

Scuola di Medicina e Chirurgia Dipartimento di Medicina di Precisione

Degree Course in Medicine & Surgery in English Language

ADE

A.A. 2024-2025

TITLE		Single-cell genome sequencing: paving the way for precision medicine							
PROF.		Michele Caraglia, Silvia Zappavigna							
SCIENTIFIC DISIPLINARY SECTOR (SSD)		BIOS-07/A							
GENERAL AND SPECIFIC OBJECTIVES		The teaching activity will cover all the recent advances in genetic testing and sequencing technologies together with their applications. The course will offer an overview of single cell sequencing (sc-RNAseq) technologies and the workflow starting from the preparation of the sequencing libraries, to the sequencing modalities and ending with information extraction and data analysis. The main fields of scRNA-seq application will be illustrated, and the most appropriate computational and statistical methods currently available for the analysis of scRNA-seq data will be discussed. At the end of the teaching activity a test with multiple answers will be administered to the students (30 questions with 5 answers with only one correct; minimal score to pass is 18).							
ACTIVITY TYPE			PROPOSED ACTIVITY	MINIMUM DURATION (HOUR)	ADE DURATION (HOUR)	CFU	PROPOSED CFU		
LABORATORY ACTIVITY /INT		ERNSHIPS		13		1			
	MONOGRAPHIC COUR	SES	Х	> 13	14	1	1		
	INTERACTIVE SEMINARS INTERACTIVE SEMINARS			≥ 6,25 (up to12,5)		0,5		<u> </u>	
				<u>≥</u> 12,5		1			
♦ ACADEMIC YEAR 2024			2024/2025						
♦ MAXIMUM N. OF STUDENTS		50							
◆ STUDENT COURSE YEAR		II-III-IV-V-VI							
♦ E	BASIC KNOWLEDGE REQUESTED	I year examinations plus Biochemistry examinations							
♦ L	OCATION	Booked students will be notified							
♦ [DATE (S) AND TIME	February 24 th , 25 th , 2025							
♦ (CONTACTS	silvia.zappavigna@unicampania.it							