UCLouvain

wsbim1211

2018

## Methodolgy of cell and molecular biology

3 credits

22.5 h

Q2

Teacher(s)	Bommer Guido ;Collet Jean-François coordinator ;Constantinescu Stefan ;Pierreux Christophe ;			
Language :	French			
Place of the course	Bruxelles Woluwe			
Prerequisites	The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.			
Main themes	Methodologies currently discussed are (1) principles and methods of protein purification, including the calculation of a purification table; (2) principles, applications and safety rules in the use of radioactivity as a tool in biochemistry and cell biology; (3) principles and applications of cell culture; (4) the physical basis, methods, potentials and limitations of analytical subcellular fractionation ; and (5) morphological methods, with emphasis on molecular tracking in fixed and living cells			
Aims	To get a critical grasp on a few essential methodologies in cell and molecular biology, on which teachers have a special expertise. The course primarily aims at the understanding of basic principles and inherent limitations, so as to help students in selecting the most appropriate approach to address a specific question. This teaching further demands the quantitative analysis of the observations and the differentiation between warranted and unjustified conclusions from a particular experiment			
	The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".			
Content	protein purification; radioactivity as a tool in research; cell culture; subcellular fractionation; molecular tracking in fixed and living cells.			
Other infos	Prerequisite : cell biology and general biochemistry Calendar : second quadrimester. Individual support : slides. Examination : quantitative analysis of new data obtained with one or several of described methods and usually presented in English; testing of their understanding			
Faculty or entity in charge	SBIM			

Programmes containing this learning unit (UE)					
Program title	Acronym	Credits	Prerequisite	Aims	
Additionnal module in Biomedical Sciences	WSBIM100P	3		٩	