University of Gdańsk

Subject card

Subject name and code	Psychoneuroimmunology, PG_00117672		
Field of study	Medical Biology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	postgraduate 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	
Conducting unit	Pracownia Neurobiologii -> Katedra Fizjologii Zwierząt i Człowieka -> Faculty of Biology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Danuta Lewandowska	
	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

1 To learn and understand the importance of the interplay of mental, neurological and immune phenomena in health and disease.

2. To acquire the competence of group work and the ability to deepen and transfer knowledge independently.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLMEDMU2_U06] knows and applies English-language specialized vocabulary of biological and medical sciences in daily professional/scientific activities	student knows and uses English-language specialized vocabulary in the field of psychoneuroimmunology	[SU2] presentation/project/paper/ report
[BIOLMEDMU2_W02] is oriented to the currently debated problems in medical biology and related disciplines	student is oriented to the development and current state of knowledge in the field of psychoneuroimmunology and indicates its relationship with biological, medical sciences and psychology	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[BIOLMEDMU2_U05] has the ability to give oral speeches in Polish or foreign language and to discuss issues concerning the chosen specialization	student has the ability to give oral presentations in Polish and to discuss issues in psychoneuroimmunology	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report
[BIOLMEDMU2_W01] has an in-depth knowledge of scientific fields and disciplines relevant to medical biology and the studied specialty and knows their main development trends	student has in-depth knowledge of health sciences, knows and understands the interrelationship between mental phenomena and immune system function in health and disease conditions	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[BIOLMEDMU2_U08] can independently plan and implement his own lifelong learning and guide others in doing so	student independently plans and continues lifelong learning and is able to transfer knowledge to others	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work
[BIOLMEDMU2_U07] is able to show initiative and lead teamwork and cooperate in the planning and implementation of research tasks	student is able to show initiative and cooperate in a group to prepare a presentation on psychoneuroimmunology	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[BIOLMEDMU2_U01] can proficiently, but critically, use the scientific literature and databases necessary in the activities of medical biology and related disciplines	student can independently but critically use the scientific literature in the field of psychoneuroimmunology	[SU2] presentation/project/paper/ report [SU5] implementation of a problem task
[BIOLMEDMU2_W03] knows the structure and functions of the human body, biological causes of disorders, lesions and social dysfunctions, and methods of their evaluation using biochemical, molecular, parasitological or neurobiological methods	student knows and understands the complex determinants of the impact of mental phenomena on immunity and finds the relationship of mental disorders to immune system pathology	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[BIOLMEDMU2_K02] is ready to recognize the importance of knowledge in solving cognitive and practical problems and to seek expert advice when having difficulty solving a problem on his own	student recognizes the importance of knowledge and understands the need for lifelong learning and updating knowledge in the field of psychoneuroimmunology	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report
[BIOLMEDMU2_K01] is ready to critically evaluate himself, the teams in which he works and the content he receives	student is ready to critically evaluate himself, the teams in which he works, and the content he receives regarding issues in psychoneuroimmunology	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report

Subject contents

Concept of psychoneuroimmunology and history of research. Mental health. Effects of stress on the immune system, stress resistance and defense against stress. Depression and cancer and infectious diseases, anti-inflammatory effect of antidepressants. Somatic medicine and psychological problems. Therapy in psychoneuroimmunology and its clinical significance. Oral multimedia presentation conducted by students in groups, prepared on the basis of current literature, recommended by the lecturer.

Prerequisites and co-requisites

Basic knowledge of the structure of the immune and nervous systems

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written pass test	51.0%	60.0%
paper with multimedia presentation: the total points scored are converted into a grade according to the percentage indicator	51.0%	40.0%

Recommended reading	Basic literature	**A. Literature required for final course credit:** **A.1. used during classes** 1 Ashley N.T., Demas G.E. Neuroendocrine-immune circuits, phenotypes, and interactions. Horm. Behav., 2017, 87, 25-34 .2 Hulett J.M., Armer J.M. A systematic review of spiritually based interventions and psychoneuroimmunological outcomes in breast cancer survivorship. Integr. Cancer Ther., 2016, 15, 405-423. 3 Jeon S.W., Kim Y.K. Neuroinflammation and cytokine abnormalities in major depression: Cause or consequence in this disease? World J. Psychiatr, 2016, 22, 283-293. 4 Slavich G.M. Life stress and health: a review of conceptual issues and recent findings. Teach Psychol., 2016, 43, 346-355. 5. Su K.P. Nutrition, psychoneuroimmunology and depression: therapeutic implications of omega-3 fatty acids in -interferon-induced depression. BioMedicine, 2015, 5, 17-23 6. lambert K.G. The clinical neuroscience course: viewing mental health from neurobiological perspectives. JUNE, 2005, 3, A42-A52. **A.2. studied independently by the student** Current publications indicated by the lecturer
	Supplementary literature	**B. Supplementary literature** 1 Wrona D., Neural-immune interactions: an integrative view of the bidirectional relationship between the brain and immune systems. J. Neuroimmunol., 2006, 172, 38-58. 2 Lewandowska D. Psychoneuroimmunology. In Lewandowska D., Orzeł-Gryglewska J. [eds] Animal and human physiology. Gdansk (UG Publishing House), 2014, 311-329.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	1. Anti-inflammatory effects of fluoxetine and desipramine. 2. The neurobiological basis of stress sensitivity. 3. Diet as a therapeutic factor in depressive disorders.	
Work placement	Not applicable	