



Call for PhD 7 fellowship (DC7)

A training network on the design of precision therapeutics that target key glycan motifs implicated in cancer

GlyCanDrug is a glycoscience-oriented European Training Network funded in the framework of HORIZON Europe Marie Skłodowska-Curie Doctoral Networks (MSCA-DN). Within GlyCanDrug, Doctoral Candidates (DCs) will be equipped with a thorough multifaceted knowledge of the potential of glycoscience in the discovery of cancer precision therapeutics and the necessary transferable skills. GlyCanDrug will provide an international, intersectoral and interdisciplinary educational program, according with the EU Principles for Innovative Doctoral Training. This will put DCs in an advantageous position for job opportunities in both academia and industry.

DC7 PROJECT TITLE. Screening and hit development towards novel non-carbohydrate inhibitors of glycosyltransferases.

Host Institution: Department of Pharmaceutical Chemistry, University of Ljubljana (UL FFA), Slovenia. <https://www.ffa.uni-lj.si/>

Duration: 36 months (+ extension 1 year), starting between January-November 2024.

Supervisor: Prof. Dr. Marko Anderluh. [profile](#); [profile – ResearchGate](#)

Co-supervisor: Prof. Dr. Tihomir Tomašič (UL FFA, SLO), Letian Kuai (Crelux GmbH, DE).

Progress Committee Members: Tihomir Tomašič, Jesús Angulo (CSIC, Sevilla, ES), Letian Kuai.

DC7 PROJECT. The PhD project will focus on the design of small molecule selective inhibitors of fucosyl- and sialyltransferases involved in glycosylation of cell surface proteins implicated in cancer. The DC will be trained in the drug design techniques (virtual screening, DNA-encoded libraries screening, hit optimization strategy, ...), synthesis and characterization of new glycomimetics and organic compounds, biophysical and biochemical methods. The DC7 will also perform expression and purification and STD-NMR for enzyme-hits binding studies with the target glycosyltransferases.

PLANNED SECONDMENTS. 1. University of Zaragoza (Academia, ES), FTs expression and purification; 2. Crelux (Industry, DE) processing, sequencing, data analysis of DELopen technology; 3. CSIC (Academia, ES), STD-NMR for enzyme-hits binding studies.

PhD School enrolment: Biomedicine PhD School at the University of Ljubljana, Scientific field of Pharmacy. <https://www.uni-lj.si/study/doctoral/biomedicine>

APPLICATION PROCEDURE. The position is open to candidates of any nationality, as long as they fulfil the requirements set for the DCs funded by Marie Skłodowska-Curie actions (**Annex A**). The applicant must send the documents in the **Annex A** to the email specified (glycandrug@chim.unifi.it) within **1st January 2024**, clearly indicating in the subject “*Application for DC7 position*”.

The salary of the DCs will be paid according to the MSCA rules. See: <https://marie-skłodowska-curie-actions.ec.europa.eu/calls/msca-doctoral-networks-2022>

CANDIDATE PROFILE

- 5-years degree (Master) in Pharmacy, Chemistry, Medicinal Chemistry or related fields,
- Experience in medicinal chemistry, organic chemistry and biophysical techniques is welcome,
- Good level of English proficiency (understood, spoken and written),
- Team spirit and proactive attitude.

Information also available at: <https://euraxess.ec.europa.eu/>