

BICL2MC

2014 - 2015

Advanced master in Clinical Biology

At Bruxelles Woluwe - 300 credits - 5 years - Day schedule - In french
 Dissertation/Graduation Project : **YES** - Internship : **YES**
 Activities in English: **NO** - Activities in other languages : **NO**
 Activities on other sites : **NO**
 Organized by: **Faculté de pharmacie et des sciences biomédicales (FASB)**
 Programme code: **bicl2mc** - European Qualifications Framework (EQF): 7

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BICL2MC - Introduction

Introduction

BICL2MC - Teaching profile

Learning outcomes

The specialist candidate assistant pharmacist (pharmacien assistant candidat spécialiste - PHACS) in clinical biology programme is spread over five years and prepares students for employment in a private or hospital biological analysis laboratory, with the emphasis on aspects of research in the field of clinical biology. This academic training is accompanied by the compulsory submission to the Ministry of Public Health of a 60-month work placement plan, in accordance with Belgian legal requirements, which confers entitlement to an authorisation to practise clinical biology in the field of medical chemistry, haematology and microbiology.

On successful completion of this programme, each student is able to :

1. Laboratory management

- 1a. Understand and update pre-analytical, analytical and post-analytical processes.
- 1b. Anticipate long-term technical developments.
- 1c. Supervise technical staff (schedule management, training, recruitment, assessment, education fees, etc.).
- 1d. Coordinate tasks within a group of biologists.
- 1e. Ensure the preparation and monitoring of and compliance with the budget of a clinical biology laboratory.

2. Quality management

- 2a. Ensure the quality of the results of biomedical analyses.
- 2b. Develop and monitor compliance with quality assurance procedures.
- 2c. Ensure the traceability of services.
- 2d. Interpret the results of internal and external quality checks and improve the laboratory's performance.
- 2e. Be familiar with and understand the different standards for the validation of analytical methods.

3. Sense of responsibility

- 3a. Prevent, correct and manage cases of non-compliance and errors likely to occur during the analytical processes .
- 3b. Monitor the analytical protocols carefully and critically; be able to detect and respond effectively to any abnormal or pathological result.
- 3c. Integrate the various available medical data in order to validate the biological results produced by the laboratory.
- 3d. Take responsibility for decision-making.

4. Communication

- 4a. Collaborate and communicate with other healthcare providers, particularly with the clinicians who are responsible for the patient.
- 4b. Manage internal and external disputes (complaints, claims, etc.).
- 4c. Ensure the transmission of information within and outside the laboratory (new techniques, new analyses, etc.).
- 4d. Attend multidisciplinary clinical meetings.
- 4e. Read a scientific article from a critical perspective and understand the principles of evidence-based medicine.

5. Ability to convey knowledge

- 5a. Write a scientific article (French/English).
- 5b. Present a scientific communication (French/English) in the field of clinical biology or another area of medicine.
- 5c. Provide training within or outside the laboratory.
- 5d. Communicate as an expert-consultant with regard to other medical specialities.

6. Ability to rapidly master a new area of expertise

6a. Apply their knowledge and skills in a new context.

6b. Familiarise themselves with and understand new technologies.

7. Mobility

Be sufficiently independent to travel in Belgium and abroad

Programme structure

A core training of 2 years is common and mandatory for all trainees. It involves basic theories and practice in each of the three fields of laboratory medicine: clinical chemistry (including endocrinology, toxicology, metabolic diseases, tumor markers,â€¦), microbiology (bacteriology, mycology, virology, parasitology) and haematology (cytology, haemostasis, immuno-haematology,â€¦). During this 2-year basis, the trainees will have to follow some lectures proposed to medical doctors (infectious diseases, clinical haematology, â€¦). Different tests and evaluations are planned during these two years.

The candidates must participate to all scientific meetings, staff or lectures recommended by the academic committee. They must participate to duties (night or week end) organized by the laboratories.

During the 3 last years, they have to perform some further specialization training in certified laboratories under the control of a certified supervisor, according to the law, and after validation both by the Health Authorities and by the Academic Committee. They are requested to participate actively to some research and development programmes resulting to a publication as first author.

They can perform their 3 years under different schemes according to their preferences:

- o Either in one medical field (mono-specialty) during the 3-year period: haematology, microbiology or clinical chemistry
- o Or in each of the three fields, dedicating 1 year per medical field
- o Or in two of the 3 fields, performing a 2-year period in one discipline and a 1-year period in another one (e.g. 2 years in haematology and 1 year in clinical chemistry,â€¦)

[> Core courses](#) [en-prog-2014-bicl2mc-wbicl200t.html]

BICL2MC Detailed programme

Programme by subject

CORE COURSES

Le Master complémentaire en biologie clinique est un programme en 5 ans.

Nous rencontrons actuellement un problème pour l'affichage ci-dessous de la cinquième année (cinquième colonne).

○ Mandatory

△ Courses not taught during 2014-2015

⊕ Periodic courses taught during 2014-2015

⊗ Optional

⊖ Periodic courses not taught during 2014-2015

‡ Two years course

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2 3 4 5

○ Biochimie médicale (8 credits)

○ WBICL2100	Further Development in Clinical Chemistry	Jean-Philippe Defour, Catherine Fillee, Damien Gruson, Vincent Haufroid, Teresinha Leal, Diane Maisin, Marie-Françoise Vincent, Pierre Wallemacq (coord.)	60h	5 Credits		x					
○ WSBIM2230	Biochimie des erreurs innées du métabolisme	Marie-Cécile Nassogne, Marie-Françoise Vincent (coord.)	30h	3 Credits	1q	x					

○ Immunoanalyse (3 credits)

○ WBICL2107	Principe et méthodologie des dosages immunologiques	Diane Maisin, Diane Maisin (compensates Marianne Philippe), Marianne Philippe (coord.)	15h+40h	3 Credits	2q	x					
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○ Démarche clinique et thérapeutique (3 credits)

○ WMEDI2120P	Démarche clinique et thérapeutique (partim)	Michel Lambert	49.5h	3 Credits	1 + 2q	x					
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○ Informatique (3 credits)

○ WBICL2106	Informatique appliquée à la biologie clinique	Benoît Debande (coord.), Catherine Fillee, Marianne Philippe	15h+15h	3 Credits		x					
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○ Histologie (4 credits)

○ WMDS1226P	Histologie des systèmes, partie 1 (partim BICL)	N.	10h+30h	2 Credits	2q	x					
○ WMDS1326P	Histologie des systèmes, partie 2 (partim BICL)	Jean-François Deneff, Marie-Christine Many	0h+30h	2 Credits	1q	x					

○ Endocrinologie (3 credits)

○ WBICL2105	Apports de la biologie au diagnostic des principales maladies endocriniennes	Damien Gruson, Dominique Maiter (coord.)	22.5h	3 Credits	1q	x					
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○ Chimie toxicologique (3 credits)

○ WFARM2502	Further development in analytical toxicology and phytopharmacy	Pierre Wallemacq	20h+10h	3 Credits	2q	x					
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○ Toxicologie humaine (5 credits)

○ WSBIM2246	Toxicologie humaine	Philippe Hantson	52.5h	5 Credits	2q	x					
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o Maladies infectieuses (4 credits)

o WMEDI2137	Secteur maladies infectieuses y compris l'enseignement clinique de l'HIV et éléments de dermatologie	Liliane Marot, Etienne Sokal, Dominique Tennstedt, Dimitri Van der Linden, Bernard Vandercam (coord.)	48.5h	4 Credits	1q	x						
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o Hématologie (6 credits)

o WMEDI2226	Secteur hématologie-cancérologie (y compris l'anatomie pathologique)	Martine Berlière, Bénédicte Brichard, Philippe Collard, Marianne Desmedt, Chantal Doyen, Stéphane Eeckhoudt, Christine Galant, Cédric Hermans, Laurent Knoops (coord.), Dominique Latinne, Jean-Pascal Machiels, Pierre Scalliet, Bertrand Tombal, Eric Van Den Neste, Marie- Christiane Vekemans, Christiane Vermeylen	72h	6 Credits	1 + 2q	x						
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o Immunologie (4 credits)

o WBICL2101	Questions spéciales d'immunologie, d'immunohématologie et de transfusion	Véronique Deneys, Dominique Latinne (coord.), Pascale Saussoy	45h	4 Credits		x						
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o Microbiologie, virologie et sérologie (16 credits)

o WBICL2102	Complements in microbiology	Emmanuel André, Michel Delmée, Gerald Glupczynski (coord.), Te-Din Huang, Hector Rodriguez- Villalobos, Anne Simon, Alexia Verroken	60h+90h	8 Credits			x					
o WBICL2103	Complements in Virology	Monique Bodéus, Patrick Goubau (coord.), Benoît Kabamba- Mukadi, Jean Ruelle	45h+45h	6 Credits			x					
o WBICL2104	New aspects on the use of autoimmune serology	Jean-Paul Tomasi	15h	2 Credits			x					

o Anatomie-pathologique (2 credits)

o WMDS1310P	Pathologie générale (partim pratique)	N.	0h+20h	2 Credits	1q	x						
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o Séminaires de biochimie médicale et prélèvements sanguins (5 credits)

o WBICL2108	Seminars of clinical chemistry and blood sampling	Dorina BECHEANU, Vincent Haufroid, Anne Simon, Marie-Françoise Vincent, Pierre Wallemacq (coord.)	60h+45h	5 Credits			x					
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o **Travaux pratiques en biologie clinique (20 credits)**

○ WBICL2901	Travaux pratiques en biochimie médicale	N.		5 Credits			x			
○ WBICL2902	Travaux pratiques en virologie	N.		5 Credits			x			
○ WBICL2903	Travaux pratiques en microbiologie	N.		5 Credits			x			
○ WBICL2904	Travaux pratiques en hématologie	N.		5 Credits			x			

o **Séminaires d'accompagnement du stage de 3ème année (3 credits)**

○ WBICL2905	Séminaires d'accompagnement du stage de 3ème année	N.		3 Credits					x	
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o **Séminaires d'accompagnement du stage de 4ème année (3 credits)**

○ WBICL2906	Séminaires d'accompagnement du stage de 4ème année	N.		3 Credits						x
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o **Séminaires d'accompagnement du stage de 5ème année (3 credits)**

○ WBICL2907	Séminaires d'accompagnement du stage de 5ème année	N.		3 Credits						x
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o **Mémoire (20 credits)**

○ WBICL2900	Mémoire	N.		20 Credits					x	x	x
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o **Cours au choix (2 credits)**

Cours au choix dans le domaine à choisir dans le portefeuille de cours UCL pour minimum 2 crédits. Le cours est également recommandé.

⊗ WESP2150	Management	John Cultiaux, Etienne De Clercq, Guy Durant (coord.), Harmony Glinne-Demaret, Patrice Gobert, Claudine Henaux	60h	6 Credits	2q	x	x	x	x	x
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BICL2MC - Information

Admission

In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail

Decree of March 31st 2004 defining higher education, favoring its integration in the European framework of higher education and refinancing universities.

The admission requirements have to be met at the time of enrolment at the university.

The mentioned information may of modification for 2014-2015

All information can be obtained from the [University's Enrolment Office \(Service des inscriptions – SIC\)](#).

The following students, after meeting the conditions set by the academic authorities, have access to the complementary Master's degree with the aim of obtaining the grade that these studies sanction:

- An academic Master's degree within the same field allowing 2nd-cycle studies, including at least 120 credits
- An academic Master's degree, following a decision by the academic authorities, under the complementary conditions that they set and as a result of a motivated decision by the jury
- An academic grade which is similar to those mentioned above, issued by the Flemish Community, the German Community or the Royal Military Academy, under the same conditions
- A foreign academic grade that has been acknowledged as being equivalent to those mentioned above, in application of this decree, a European-level directive or an international convention, under the same conditions
- Under the same conditions, one or several titles or academic grade issued by the Flemish Community, the German Community or the Royal Military Academy, sanctioning 2nd-cycle studies and valued at least 300 credits by the jury, or sanctioning 2nd-cycle studies and valued at least 240 credits completed of 60 credits, the all that must be valued by the jury according to the decree of March 31st, 2004 (art 54, 5 °)

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Specific Admission Requirements

L'admission est conditionnée à deux critères :

1. la possession d'un diplôme belge ou européen de Master en Sciences Pharmaceutiques, ou éventuellement d'un diplôme de Master en Sciences Chimiques (120 crédits) après avoir suivi un Certificat Universitaire en Sciences Pharmaceutiques de mise à niveau
2. la réussite du Concours organisé par la commission d'enseignement de la biologie clinique de l'école de pharmacie.

La formation en biologie clinique est une formation assimilée aux études médicales et est donc réglementée par les limitations décrites dans l'article 49 ter des lois sur l'Art de Guérir. L'accès à cette formation pour des candidats non ressortissants CEE et non diplômés pharmaciens en Belgique est par conséquent beaucoup plus restrictif. En cas d'avis favorable de l'école de pharmacie et de la commission d'enseignement de la biologie clinique, l'admission d'un tel candidat se limitera à une formation non diplômante de maximum 3 années de stage.

Toute demande doit être introduite au secrétariat de l'école de pharmacie avec dossier et curriculum complet au plus tard durant le mois de mai précédant l'année académique sollicitée. Une sélection sera opérée par un Concours organisé au début du mois de juillet. Le nombre de mandats rémunérés est limité.

Les candidats étudiants non francophones (UE et hors UE) devront apporter la preuve, dans leur demande d'admission, d'une maîtrise suffisante de la langue française (niveau B1 du [Cadre européen commun de référence](#) , pages 24 à 29)

Contacts

Curriculum Managment

Entite de la structure FASB

Acronyme	FASB
Dénomination	Faculté de pharmacie et des sciences biomédicales
Adresse	Avenue Mounier, 73 bte B1.73.02 1200 Woluwe-Saint-Lambert
Secteur	Secteur des sciences de la santé (SSS)
Faculté	Faculté de pharmacie et des sciences biomédicales (FASB)
Mandats	Emmanuel Hermans Doyen
Commissions de programme	Ecole de pharmacie (FARM) Ecole des sciences biomédicales (SBIM)

Responsable du programme : **Pierre Wallemacq**

Jury

Président du jury d'examens : **Pierre Wallemacq**

Secrétaire du jury d'examens : **Bernard Chatelain**

Usefull Contacts

