



CLINICAL PATHOLOGY AND IMMUNOLOGY

Enrollment year	2021/2022
Academic year	2021/2022
Regulations	DM270
Academic discipline	MED/04 (GENERAL PATHOLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	EXPERIMENTAL AND APPLIED BIOLOGY
Curriculum	Bioanalisi
Year of study	1°
Period	2nd semester (01/03/2022 - 14/06/2022)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	WRITTEN TEST
Teacher	SCOTTI CLAUDIA (titolare) - 3 ECTS FERRAROTTI ILARIA - 3 ECTS
Prerequisites	Useful background knowledge comes from the contents of the course of General Pathology, particularly cellular pathology, inflammation and tumours. Basis of chemistry, physiology and human anatomy are useful to follow the course, but for each chapter key information from other subjects is preliminarily revised.
Learning outcomes	The objective of the course is to introduce students to the integrated structure of a Clinical Pathology laboratory, analysing the chapters which are not covered by other courses and giving the student a through view of the field.
Course contents	Introductory overview on the functioning of the immune system Receptor repertoire of immune cells, cytokines, immunoglobulins, chemokines; production of antibodies, monoclonal antibodies,

polyclonal antibodies.

The laboratory methodologies of the immunologist: isolation, cultivation and characterization of cells of the immune system; methods of immunization; detection and characterization of antibodies and their use in research and diagnostics; serological assays, affinity chromatography, radioimmunoassays, immunoenzymatic assays, competitive inhibition, hemagglutination, immunoprecipitation, cytotoxicity, neutralization; flow cytometry, tissue typing methods, functional assays; examples of laboratory diagnostics of some autoimmune diseases.

The transfusion laboratory; the HLA laboratory

Teaching methods

Lectures

Reccomended or required readings

Kiro website, with extra material and links to deepen the knowledge.

Assessment methods

Written exam, with three questions in the form of short assays.

Further information

Written exam, with three questions in the form of short assays.

Sustainable development goals - Agenda 2030

[The goals](#)