Cancer, Ageing and Rejuvenation Graduate School - CARe

Master's Program

2023 - 2024

Title of the Teaching Unit (UE): Technologies for life sciences, pratical approach		
Semester: 10	**Number of ECTS: 3**	**Hourly volume: 28 h**
Teaching Team	J. Rouquette & F. Lopez	
Objective	The teaching will focus on a practical presentation of different equipment, their application in a context of exploration or evaluation of a response on different models ranging from the cell, to patient samples, to 3D in vitro/ex vivo models and animal models. Molecular, cellular and phenotypic approaches will be presented. The aspects related to the management of these equipments within technological platforms will also be discussed.	
Content	The teaching will be organized around workshops, according to a pedagogical continuity around a mini-project of exploration. These workshops will take place over a week in complete immersion on the technological platforms of the CRCT and RESTORE, two laboratories located on the Toulouse-Langlade site. These workshops will integrate aspects of: - cytometry - genomics and transcriptomics - proteomics - microscopy - image analysis and virtual reality - database manipulation.	
Evaluation	100 % final examination (oral)	
Pre-requisites	This course is based on the UE Technologies for the exploration of life: theoretical aspects, of the M1 BioHealth.	
Skills	- 1.2: To autonomously use the advanced digital tools for one or more professions or research areas of the field. - 2.1. To mobilize highly specialized knowledge, some of which is at the forefront of knowledge in a field of work or study, as a basis for original thinking - 3.1. identify, select and critically analyze a variety of specialist resources to document a topic and synthesize these for use	
Block of Skills	1. Advanced and specialized use of digital tools 2. Development and integration of highly specialized knowledge 3. Specialized communication for knowledge transfer	