Chair of Clinical Immunology
Department of immunology
Poznań University of Medical Sciences

2016/2018

SIX YEAR MD PROGRAM,

IMMUNOLOGY I ,SECOND YEAR

AND

IMMUNOLOGY II, THIRD YEAR

DETAILED PROGRAM

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Teachers:
Prof. Grzegorz Dworacki, M.D., Ph.D.
Prof. Jan Żeromski, M.D., Ph.D.
Prof. Jan Sikora, Ph.D.
Husam Samara, M.D., Ph.D.
Mariusz Kaczmarek Ph.D.
Bartosz Brzezicha M.Sc
Maciej Majcherek, M.D.
Jakub Owoc,M.D.
Alicja Kalinowska-Łyszczarz, M.D. Ph.D.

Recommended books: (newest editions):

1. Chapel: Essential of Clinical Immunology. Blackwell. (Clinical Immunology)
2. Żeromski ed.: Introduction to Clinical Immunology. Poznan University Press 2009 (Basic, Laboratory, Clinical Immunolgy)
3. Abbas, Lichtman: Basic Immunology. Sauders. (Basic Immunology)

Topics and handouts:
The main topics are listed below within the course program.
Detailed topics can be found in corresponding chapters of the "**Introduction to Clinical Immunology**" textbook.

6-year MD program, 2016/2018
Regulations of The Immunology Course

The course encompasses part I: lectures (20 hrs), on the second year, part II: lectures (4 hrs), basic and laboratory classes (12 hrs) and seminars on clinical immunology (32 hrs) during the third year.

A. Lectures

They cover up-to-date knowledge of basic and clinical immunology.
Attendance on lectures is compulsory.
On the last lecture students write a test that covers so far given lectures material.

The test cannot be repeated, and obtained scores by the student will be added to the total sum achieved at final evaluation. Absence from the test results in obtaining zero points.

B. Basic and laboratory immunology

The classes are devoted to introduce immunologic diagnostic methods, six days, two hours daily.
Participation in all practicals is obligatory.

In case of absence on one day student should be prepared attend with another group, after to answer for oral questions from this subject to the involved assistant. Absence from two or more practicals excludes the student from course.

Practicals end with a test that covers the activities of six days.

The test cannot be repeated, and obtained scores by the student will be added to the total sum reached at final examination. Absence form the test results in obtaining no points.

C. Clinical Immunology

Sixteen seminars, two hours daily. They include a short introduction to daily topic, presentation of clinical cases and laboratory data of given disease, discussion and conclusion of diagnosis. Students must be previously prepared for these classes. It is assumed that students will actively contribute in the presentation and discussion of these topics.

Participation in all seminars is obligatory. In case of absence on one day student should be prepared to answer for oral questions from this subject to the involved assistant. Absence from 2 or more days requires repetition of the whole course in the next academic year.

General

- The attendance must be confirmed by the teacher or by student's signature on the attendance list. Students who exceed allowed absences will not be allowed to the final test and will be reported to the Dean's Office.
- Any unjustified delay from the class above 10 minutes will be considered as an absence.
- The results of the final exam will be announced on the website of the department and reported to the Dean's Office.
- Cheating or other kind of order disturbance on the exam may result in dismissing of the student and will be reported to the Dean's Office.
- Any issues that are not mentioned in these regulations are subjected to the General Regulations of the University

Final evaluation

The final test covers the whole material provided during the course i.e. lectures, practicals and seminars.

The final test is computerized (OLAT system), it consists of 100 multiple choice test questions.

In the **final score** results from the lecture's test, practicals' test and final test will be summed to form a total pool of 140 points, out of this, at least 60% score **(84 points) is needed in order to get a credit**.

If the student doesn't attend the final test or fail to obtain enough points then this will count as failed 1st chance and will be noted in the index as unsatisfactory (2.0) mark.

Second and third chances of the final test will consist of 100 questions only. Previous tests will not count. In order to pass the student is obliged to answer correctly at least 60 questions (60%).

Failure on three chances will disqualify the student from the course. This will result in the necessity of repeating the course on the next academic year after the assent of the Dean.

6-MD, 2016/2017 Immunology course

2nd year – lectures - L1-L10

Place: Coll. Anatomicum, Horoszkiewicza room . Time: 17:00 – 18:30

L1	11.01.2017 Jan Żeromski	The immune system: adaptive vs. innate immunity, features of innate and adaptive immune system, acute phase proteins, complement system, pattern recognition, cytokines, structures and cells involved, development of immune system, evolution of immunity – basic facts. Novel approaches in studying immunology.
L2	18.01.2017 Husam Samara	Antigen (Ag) and its recognition: Ag structure, haptens, affinity, avidity, Ag receptor molecules. Ag processing, presentation and recognition by B and T cells, superantigens, heat shock proteins.
L3	25.01.2017 Grzegorz Dworacki	Cells involved in the immune response, cell migration and homing, the generation of diversity: different cell types and their co-operation, cell activation, the role of cytokines and cell adhesion molecules, antibody and immunoglobulin variability, L and H chain gene recombination, genes and structure of cell antigen receptor. CD classification. Monoclonal antibodies.
L4	01.02.2017 Jan Żeromski	Effector mechanisms of immunity: humoral mechanisms, cell-mediated immune reactions. Activation and effector functions of lymphocytes and macrophages, molecular mechanisms of cytotoxicity, NK cells, cytotoxic mechanisms, the cytokine network.
L5	22.02.2017 Jan Żeromski	Regulation and manipulation of the immune response: mechanisms, the role of T cells (Treg), NKT cells, telomers, idiotypes, neuroendocrine factors, genetic control, immunomodulation, vaccines).
L6	01.03.2017 Grzegorz Dworacki	Immunology of transplantation: genetics, MHC antigen inheritance and expression, mechanisms of graft rejection and its prevention, kidney transplantation and its types and types of rejection, graft vs. host disease, clinical aspects of transplantation, materno-fetal interactions, perspectives of xenografting.
L7	08.03.2017 Grzegorz Dworacki	Tumor immunology: tumor antigens, anti-tumor immunity, immunological surveillance and immunoediting, tumor microenvironment, escaping immune mechanisms, immunosupression, immunodiagnosis, immunotherapy, gene therapy.
L8	15.03.2017 Grzegorz Dworacki	Hypersensitivity: definition, types and characteristics of four types, diseases associated with hyperseisitivity. Allergy: clinical entities, diagnostic aspects.
L9	22.03.2017 Grzegorz Dworacki,	Immunology of infection: immunity to viruses, bacteria and fungi, immune aspects of parasitic infections evasion of immune response by pathogens, immunopathology due to infection.
L10	29.03.2017 Grzegorz Dworacki **+Lecture test**	Immunological tolerance and unresponsiveness: T- and B-cell tolerance, central vs. Peripheral t., manipulation of tolerance, immunologically privileged sites, artificial induction of tolerance, immunological ignorance, significance of tolerance in medicine.