

Module title		Abbreviation
Physiological Chemistry I		03-4S1PC-092-m01
Module coordinator		Module offered by
holder of the Chair of Physiological Chemistry		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		
<p>General anatomy, physiology and developmental biology of fishes. Special usefulness of the mainstream fish model systems (zebrafish, medaka, Xiphophorus) for biomedical research. Phenotyping of mutants. Microinjection of DNA and RNA in single-cell embryos. Fluorescent microscopy-based bioimaging techniques. Visualisation of selected tissues and organs (neural tissues, cartilage). In-situ hybridisation of mRNA. Immunohistochemical detection of proteins in-situ. Demonstration of basic techniques for electron microscopy. Behavioural analyses of locomotor activity.</p>		
Intended learning outcomes		
<p>Students are able to independently produce transient transgenic fish. They are able to delineate and describe temporal and spatial RNA and protein expression in situ, appraise expression patterns and recognise phenotypes of developmental mutants. They are able to evaluate fish models of biomedicine for their usefulness to answer specific questions.</p>		
Courses (type, number of weekly contact hours, language – if other than German)		
V + Ü (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)		
written examination (60 minutes)		
Allocation of places		
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Additional information		
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Workload		
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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) Biology (2007)		
Bachelor' degree (1 major) Mathematics (2007)		