

Structural Biochemistry

Introducing

Description

Detailed description of the structure of the molecules listed below and their major role in the cellular functioning of living beings:

- Monosaccharides, oligosaccharides, and polysaccharides
- Fatty acids and lipids
- Nucleotides and nucleic acids (DNA and RNA)
- Amino acids and proteins

Description and implementation of several analytical methods to elucidate the structure of certain compounds.

Introduction to the study and use of these biomolecules for biotechnologies in the context of ecological transition, sustainable development, and the bioeconomy.

Objectives

By the end of this module, students should have understood and been able to describe the overall structure of the four major classes of biomolecules that make up living systems (carbohydrates, lipids, nucleic acids, and proteins), as well as their function in cells. Students will also be aware of the great diversity that exists in the living world and its importance. They will also be able to cite certain techniques for analyzing these molecules and should be familiar with some simple examples of their relevance to biotechnology.

Necessary prerequisites

I1ANBC11 Chemistry

I2BECH11 Organic chemistry

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

 Toulouse