

<b>Level:</b> master				
<b>Course title:</b> Development of anticancer drugs, IB-515				
<b>Status:</b> Elective				
<b>ECTS:</b> 6				
<b>Requirements:</b>				
<b>Learning objectives:</b> Acquaintance with basic methods and principles of development and biological evaluation of anticancer drugs. Introduction to molecular mechanism of action of different drug categories.				
<b>Learning outcomes:</b> Upon successful completion of this course, the student is able to explain methods and principles of anticancer drugs development from potential drug to final, commercial pharmaceutical and to understand biochemical mechanisms of different drug actions.				
<b>Syllabus</b>				
<i>Theoretical instructions</i>				
Biochemical principles of chemotherapy. Classes of anticancer drugs and molecular mechanism of actions. Development of anticancer drugs based on ligand-receptor interactions. Target cancer therapy. Future of anticancer drugs. Development of the new pharmaceuticals from design and synthesis to biological evaluation. Basic principles of <i>in vitro</i> and <i>in vivo</i> investigation. Phases of clinical research.				
<i>Practical instructions</i>				
Laboratory work: Multistep synthesis of potential antitumor agent and its structural characterisation. Introductions to techniques for evaluation of antitumor activity.				
<b>Weekly teaching load</b>				Other:
Lectures: 2	Exercises: 2	Other forms of teaching:	Student research:	