UCLouvain

wfarm2180

2022

Organotoxicity : molecular, cellular and functional aspects

3.00 credits	30.0 h + 15.0 h	Q2

Teacher(s)	Feron Olivier (coordinator) ;Hantson Philippe ;Lysy Philippe ;Wittebole Xavier ;
Language :	French > English-friendly
Place of the course	Bruxelles Woluwe
Main themes	This course will detail the mechanisms of toxicity in a variety of target organs such as the liver and the nervous system but also in the very specific context of cancer. Molecular, cellular and functional aspects will be considered as well as the methodology for diagnostic and prevention. The course will be organized in modules centred on specific organs and illustrated by examples derived from frequent pathologies and/or issued from the News.
Learning outcomes	**At the end of this learning unit, the student is able to :** 1 The major objective of this course is to provide students with the required bases to evaluate drug toxicity, the term "drug" being taken in its broader signification including medicines as well as illicit substances and fugi.
Evaluation methods	Questions requiring short-open-responses.
Teaching methods	Lectures (classroom and/or remote).
Content	The main objective of this course is to provide students with the basics needed to assess the tissue toxicity of different molecular entities. The term "molecular entity" is taken in its broadest acceptance, namely drugs, illicit substances but also antibodies (autoimmunity) or endogenous substances. The term "tissue" covers both healthy organs and (pre) cancerous lesions. The mixed team of teachers from the academic and clinical worlds allows -through "capita selecta"- to cover different target organs with their molecular and cellular specificities but also to address clinical aspects (diagnostic and prognosis in particular). P. Hantson and X. Wittebole: From clinical cases, the mechanisms of toxic neurological, cardiac and renal manifestations will be discussed for various pharmacological compounds or substances present in the environment. P. Lysy: Topics will include one or several aspects of the following: (i) endocrinological complications of anti-cancer treatments (chemo + radio), long-term effects of growth hormone therapy, acute / chronic complications of anti-diabetic treatments and drug-induced doping. hormones. O. Feron: A reflection on the toxicity of anticancer drugs will be conducted through the example of the clinical failure of anti-angiogenic drugs.
Inline resources	All the documents projected during the courses are accessible on UCL's Moodle website.
Other infos	The number of questions asked will reflect the hourly volumes of each teacher. The final mark will take into account the results in each part, in the form of an arithmetic average (for 75% of the total). The evaluation of the presentation (J. Club) will account for 25% of the final cotation. Oral presenation of the work (J. Club) is mandatory to validate the teaching unit. Any unjustified deviation from this rule leads to a penalty in the teaching unit (TU) exam which can go as far as the cancellation of the exam mark (0/20). The teacher may also propose to the jury to oppose the registration for the TU exam in compliance with article 72 of the RGEE.
Faculty or entity in charge	FARM

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Biomedicine	SBIM2M	3		🔍
Master [60] in Biomedicine	SBIM2M1	3		🔍
Master [120] in Pharmacy	FARM2M	3		🔍