

- Faculté des sciences
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Biosynthesis and function of secondary compounds (3BL2212)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie (*)	Cours: 7 dj	écrit: 2 h	4

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

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

Profs
KESSLER Felix
NEUHAUS Jean-Marc

Objectifs:

Learn about the biosynthesis and function of secondary compounds in the context of chemical ecology

Contenu:

Plants defend themselves against their enemies using small molecules ("chemical weapons"). Often these belong to the large class of secondary compounds, the terpenoids, alkaloids and the phenylpropanoids. In the "The basics of chemical ecology" you have heard about spectacular examples of plants using secondary compounds to defend themselves against insects. In this course, we will dissect how secondary compounds are synthesized. Often this involves many steps that constitute complex biosynthetic pathways. Some of the steps may be regulated allowing to turn a pathway up or down. Apart from the role of small molecules in plant defense, they play important roles in chemical ecology phenomena that include seed dissemination, pollinisation, allelopathy, partner choice, mutualisms, resource allocation, and others. We will pick particularly exciting examples to discuss the function and modes of action of such secondary compounds at the molecular level.

Forme de l'évaluation:

written exam, 2 hours, combined with Basics of chemical ecology.
Questions will be related to two articles presented and discussed during the course, but not to your own article

Documentation:

Will be available on Claroline

Pré-requis:

Bachelor in biology

Forme de l'enseignement:

Lecture, presentation and discussion of original articles dealing with biosynthesis and ecological functions of secondary compounds

(*) Cette matière est combinée avec d'autres matières pour l'évaluation