

Nerve Regeneration

Neurons, one of the most striking examples of polarization in eukaryotic cells, are dependent on cytoskeleton dynamics and trafficking to establish their distinctive cell shape and function. Understanding the basic neuronal cell biology is crucial to unravel the causes of neurodegeneration, and to develop strategies to promote axon regeneration.

In this module we will discuss some key aspects of neuronal cell biology in the context of axon growth and regeneration, both from the conceptual and technical standpoints.

Monday 28 Maio	9.30-11.00	General introduction to regeneration	Antonio Jacinto, CEDOC
	11.00-13.00	Spinal cord regeneration in zebrafish	Leonor Saúde, IMM
	LUNCH		
	14.30-16.00	Acomys: the regenerating mammal	Gustavo Tiscornia, U Algarve
	16.30-18.00	Introduction to axon growth, degeneration and axon regeneration	Monica Sousa, Nerve Regeneration Group, i3S
Tuesday 29 Maio	9.30-11.00	Neurodevelopment and degeneration	Carla Lopes, Neurodevelopment and degeneration group, IBMC
	11.30-13.00	Neuronal growth and plasticity	Rita Teodoro, CEDOC
	LUNCH		
	14.00-15.30	The actin cytoskeleton during axon growth and regeneration	Ana Rita Pinto Costa, Nerve Regeneration group, i3S
	16.30-18.00	Neuronal microtubules during axon regeneration	Márcia Liz, Neurodegeneration Group, IBMC
Wednesday 30 Maio	9.30-11.00	Neurolipids in axon growth, myelination, degeneration and regeneration	Pedro Brites, NeuroLipid Biology Group, i3S
	11.30-13.00	Remyelination in the CNS and PNS	João Relvas, Glial Cell Biology Group, i3S
	LUNCH		
	14.00-17.00	<i>Practical workshop: animal models of nerve and spinal cord injury</i>	<i>Rita Pinto, Joana Nogueira, Tiago Silva, i3S</i>
Thursday 31 Maio			
Friday 1 Junho	9.00-11.00	<i>Practical workshop: in vitro cultures of neurons and glia</i>	<i>Tiago Silva, Rita Leitão, Rita Pinto, i3S</i>
	11.30-13.00	Spinal cord development	Moises Mallo, IGC
	LUNCH		
	14.00-15.30	<i>Practical workshop: in vitro cultures of neurons and glia</i>	<i>Tiago Silva, Rita Leitão, Rita Pinto, i3S</i>
	16.00-18.30	<i>Practical workshop: analysis of MT and actin organization and dynamics in neurons</i>	<i>Blanca Murillo, Rita Pinto, Jessica Eira, i3S</i>