

## Cycle view of the study programme

Bl Or Th Pr Au Cr

### Informations complémentaires

#### Information

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#### Presentation

This training primarily responds to a need for future "radiopharmacists". It shall in particular facilitate access to the Ministry of public health of their approval as officials responsible for monitoring compliance and quality of radioisotopes used therapeutically (title of radiopharmacist awarded by the federal agency for nuclear control - FANC, article 47 of the royal decree of 20 July 2001).

This training may also be interesting for hospital and industrial pharmacists during their professional activity, as they will face the quality control and/or deliver radiopharmaceutical medicine.

Finally, this certificate is open to all holders of a master's degree (pharmacists, doctors, physicists, chemists, graduates in biomedical sciences, etc.) who wish to perfect their knowledge of radiopharmaceuticals.

As regards the approval of the title of radiopharmacist by the Ministry of Public Health, accessible only to qualified pharmacists, the certificate must be completed by a placement of at least one year in a hospital and industrial environment, during which the applicant will deal with the preparation and quality control of pharmaceutical products.

#### Special conditions of access / students concerned

This training programme is aimed at holders of a master's degree in pharmacy, medicine, physics, chemistry or biomedicine. Recognition of the title of radiopharmacist is only accessible to qualified pharmacists.

Applicants who don't meet these conditions will be examined by the coordinator in charge of the training programme, on the basis of their file.

Prerequisites: a university degree providing a minimum knowledge of medication (chemical, analytical, pharmacotherapeutic, regulatory aspects, etc.).

#### Duration of the training

One year (44 credits) or two years (104 credits) for candidates who wish recognition of the qualification of radiopharmacist from the Ministry of Public Health. The second year is dedicated to an additional placement of one year in both a hospital and industrial environment. This placement must take place under the supervision of a placement supervisor who is an approved radiopharmacist, active in the field.

#### Study programme

##### Collegiality :

Coordinators : Bernard PIROTTE

COLLEGIALITE : ANDRE LUXEN, LAURENT DREESEN, DAVID STRUVAY, VERA PIRLET, CHANTAL HUMBLET, PHILIPPE MARTINIVE, ALAIN SERET, JOËL AERTS.

## Short Training

### Compulsory courses (B2 : 44Cr)

CHIM0620-1	<i>Radiopharmaceutical Chemistry</i> - André LUXEN	B1	Q1	20	10	-	3
CHIM0621-2	<i>Production and application of radioelements</i> - André LUXEN - [3d FW]	B1	Q2	15	-	[+]	3
PHYS0253-1	<i>Experimental bases of the nuclear physics and the detection of the radiations</i> - Laurent DREESEN, David STRIVAY	B1		20	15	-	3
RADP0141-1	<i>Radioprotection</i> - Part a) <i>Radioprotection techniques and complements</i> - Véra PIRLET - Part b) <i>Legislation on radioprotection and the organisation of a radiotherapy, radiodiagnostic and nuclear medicine department</i> - Véra PIRLET	B1	Q2	30	15	-	6
RADL0440-1	<i>Radiobiology</i> - Chantal HUMBLET, Philippe MARTINIVE	B1	Q2	30	10	-	4
PHYS0952-6	<i>Physics fundamental issues in relation with medical x-ray diagnosis, radiotherapy and nuclear medicine</i> - <i>Dosimetry part</i> - MarieThérèse HOORNAERT	B1		20	-	-	4

	- Imagery part - Alain SERET		25	5	-	
MCER2050-1	<i>Quality assurance and pharmaceutical management</i>	B1				<b>5</b>
	- Principes de management pharmaceutique - N...		10	-	-	
	- Assurance qualité, partim a : Concepts de base et organisation de l'assurance qualité - N...		20	-	-	
	- Assurance qualité, partim b : Technologie analytique des procédés et analyse des risques - N...		7,5	-	-	
MCER2048-1	<i>Radiopharmacy</i>	B1				<b>8</b>
	- Aspects technologiques particuliers pour les médicaments radiopharmaceutiques - Joël AERTS		10	-	-	
	- Radiopharmacologie des médicaments radiopharmaceutiques - Joël AERTS		15	-	-	
	- Aspects réglementaires particuliers des médicaments radiopharmaceutiques - Joël AERTS		5	-	-	
	- Analyse et contrôle de qualité appliqués aux médicaments radiopharmaceutiques - Joël AERTS		10	-	-	
MCER2049-1	<i>Nuclear medicine</i>	B1				<b>2</b>
	- Diagnostic aspects - Roland HUSTINX		11	-	-	
	- Therapeutic aspects - Roland HUSTINX		4	-	-	
MSTG9050-1	<i>Internship</i>	B1				<b>6</b>
	- Centre TEP/Cyclotron - COLLÉGIALITÉ - [1w Internship]		-	-	[+]	
	- Service center of nuclear medicine - COLLÉGIALITÉ - [1w Internship]		-	-	[+]	

## Long Training

### Compulsory courses (B1 : 44Cr, B2 : 60Cr)

CHIM0620-1	<i>Radiopharmaceutical Chemistry</i> - André LUXEN	B1	Q1	20	10	-	<b>3</b>
CHIM0621-2	<i>Production and application of radioelements</i> - André LUXEN - [3d FW]	B1	Q2	15	-	[+]	<b>3</b>
PHYS0253-1	<i>Experimental bases of the nuclear physics and the detection of the radiations</i> - Laurent DREESEN, David STRIVAY	B1		20	15	-	<b>3</b>
RADP0141-1	<i>Radioprotection</i>	B1	Q2				<b>6</b>
	- Part a) Radioprotection techniques and complements - Véra PIRLET		30	15	-		
	- Part b) Legislation on radioprotection and the organisation of a radiotherapy, radiodiagnostic and nuclear medicine department - Véra PIRLET		10	-	-		
RADL0440-1	<i>Radiobiology</i> - Chantal HUMBLET, Philippe MARTINIVE	B1	Q2	30	10	-	<b>4</b>
PHYS0952-6	<i>Physics fundamental issues in relation with medical x-ray diagnosis, radiotherapy and nuclear medicine</i>	B1					<b>4</b>
	- Dosimetry part - MarieThérèse HOORNAERT		20	-	-		
	- Imagery part - Alain SERET		25	5	-		
MCER2050-1	<i>Quality assurance and pharmaceutical management</i>	B1					<b>5</b>
	- Principes de management pharmaceutique - N...		10	-	-		
	- Assurance qualité, partim a : Concepts de base et organisation de l'assurance qualité - N...		20	-	-		
	- Assurance qualité, partim b : Technologie analytique des procédés et analyse des risques - N...		7,5	-	-		
MCER2048-1	<i>Radiopharmacy</i>	B1					<b>8</b>
	- Aspects technologiques particuliers pour les médicaments radiopharmaceutiques - Joël AERTS		10	-	-		
	- Radiopharmacologie des médicaments radiopharmaceutiques - Joël AERTS		15	-	-		
	- Aspects réglementaires particuliers des médicaments radiopharmaceutiques - Joël AERTS		5	-	-		
	- Analyse et contrôle de qualité appliqués aux médicaments		10	-	-		

# Study programmes 2015-2016

## Faculty of Medicine

### Certificat d'université en radiopharmacie

*radiopharmaceutiques* - Joël AERTS

MCER2049-1	<i>Nuclear medicine</i>	B1			<b>2</b>
	- <i>Diagnostic aspects</i> - Roland HUSTINX		11	-	-
	- <i>Therapeutic aspects</i> - Roland HUSTINX		4	-	-
MSTG9050-1	<i>Internship</i>	B1			<b>6</b>
	- <i>Centre TEP/Cyclotron</i> - COLLÉGIALITÉ - [1w Internship]		-	-	[+]
	- <i>Service center of nuclear medicine</i> - COLLÉGIALITÉ - [1w Internship]		-	-	[+]
MSTG9051-1	<i>Hospital and industrial environment internship</i> - COLLÉGIALITÉ - [12mois Internship]	B2			[+] <b>60</b>

#### Assessment

Oral and written exams; training report

Registration

Where? ULg Lifelong Learning Unit

Documents for submission: enrolment authorisation from the Dean

Enrolment fees: EUR 500 for the one-year training programme; EUR 1500 for the two-year training programme