MASTER'S DEGREE

Pharmaceutical Sciences

NANOMEDICINES AND PHARMACEUTICAL R&D

BECOME A STAKEHOLDER IN TOMORROW'S MEDICINE

Location
Faculty of Health
Pharmacy School
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www.univ-angers.fr/masternanomedecines

Overview

To become a stakeholder in the development of tomorrow's medicines, the *Nanomedicines and Pharmaceutical R&D (NanoPharma)* master's degree offers a scientific and methodological approach to pharmaceutical development and innovation for complex experimental drug products.

The skills acquired by the students are taught by a cross-disciplinary team including professors and researchers from the Faculty of Health (Pharmacy School) and Engineering School of the University of Angers, as well as researchers and professionals from the pharmaceutical industry.

Objectives

Train managers and researchers in the pharmaceutical industry to develop complex experimental drug products, such as nanomedicines, in a translational research environment.

Unique features

International training programme
All classes are in English
Cross-disciplinary team
Distinguished faculty and experts drawn from academia and the pharmaceutical industry
Case studies and role-playing
Scientific and career-oriented project assignment
Personalised support

Further education & career prospects

This Master's degree may lead to a PhD (3-year research programme) within a company through a CIFRE (Convention Industrielle de Formation par la Recherche) or in an academic environment. It can also provide direct access to R&D jobs in health product companies.

- **Fields**
  Pharmaceutical industry, biotechnology, dermocosmetics, health products

- **Jobs**
  R&D formulation project managers
  Research partnership manager
  Science and technology monitoring managers
  Research and technology transfer managers
  Professors and Researchers

Who is it designed for?

- Students who hold a one-year Master's degree in Pharmaceutical Sciences, Chemistry, Physics or Biology
- Students who have successfully completed their 5th year Pharmacy studies
- Students who hold an engineering degree (chemistry or physics/biology interface)
- Healthcare professionals (medicine, pharmacy, dentistry, veterinary medicine)

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Curriculum

Semester 3:

UE2.N1 - CMC regulatory and QbD approach — **5 ECTS**
CMC regulatory, Quality by design, Design of experiments, Statistics

UE2.N2 - İnnovation and applications — **4 ECTS**
Innovation engineering, Intellectual property, Applications in complex products

UE2.N3 - Drug product design — **5 ECTS**
Raw material properties, Formulation and process development

UE2.N4 - Characterization strategy — **5 ECTS**
Analytical consideration, Physico-chemical consideration, Microbiological consideration, Method development

UE2.N5 - Non clinical strategy — **5 ECTS**
Non clinical methodology, Kinetics and efficacy, Safety and toxicology

UE2.N6 - Innovation project — **5 ECTS**
Project management, Teamwork

UE2.N7 - Personal development and occupational integration — **1 ECTS**

Semester 4:

6-month internship (January to June) in an academic research lab or in the pharmaceutical industry (R&D) in EU countries, the USA or Canada.

Please note

This postgraduate programme is open to international students, the training courses are in English. It is one of the study paths offered within the "Nanomedicine for drug delivery" (NANOMED) European Master's degree (http://master-nanomed.eu).
Students may carry out internships abroad (EU countries, the USA, Canada). This international perspective prepare students for collaborative work worldwide

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