



IMMUNOLOGY AND GENERAL PATHOLOGY

Enrollment year	2020/2021
Academic year	2020/2021
Regulations	DM270
Academic discipline	MED/04 (GENERAL PATHOLOGY)
Department	DEPARTMENT OF MOLECULAR MEDICINE
Course	MEDICAL AND PHARMACEUTICAL TECHNOLOGIES
Curriculum	PERCORSO COMUNE
Year of study	1°
Period	2nd semester (01/03/2021 - 28/05/2021)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	WRITTEN TEST
Teacher	CAZZALINI ORNELLA (titolare) - 6 ECTS
Prerequisites	Knowledge of cytology and histology, biochemistry, anatomy and physiology. Skills in basic techniques of cellular and molecular biology.
Learning outcomes	<p>The aim of the course is the acquisition of conceptual and scientific basis to explain both causes and mechanisms of human diseases. In particular, the students at the end of course have to know:</p> <ol style="list-style-type: none">1. the main chemical, physical and biological pathogenic factors and their effects on cells and tissues;2. general principles underlying disorders of integrity and identity and biological features of the complex systems.3. reactions to the biological damage that are crucial in the process of healing/repair or disease progression, with particular attention to the mechanisms of immunity, inflammation, wound healing and chronic

disease processes.

4. etiology of the most common genetic diseases, congenital and acquired, with particular reference to the immune system disorders, degenerative diseases of the blood vessels and tumors.

5. scientific terms and specific language used in medicine to facilitate interaction with other researchers in biomedical area.

Course contents

Introduction to General Pathology

Etiology

External and internal agents to the basis of human diseases.

Dynamics of cell injury

Cell death; Necrosis and apoptosis; pyroptosis; necroptosis; experimental models and methods of study.

- Degeneration and degenerative diseases. Intracellular and extracellular accumulations. Study of molecular and cellular models.

- Acute and chronic inflammation; Chemical mediators; Healing processes; Historical models and recent studies of inflammation.

- Pathological growths. Tumors. Inflammation, Tumor and Immunity connections. Biotechnology in oncology: cellular and molecular approaches.

- Hypersensitivity reactions, immunodeficiencies, autoimmunity.

- Thrombus and Atheroma

Teaching methods

Lectures

Reccomended or required readings

Robbins e Cotran, Pathologic basis of disease - Elsevier

Majno e Joris - Cells, Tissue and Disease - Oxford Press

Pontieri, Russo, Frati - Patologia generale e Fisiopatologia generale - PICCIN

Parola - Patologia generale - Edises

Stivala e Vannini - Guida allo studio della patologia generale - Print Service

The slides of the lectures will be available in Kiro site.

Assessment methods

Written exam composed by open questions and multiple choice.

Further information

Written exam composed by open questions and multiple choice.

Sustainable development

