UCL Faculté des sciences

SC

BIOL2138 Exercices intégrés de génétique moléculaire

[45h] 3.5 credits

This course is taught in the 2nd semester

Teacher(s): Jean Delcour
Language: french
Level: 2nd cycle course

Aims

The study of modifications made to the genome and genes under the effect of mutation, recombination and transposition.

Main themes

1. Mutations: spontaneous mutations (during replication, tautomerisation), UV damage, chemical mutagenesis. 2. Repairing : excision-ligation, correction of mismatch, SOS system. 3. Homologue recomination: models of homologue recombination (heteroduplex), postmeïotic segregation, genic conversion, repairing recombination, site-specific recombination. 4. Transposition: IS and Tn bacterias, P elements (Drosophile), control elements (plants). 5. Retrotransposition: retrovirus (animals, man), TY elements, retrogens. Assisted work: practical work consists of cloning the gene of a-amylase of Bcillus lechniformis in a phagemide and to build a battery of deletants to sequence by the methods of Sanger. The technics practiced are the following: restriction, ligation, transformation, phenotypic selection, repid plasmide preparation, electrophoresis on agarose gel, cartography. During spare moments, we discuss the multiple problems encountered during the manipulations.

Other credits in programs

BIOL21/A	Première licence en sciences biologiques (Biologie moléculaire, cellulaire et humaine)	(3.5 credits)	Mandatory