University of Gdańsk

Subject card

Subject name and code	Basics of immuno-oncology and cancer immunotherapy, PG_00117659		
Field of study	Biology		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2026/2027
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Protein and Nucleic Acid Biochemistry -> Department of General and Medical Biochemistry -> Faculty of Biology -> Rector		
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	15.0	0.0	0.0	0.0	0.0	15

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	15	2.0	8.0	25

Subject objectives

Understanding the role of the immune response in oncogenesis at the cellular and molecular level and the strategies used in cancer immunotherapy

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLMU2_W04] the graduate has an in-depth knowledge of the chosen specialisation in the biological sciences	- understands the course of specific and non-specific immune response processes and their use in modulating the immune response in the treatment of cancer (B2_W02)	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[BIOLMU2_W03] the graduate has an in-depth knowledge and understanding of research problems at the frontiers of biological sciences that require the use of advanced tools	- knows the structure of the elements of the immune system and describes the functional relationships between the mechanisms of the immune response and oncogenesis at the cellular, tissue, organ, and organismal levels (B2_W01)	[SW4] test/exam - oral or written

Subject contents

Introduction to cancer immunology, including tumor-associated antigens, specific and non-specific elements of the anti-tumor response. Immunological mechanisms promoting oncogenesis. Cancer immunotherapy: specific immunotherapy - anticancer vaccines, specific monoclonal antibodies, adoptive T-cell therapy; non-specific methods, including those based on cytokines and immunostimulants. Immunotherapy targeting immune checkpoints. Immunotherapy in the treatment of selected cancers.

Prerequisites and co-requisites

Completion of courses: Biochemistry, Basics of molecular and cellular immunology. 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.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
final test	51.0%	100.0%

Recommended reading	Basic literature	The lecture is an original study of issues related to cancer immunology and currently used experimental and clinical strategies for cancer treatment. The lecture was prepared on the basis of research and review articles and experience from research on the biology of cancer and diseases resulting from immune system dysfunction. Other sources: Cellular and Molecular Immunology, Abbas et al., 10th Ed., Elsevier Inc. 2022. Immunology. Male et al., Elsevier Inc. Urban & Partner, 2008. Janeways Immunobiology, Murphy et al., 9th Ed. Garland Science, 2017. Immunoonkologia, Wysocki et al. via Medica, 2019 Original and review articles from scientific journals
	Supplementary literature	Original and review articles from scientific journals
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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