


4.00 credits

45.0 h + 15.0 h

Q1 and Q2

**This learning unit is not open to incoming exchange students!**

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| Language : | French |
| Place of the course | Bruxelles Woluwe |
| Main themes | The general theme is the structure - activity relationship of the drugs. Since this theme is broad, it has to be exemplified by selected topics: (i) chemical and physico-chemical properties of drugs in relationship with their pharmacokinetic and pharmacodynamic behavior (phototoxicity, in vitro and in vivo hydrolysis, charge (pKa), logP (Lipinski's rule), chirality) (ii) (ii) ligand - receptor interaction, with regard to physico-chemical properties : ature of the intermolecular interactions, types of targets (receptors, ion channels, enzymes, transporters, pumps), consequence of the binding of a xenobiotic on these targets (iii) drug discovery and optimization process, scope and limitation of the drug design techniques. The practical exercises allow students to establish themselves their own experimental plans in order to assign the structure of simple molecules (spot tests, derivatization, spectroscopy). |
| Learning outcomes | |
| Bibliography | Drug-like Properties: Concepts, Structure Design and Methods, 1st Edition from ADME to Toxicity Optimization Authors: Li Di Edward Kerns The Practice of Medicinal Chemistry, Editors: Camille Wermuth David Aldous Pierre Raboisson Didier Rognan |
| Faculty or entity in charge | FARM |

| Programmes containing this learning unit (UE) | | | | |
|---|---------|---------|--------------|---|
| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
| Minor in Medication Sciences | MINFARM | 4 | |  |