University of Gdańsk

Subject card

Subject name and code	Fundamental cell and moleculary immunology, PG_00132175		
Field of study	Biology		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2026/2027
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	2.0
Learning profile	academic	Assessment form	credit
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Dorota Żurawa-Janicka	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	0.0	0.0	30

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	30	3.0	17.0	50

Subject objectives

Understanding the mechanisms of the immune response at the molecular and cellular level

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_K01] The graduate is prepared to evaluate their own knowledge, understand the need for continuous learning and development, and is open to new ideas	- zna ograniczenie własnej wiedzy i rozumie potrzebę stałego uczenia się, aktualizowania wiedzy z zakresu immunologii (B_K01)	[SK1] oral statement/conversation/ discussion
[BIOLL3_U06] The graduate can read with comprehension scientific biological texts in Polish and simple texts in English	- reads with understanding scientific biological texts in the field of immunology Polish and simple texts in English (B_U06)	[SU1] oral statement/conversation/ discussion [SU4] test/exam - oral or written
[BIOLL3_U08] The graduate is able to learn independently, in a focused manner	- learns independently, in a directed way (B_U08)	[SU4] test/exam - oral or written

Subject contents

Introduction to immunology, including cells and tissues of the immune system, structure of antigens, structure of antibodies, passive and active immunization. Mechanisms of innate immunity. Presentation of antigens to lymphocytes. Antigen recognition. Rearrangement of immunoglobulin and TCR receptor genes. Activation of B and T lymphocytes. Effector phase of the immune response. Selected issues in immune disorders, including AIDS, autoimmune diseases, allergy, as well as cancer immunology and transplantology.

Prerequisites and co-requisites

Completion of courses: General Biochemistry, Genetics.

Knowledge of the structure and properties of basic types of biological macromolecules, molecular mechanisms of the flow of genetic information and the regulation of its expression.

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>final test</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Literature used during classes:

Abbas et al. Cellular and Molecular Immunology. 10th Ed. Elsevier Inc. 2022.

Male et al. Immunology. 9th Ed. Elsevier Inc. 2020.

Original and review articles from scientific journals

Literature for self-learning:

Abbas et al. Immunologia - funkcje i zaburzenia układu immunologicznego. Red. wyd. pol. J. Żeromski. Edra Urban & Partner. 2015.

Lydyard et al. Immunologia. Krótkie wykłady. Wydawnictwo Naukowe PWN. 2012.

Gołąb et al. Immunologia. Wydawnictwo Naukowe PWN. 2017.

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<tr><td>Supplementary literature</td><td>Review articles on basic immunology from scientific journals</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2"></td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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