



Early Stage Researcher Project

“Allosteric drugs development for receptor mosaics”

In

Forschungszentrum Jülich GMBH, Germany

You want to participate in a training programme in and beyond the fields of physical chemistry of biological systems, theoretical and computational chemistry, biological chemistry, biochemistry, targeted drug delivery/discovery and medicinal chemistry?

14 Early Stage Researcher (ESR) positions are available within the EU-funded Marie Skłodowska Curie Innovative Training Network on **Allo**stery in **D**rug **D**iscovery (**ALLODD**) under Grant Agreement No. 956314.

The ALLODD project is a collaboration between 13 academic and industrial organizations with 14 ESR/PhD students in total. The aim of ALLODD is to train a new generation of scientists to exploit the concept of allosteric in drug design, putting together a whole array of technologies to identify and characterize allosteric modulators of protein function that will be applied to therapeutically relevant systems.

Project Description

Host Organisation: Forschungszentrum Jülich GMBH

Scientist-in-Charge: Prof. Giulia Rossetti

Objectives:

- 1) understand receptor mosaics (RMs) allosteric-driven signaling mechanism at the molecular level due to receptor associations and allosteric RM interplay;
- 2) develop new multi-target allosteric ligands tailored to pharmacologically relevant RMs.

Expected Results:

- 1) Computational multiscale workflows to determine RMs allosteric interplay;
- 2) development of protocols to deliver allosteric drug candidates tailored for modulating the pharmacological response of RMs.



Planned Secondement(s):

- **Host1:** BRFAA, length: 2 months, purpose: training in machine learning techniques for allostery,
- **Host2:** Unistra, length: 2 months, purpose: training in neurotransmitter receptors modelling.
- **Host3:** UCB, length 3 months, purpose: training in allosteric drug design.

Eligibility Criteria

There are **strict eligibility requirements** to apply for participation in a Marie Skłodowska Curie Innovative Training Network:

- Applicants for the ESR/PhD positions should be in the first 4 years (full-time equivalent) of their research careers and not yet have been awarded a doctorate.
- Applicants must not have resided or carried out their main activity (work, studies, etc.) in the host country for more than 12 months in the 3 years immediately before the recruitment date. In addition, local regulations of the host countries may apply.

Benefits

Enrollment in Doctoral degree(s): The ESR will be enrolled in the Ph.D. school at the RWTH Aachen.

We are offering a competitive, interdisciplinary environment with a track record of intense mutual collaboration. In addition to the individual training-through-research, our program includes further elements such as workshops, summer schools, internships and secondments to the partners' laboratories.

The successful candidate:

- will be funded for 36 months with a competitive salary in accordance with the MSCA regulation for Early Stage Researchers, including living allowance, mobility allowance and a family allowance (if married).
- will have to perform the secondments defined in his/her personalized career development programme.



To be a part of ALLODD:

Apply to and contact for further information: Applicants should apply by email to g.rossetti@fz-juelich.de indicating Reference: ALLODD_ESR5.

Apply until: 31 January 2022

Starting date: The earliest starting date will be **1 November 2021** The latest will be **1 September 2022**.