# WFARM2501 — Chimie pharmaceutique avancée et drug design

2015-2016

| 3.0 credits | 20.0 h + 10.0 h | 2q |
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| Teacher(s) : | Frédérick Raphaël ; Muccioli Giulio (coordinator) ; Lambert Didier ; |
| Language : | Français |
| Place of the course | Bruxelles Woluwe |
| Prerequisites : | organic chemistry and medicinal chemistry |
| Main themes : | The teacher(s) will discuss first the different techniques allowing the discovery of novel therapeutic targets (lipidomic ' proteomic ' deorphanization), second the methods allowing the identification of hits for a given molecular target (high-throughput screening ; computer assisted de novo drug design); finally the strategies allowing to optimize a hit ('hit to lead') will be discussed (structures-activity relationships ; docking; ') |
| Aims : | At the end of the activity the student will be able to<br>--<br>Interpret, based on what was discussed in class, the results presented in a scientific paper dealing with the development of a novel drug<br>--<br>Suggest a strategy allowing to identify novel therapeutic targets<br>--<br>Suggest a strategy allowing to identify novel lead compounds for a given target (enzyme, receptor, ')<br>--<br>Suggest a strategy allowing to optimize the activity of a drug towards its target<br>*The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".* |
| Evaluation methods : | a written exam and a presentation of a case-study based on a scientific paper |
| Content : | --<br>Lipidomics applied to the discovery of novel targets<br>--<br>Exploring the proteome looking for novel targets : the enzymes ' the receptors<br>--<br>Proteins as therapeutic target<br>--<br>Determination of their 3D structure<br>--<br>Role of protein's 3D models in drug design<br>--<br>The interest of establishing structure-activity relationships in drug design |
| Faculty or entity in charge: | FARM |

| Programmes / formations proposant cette unité d'enseignement (UE) | | | | |
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| Intitulé du programme | Sigle | Credits | Prerequis | Acquis d'apprentissage |
| Master [120] in Pharmacy | FARM2M | 3 | - | |