Module title			Abbreviation
Practical Course in Immunology and Virology			03-98-PIV-152-m01
Module coordinator		**Module offered by**	
Institute of Virology and Immunobiology		Faculty of Medicine	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	undergraduate	--	

Contents

Part immunology: Learning the basics of immunology through practical exercises with different immune cells. The focus is on antigen uptake by dendritic cells and their antigen presentation to T cells. Subsequent time-kinetic analyzes to determine the activation of the T cells.
Part virology: Learning of virological basic principles by means of practical exercises. The focus is on the infection of cells with wild-type and transgenic viruses, morphological examination of infected cells with cytopathic effect, determination of virus titer and tropism, investigation of the functionality of antiviral antibodies and of the humoral immune response against viral infections.

Intended learning outcomes

Part immunology: Professional work with primary immune cells under sterile conditions and the ability to independently apply basic immunological working methods. Mastering the basic safety aspects of working in the S2 laboratory when dealing with pathogen-stimulated cell cultures and principles of immunological methods in research. Checking, analyzing, interpreting, evaluating and classifying/judging the results. Allocation of the molecular basis of the immunoregulatory mechanisms, their consequences and causal impact on immune tolerance and immune stimulation.
Part virology: Expert work with viruses and eukaryotic cells under sterile conditions as well as the ability to independently apply basic working methods of virology. Mastery of the basic safety aspects of working in an S2 laboratory with infectious agents as well as the concepts of genetic safety and principles of virological methods in research and diagnostics. Review, analyze, interpret, evaluate and classify/assess results. Assign the molecular basis of viral infections, their consequences and causal site in the disease process.

Courses (type, number of weekly contact hours, language — if other than German)

P (5) + S (1)
Module taught in: German / English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (45 to 90 minutes) or b) log (10 to 20 pages) or c) oral examination of one candidate each (20 to 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (20 to 30 minutes).
Students will be informed about the type and length of assessment at the beginning of the course.

Allocation of places

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Additional information

Additional information on module duration: 2 weeks, full time.

Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in
Bachelor' degree (1 major) Biomedicine (2015)
Bachelor' degree (1 major) Biomedicine (2018)