

Workshop

“Advancing Green Chemistry Technologies”

AIM

- To discuss the green technologies of biobased fine chemicals and APIs.
- To facilitate proactive engagement and collaboration among industrial and academic partners.
- To foster interactive information exchange, raise awareness, and showcase successful applications of green chemistry methodologies.
- To map developments with a focus on sustainability, circularity, and carbon footprint reduction.

WHEN?
11 December 2024

WHERE?
Ghent – Rozier 1 & 3

WHO SHOULD ATTEND?

THIS WORKSHOP WILL BE OF INTEREST TO ACADEMIC AND INDUSTRY PERSONNEL WORKING IN ALL GREEN TECHNOLOGIES APPLICATIONS, INCLUDING:
SYNTHESIS - FORMULATION - BENIGN BY DESIGN - ANALYSIS

PROGRAMME

Registration & Welcome Coffee
Introduction
Greening pharmaceutical synthesis – more sustainable methodology
Lunch
Benign by Design
Artificial Intelligence
Coffee Break
Production / scale-up plants
Network Reception

Catering + registration: Boekentoren at Rozier 3, 9000 Ghent
Workshop: Auditorium Vandenhove at Rozier 1, 9000 Ghent

Registration link:
<https://event.ugent.be/registration/workshopgreenchemistry>

**Organised
by:**



This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101057816



GREEN CHEM
Global green chemistry network

Workshop

“Advancing Green Chemistry Technologies”

09:00 – 09:30 **Registration & Welcome Coffee**

09:30 – 09:45 Introduction

Greening pharmaceutical synthesis – more sustainable methodology

09:45 – 10:35 State-of-the art and challenges of (Electro)chemical flow synthesis – **interactive session**
Christian Stevens (Ghent University) & Renzo Luisi (University of Bari) & Aigars Jirgensons (LIOS)

10:35 – 11:10 State-of-the art and challenges of mechanochemistry – **interactive session**
Christophe Len (PSL University)

11:10 – 11:35 Hydrothermal Methods: Advancing Green Polymer Chemistry
Katrien Bernaerts (Maastricht University)

Lunch at Rozier 3

Benign by Design

13:00 – 13:40 Redesigning API's with low ecological risk: why (or why not) and how? – **interactive session**
Karel De Schampelaere (Ghent University)

13:40 – 14:05 To identify greener and more potentially sustainable alternatives to APIs
Klaus Kümmerer (Leuphana University of Lüneburg)

Artificial Intelligence

14:05 – 14:30 AI-Driven Compound Screening and Reaction Planning for Greener Organic Synthesis
Maarten Dobbelaere (Ghent University)

Coffee Break at Rozier 3

Production/ scale-up plants

15:15 -15:40 Mapping and Reducing Scope 3 CO₂ Emissions: Strategies for a Sustainable Future in Pharmaceutical CDMO Operations
Dries De Clercq (Ajinomoto OmniChem)

15:40 – 16:05 Betulin containing birch outer bark extractives: research, development, scale-up and potential application possibilities
Jānis Rižikovs (State Institute of Wood Chemistry (LSIWC))

16:05 – 16:30 Chemistry for a Greener World – Online presentation
Brian Kelly (KelAda Pharmachem)

16:30 – 16:50 Industrial Technological Hall at Tarbes (France) “AGROMAT” - Video
Plateforme AGROMAT - LAB CONNECT (univ-toulouse.fr)

Network reception at Rozier 3

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Workshop "Advancing Green Chemistry Technologies"

Speakers

Greening pharmaceutical synthesis - more sustainable methodology

1. State-of-the art and challenges of (Electro)chemical flow synthesis – **interactive session**



Christian Stevens
(Ghent University)



Renzo Luisi
(University of Bari)



Aigars Jirgensons
(LIOS)

2. State-of-the art and challenges of mechanochemistry – **interactive session**



Christophe Len
(Chimie Paris Tech, PSL University, CNRS)

3. Hydrothermal Methods: Advancing Green Polymer Chemistry



Katrien Bernaerts
(Maastricht University)

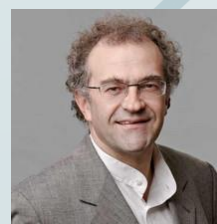
4. Redesigning APIs with low ecological risk: why (or why not) and how? – **interactive session**



Karel De Schampelaere
(Ghent University)

Benign by Design

5. To identify greener and more potentially sustainable alternatives to APIs



Klaus Kümmerer
(Leuphana University of Lüneburg)

Workshop

“Advancing Green Chemistry Technologies”

Speakers

Artificial Intelligence

6. AI-Driven Compound Screening and Reaction Planning for Greener Organic Synthesis



Maarten Dobbelaere
(Ghent University)

Production/ scale-up plants

7. Mapping and Reducing Scope 3 CO₂ Emissions: Strategies for a Sustainable Future in Pharmaceutical CDMO Operations



Dries De Clercq
(Ajinomoto OmniChem)

8. Betulin containing birch outer bark extractives: research, development, scale-up and potential application possibilities



Jānis Rižikovs
(Latvian State Institute of Wood Chemistry (LSIWC))

9. Chemistry for a Greener World – Online presentation



Brian Kelly
(KelAda Pharmachem)

10. Industrial Technological Hall at Tarbes (France) “AGROMAT” - Video Plateforme AGROMAT - LAB CONNECT



Philippe Evon
(INPT-ENSIACET)