Module title: Practical Course in Microbiology and Virology for students of biomedicine
Abbreviation: 03-98-PMV-092-m01

Module coordinator: holder of the Professorship of Parasitology, holder of the Chair of Virology
Module offered by: Faculty of Medicine

ECTS: 5
Method of grading: numerical grade
Only after succ. compl. of module(s): --

Duration: 1 semester
Module level: undergraduate
Other prerequisites: Admission prerequisite to assessment: regular attendance of courses (lectures excluded) as specified at the beginning of the course.

Contents
Part microbiology: fundamental principles of the interaction of bacterial pathogens and multicellular parasites with host organisms; invasion of mammalian cells by intracellular bacteria as well as the regulation and mode of action of bacterial virulence factors; fundamental principles of microbial diagnostics. Part virology: fundamental methods to demonstrate viral infections and to recognise viral pathogenesis using the microscope.

Intended learning outcomes
Section microbiology: Students will acquire theoretical and practical knowledge on bacterial virulence factors, their regulation and mode of action in the context of infectious disease, including the invasion of eukaryotic host cells by bacterial pathogens and the multiplication and persistence of bacteria within host cells. The students will become familiar with fundamental principles of the cultivation of bacteria and multicellular parasites under laboratory conditions as well as the utilisation of these cultivation systems for the development of novel antiinfectives. The students will become familiar with the principles of microbial diagnostics, including microbial cultivation as well as DNA-based, microscopical, serological and physiological methods of diagnostic differentiation on medical microbiology and hygiene. They will be able to set up experiments and to analyse and interpret data.
Section virology: Practical knowledge on the detection of viral infections and pathogenetic alterations following viral infections.

Courses (type, number of weekly contact hours, language — if other than German)
P + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
methods of assessment: a) written examination (45 to 60 minutes) or b) log (10 to 20 pages) or c) oral examination of one candidate each (approx. 20 minutes) or d) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or e) presentation (20 to 30 minutes)

Allocation of places
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Additional information
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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 (2009)
Bachelor' degree (1 major) Biomedicine (2013)