

Subject card

Subject name and code	Basics of animal transgenesis , PG_00153618						
Field of study	Biotechnology						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2024/2025		
Education level	Master's studies	Subject group			Optional subject group		
Mode of study	full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			2.0		
Learning profile	academic	Assessment form			credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Patrycja Koszałka				
	Teachers		dr hab. Patrycja Koszałka				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	20.0	20
	E-learning hours included: 0.0						
	eNauczanie source addresses: Moodle ID: 12328 ATC-MWB-MU2DZ-(2024/2025) Podstawy Transgenezy Zwierząt (proseminarium) https://mdl.ug.edu.pl/course/view.php?id=12328						
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	20		5.0		25.0	50
Subject objectives	The aim of the course is to expand knowledge and understanding of issues related to animal transgenesis. During the course, the student will learn the basic safety rules related to working with GMO organisms in the context of the risks associated with working with these organisms, learn how genetic modification of animals may affect human and animal health, the environment and society, as well as related ethical issues and will expand their knowledge and understanding of techniques and methods used in animal transgenesis.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOTECHMU2_K06] The graduate is willing to provide the society with information about the achievements of biotechnology important for the improvement of health and quality of life	The student understands the impact of genetic modification of animals on the health and quality of life of animals and humans, on society and the environment, their positive aspects and threats, and is able to present them critically.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[BIOTECHMU2_W06] The graduate knows and understands the risks associated with conducting laboratory works, including those resulting from working with infectious material, GMOs and GMMs	The student knows the basic safety rules related to working with GMO organisms and the risks associated with working with these organisms.	[SW4] test/exam - oral or written
	[BIOTECHMU2_W02] The graduate knows and understands the use of laboratory techniques and methods of genetic modification of cells and organisms and their use in biotechnology	The student knows laboratory techniques and genetic modification methods related to animal transgenesis to an extended extent, as well as the application of the obtained GMOs.	[SW2] presentation/project/paper/report
	[BIOTECHMU2_K04] The graduate is willing to understand ethical dilemmas and threats related to conducting scientific research and introducing advanced technologies using the achievements of biotechnology; appreciate the importance of intellectual property; behave ethically	The student understands the ethical dilemmas and threats related to the impact of genetic modification of animals on human health, society and the environment, as well as the basic principles of ethical behavior in this area.	[SK1] oral statement/conversation/discussion [SK4] test/exam - oral or written [SK5] implementation of a problem task [SK7] entries and opinions in the internship diary [SK8] observation of student's independent or team work
Subject contents	<p>1. Introduction to working with transgenic animals: legal regulations regarding genetically modified animals, including those related to the biosafety of GMOs.</p> <p>2. Analysis of selected general issues in animal transgenesis in terms of laboratory techniques and extended genome modification methods (genetic modification of insects, fish, birds and other organisms), along with the presentation of aspects related to the use of GMOs and the associated threats and ethical dilemmas.</p> <p>3. Analysis of selected detailed issues related to animal transgenesis, allowing for a deeper understanding of a given topic.</p>		
Prerequisites and co-requisites	Passing lectures on the Basics of Animal Transgenesis. Knowledge of basic issues related to animal transgenesis.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	[BIOTECHMU2_W02]	51.0%	50.0%
	[BIOTECHMU2_K04]	51.0%	0.0%
	[BIOTECHMU2_K06]	51.0%	50.0%
	[BIOTECHMU2_W06]	51.0%	0.0%
Recommended reading	Basic literature	<ul style="list-style-type: none"> - variable literature sources provided in lecture materials - scientific publications and legal regulations selected by the teacher 	
	Supplementary literature	- students independently search and select materials related to classes, using library resources and electronic information sources	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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