

Neurosciences (part II) : maladies nerveuses

Lecturers

Alban DE KERCHOVE D'EXAERDE (Coordinator) and Jérôme Bonnefont

Course mnemonic

MEDI-G4404

ECTS credits

5 credits

Language(s) of instruction

French

Course period

Second term

Course content

Pathogenic mechanisms in the nervous system: Programmed cell death and necrosis. Defects of DNA repair. Abnormalities of metabolic pathways. Excitotoxicity. Mitochondrial dysfunction. Disturbances of axoplasmic transport. Ubiquitin-proteasome system. Autophagy and intra- and extracellular accumulations of proteins.

Neurodegenerative diseases: Alzheimer's disease. Parkinson's disease. Huntington's disease. Prions diseases. Amyotrophic lateral sclerosis. Neurogenetic diseases: Metabolic encephalopathies.

Hereditary Neurogenetic diseases: Hereditary diseases of the peripheral nervous system. Genetic epilepsies.

Normal and Pathological Memory Processes: Molecular and cellular mechanisms, types of memory, their neural supports and their alterations.

Neuropsychiatric Diseases: Drug addiction, Schizophrenia, Mood Disorders, Anxiety Disorders.

Objectives (and/or specific learning outcomes)

Acquisition of basic knowledge related to pathological cellular mechanisms of nervous diseases.

Pre-requisites and co-requisites

Pre-requisites courses

MORF-G3308 | Neurosciences | 5 crédits

Teaching method and learning activities

Theoretical courses: lectures.

Contribution to the teaching profile

Acquisition of scientific knowledges.

References, bibliography and recommended reading

Reviews in scientific articles.

Other information

Contact(s)

Jean-Pierre Brion (coordonnateur): jpbrion@ulb.ac.be

Massimo Pandolfo: massimo.pandolfo@ulb.ac.be

Alban de Kerchove: Alban.de.Kerchove@ulb.ac.be

Evaluation method(s)

Other

Evaluation method(s) (additional information)

Written examination on the course content.

Determination of the mark (including the weighting of partial marks)

If the three partial examination marks are equal or above 08/20: Pathogenic mechanisms and neurodegenerative diseases (J.P. Brion): 33%; Pathogenic mechanisms and Neurogenetic diseases (M. Pandolfo): 33%. Memory Processes and Neuropsychiatric diseases (A. de Kerchove): 33%. If a partial mark is inferior to 08/20, the maximal global examination mark is 07/20.

The examination marks inferior to 10/20 will not benefit from a partial report (J.P.Brion, M. Pandolfo, A. de Kerchove) to the next academic year.

Main language(s) of evaluation

French

Programmes

Programmes proposing this course at the faculty of Medicine

MA-BIMED | Master in Biomedical Sciences | finalité Research/unit 1 and finalité Professional/unit 1