Double Diploma in Medicinal Chemistry

University of Orleans and Jagiellonian University

Students in this program will be awarded the following diplomas after completing all the requirements

UNIVERSITE D'ORLEANS

Master de Chimie Moléculaire

of the University of Orléans

(Specialty: Conception and Synthesis)

and

Master of Medicinal Chemistry

of Jagellonian University

(Specialty: Biological Chemistry)

UNIWERSYTET JAGIELLOŃSKI W KRAKOWIE

NEW Program starting in 2019/2020

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Recruitment:

Students are selected for the program on the basis of academic records and of their interest to pursue a PhD degree.

Students must show a strong interest in biosciences and chemistry.

Financing:

In addition to Erasmus+ financing from their home institution, Polish students, while in France, might receive stipends from the host lab and from the Office of International Relations, the latter being financed by the *Conseil Regional de la Région Centre Val de Loire*. They also might apply for a French Government Scholarship financed by the French Embassy in Poland.

French student might apply for a scholarship offered by NAWA .

Outlook:

Graduates obtain a degree attractive for the pharmaceutical industry, diagnostic laboratories, fine chemicals industry or for postgraduate study.

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Coordinators:

Prof. Richard Daniellou
richard.daniellou@univ-orleans.fr

Dr hab. Małgorzata Brindell
malgorzata.brindell@uj.edu.pl

The first recruitment will be at the **beginning of January, 2020**

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Requirements

1. Courses:

In addition to the courses of the regular Master programs: Complementary courses in English delivered by French instructors in Krakow and Polish instructors in Orleans

Courses for Polish students offered in Krakow:

Analytical Chemistry of Natural Products

Glycochemistry

Transition metal catalysis in organic synthesis

Courses for French students offered in Orlean:

Crystallography & Asymetric Synthesis

Bioinorganic chemistry & UV-VIS spectroscopy, spectrofluorimetry

Courses for French students offered in Orlean:

Selected courses related to Medicinal Chemistry

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Requirements

2. Training sessions:

Students must spend a period of at least six months in a laboratory of the partner University

Objective: to develop a research project in collaboration between research teams of the partner Universities as a Master's thesis project

HOSTING Laboratories:

In Orléans: ICOA (Institute of Organic and Analytical Chemistry, University of Orléans and CNRS); also CBM (Centre de Biophysique Moleculaire)(CNRS)

In Krakow: Laboratories of the Faculty of Chemistry, Jagellonian University

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ICOA: Institute of Organic and Analytical Chemistry

University of Orleans and CNRS (UMR 7311)

NOVEL BIOACTIVE MOLECULES
with **therapeutic and cosmetic applications**

Specialties:

Organic Synthesis, Analytical Chemistry, Chemoinformatics

Examples of joint projects with JU research groups:

- ❖ New molecules as antibiotics (biofilm inhibitors)
- ❖ New metal complexes as anticancer agents
- ❖ New probes for applications in medical imaging

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Faculty of Chemistry

Specialisation: • Biological and Medicinal Chemistry • Catalysis and Environmental Chemistry • Molecular Modelling • Spectroscopy • Advanced Materials and Nanotechnology • Supramolecular and Coordination Chemistry • Forensic and Preservation Analysis • Organic Synthesis

Research areas in biosciences

Borderlands of Chemistry and Biochemistry Studies.

- Proteins – structure, activity, targets for medical purpose,
- New drugs in anticancer therapies – design, characterization and in vitro studies;
- Application of spectroscopic techniques for imaging of biochemical changes in cells caused by stress, pathology or drug treatment;
- New polymer materials for biomedical applications (structural materials, carriers for controlled drug delivery systems);
- Asymmetric organic synthesis of chiral compounds inspired by natural processes;
- Model studies on the activation of small molecules relevant to various biological processes;
- Light and metal complexes in environment and medicine.

Jagiellonian University:
https://www.youtube.com/watch?v=8_kqUfJcJAw