MEDICAL BIOTECHNOLOGY AND NANOBIOTECHNOLOGY (LM49)

(Lecce - Università degli Studi)

Teaching BIOPRODUCTION

GenCod A004554

Owner professor Gian Pietro DI SANSEBASTIANO

Teaching in italian BIOPRODUCTION

Teaching BIOPRODUCTION

SSD code BIO/01

Reference course MEDICAL BIOTECHNOLOGY AND

Course type Laurea Magistrale

Credits 6.0

Teaching hours Front activity hours: 50.0

For enrolled in 2020/2021

Taught in 2021/2022

Course year 2

Language ENGLISH

Curriculum BIOMEDICO

Location Lecce

Semester First Semester

Exam type Oral

Assessment Final grade

Course timetable https://easyroom.unisalento.it/Orario

BRIEF COURSE DESCRIPTION	The goal of the course is the acquisition of skills in the study of organisms suitable for the production of molecules of biotechnological interest, particularly biomedical as well as a thorough understanding of the potential of biotechnology in cellular processes, with particular attention to plants. Scientific and technical aspects refering to the bioproduction of macromolecules using the most advanced biotechnology are examined.
REQUIREMENTS	knowledge of cell biology (as acquired in most first level courses)
COURSE AIMS	acquisition of awareness on the biotechnological potential inherent in cellular processes and on the use of organisms for the production of biologically relevant molecules.
TEACHING METHODOLOGY	Learning methods consist of formal Lectures making use of slides. The students are also expected to read assigned papers from the scientific literature.
ASSESSMENT TYPE	**Oral. It is aimed at ascertaining, in proportion:** - The level of theoretical knowledge through the presentation of the program topics (50%) - The level of practical abilities through description of methods and methodologies (25%) - The ability to apply theoretical knowledge and practical skills to solve simple problems (25%)
OTHER USEFUL INFORMATION	reception hours will be updated after courses organization. An appointment can be requested at any time by email and arranged accordingly to prof schedule.

FULL SYLLABUS	Concept of Bioproduction - Bioreactors and mass transport - Natural products (secondary metabolites) - Plants genetic engeneering. - Molecular tools (vectors, markers, genes etc) - Cases of study. - Model plants -therapeutic recombinant proteins potentials. - otehr macromolecules for health. - vaccins - Insect cells. - Purification of bio-products.
REFERENCE TEXT BOOKS	attendance is strongly recommended because the course has no textbook. PDF will be made available on this website. About 20% of the content is described in Biologia cellulare e biotecnologie vegetali. G. Pasqua ; PICCIN ed. 2011. ISBN: 978-88-299-2124-9