



Cancer, Ageing and Rejuvenation Graduate School - CARE

Master's Program

2023 - 2024

Title of the Teaching Unit (UE): Technologies for life sciences, practical 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	<p>The teaching will be organized around workshops organized 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.</p> <p>These workshops will integrate aspects of:</p> <ul style="list-style-type: none"> - cytometry - genomics and transcriptomics - proteomics - microscopy - image analysis and virtual reality - database manipulation. 	
Pre-requisites	This course is based on the UE Technologies for the exploration of life: theoretical aspects, of the M1 BioHealth.	
Skills	<ul style="list-style-type: none"> - 1.2: To autonomously use the advanced digital tools for one or more professions or research areas of the field. - 2.1. To mobilise highly specialised 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 analyse a variety of specialist resources to document a topic and synthesise these for use 	
Block of Skills	<ol style="list-style-type: none"> 1. Advanced and specialised use of digital tools 2. Development and integration of highly specialised knowledge 3. Specialised communication for knowledge transfer 	