UNIVERSITÀ DI PAVIA

Anno Accademico 2021/2022

IMMUNOLOGY

Enrollment year	2019/2020
Academic year	2021/2022
Regulations	DM270
Academic discipline	MED/04 (GENERAL PATHOLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	BIOLOGICAL SCIENCES
Curriculum	PERCORSO COMUNE
Year of study	3°
Period	2nd semester (01/03/2022 - 14/06/2022)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	Cereda Cristina (titolare) - 6 ECTS
Prerequisites	Basic notions of biology.
Learning outcomes	The aim of the course is: to learn immunology basic notions to Know the mechanisms of the natural and specific immune response, humoral (antibodies) and cellular (B, T, NK lymphocytes and their receptors) These notions are extremely useful for the biologist profession.
Course contents	Constitutive elements of the immune system and immune response (natural, specific, humoral, cellular, primary, secondary). Embryogenesis, phylogeny and evolution of the immune system. Proteins and cells of inflammation. Recognition, processing, antigen presentation and tolerance; immunity effector mechanisms. B lymphocytes and BCR receptor. Structure and function of instruments

	(isotypes, allotypes, idiotypes). Clonal selection. T lymphocytes and thymic selection: the T receptor (structure and function). The serum complement system (classical and alternative way). The major histocompatibility system (proteins, functions and genes). Cytokines and interferons. Hypersensitivity and immunodeficiencies (congenital and acquired). Vaccinations. autoimmunity Immunobiology of tumors. Compatibility and transplants (auto, allo, xenon; organ and hematopoietic stem cells).
Teaching methods	Lectures
Reccomended or required readings	Peter Parham "Il sistema immunitario" EDISES; Thao Doan "Le basi dell'immunologia" Zanichelli
Assessment methods	Oral examination
Further information	
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile