



CHIM2381 Complements of biochemistry II

[22.5h] 2.5 credits

This course is taught in the 1st semester

Teacher(s): Robert Crichton (coord.), Pierre De Meyts, Louis Hue

Language: French

Level: Second cycle

Aims

The objective of this course is to introduce the students to the molecular approach of : inorganic chemistry and metabolic regulation.

Main themes

First part: Inorganic biochemistry - Metals in biology - an Overview- Solution chemistry of iron and its importance for biological systems - iron assimilation by microbes, plants and animals - Transferrin, Transferrin receptor and the Transferrin to cell Cycle - Intracellular Iron storage, iron homeostasis and cellular iron release - iron deficiency and overload, iron and oxidative damage, iron and infection.

Second part : metabolic regulation - Introduction - signal transduction - phosphorylation/dephosphorylation of proteins and regulation - cellular cycle : growth factors, receptors of growth factors and oncogenes linked to it, tyrosine-kinase, serine/threonine kinase, G proteins and oncogene ras, transcription factors and nuclear oncogenes, anti-oncogenes, insuline.

Other credits in programs

BIOL22/A Deuxième licence en sciences biologiques (Biologie moléculaire, cellulaire et humaine) (2.5 credits)

CHIM22 Deuxième licence en sciences chimiques