Subject: Immunology (GYTK22A-114-1)

Academic year / semester: 2025/2026. I.

Type of course: lecture

Weekly nr. of hours: 1

Credits: 1

Performance assessment: colloquium

Responsible Institute: SZTE SZAOK-TTIK, Department of Immunology

Subject responsible: Krisztina Buzás PhD, DSc

Prerequisites: Physiology 1.-2.

Objective of the course:

As part of the immunology lecture, the basic immunological definitions and processes are discussed, as well as the associated therapies and the theoretical background of diseases of immunological origin.

Date Wednesday 12:00	**Title**	**Lecturer**
1. 2025.09.10.	The structure and working principle of the immune system. Central and peripheral lymphoid organs.	Dr. Körmöndiné Dr. Krisztina Buzás
2. 2025.09.17.	Cellular and humoral elements of innate immunity. The relationship of innate immunity to adaptive immunity.	Dr. Roberta Fajka-Boja
3. 2025.09.24.	Antigen recognition molecules of the adaptive immune system. Characteristics of the genetic background providing MHC diversity.	Dr. Ágnes Czibula

4. 2025.10.01.	The antigen presentation. The development of T- and B-lymphocytes.	Dr. Ágnes Czibula
5. 2025.10.08.	The T-cell mediated immune response. Types of T cells, their effector functions.	Dr. Gabriella Greskovics-Dobra
6. 2025.10.15.	Antigen-dependent differentiation of B cells. B cell activation. Antibody-mediated effector functions.	Dr. Roberta Fajka-Boja
2025. 10.20. 11:00 - 12:00	**1. MTO (mandatory)** Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9. Rooms: 12., 23., 24.	More information on the Coospace Forum!
7. 2025.10.22.	Inflammation and acute phase reaction. Immunomodulatory effects of anti-inflammatory and analgesic drugs.	Dr. Roberta Fajka-Boja
2025.10.29.	Deans break	
8. 2025.11.05.	Types and characteristics of hypersensitivity reactions. Allergic reactions. Therapeutic options	Dr. Judit Danis
9. 2025.11.12.	Antimicrobial responses.	Dr. Edina Gyukity-Sebestyén
10. 2025.11.19.	Immunological memory. Vaccination.	Dr. Gabriella Greskovics-Dobra
11. 2025.11.26.	Central and peripheral immune tolerance. Autoimmune diseases and therapeutic options.	Dr Ágnes Czibula
12. 2025.12.03.	Tumour immunology. Immunotherapies and their role in cancer therapy.	Dr. Körmöndiné Dr. Krisztina Buzás

2025. 12. 05. 15:00 - 16:00	**2. MTO** Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9. Rooms: 12., 22., 24.	More information on the Coospace Forum!
13. 2025 12. 10.	Prenatal immunology.	Dr Edina Gyukity-Sebestyén

Examination of the learning outcomes:

Attendance at lectures is mandatory.

Requirement of the admission to the exam: no more than 3 (certified) absences allowed in the classroom teaching.

In case of more than 3 absences, the student is not allowed to take the exam!

MTOs:

Two MTOs will be written during the semester.

1. **MTO: 2025. 10.20. 11:00 - 12:00 (The 1. MTO is mandatory! The absence from the 1. MTO counts as an absence from the lecture!)**
   Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9.
   Rooms: 12., 23., 24

2. **MTO: 2025. 12. 05. 15:00 - 16:00**
   Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9.
   Rooms: 12., 22., 24

In case that the average result of the two MTOs reaches 80% the grade of the colloquium is offered at the end of the semester. If 80% is reached, it means the offered grade 4 (good), if the averaged result of the two MTOs reaches 90%, the offered grade is 5 (excellent).

Exam:

The first and second exam will be written. You need to reach 60% to pass the exam.

The grades are determined as follows:

0-59% failed (1)
60-69% pass (2)
70-79% satisfactory (3)

80-89% good (4)
90-100% excellent (5)

The second repeated - your third - exam and any further exams are oral. The potential improvement of the examination will be oral (in case somebody wants a better grade than the offered, for example 5 instead of 4).

The unsatisfactory semester mark can be corrected during the examination period in accordance with the examination regulations.

The basics of the exam:

The material of the lectures.

Recommended specialist literature:

Kenneth Murphy and Casey Weaver: Janeway's Immunbiology 9th Edition (Garland Science/Taylor & Francis Group, 2017)

Abul Abbas Andrew Lichtman Shiv Pillai: Basic Immunology Functions and Disorders of the Immune System (Elsevier, 2019)

Abul Abbas Andrew Lichtman Shiv Pillai: Cellular and molecular immunology (Elsevier, 2017)