


3.0 credits	30.0 h	1q
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Teacher(s) :	Constantinescu Stefan ; Lemaigre Frédéric (coordinator) ; Feron Olivier ; Decottignies Anabelle ; Sonveaux Pierre ;
Language :	Français
Place of the course	Bruxelles Woluwe
Prerequisites :	fundamental principles in cell and molecular biology, and in biochemistry (metabolism) taught during the baccalaureate.
Main themes :	The course describes the molecular and cell biology of intercellular signaling in normal condition and cancer, the mode of action of anti-cancer drugs, the interaction between tumor cells and their micro-environment, angiogenesis and metabolic anomalies resulting from the adaptation of tumor cells to their micro-environment (hypoxia and acidosis). The course will also address the issue of tumor cell immortality.
Aims :	<p>The course is expected to provide the students with the competence to:</p> <ul style="list-style-type: none"> <li>- master the main intercellular signaling pathways, the interactions between tumor cells and blood vessels, the principles of cell immortality and the determinants of tumor cell metabolism;</li> <li>- understand and explain how perturbed intercellular signaling, abnormal metabolism and cell immortality contribute to tumor initiation and progression, and metastasis;</li> <li>- understand and explain how anti-cancer drug modulate intercellular signaling;</li> <li>- be able to design an experimental approach aiming at the identification of therapeutic targets;</li> <li>- be able to critically address an oral presentation or article in the field;</li> <li>- use the acquired knowledge to address new issues.</li> </ul> <p><i>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".</i></p>
Content :	
Bibliography :	The biology of Cancer, R.A. Weinberg, Garland Publishing
Other infos :	The course is taught in auditoria Slides will be made available to the students.
Faculty or entity in charge:	FASB

<b>Programmes / formations proposant cette unité d'enseignement (UE)</b>				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Biomedicine	SBIM2M	3	-	
Master [60] in Biomedicine	SBIM2M1	3	-	