UNIVERSITÀ DI PAVIA

Anno Accademico 2019/2020

MELECULAR NEUROBIOLOGY AND

Enrollment year	2018/2019
Academic year	2019/2020
Regulations	DM270
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	NEUROBIOLOGY
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	1st semester (01/10/2019 - 14/01/2020)
ECTS	6
Language	Italian
Prerequisites	This course is composed of two separate sub-courses. Please look at dedicated syllabus pages for details.
Learning outcomes	This course is composed of two separate sub-courses. Please look at dedicated syllabus pages for details.
Course contents	This course is composed of two separate sub-courses. Please look at dedicated syllabus pages for details.
Teaching methods	This course is composed of two separate sub-courses. Please look at dedicated syllabus pages for details.
Reccomended or required readings	This course is composed of two separate sub-courses. Please look at dedicated syllabus pages for details.
Assessment methods	This course is composed of two separate sub-courses. Please look at dedicated syllabus pages for details.
Further information	Final grade will be calculated by averaging the grades of the Molecular Neurobiology and the Neuropathology Complements sub-courses. Cum laude will be assigned only if obtained in both sub-courses.

The activity is split

508029 - **NEUROPATHOLOGY**

508028 - **MOLECULAR NEUROBIOLOGY**

UNIVERSITÀ DI PAVIA

Anno Accademico 2019/2020

NEUROPATHOLOGY

Enrollment year	2018/2019
Academic year	2019/2020
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	(01/10/2019 - 14/01/2020)
ECTS	3
Lesson hours	24 lesson hours
Language	
Activity type	ORAL TEST
Teacher	COMINCINI SERGIO - 3 ECTS
Prerequisites	Good knowledge in genetics and molecular biology as well as of related technologies
Learning outcomes	Knowledge of genetic and molecular mechanisms of major neuropathologies, with references to diagnosis and current therapies.
Course contents	Classical neuropathologies (Alzheimer, Parkinson, SLA, muscular dystrophy, Huntinghton) and conformational ones such as prionic disease (transmissible spongiform encephalopathies) will be analyzed.
Teaching methods	Direct lessons with slides and scientific movies. Slides are provided at the beginning of the course
Reccomended or required readings	None

	Scientific papers and web links will be sugegsted
Assessment methods	Oral examination
Further information	
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile

UNIVERSITÀ DI PAVIA

Anno Accademico 2019/2020

MOLECULAR NEUROBIOLOGY

Enrollment year	2018/2019
Academic year	2019/2020
Regulations	DM270
Academic discipline	BIO/11 (MOLECULAR BIOLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	NEUROBIOLOGY
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	(01/10/2019 - 14/01/2020)
ECTS	3
Lesson hours	24 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	FORNERIS FEDERICO (titolare) - 3 ECTS
Prerequisites	Basic knowledge of biochemistry and protein structure, as well as mechanisms of signal transduction
Learning outcomes	The course provides a molecular overview of important macromolecular systems involved in CNS and PNS signal tranduction, the methodological methods to achieve their characterization, plus a description of some important molecular mechanisms of receptor-drug interaction in the same molecular systems.
Course contents	1. Recap of structural biology and biochemistry of molecular interactions 2. Ion channels: structures, mechanisms, pharmacological targeting 3. ECM: components and their structures, pharmaceutical targeting 4. New approaches to molecular neurobiology

Teaching methods

Lectures and interactive visualization of molecular structures using

	dedicated softwares
Reccomended or required readings	N/A - Study materials will be provided during the course
Assessment methods	Oral Exam: presentation of a selected research article on course-related topics.
Further information	Final grade will be calculated by averaging the grades of the Molecular Neurobiology and the Neuropathology Complements sub-courses. Cum laude will be assigned only if obtained in both sub-courses.
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile