Study Programme

Academic year 2025-2026

Programme jointly offered by Ghent University,Université de Lille,Medical University of Gdask,University of Groningen
International Master of Science in Sustainable Drug Discovery

Language of instruction: English

Programme version 2

1 General Courses — 60 credits

All students jointly follow the Basics of Sustainable Drug Discovery during the first semester at Ghent University (UGent). In semester 2, the students jointly specialize in Molecular Modeling, Omics and Green Analytics at the Medical University of Gdansk (MUG). In semester 3 the students can choose between Sustainable Sources, Hit-to-lead, Target Validation (at the University of Lille - ULille) or Green chemistry, Lead-to-patient, Pharmacokinetics (at the University of Groningen - RUG). In each of these semesters, elective courses are followed (a suggestion of courses will be offered to the students). In semester 4, the students do research within an industrial or academic setting, resulting in a master's thesis that will be defended.

Students enrol at Ghent University, the Coordinating Organization. Students additionally enrol for semester 2 at MUG, for semester 3 at ULille or RUG, and for semester 4 at the consortium partner university supervising the respective master thesis.

More information: https://sustainabledrugdiscovery.eu/

1.1 Basics of Sustainable Drug Discovery-Ghent University — 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	J000527	Comparative Study of Drug Discovery Approaches and Technologies *Serge Van Calenbergh -- Department of Pharmaceutics*	6		1	A:1	150
2	J000528	Sustainable Landscape of Pharmaceutical Discovery *Evelien Wynendaele -- Department of Pharmaceutical Analysis*	6		1	A:1	150
3	J000529	Pharmaceuticals in the Environment *Evelien Wynendaele -- Department of Pharmaceutical Analysis*	6		1	A:1	150
4	J000530	Data Intelligence in Sustainable Drug Discovery *Filip Pattyn -- Department of Pharmaceutics*	6		1	A:1	180
5	J000531	Regulatory Affairs Life Cycle of Medicines *Evelien Wynendaele -- Department of Pharmaceutical Analysis*	3		1	A:1	90

1.1.1 Elective Courses - Ghent University — 3 credits

Subscribe to no more than 3 credit units from courses available at Ghent University during the first semester.
Subject to approval by the Executive Board.

1.2 Molecular Modeling, Omics and Green Analytics - Medical University of Gdansk — 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	J000532	Green Analytics *Medical University of Gdańsk, Bartosz Wielgomas*	6		1	A:2	150
2	J000533	Omics in Drug Discovery *Medical University of Gdańsk, Michal Markuszewski*	6		1	A:2	180
3	J000575	Understanding Off-Targets Effects as a Key to Sustainable Drug Design *Medical University of Gdańsk, Michał Żmijewski*	5		1	A:2	150
4	J000535	Computational Methods in Drug Design *Medical University of Gdańsk, Anita Kornicka*	6		1	A:2	180
5	J000576	Viruses as Sustainable Drug Targets and Pharmaceutical Platforms *Medical University of Gdańsk, Ewelina Król*	4		1	A:2	120

1.2.1 Elective Courses - Medical University of Gdansk — 3 credits

Subscribe to no more than 3 credit units from courses available at the Medical University of Gdansk during the second semester.
Subject to approval by the Executive Board.

2 General Courses

Subscribe to at least 1 module from the following list.
Subject to approval by the Executive Board.
The chosen module determines the mobility path.
Depending on the mobility path chosen, students will additionally enrol at the host university for semester 3.
More information:
https://sustainabledrugdiscovery.eu/

2.1 Sustainable Sources, Hit-to-Lead, Target Validation - Université de Lille — 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	J000536	Sustainable Sources of New Hits *Université de Lille, Alina Ghinet*	6		2	A:1	180
2	J000537	Sustainable Approaches to Identify Hits *Université de Lille, Priscille Brodin*	6		2	A:1	180
3	J000538	Sustainable Approaches to Optimize Leads for in Vivo Studies *Université de Lille, Christophe Furman*	6		2	A:1	180
4	J000539	Sustainable Approaches to Validate Target Engagement *Université de Lille, Isabelle Landrieu*	6		2	A:1	180
5	J000540	Advanced Drug Discovery Chemistry *Université de Lille, Nicolas Willand*	3		2	A:1	90

2.1.1 Elective Courses - Université de Lille — 3 credits

Subscribe to no more than 3 credit units from courses available at the University of Lille during the first semester.
Subject to approval by the Executive Board.

2.2 Green chemistry, Lead-to-Patient, Pharmacokinetics - Rijksuniversiteit Groningen — 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	J000541	Drug Development: From Design to Evaluation *Rijksuniversiteit Groningen, Peter Olinga -- University of Groningen*	5		2	A:1	150
2	J000542	Sustainable Drug Design and Engineering *Rijksuniversiteit Groningen, Frank Dekker -- University of Groningen*	5		2	A:1	125
3	J000543	Advanced Pharmacokinetics *Rijksuniversiteit Groningen, Christoffer Åberg -- University of Groningen*	5		2	A:1	125
4	J000544	Green Chemistry *Rijksuniversiteit Groningen, Peter Fodran -- University of Groningen*	5		2	A:1	125
5	J000545	Nanomedicine and Advanced Pharmaceutics *Rijksuniversiteit Groningen, Anna Salvati -- University of Groningen*	5		2	A:1	140

2.2.1 Elective Courses - Rijksuniversiteit Groningen — 5 credits

Subscribe to no more than 5 credit units from courses available at the University of Groningen during the first semester.
Subject to approval by the Executive Board.

3 Master's Dissertation — 30 credits

In semester 4, the students do research within an industrial or academic setting, resulting in a master's thesis that will be defended.
Students additionally enrol for semester 4 at the consortium partner university supervising the respective master thesis.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	J000546	Master's Dissertation	30		2	A:2	900

Teaching

When a course is not taught (solely) in the programme's language of instruction, the effectively used languages are indicated in square brackets following the cours name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Kroatian/Serbian	zh: Chinese
cs: Czech	el: Greek	fr: French	nl: Dutch	pt: Portuguese	sl: Slovene	
da: Danish	en: English	it: Italian	no: Norwegian	ru: Russian	sv: Swedish	

Semester

Semesters are indicated by their number (1 or 2); semester 3 represents the summer period and J indicates a course spanning semesters 1 and 2.
When a capital letter precedes a semester number, the course has multiple offerings. The letter indicates the offering concerned.
When a semester is shown in brackets, the course in not offered this year in the specific offering.
The offering frequency and first year of offering are indicated by the following codes:

a: bi-annually	c: annually, from 2026-2027	f: annually, from 2027-2028	i: annually, from 2028-2029
b: tri-annually	d: bi-annually, from 2026-2027	g: bi-annually, from 2027-2028	j: bi-annually, from 2028-2029
	e: tri-annually, from 2026-2027	h: tri-annually, from 2027-2028	k: tri-annually, from 2028-2029