

Level: PhD				
Course title: Chemical and Pharmacological Aspects of Bile Acids (DSH-721)				
Status: Elective				
ECTS: 15				
Requirements: None				
Learning objectives The aim of the course is broadening the theoretical knowledge in this field in relation to the knowledge gained at undergraduate and master studies, including biosynthesis, physiological and biochemical functions of bile acids and their application in pharmacology.				
Learning outcomes The outcome of the course is creating specialists who are qualified for independent scientific research, which includes the ability to apply knowledge, use the scientific literature and some experimental techniques used in biochemistry and pharmacology of bile acid. After completing the course, students should be skilled for the collection and interpretation scientific data in this area as well as their presentation to scientific public.				
Syllabus <i>Theoretical instruction</i> Structure and origin of bile acids. Biosynthesis of bile acids in mammalian liver. Regulation bile acid biosynthesis. Physiological role of bile acids. Isolation and determination of bile acids. Synthesis of steroid hormones from bile acids. Application of bile acids and their salts in the treatment of cholelithiasis. Influence of bile acid on drug absorption: intestinal, buccal, transdermal, ocular, nasal. Bile acids as drugs. <i>Practical instruction</i> The exercises follow the lecture material.				
Weekly teaching load				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	