BRMC2202 Cell culture technology

[22.5h] 2 credits

This course is taught in the 1st semester

Teacher(s): Marc Boutry (coord.), Claude Remacle, Yves-Jacques Schneider
Language: French
Level: Second cycle

Aims

This course aims at introducing the students to the principles and general methods of animal and cell cultures, highlighting the industrial perspectives as well as the biological and technological constraints.

Main themes

The major types of animal and plant cell cultures will be described. The importance of the culture medium content and of the growth parameters, as well as scaling-up problems will be presented. Applications in the biomedical and biotechnological fields will be illustrated.

Content and teaching methods

Animal (mammalian and insect) cells: properties, adhering and non-adhering cells, culture medium, serum-free medium, effect of physical parameters (scaling up). Example of production of proteins; hybridoma and monoclonal antibodies. Plant cells: culture of cells, tissues and organs, culture medium, example of production of secondary metabolites and proteins.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

General courses of microbiology and biochemistry; Biological and microbiological engineering.

Other credits in programs

BIR23/2C	Troisième année du programme conduisant au grade de bio-ingénieur : Chimie et bio-industries (Ingénierie biomoléculaire et cellulaire)	(2 credits)	Mandatory