Module title: Practical Course in Molecular Infection Biology

Abbreviation: 03-98-PMIB-152-m01

Module coordinator: Institute of Molecular Infection Biology

Module offered by: Faculty of Medicine

ECTS: 5

Method of grading: numerical grade

Duration: undergraduate

Other prerequisites: --

Contents:
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.

Intended learning outcomes:
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 learn 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 antinfectives. The students will learn the principles of microbial diagnostics, including microbial cultivation as well as DNA-based, microscopical, serological and physiological methods of diagnostic differentiation.

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:
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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)