

# International Master in sustainable drug discovery

Master Sciences du médicament et des produits de santé



**Durée**  
2 ans



**Composante**  
UFR3S -  
Sciences de  
santé et du  
sport



**Langue(s)  
d'enseignement**  
Anglais

## Présentation

Pour plus d'information sur le contenu de ce diplôme cliquer sur : <https://ufr3s.univ-lille.fr/international/formations/erasmus-mundus> Ou vers le site : <https://sustainabledrugdiscovery.eu>

Plus d'informations sur : <https://ufr3s.univ-lille.fr/formation-initiale>

## Savoir-faire et compétences

The major educational objectives of the S-DISCO program are to:

- Understand, evaluate and compare the different fundamental drug discovery concepts and processes, including common problems and possible solutions.
- Integrate key concepts of drug discovery to elaborate on specific drug discovery processes.
- Describe and apply sustainability principles within a drug discovery context.
- Understand the importance and impact of sustainability in drug discovery within local and global health-systems.
- Explain how and where ecologic and socio-economic systems interact to influence sustainability in the drug discovery process.
- Consider and include sustainability in drug discovery decision making.

- Analyse and explain regional and global sustainable drug discovery using a transdisciplinary and holistic approach.
- Possess a global collaborative culture by building upon others' ideas and treating team members with respect.
- Integrate a sustainability attitude and participation in personal and professional life.
- Be able to clearly present (orally and in writing) and argument conclusions in dialogue with colleagues and laymen in international contexts.

**Formation internationale** : Doubles diplômes, diplômes conjoints, Erasmus Mundus

## Les + de la formation

The S-DISCO master degree has been built through close collaboration between the consortium and industrial players in the field in order to train high-level graduates with inter- and trans-disciplinary skills in the different fields of drug discovery, with a focus on sustainability.

## Organisation

### Organisation

The **International master S-DISCO** is a 2-year study programme (120 ECTS) in English: 90 ECTS (semesters 1-2-3) consist of face-to-face and on-line learning and 30 ECTS (semester 4) are dedicated to a master thesis.

The program is preceded by a one-week summer school at Ghent University, organized one week before the official start of the academic year at Ghent University. The summer school starts with a half-day assessment of the selected candidates (compulsory), in order to help them identify sub-optimal starting competences. While one unit (i.e. Scientific communication) will be compulsory for all students, 2 additional units will be assigned to each student based on the results of the assessment.

The first semester follows immediately after the summer school at Ghent University and will introduce the students to the broad perspectives and basics of sustainable drug discovery.

The program continues with the second semester when students move together to the Medical University of Gdańsk, where more in-depth courses on e.g. molecular modelling, omics and green analytics are given. In the mid of the semester, the S-DISCO days are taking place, which are organized by the students. During these days, students will be exposed to the research activities of doctoral, postdoctoral and senior researchers.

The third semester takes place at the University of Lille or the University of Groningen. The different stages in the drug discovery process up to drug development are discussed, i.e. screening, target identification and validation, hit-to-lead, preclinical studies up to first-in-human trials. By selecting the appropriate mobility track, students will be able to become more proficient in certain aspects of drug discovery by benefitting from the specific expertise of the selected partner university.

The final semester is dedicated to the execution and writing of the master thesis. The thesis is performed under the supervision of a lecturer of one of the four consortium universities and will preferentially take place at an international (incl. non-academic) partner worldwide.

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## Stages

**Stage :** Obligatoire

**Durée du stage :** 6 mois

## Admission

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### Conditions d'admission

Candidates must hold a higher education diploma issued by a competent Higher Education authority attesting the completion of a degree equivalent to a first cycle (180 ECTS - or higher) in the field of Pharmaceutical Sciences, Chemistry, Biology (incl. Biochemistry), Bio-(incl. environmental, chemical and food) Engineering, Human or Veterinary Medicine, Biomedical sciences or equivalent (which then requires formal equivalency by an official body in one of the 4 consortium countries, e.g. ENIC-NARIC).

Before the final selection of the applicant, the diploma and its transcripts have to be legalized according to the legalization procedure applicable. If these documents are not in Dutch, French, German or English, the applicant is required to add scans of these documents in one of these languages, translated by a sworn translator.

S-DISCO is an English taught programme and an English language proficiency is therefore a basic requirement. Therefore, applicants need to provide a certificate of proficiency in English, which should be at least a B2 level according to the CEFR (Common European Framework of Reference). Certificates issued for English-taught courses or study programs will not be considered proof of language proficiency.

Application procedure is available on-line at <https://sustainabledrugdiscovery.eu/how-to-apply/>

## Et après

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### Poursuite d'études

PhD

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### Insertion professionnelle

Our graduates will be trained to find creative and innovative solutions for the various challenges in the pharmaceutical field. Emphasis is on the crucially important discovery phase, taking into account environmental, ecological and socio-financial sustainability aspects. Workforce shortages exist for almost every position within the pharmaceutical and related industries, and scientists with the skills offered by our master program are extremely in-demand by the industry. Moreover, both national medicine-competent authorities as well as international agencies, such as EMA, FDA or WHO, will look for our high-level graduates. The same is true for civil society organizations, such as NGOs, working in this field. Finally, our graduates will have acquired useful competencies for further academic studies, i.e. Ph.D., thereby deepening the drug discovery field while propagating the sustainability viewpoint in pharmaceutical research and education.

Pour en savoir plus sur l'insertion professionnelle des diplômés de l'Université de Lille, consultez les répertoires d'emplois publiés par l'[ODiF \(Observatoire de la Direction de la Formation\)](#)

Les fiches emploi/métier du [Répertoire Opérationnel des Métiers et des Emplois \(ROME\)](#) permettent de mieux connaître les métiers et les compétences qui y sont associées.

## Infos pratiques

### Autres contacts

#### Contact administratif :

1ère année Master :

Serge Van Calenbergh (université de Gand)

Bartosz Wielgomas (université de Gdansk)

<https://sustainabledrugdiscovery.eu/>

2ème année Master

POUPART Estelle

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#### Contact pédagogique :

Pr Nicolas WILLAND, Dr Christophe FURMAN

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### Lieu(x)

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📍 Lille - Département de Pharmacie

📍 9 Rue de l'Université, 59790 Ronchin

📍 Loos - Département de médecine

📍 Loos - ILIS