



NEUROGENETICS AND NEUROPATHOLOGY

Enrollment year	2020/2021
Academic year	2021/2022
Regulations	DM270
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	NEUROBIOLOGY
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	1st semester (01/10/2021 - 14/01/2022)
ECTS	9
Language	Italian

The activity is split

504968 - NEUROGENETICS AND NEUROPATHOLOGY - 1

504969 - NEUROGENETICS AND NEUROPATHOLOGY MOD.2



NEUROGENETICS AND NEUROPATHOLOGY - 1

Enrollment year	2020/2021
Academic year	2021/2022
Regulations	DM270
Academic discipline	BIO/18 (GENETICS)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	NEUROBIOLOGY
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	(01/10/2021 - 14/01/2022)
ECTS	3
Lesson hours	24 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	COMINCINI SERGIO (titolare) - 3 ECTS
Prerequisites	Good knowledge of genetics and molecular biology
Learning outcomes	Knowledge of genetic backgrounds and methods of analysis of major neurological pathologies and genetic-based behavioral conditions.
Course contents	Module 1. This provides a monographic study of the genetic basis of several major neurological and psychiatric disorders thus emerge the importance of the genetic determinant in the development and function of the central nervous system. They will also describe those disorders for which we assume an ever greater contribution made by the individual's genetic abnormalities, such as autism, attention deficit or hyperactivity, anxiety and depression, schizophrenia and the aggressiveness. Will eventually be analyzed classic neuropathology (Alzheimer's, Parkinson's, ALS) as well as those emerging in clear penetrance family such as prion diseases (transmissible spongiform

	encephalopathies).
Teaching methods	They provide students with the slides and directions of scientific papers related to the topics discussed
Reccomended or required readings	Nobody Scientific papers and internet links are indicated on the topics covered
Assessment methods	Oral exam. The final grade is determined by the average of the three modules that make up the course. Honors are awarded with at least two honors achieved
Further information	Reference teachers Proff. Sergio Comincini, Fabio Blandini, Andrea Cortese
Sustainable development goals - Agenda 2030	The goals



NEUROGENETICS AND NEUROPATHOLOGY MOD.2

Enrollment year	2020/2021
Academic year	2021/2022
Regulations	DM270
Academic discipline	MED/26 (NEUROLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	NEUROBIOLOGY
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	(01/10/2021 - 14/01/2022)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	BLANDINI FABIO - 3 ECTS CORTESE ANDREA - 3 ECTS
Prerequisites	=
Learning outcomes	=
Course contents	<p>Module 2. The first part of the course is a monographic course of prion diseases. It traces the history of the discovery of human spongiform encephalopathies and their systematization on the basis of clinical and pathologic findings. Then we introduce the discovery of Kuru and its infectious nature by the Nobel Prize C Gadjusek. It is retraced the long journey of discovery of the infectious agent of scrapie, Kuru and of human spongiform encephalopathies. The discovery of the prion protein and its characterization is described together with the epidemic of bovine prion disease in England and the variant-CJD linked to it. A discussion of the mechanisms of neurodegeneration follows. Multiple</p>

Sclerosis, its pathological anatomy, pathophysiology is faced. Brain tumors are treated from the standpoint of clinical, pathophysiological and pathological. Vision is treated starting from the physics of light and visual recognition of beauty. It is hinted at the approach to the problem of consciousness in neuroscience.

Module 3. Clinical and epidemiological aspects of Parkinson's disease and Alzheimer's disease. Neuroanatomical description of the neural systems involved in these diseases. Pathogenic hypotheses. Pathophysiology. Evaluation of available experimental models (toxic and transgenic). Current treatments and future therapeutic perspectives.

Teaching methods

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Reccomended or required readings

Vengono fornite allo studente le diapositive e indicazioni di lavori scientifici inerenti agli argomenti trattati

Assessment methods

Prova orale

Further information

Prova orale

Sustainable development goals - Agenda 2030

[The goals](#)