Basics of medical science and pharmacology	
Module code	**mIsMedCompact-01a**
Abbreviated title	MedCompact
Components	Lectures, practical
When	Semesters 1+2 (Human biology = semester 1; Pharmacology = semester 2)
Coordinator Organiser	E. Hütten B. Kurz (Human Biology) Pharmacology Department (Pharmacology)
Lecturers	**V. Wätzig**, I. Cascorbi and colleagues (Pharmacology) **B. Kurz** (Human Biology)
Contact hours	Lecture Human Biology 3 CH Practical Human Biology 1 CH Lecture Pharmacology 3 CH
Workload Total: 180 h	<u>Lecture and practical Human Biology (semester 1): 90 h</u> Attendance time 49 h, preparation 20 h, revision 21 h <u>Lecture Pharmacology (semester 2): 90 h</u> Attendance time 38 h, preparation 20 h, revision 32 h
Credit points	6 (Human Biology lecture with practical 3 CP, Pharmacology lecture 3 CP)
Requirements	-
Expected outcome	<u>Knowledge</u>: Students - have gained a sound foundation in human biology with particular emphasis on cytological and anatomical knowledge of organ groups and their function - have acquired enough pharmacological knowledge to understand medical research questions - are familiar with basic terminology in pharmacology - know the fundamental principles of pharmacodynamics and pharmacokinetics -are familiar with the major classes of pharmaceutically active agents and the biochemical mechanisms they exploit. <u>Skills</u>: Students - understand the anatomical and physiological connections between different organ groups in the human body; they can point out their location in the human body and describe their functions - are able to classify pharmacological mechanisms on a molecular level for major disease indications. <u>Competences</u>: Students - are able to put the acquired knowledge into medical contexts on a molecular level - can relate it to other areas of knowledge (e.g. pathology) - can transfer the acquired pharmacology knowledge to new scientific questions when designing lab experiments in medical research

	- are able to combine pharmacological knowledge and information on clinical manifestations of diseases and implement this information into molecular research work during their studies.
Content:	Basics of cytology, anatomy (e.g. exocrine glands, bones and cartilage, skin, nervous tissue, muscle tissue, motor end plate, blood-brain barrier, autonomic and central nervous system, blood, lymphatic organs, respiratory organs, liver, gastro-intestinal tract, heart function/ECG). Pharmacokinetics and pharmacodynamics; pharmaceutical agents and pharmacological mechanisms for major indications on a molecular level; toxicokinetics; drug safety and approval.
Module evaluation/ exam	**Graded** Oral exam Human Biology (1st semester) Written exam Pharmacology (2nd semester)
Media used	PPT presentations, macroscopic/microscopic specimens
Literature	**Human biology** Marieb Elaine N, Hoehn Katja, Human Anatomy and Physiology (Pearson Education 10th edition, 2015). Ross Michael H., Wojciech Pawlina, Histology, a Text and Atlas. (Lippincott Raven 2010). **Pharmacology** Rang HP, Dale MM, Ritter JM, Flower RJ, Henderson G, Rang and Dale's Pharmacology (Elsevier 9th edition, 2019)