



Cancer, Ageing and Rejuvenation Graduate School - CARE

Master's Programme

2022 - 2023

Title of the Teaching Unit (UE): Innovative pharmacological strategies and therapeutic perspectives		
Semester: 8	Number of ECTS: 3	Hourly volume: 28h MC : 16h & DC : 12h <i>No distance learning hours</i>
Teaching Team	<p><u>Leaders :</u> Bruno Guiard & Philippe Valet</p> <p><u>Teaching team :</u> Pharma : B. Guiard, F. Thomas, F. Fallone, A. Roussin, C. Muller ; FSI : Ph. Valet, C. Dray, B. Buffin Meyer; Medicine: M. Lapeyre-Mestre</p>	
Objective	<p>The aim of this course is to introduce students to the different classes of drugs currently available and in development, in the fields of metabolic diseases and complications (mainly cardiovascular), cancer and ageing. For each field, the lectures are divided into 4 points :</p> <ol style="list-style-type: none"> 1- Review of the physiopathology, 2- Biological models available for the study of this/these pathology(ies), 3- Identification of possible pharmacological targets, 4- Presentation of current therapeutics and strategies in progress in the research laboratories. 	
Content	<p>(80 students, 2 TD groups) 2CM + 1TD on metabolic diseases 1CM + 1TD on cardiovascular diseases 2CM + 2TD on cancer 1CM + 1TD on Aging 1CM + 1TD on depression comorbid with ageing, metabolic diseases and cancer 1CM on the different phases of drug development up to pharmacovigilance</p>	
Pre-requisites	To have followed the EU "Pharmacological approaches for the study of living organisms"	
Keywords	Pharmacology, Drugs, Metabolic diseases, Cancer, Cardiovascular diseases, Ageing	
Skills	<ul style="list-style-type: none"> - Identify potential therapeutic targets based on a good knowledge of pathophysiological mechanisms, - Consider the most promising novel therapeutic strategies for drug development, - Use basic pharmacology to compare the efficacy of different pharmacological ligands - Use basic pharmacology to compare the efficacy of different pharmacological ligands, - Critically review scientific articles on the different phases of drug development from exploratory research to market launch (preparation of a slide show for oral presentation) 	



Block of Skills	<p>In vitro and in vivo studies of the response to xenobiotics/drugs. Exploration of strategies to find new targets. Evaluation of drug characteristics and therapeutic limitations. Pre-clinical models. Clinical investigation. Interpretation and analysis of data</p>