

MAMMALIAN CELL CULTURE (7H)

Program :

1. Cell biology
 - 1.1. Organization of the animal cell
 - 1.2. Cell division
 - 1.3. The extracellular matrix
 - 1.4. Cellular adhesion
 - 1.5. Cellular communication
 - 1.6. Cellular death

2. Cell culture
 - 2.1. Main characteristics of animal cells in culture (adherent monolayer, suspension, growth curve)
 - 2.2. Bioreactors and "cell factory"
 - 2.3. The microcarriers
 - 2.4. Miscellaneous equipment
 - 2.5. Cell separation and purification
 - 2.6. Primary culture and establishment of cell lines
 - 2.7. Stem cells
 - 2.8. Maintenance of cell cultures
 - 2.9. Composition of culture media
 - 2.10. Contamination/sterility
 - 2.11. Cryopreservation

3. Fields of application
 - 3.1. Regenerative medicine
 - 3.2. Cellular therapy
 - 3.3. Biotechnology
 - 3.4. Research