

Faculty of Medicine



PHAR1230 General pharmacology

[25h] 3 credits

This course is taught in the 2nd semester

Teacher(s): Jean-Marie Maloteaux
Language: French
Level: First cycle

Aims

The course of general pharmacology aims at providing the necessary basis for understanding the mechanism of action of drugs. An important part of the course is devoted to mechanism of absorption, degradation and elimination of the drugs. Some elements of quantitative pharmacokinetics and the implications in pharmacotherapy are presented.

The principal types of interactions and side effects (tolerance, drug addiction), their mechanisms as well as their consequences are described. The relationship between the drugs and the main systems of chemical transmission or hormonal are broached in terms of interaction at the level of sites of action (agonists and antagonists of neurotransmitters for example) or in terms of modulation of great functions (influence on the transmission of pain, or inflammation for example). The experimental and clinical steps of drug development and the control procedures are described.

Main themes

To give the theoretical basis, that allows understanding the mechanisms of action of drugs, their main indications and side effects.

Content and teaching methods

Lecture dealing with the following chapters : I. General pharmacodynamie 1. Mechanisms of action of the medicines. 2. Types of receivers. 3. Relations between link to the receiver and pharmacological response. II. General pharmacokinetic. 1. The biological barriers for the medicines - absorption - way of administration. 2. Medicines delivery. 3. Biotransformation and elimination of the medicines. 4. Quantitative pharmacokinetic elements. III. Notions of general pharmacotherapy. 1. Research, development and commercialisation of new medicines. 2. Variability of individual response. 3. Tachyphylaxie, tolerance, drug addiction. 4. Drugs and nutrition - interactions. IV. Basis of special pharmacology. 1. The systems of adrenergique transmission, cholinergique, dopaminergique. 2. Histamine - Drug and inflammation. 3. Drug for pain.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Notions of biochemistry and cellular biology. Written exam // Support : syllabus

Other credits in programs

BIOL22/A	Deuxième licence en sciences biologiques (Biologie moléculaire, cellulaire et humaine)		
BIOL22/B	Deuxième licence en sciences biologiques (Biologie des organismes et des populations)		
MED12BA	Deuxième année de bachelier en médecine	(3 credits)	Mandatory
MED13	Troisième candidature en médecine		Mandatory