

**Subject card**

<b>Subject name and code</b>	Clinical immunology, PG_00203350						
<b>Field of study</b>	Medical Biology						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2028/2029		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	3	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	5	<b>ECTS credits</b>			3.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Department of General and Medical Biochemistry -> Faculty of Biology -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr n. med. Marlena Typiak				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	30.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	30		6.0		39.0	75
<b>Subject objectives</b>	familiarizing students with the clinical picture and pathophysiology of selected diseases caused by immunological disorders, indication of the role of immunogenetics in selected diseases and transplantology, preparing the student to work in a specialized medical team, indicating the possibility of combining scientific research with the diagnosis of selected clinical cases, tracing the relationship between individual immunological defects and a specific clinical picture						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMEDL3_W16] has an advanced knowledge of the experimental methods and the most important techniques of biological sciences that can be applied to medical biology and diagnostics	- BM_W16: explains the theoretical basis of experimental methods and lists the most important techniques that can be used in immunology and immunogenetics	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report [SW5] implementation of a problem task
	[BIOLMEDL3_W12] has an advanced understanding of the development and current state of knowledge and the latest trends in medical biology; indicates their relationship with other disciplines of natural or medical sciences	- BM_W12: is familiar with the development and current state of the art and the latest trends in clinical immunology, indicates their relationship with other disciplines of natural or medical sciences	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report [SW5] implementation of a problem task
	[BIOLMEDL3_W05] has an advanced knowledge of the structure, properties and functions of human cells, tissues and organs; human physiological and biochemical processes and mechanisms of disease pathophysiology	- BM_W05: knows the structure and functions of immune cells in different human organs, knows and understands the processes of pathophysiology of selected diseases associated with a defect of the immune system	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report [SW5] implementation of a problem task
	[BIOLMEDL3_W07] has advanced knowledge of medical biology and is familiar with the health sciences terminology	- BM_W07: has basic knowledge of clinical immunology, knows specialized terminology	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report [SW5] implementation of a problem task
	[BIOLMEDL3_U09] has the ability to give oral presentations in Polish or English on specific issues in medical biology	- BM_U09: has the ability to speak in Polish or English on specific issues of clinical immunology	[SU1] oral statement/conversation/ discussion
	[BIOLMEDL3_U07] is able to identify problems corresponding to the needs of an individual and a social group and to undertake basic diagnostic, preventive and educational activities appropriate to the profession of medical biologist	- BM_U07: is able to cooperate with the medical team using specialist terminology, analyses the diagnostic possibilities in a given clinical case and proposes the choice of further diagnostic route	[SU1] oral statement/conversation/ discussion
	[BIOLMEDL3_K09] is ready to work with honesty and integrity in his scientific and professional work	- BM_K09: understands the need for honesty and reliability in scientific and professional work	[SK8] observation of student's independent or team work
	[BIOLMEDL3_K04] is able to form opinions about individuals and social groups in a professional context	- BM_K04: can form opinions about individuals and social groups in the context of the profession of a medical biologist	[SK8] observation of student's independent or team work
	[BIOLMEDL3_K03] is aware of his/her own limitations and knows when to seek expert assistance	- BM_K03: is aware of own limitations and knows when to turn to experts, is critical of research results, evaluates them through the prism of concern for the patient's well-being	[SK8] observation of student's independent or team work
[BIOLMEDL3_U15] learns independently, in a focused manner	- BM_U15: Learns clinical immunology issues independently, in a teacher-guided manner	[SU1] oral statement/conversation/ discussion	
Subject contents	Flow cytometry and other methods used in clinical immunology; antibody determination; assessment of cellular response, phagocytosis, complement system; immunogenetics		
Prerequisites and co-requisites	Completed courses on the topics: Propaedeutics of internal diseases, Basics of cellular and molecular immunology		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	correct answers to questions	51.0%	60.0%
	presentation/group work	51.0%	40.0%

Recommended reading	Basic literature	Clinical immunology, H. Chapel et al., ed. Grzegorz Senatorski, ed. Czelej 2009; Immunology, ed. J. Gołąb, M. Jakóbsiak et al., ed. PWN 2012
	Supplementary literature	Cellular and Molecular Immunology, A. Abbas et al., Elsevier, 2021
	eResources addresses	
Example issues/ example questions/ tasks being completed	Based on the materials provided by the teacher and other available sources, prepare a multimedia presentation in the group, including the characteristics of artificial (plastic) monoclonal antibodies and their use.	
Work placement	Not applicable	

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