UCLouvain

wsbim2284

2020

Cellular and molecular pathophysiology of human diseases (Part 2)

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

3 credits	10.0 h + 20.0 h	Q2

Teacher(s)	Andrade Amorim Christiani ;Bertrand Luc ;Dessy Chantal ;Dumoutier Laure ;Feron Olivier ;Henriet Patrick ;Horman Sandrine ;Jonas Jean-Christophe (coordinator) ;Kienlen-Campard Pascal ;Pilette Charles ;
Language :	English
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	At the end of the year, the student will : • know the pathophysiology of the diseases covered during classes, from the molecule to the cell, the cell to the organ, and the organ to the organism • understand/be able to explain the link between the molecular and cellular alterations described and the development of the chronic diseases covered during classes, as well as the mode of action of drugs targeting these alterations and their impact in other organs • be able to analyze and criticize a conference or paper in that field ; use his/her new knowledge and skills to investigate unanswered questions on the topic • imagine new approaches to study the pathophysiology of other diseases
Aims	1 This course requires good knowledge of cellular and molecular biology, biochemistry of cell metabolism, immunology, cell and organ physiology, and human pathology. - - - - *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".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Written examination on different parts of the course, unless specified otherwise by each professor. The final note is the geometric mean of the notes obtained in each part. Is is therefore lower than the arithmetic mean in case of a major failure in one part. Questions are written in English, but students can choose to anwer in French or English.
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** The course consists in a series of lectures or inverted classes on specific topics.
Content	The classes will cover the pathophysiological mechanisms underlying the development of frequent non-communicable human diseases, the drugs targeting these mechanisms and unanswered questions on the topic (biomedical research). The link between the molecular, cellular, and tissue alterations and their impact on the whole organism will be highlighted as much as possible. Diseases covered during classes include (non-exhaustive list): diabetes and its complications ; hemostatic disorders; endothelial dysfunction and vascular remodeling in cardiovascular diseases; respiratory diseases; neurodegenerative diseases ; cancers; endometriosis ; skin diseases.
Inline resources	Slides projected during classes and additional documents will be posted on MoodleUCL.
Other infos	This course requires good knowledge of cellular and molecular biology, biochemistry of cell metabolism, immunology, cell and organ physiology, and human pathology.
Faculty or entity in charge	SBIM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Biomedicine	SBIM2M	3	WSBIM2280 AND (WSBIM2112 OR WSBIM2151)	
Master [60] in Biomedicine	SBIM2M1	3		