

7.00 credits

59.0 h

Q1 and Q2


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

Teacher(s)	. SOMEBODY ;Vanbever Rita ;
Language :	French
Place of the course	Bruxelles Woluwe
Prerequisites	Masters course in pharmaceutical sciences.
Main themes	<ul style="list-style-type: none"> <li>• Concepts and production of protein and oligonucleotide biopharmaceuticals, 3h, VERMIJLEN David (ULB)</li> <li>• Live biopharmaceuticals and vaccines                             <ul style="list-style-type: none"> <li>part A: concepts and biosecurity 6h, FONTAINE Véronique (ULB)</li> <li>part B: risk management of cell and gene product release, 3h, MARINI Roland (ULiège)</li> </ul> </li> <li>• Formulation of biopharmaceuticals, 15h, VANBEVER Rita (UCLouvain)</li> <li>• Quality control and analytical techniques for biopharmaceuticals, good practices and legal recommendations (8h):                             <ul style="list-style-type: none"> <li>part A: analytical methods, 5h, FILLET Mariane (ULiège)</li> <li>part B: aspect of post-translational modifications, 3h, DELPORTE Cédric (ULB)</li> </ul> </li> <li>• From the laboratory to the dispensary: legal requirements (3h):                             <ul style="list-style-type: none"> <li>part A: patents and industrial protection, 5h, DI STEFANO Patrick (ULB)</li> <li>part B: status and regulatory constraints for organic products, 3h, MALONNE Hugues (ULB)</li> <li>part C: batch release procedure and legal framework for vaccines, 1h, TESOLIN Lorenzo (ULB)</li> <li>part D: organization of quality assurance, 3h, PRONCE Thierry (UCLouvain)</li> <li>part E: introduction to Biobanking, 3h, GOFFLOT Stéphanie (ULiège)</li> </ul> </li> </ul>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>At the end of this teaching unit, the student is able to: describe and explain the different aspects of specialties resulting from biotechnology.</p>
Evaluation methods	Integrated oral assessment in front of a jury of module teachers.
Teaching methods	Ex cathedra course (Powerpoint presentations). A copy of these documents is available to students. In some topics: flipped classrooms, formative assessments.
Content	<p>The topics covered by the course module <b>Biotechnologies</b> include:</p> <ul style="list-style-type: none"> <li>• Concepts and production of protein and oligonucleotide therapeutics</li> <li>• Living biotherapeutics, vaccines and biosecurity</li> <li>• Formulation of biopharmaceuticals</li> <li>• Quality control and analytical techniques for biologicals</li> <li>• From the bench to the pharmacist: legal requirements</li> </ul> <p>Each theme is developed by a teacher or a group of teachers specialized in the field and belonging to the three universities collaborating to the program (UCLouvain, ULiège, ULB), during theoretical courses based on selected examples. The courses are given at the three campus.</p>
Faculty or entity in charge	FARM

**Programmes containing this learning unit (UE)**

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Advanced Master in Industrial Pharmacy	FARI2MC	7		