	Cell Cycle Regulation & Checkpoints Claudio Sunkel & Carlos Conde (Room A)	Cytokinesis Ana Carvalho (Room A)	Kinetochores Reto Gassmann (Room A)	Centrosomes and Cilia Mónica Bettencourt-Dias (Room A)	HOLIDAY
11:00-12:00	Mitosis Helder Maiato (Room A)	Cell Polarity Eurico Morais de Sá (Room A)	Ageing and Aneuploidy Elsa Logarinho (Room A)		
12:00-13:00				FLAD Seminar: Tubulin tails wag the microtubule: intrinsically disordered regions tune microtubule function and dynamics Antonina Roll-Mecak (Auditorium Corino de Andrade)	
13:00-14:00	Lunch break	Lunch break	Lunch break	Lunch break	
14:00-16:00	Quantitative Microscopy António Pereira (Room A)	Projects			
16:00-17:00	Visit microscopes António Pereira, Paula Sampaio & André Maia				

Week 2 (March 28-April 1)

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-11:00	Projects			Projects	Projects discussion (Room A)
11:00-12:00				Projects	
12:00-13:00				Seminar: <i>Chromosome segregation & Cytokinesis</i> Manuel Mendoza (Auditorium Corino de Andrade)	FLAD Seminar: <i>Violation of Mendel's First Law: cell biological mechanisms of meiotic drive</i> Michael Lampson (Auditorium Corino de Andrade)
13:00-14:00					Lunch break
14:00-16:00				Projects	Projects discussion (Room A)
16:00-17:00					Closing session and course evaluation (Room A)
17:00-18:00					Beer party

Visit microscopes

Monday 06/04, 16:00-17:00 (visit to the microscopes: 3 groups, 3x 20 min rotations)

Laser microsurgery and Spinning-disk confocal

António Pereira

Scanning confocal and wide-field/3D-deconvolution

Paula Sampaio

High-content screening microscope

André Maia

Faculty & Invited Speakers

<p>Claudio Sunkel i3S Instituto de Ciencias Biomedicas de Abel Salazar, Universidade do Porto (cesunkel@ibmc.up.pt)</p>	<p>Helder Maiato i3S Faculdade de Medicina, Universidade do Porto (maiato@ibmc.up.pt)</p>
<p>Reto Gassmann i3S, Universidade do Porto (rgassmann@ibmc.up.pt)</p>	<p>Ana Carvalho i3S, Universidade do Porto (anacarvalho@ibmc.up.pt)</p>
<p>Elsa Logarinho i3S, Universidade do Porto (elsa.logarinho@ibmc.up.pt)</p>	<p>Eurico Morais de Sá i3S, Universidade do Porto (eurico.sa@ibmc.up.pt)</p>
<p>António Pereira i3S, Universidade do Porto (apereira@ibmc.up.pt)</p>	<p>Carlos Conde i3S, Universidade do Porto (CConde@ibmc.up.pt)</p>
<p>Paula Sampaio i3S, Universidade do Porto (sampaio@ibmc.up.pt)</p>	<p>Mónica Bettencourt-Dias Instituto Gulbenkian de Ciência (mdias@igc.gulbenkian.pt)</p>
<p>André Maia i3S, Universidade do Porto (afmaia@ibmc.up.pt)</p>	<p>Michael Lampson Dept. Biology, University of Pennsylvania. USA (lampson@sas.upenn.edu)</p>
<p>Antonina Roll-Mecak NINDS, Porter Neuroscience Research Center Bethesda, MD, USA (antonina@ninds.nih.gov)</p>	<p>Manuel Mendoza Centre de Regulació Genòmica (CRG), Barcelona, Spain (manuel.mendoza@crg.es)</p>
<p>Cristina Ferrás i3S, Universidade do Porto (cristinaferrás@gmail.com)</p>	<p>Mariana Osswald i3S, Universidade do Porto (marianaosswald@gmail.com)</p>
<p>Ana Sofia Silva i3S, Universidade do Porto (ana.sofia.silva@ibmc.up.pt)</p>	