

- Faculté des sciences
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Molecular genetics of secondary metabolism (3BL2214)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	Cours: 7 dj	controle continu: 1	3

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

KESSLER Felix
NEUHAUS Jean-Marc
DEMARSY Emilie
BESAGNI Céline
Assistants

Objectifs:

Learn molecular genetics skills in the context of secondary metabolism

Contenu:

Plants defend themselves against their enemies using small molecules ("chemical weapons"). The production of this arsenal of small molecules requires enzymes. Often a new enzyme is discovered that is important for the biosynthesis of a small molecule. But how can we find out whether this enzyme really is important in a living plant? To address this key question we will use the reverse genetic toolbox, using the genetic model plant *Arabidopsis thaliana*. We will isolate an *Arabidopsis* line containing a genetic mutation that specifically affects the expression of a protein of interest. This will be done by segregation analysis on selection media and diagnostic PCR (polymerase chain reaction). We will then compare the mutant plants with the wild type using a variety of methods ranging from phenotypic characterization to metabolomics analysis.

Forme de l'évaluation:

CA (graded)

Documentation:

Will be available on Claroline

Pré-requis:

Bachelor in biology

Forme de l'enseignement:

Practical course