UCLouvain

wrpr2330

2024

Utilisation des radioisotopes et des molécules marquées en biologie

3.00 credits	15.0 h + 15.0 h	Q2

Teacher(s)	Gallez Bernard (coordinator) ;Vander Borght Thierry ;
Language :	French
Place of the course	Bruxelles Woluwe
Main themes	The aim of this course is to provide a general overview of the use of radioactive compounds in the medical field in vitro and in vivo. The course studies the areas of application of radioactivity and when it can be justified, it also justifies the choice of the type of isotope according to the experiment. The course covers examples of in vitro applications (radioimmunological assays, ligand/receptor interactions in pharmacology, autoradiography and associated methods). The course shows the strategies for preparing nuclides through two examples of the compounds most used in nuclear medicine (a complex of 99mTc technetium – diphosphonate, a positron emitting compound 18F-fluorodeoxyglucose). Examples of clinical medical applications are described focusing on bone scintigraphy, PET scans and the study of pharmacological receptors within the central nervous system.
Learning outcomes	**At the end of this learning unit, the student is able to :** 1 Answer to three fundamental questions : why and how to use a radioactive isotope, and how to prepare it ?
Faculty or entity in charge	CRPR

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Biomedical Engineering	GBIO2M	3		
Certificat universitaire en physique d'hôpital	RPHY9CE	3		
Certificat universitaire en radiopharmacie	RFAR9CE	3		