

Epigenetics and genes regulations

ECTS

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Mots clés

Gene expression, Animal, Expression des gènes, Epigénétique, Epigenetics, Genome

Description du contenu de l'enseignement

Objectifs:

The goal is to provide with an updated knowledge on the regulation of genes expression by epigenetics mechanisms.

Contenu :

Chromatin organization and nuclear architecture.

DNA methylation and analysis techniques.

Non-coding RNA involvement in genes regulations.

Imprinted genes.

Epigenetic reprogramming during early development.

Nutrition and epigenetics.

Role of epigenetics during mammary gland differentiation.

Studying epigenetic mechanisms with "omic" tools.

Novelties or highlights in the field.

Compétences à acquérir

With this module, students will have an up-to-date knowledge on the regulation of genes expression by epigenetics mechanisms.

Up-to-date knowledge on the regulation of genes expression by epigenetics mechanism.

Modalités d'organisation et de suivi

Coordinateur;

Amélie Bonnet-Garnier (CR INRA) & Eve Devinoy (DR INRA)

Equipe pédagogique;

N Beaujean (DR INRA), Amélie Bonnet-Garnier (CR INRA), Eve Devinoy (DR INRA), Anne Gabory (CR INRA), Hélène Jammes (DR INRA), Hélène Kiefer (CR INRA), M. Pannetier (CR INRA)

Langue

Anglais

Volume horaire

CM : 12h, TD : 6h

Période et lieu(x) enseignements

Période:

semestre 3 : Octobre-décembre

Lieu:

AgroParisTech Claude Bernard - INRA Jouy en Josas

Mode de contrôle des connaissances

Personal work