



Although clinically heterogenous, neurodegenerative disorders share basic cellular mechanisms of pathology (e.g. inflammation, protein aggregation, metabolic and oxidative stress). This course will provide a clinical, mechanistic and therapeutic integration of common mechanisms across different neurodegenerative pathologies such as Alzheimer's and Parkinson's diseases, polyglutamine disorders, multiple sclerosis and neuropathic pain. Basic and clinical researchers will dynamically interact with audience providing the current progress in neurodegenerative field in a discussion-based course.

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Organization: **Hugo Leite-Almeida and Ioannis Sotiropoulos**

Scientific Committee: **Andreia Castro, António Salgado, Fernanda Marques, Hugo Leite-Almeida, Ioannis Sotiropoulos, Nuno Lamas and Tiago Gil Oliveira**

Program

1st day (1 April)

09:15-09:30	Welcome reception – course targets and evaluation	Faculty members
09:30-09:45	Neurodegenerative disorder without borders	H. Leite-Almeida and I. Sotiropoulos
09:45-10:30	Basic mechanisms of disease (I): Wallerian degeneration	H. Leite-Almeida, U. Minho, PT
10:30-11:00	<i>Coffee break/meeting the faculty</i>	
11:00-12:15	Basic mechanisms of disease (II): Axonal and synaptic trafficking	C. Waites, Columbia University, USA
12:15-13:30	Lunch break	
13:30-14:30	Basic mechanisms of disease (III): Sorting machinery of the cell	N. Vieira, U. Minho, PT
14:30-15:30	Basic mechanisms of disease (IV): Cell-to-cell transmissibility and exosomes	D. Kapogiannis, NIH, USA
15:30-16:00	<i>Coffee break/meeting the faculty</i>	
16:00-17:00	Basic mechanisms of disease (V): RNA-Protein granules in neurodegeneration	B. Wolosin, Boston University, USA

2nd day (2 April)

09:00-10:00	Basic mechanisms of disease (VI): Lipid signaling and membrane trafficking	T. G. Oliveira, U. Minho, Portugal
10:00-11:00	Basic mechanisms of disease (VII): Imbalance of proteostasis	H. Kampinga, U. Groningen, Netherlands
11:00-11:30	<i>Coffee break/meeting the faculty</i>	
11:30-12:30	Basic mechanisms of disease (VIII): Inflammation	F. Marques, U. Minho, PT
12:30-14:00	Lunch break	
Disease theme I. Alzheimer's disease		I. Sotiropoulos (chair)
14:00-15:30	Alzheimer's disease: basic mechanisms revisited	I. Sotiropoulos, U. Minho, PT
15:30-16:00	<i>Coffee break/meeting the faculty</i>	
16:00-17:30	Alzheimer's disease: clinical presentation/current and future therapeutics	B. Wolosin, Boston U., USA

3rd day (3 April)

Disease theme II. Polyglutamine diseases: Huntington and MJD/SCA3		A. Castro (chair)
09:30-10:30	Polyglutamine diseases: basic mechanisms revisited	H. Kampinga, U. Groningen, NL
10:30-11:00	<i>Coffee break/meeting the faculty</i>	
11:00-12:00	Polyglutamine diseases: clinical presentation/current and future therapeutics	P. Maciel, U. Minho, PT
12:00-13:30	Lunch Break	
Disease theme III. Trauma, injury and neuropathic pain		H. Leite-Almeida (chair)
13:30-14:30	Neuropathic pain	M. Malcangio, King's College, UK
14:30-15:00	<i>Coffee break/meeting the faculty</i>	
15:00-16:00	Spinal cord injury.	A. Salgado, U. Minho, PT
16:00-17:00	Brain trauma	J. Crary, Mount Sinai School of Medicine, USA
17:00-17:15	Work proposal - teams/theme assessment	

4th day (4 April)

Disease theme IV. Motor disease - Amyotrophic Lateral Sclerosis (ALS)		N. Lamas (chair)
09:30-10:30	ALS: basic mechanisms revisited	C. Raoul, U. Montpellier, Fr
10:30-11:00	<i>Coffee break/meeting the faculty</i>	
11:00-12:00	ALS: clinical presentation/current and future therapeutics	N. Lamas, U. Minho, PT
12:00-13:30	Lunch Break	
Disease theme V. CNS Inflammatory diseases (Multiple Sclerosis)		F. Marques (chair)
13:30-14:30	Multiple sclerosis: basic mechanisms revisited	F. Marques, U. Minho, PT
14:30-15:30	Multiple sclerosis: clinical presentation/current and future therapeutics	J. Cerqueira, U. Minho, PT
15:30-16:00	<i>Coffee break/meeting the faculty</i>	
16:00-22:00	Site seeing and course dinner	

5th day (5 April)

Disease theme VI. Parkinson's disease		A. Salgado (chair)
09:30-10:30	Parkinson's disease: clinical presentation and current therapeutics	F. Teixeira/M. Gago, U. Minho, PT
10:30-11:00	<i>Coffee break/meeting the faculty</i>	
11:00-12:00	Induced pluripotent stem cells based model in Parkinson's disease	L. Roybon, Lund U., SE
12:00-13:30	Lunch break	
13:30-15:00	Novel therapeutic approaches: an overview	I. Sotiropoulos/A. Salgado, U. Minho, PT
15:00-16:30	Wrap-up session: finding a common ground	All faculty
16:30-17:30	What lies ahead? Closing session	All faculty

Find more here: www.med.uminho.pt/en/post-graduation/courses/neurodegeneration