BIOTECNOLOGIE MEDICHE E NANOBIOTECNOLOGIE (LM49)

(Lecce - Università degli Studi)

Insegnamento CELLULAR BIOTECHNOLOGIES

GenCod A004552

Insegnamento CELLULAR BIOTECHNOLOGIES
Insegnamento in inglese CELLULAR BIOTECHNOLOGIES
Settore disciplinare BIO/13

Corso di studi di riferimento BIOTECNOLOGIE MEDICHE E

Tipo corso di studi Laurea Magistrale

Crediti 9.0

Ripartizione oraria Ore Attività frontale: 74.0
Per immatricolati nel 2018/2019

Erogato nel 2018/2019

Anno di corso 1

Lingua INGLESE

Percorso PERCORSO GENERICO/COMUNE
Docente Cecilia BUCCI

Sede Lecce

Periodo Primo Semestre

Tipo esame Orale

Valutazione Voto Finale

Orario dell'insegnamento https://easyroom.unisalento.it/Orario

BREVE DESCRIZIONE DEL CORSO

Synthetic program:
Genetic manipulation of eukaryotic cells. Methods for expressing or silencing wt and mutant genes in cultured animal cells. Cellular and molecular biotechnologies to identify protein-protein interactions: the two-hybrid system and its variants, the phage display. Biology of stem cells: embryonic, foetal and adult. Applications of stem cells. Induced pluripotent stem cells. Regenerative medicine. Gene therapy: vectors, methodologies and scopes. Cloning and therapeutical cloning.
Program of pratical laboratory classes:
Transfection of mammalian cells. Use of GFP to monitor transfection efficiency. Transfection of GFP-tagged proteins to establish their intracellular localization in mammalian cells. Immunofluorescence analysis. Differentiation of cultured mammalian cells.

PREREQUISITI

No formal prerequisites are required. However, a solid knowledge of cell biology, molecular biology and genetics will be helpful to follow the course with profit.

METODI DIDATTICI

Formal lectures (8 cfu= 64 hours) making use of slides and hypertext links to specific Web sites and pratical laboratory classes (1 cfu = 10 hours). Outside these activities, the students are expected to read assigned papers from scientific literature.

MODALITA' D'ESAME

The evaluation of the oral examination will be based on the level of the theoretical knowledge and practical abilities acquired through the description of topics and methodologies (70%), on the critical and problems solving abilities and (20%) and on communication skills (10%).