BIO1322 Integrated tutorials in biochemistry and molecular genetics

[+60h exercises] 5 credits

This course is taught in the 2nd semester

Teacher(s): Bernard Hallet, Patrice Soumillion
Language: French
Level: First cycle

Aims

The tutorials constitute a practical and theoretical initiation to the general procedures in modern genetics, combining molecular biology and biochemical techniques.
Starting from real problems, they aim to familiarize the student with the design of experimental approaches and the interpretation of the results.

Main themes

From the phenotype to the gene and from the gene to the protein, the formation covers different approaches used to identify and isolate a gene, to modify its sequence, to study its function, and to characterise its product. It illustrates the concepts of DNA cloning, the structure-function relationship of proteins and of retro-genetics, by making use of DNA recombinant techniques (restriction, ligation, PCR, sequencing, transformation, etc), mutagenesis, purification and enzymatic characterisation of proteins.