

# IMMUNOLOGY

## **Modifications of the requirements due to state of emergency caused by the SARS-Cov2 epidemic valid for the 2nd semester of academic year 2019/2020.**

1.LECTURES: lecture materials will continue to appear on the web via the e-learning system including lecture slides in ppt format, figure legends, - if appropriate-, and a word document. Students are required to carefully review the uploaded materials before the seminar dedicated for discussion of the lecture material. Formal online lectures are not offered, instead, two online seminars per week are provided.

### 2.SEMINARS/PRACTICALS:

For discussion of the lecture material we provide two dates per week. These discussions will be organized as live webinars, using the WebEx platform available via e-learning. One of the weekly seminars is supervised by the lecturer, the other by the assigned seminar teacher.

Attendance on seminars is obligatory, Students MUST participate in at least ONE of the two seminars scheduled for each week. Login is required, presence online will be registered, but activity of the students is not evaluated individually and is not prerequisite for receiving an end-term signature. Technical information about using WebEx is available online through e-learning.

Seminars are designed for open discussions, answering students' questions about the subject. At the end of each session students' understanding of the material will be tested by answering 5 online test questions (Poll). At the end of each session students will also receive three assignments (topics/problems/questions) to be completed at home individually. Assignments need to be completed in writing, the essays must be uploaded into e-learning within 7 days. Assignments are evaluated as "well accepted", "accepted" or "rejected needs more work" by the lecturer of the topics. Accomplished and accepted assignments is prerequisite for participation in the end-term exam.

### 3.END-TERM EXAM:

#### 3.1. requirements for end-term signature:

Participation in online seminars is compulsory. Signature will be refused for students collecting more than two absences or fail to complete all individual assignments! As described above, participation in one of the two weekly seminars is sufficient to earn the signature.

#### 3.2.End-term exam (colloquium)

Earning the end-term signature is prerequisite for taking the end-term exam. Due to the state of emergency caused by the SARS-Cov2 epidemics we are not able to offer a grade based on in-term written tests. Grades will be issued based on performance at end-term oral examinations. Details on available dates and times or on the location will be determined and released as soon as pertinent regulations allow organization of end-term exams.

## TOPIC LIST (END-TERM ORAL EXAM 2020)

1. The structure of lymphoid tissues, primary and secondary lymphoid organs.
2. Components and cells of the innate response.
3. Characteristics and function of the innate immune response.
4. Inflammation and the acute phase response
5. Antigen recognition by T-lymphocytes, Antigen presentation.
6. B- lymphocytes, antibody-mediated effector functions.
7. An introduction to antibody structure, characterisation of different isotopes.
8. The molecular basis of antigen recognition by B and T lymphocytes.
9. B-cell activation and antigen-dependent differentiation of B-lymphocytes.
10. Production and clinical application of monoclonal antibodies
11. T-cell mediated immune response. Naive and effector T cells,
12. Central and peripheral immunotolerance.
13. MHC molecules, function and polymorphism.
14. The development of immunological memory.
15. Active and passive immunization. Vaccination
16. Hypersensitivity reactions.
17. Mechanisms of the development of autoimmune diseases.
18. Tumor immunology. Use of monoclonal antibodies in tumor therapy
19. Transplantation, immunosuppressive drugs.
20. Congenital immunodeficiencies