

### Information

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### Presentation

The Advanced Master in Industrial Pharmacy is the path followed by those who want to acquire the status of qualified person (pharmacist responsible for the compliance of medicines produced by pharmaceutical industry - Royal Decree of June 6, 1960) through a university education. To obtain this official recognition by the Department of Public Health, the degree must be supplemented by practical experience of 6 months in one or more firm (s) drug (s) holder (s) authorized to manufacture industrial medicine as provided by the Royal Decree of August 14, 1989.

The Advanced Master in Industrial Pharmacy prepares the student to conventional manufacturing tasks and analysis of drugs. The program also includes courses in new fields such as biotechnology, regulatory affairs, quality assurance, economic aspects of drug, clinical tests.

An interuniversity program involving the ULB, UCL and ULg was created in 1997.

### Particular requirements

- \* The complementary Masters in Industrial Pharmacy is available to pharmacists holding a Belgian qualification or an equivalent recognised by the French Speaking Community of Belgium. Admission is subject to the specific regulations of each university.
- \* The selection of candidates will be carried out in each university in consultation with the other two institutions.
- \* For holder of a diploma non EU, see the programme of the university certificate of additional training in Pharmaceutical Sciences  
[http://progours.ulg.ac.be/cocoon/programmes/TUR\\_MYPHAR.html](http://progours.ulg.ac.be/cocoon/programmes/TUR_MYPHAR.html)

### Duration

- \* One year of study, with the possibility of spreading the programme over two years after a recommendation supplied by the Jury of the host university.

### Collegiality

Coordinator : Jacques CROMMEN

For the ULg: Vincent BIERLAIRE, Bruno BOULANGER, Corinne CHARLIER, Jean-Pierre DELPORTE, Laurence DENIS, Brigitte EVRARD, Philippe HUBERT, Bernard PIROTTE, André SCHEEN, Monique TITS, Jean-Michel VANDERHOFSTADT.

For the ULB : Karim AMIGHI, J CARLEER, Jean-Paul DEHAYE, Michel DEVLEESCHOUWER, Jean-Antoine. DE MUYLDER, Alain DE WEVER, Pierre DUEZ, Ghanem GHANEM, A. HEPBURN, Jean-Michel KAUFFMAN, Jean NEVE, Michel TYTGAT.

For the UCL : Jean CUMPS, Estelle DAGNEAUX, Catherine DRUEZ, Michel FRANZ, Jean GILLARD, Didier LAMBERT, Xavier MARCELIS, Joëlle QUETIN-LECLERCQ, Jean SCOUVART, Roger VERBEEK.

## A single year

### Compulsory courses

|            |  |    |   |   |          |
|------------|--|----|---|---|----------|
| PHIN2004-1 | <i>Active substances</i>   |    |   |   | <b>6</b> |
|            | - <i>Substances issues de recherches pharmacochimiques, part a</i> - Bernard PIROTTE   | 10 | - | - |          |
|            | - <i>Substances issues de recherches pharmacochimiques, part b</i> - J. NÈVE   | 5  | - | - |          |
|            | - <i>Substances issues des biotechnologies</i> - J.-P. DEHAYE  | 15 | - | - |          |
|            | - <i>Substances d'origine naturelle, part a</i> - J. QUETIN#LECLERCQ   | 5  | - | - |          |
|            | - <i>Substances d'origine naturelle, part b</i> - P. DUEZ  | 5  | - | - |          |
|            | - <i>Produits radiopharmaceutiques</i> - Ghanem GHANEM   | 10 | - | - |          |
| PHIN2008-1 | <i>Clinical viewpoints</i>   |    |   |   | <b>6</b> |
|            | - <i>Métabolisme des médicaments et paramètres pharmacocinétiques</i> - R. VERBEEK   | 20 | - | - |          |
|            | - <i>Aspects théoriques et pratiques des études cliniques (y compris les méthodes statistiques appliquées aux études cliniques)</i> - André SCHEEN | 20 | - | - |          |
|            | - <i>Information et pharmacovigilance</i> - Corinne CHARLIER   | 10 | - | - |          |
| PHIN2013-1 | <i>Quality assurance and pharmaceutical management</i>   |    |   |   | <b>8</b> |
|            | - <i>Economic aspects of drug development</i> - Dominique MARTIN   | 10 | - | - |          |
|            | - <i>Principles of pharmaceutical management</i> - J.-M. VANDERHOFSTADT  | 10 | - | - |          |
|            | - <i>Quality assurance, Part a: basic concepts and quality assurance organisation</i> - J. SCOUVART  | 20 | - | - |          |

|            |   |     |   |   |           |
|------------|---|-----|---|---|-----------|
|            | - <i>Quality assurance, Part b: Analytical technology of procedures and risk analysis</i> - X. MARCELIS   | 7,5 | - | - |           |
|            | - <i>English as applied to the pharmaceutical industry</i> - E. DAGNEAUX, D. LAMBERT  | 20  | - | - |           |
|            | - <i>Pharmaceutical marketing</i> - Vincent BIERLAIRE   | 7,5 | - | - |           |
| PHIN2022-1 | <i>Industrial pharmaceutical technology</i>   |     |   |   | <b>8</b>  |
|            | - <i>Microbiologie pharmaceutique industrielle</i> - Michel DEVLEESCHOUWER  | 15  | - | - |           |
|            | - <i>Préformulation et sélection des formes galéniques</i> - Karim AMIGHI   | 15  | - | - |           |
|            | - <i>Production industrielle des formes galéniques</i> - Brigitte EVRARD  | 15  | - | - |           |
|            | - <i>Génie pharmaceutique</i> - J. GILLARD  | 15  | - | - |           |
|            | - <i>Aspects industriels du développement technologique y compris le conditionnement</i> - Brigitte EVRARD  | 10  | - | - |           |
| PHIN2023-2 | <i>Drug analysis</i>  |     |   |   | <b>7</b>  |
|            | - <i>Pratique des méthodes d'analyse et de contrôle pharmaceutique et biopharmaceutique, part a</i> - J.-M. KAUFFMAN  | 10  | - | - |           |
|            | - <i>Pratique des méthodes d'analyse et de contrôle pharmaceutique et biopharmaceutique, part b</i> - Jacques CROMMEN   | 10  | - | - |           |
|            | - <i>Validation des méthodes d'analyse pharmaceutique et biopharmaceutique, qualification de l'appareillage et préparation des échantillons pharmaceutiques</i> - Philippe HUBERT | 20  | - | - |           |
|            | - <i>Méthodes statistiques appliquées à l'industrie pharmaceutique</i> - J. CUMPS   | 15  | - | - |           |
|            | - <i>Planification expérimentale</i> - Bruno BOULANGER  | 10  | - | - |           |
| PHIN2029-1 | <i>Regulation and the medical-social environment</i>  |     |   |   | <b>7</b>  |
|            | - <i>Législation et procédures appliquées à l'industrie pharmaceutique, part a</i> - C. DRUEZ   | 10  | 5 | - |           |
|            | - <i>Législation et procédures appliquées à l'industrie pharmaceutique, part b : patents and copyright</i> - Michel TYTGAT  | 5   | - | - |           |
|            | - <i>Environnement économique et médico-social du médicament</i> - Alain DE WEVER   | 10  | - | - |           |
|            | - <i>Dossier CTD (Common Technical Document)</i> - J.-A. DE MUYLDER   | 15  | - | - |           |
|            | - <i>Réglementations des études précliniques et cliniques, part a : Pharmacotoxicological files</i> - J. CARLEER  | 7,5 | - | - |           |
|            | - <i>Réglementations des études précliniques et cliniques, part b : European and Belgian legislations</i> - A. HEPBURN  | 7,5 | - | - |           |
|            | - <i>Aspects réglementaires particuliers, part a : medicines and food supplements made from plants</i> - Monique TITS   | 5   | - | - |           |
|            | - <i>Aspects réglementaires particuliers, part b : Galenic development</i> - Karim AMIGHI   | 5   | - | - |           |
| MTFE2000-1 | <i>Final work</i> - COLLÉGIALITÉ  | -   | - | - | <b>18</b> |

**Visits and seminars will be organised in pharmaceutical industries.**