

## Master 1

# Development of Drugs and Health Products

+ Initial training

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PARIS-SACLAY

## GRADUATE SCHOOL

Health and  
Drug Sciences

## Prerequisites & Public

- + Bachelor of Sciences in Pharmacy, Biology, Chemistry or Biotechnology
- + PharmD, MD, continuing education

**English proficiency:** TOEFL, IELTS, Cambridge English Certificate or equivalent

- + International students
- + French students

Selection by admission jury

## Application process


Application online at:

[www.universite-paris-saclay.fr/en/education/master](http://www.universite-paris-saclay.fr/en/education/master)

- + Select « Pharmaceutical sciences »
- + Master's path: « Development of Drug and Health Products (D<sup>2</sup>HP) »


**APPLICATION DEADLINE : MAY 1<sup>st</sup> 2023**

## Objectives

 The M1 is intended to provide students with basic and advanced knowledge on:

- 1-** The current major pathologies
- 2-** The biotechnological, formulation and medicinal chemistry tools
- 3-** The pharmaco-toxicological and analytical methods with extension to environmental impacts in order to implement diagnosis, treatment and prevention


## Course objectives

 Training of future managers in the pharmaceutical field with a versatile, scientific and technical expertise, and an opening-up to business life or research laboratories.


The programme includes courses into 3 axes:

- 1-** Basic and advanced knowledge of the current diseases and the dysregulation of major functions
- 2-** Pharmacist's toolbox: chemistry, biotechnology, formulation, production
- 3-** Transversal methods: pharmaco-toxicological, analytical sciences

## Professional skills

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- + Scientific knowledge to understand the continuum from the discovery of a health product to a medicine
  - + Identification of the current issues in the major pathologies
  - + Knowledge of methodologies for the screening of therapeutic targets, the synthesis, formulation and production of health products, and the associated analytical control and biological tests
  - + Project management
  - + Oral and written communication

## Assessment method

 The assessment method, depending on the teaching units, will rely on written final exams, oral final exams or continuous evaluation.

**Success rate: 100% (promotion 2020-2021)**

## Organization

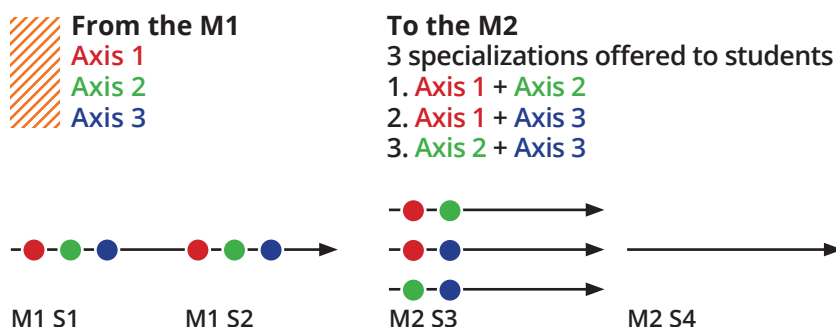
The M1 is composed of core and optional courses, a research specialization course and a symposium.

The program is split into 3 axes:

- **Axis 1:** Current issues in the major pathologies
- **Axis 2:** Pharmacist's toolbox
- **Axis 3:** Transversal pharmaceutical disciplines

PROGRAM	ECTS
<b>Core courses M1S1</b>	
<ul style="list-style-type: none"> <li>• 001 Cultural week</li> <li>• 101 Physiopathology of major functions</li> <li>• 102 Immunopathology and haemostasis dysregulations</li> <li>• 103 Cancer cell biology</li> <li>• 201 Pharmaceutical engineering 1</li> <li>• 202 Biotechnology 1</li> <li>• 300 Rush: Pharmaceutical business game</li> <li>• 301 Analytical sciences 1</li> </ul>	26
<b>2 optional courses M1S1</b>	
<ul style="list-style-type: none"> <li>• 201b Pharmaceutical Engineering PW</li> <li>• 202a Biotechnology PW1: Gene cloning</li> <li>• 320 Hospital internship</li> <li>• 321 Marketing 1</li> </ul>	4
<b>Core courses M1S2</b>	
<ul style="list-style-type: none"> <li>• 104 Infectiology</li> <li>• 203 The medicinal chemist's toolbox 1</li> <li>• 302 Environment 1</li> <li>• 303 Pharmacology 1 / Toxicology 1</li> </ul>	18
<b>Research specialization course 1, M1S2</b>	
<ul style="list-style-type: none"> <li>• 002a Bibliographic work</li> <li>• 002b Lab internship</li> <li>• 323 Scientific English: oral and written communication</li> </ul>	8
<b>Core courses M1S2</b>	
<ul style="list-style-type: none"> <li>• 104a Diagnosis of infectious diseases</li> <li>• 202b Biotechnology PW2: Bioreactors</li> <li>• 203a Basic structural elucidation applied to natural and synthetic compounds</li> </ul>	2
<b>Research specialization course 2, M1S2</b>	
+ 003 Symposium	2

## Toward the Master 2 D<sup>2</sup>HP



**Start date : October**

**Duration : 2-year program**

## Informations

### Heads

Dr. Dorine BONTE  
Prof. Imad KANSAU  
Dr. Éric MOREL  
Prof. Véronique ROSILIO  
Dr. Sana TFAILI  
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### Secretary

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### Main teaching location

Faculté de Pharmacie - Université Paris-Saclay - Orsay, France (91400)

### More information:

<http://www.master-d2hp.universite-paris-saclay.fr/>

	EU Student	Non EU Student	Student holder of a UPSaclay bachelor
<b>Student fees</b>	4 243 €	6 243 €	243 €
<b>CVEC *</b>	95 €	95 €	95 €
<b>Total **</b>	4 338 €	6 338 €	338 €

### Reduced tuition fees (fee waivers):

- Non-EU students with scholarship (BGF Campus France, Eiffel): 4000€
- Students with CROUS grant: 0€, full waiving

\* compulsory fees to contribute to student life and campuses

\*\* amount for 1 year.