University of Applied Sciences and Arts Northwestern Switzerland
School of Life Sciences

InPharma Open PhD Positions at FHNW in Switzerland (Basel area)

InPharma is about a fully integrated animal-free, end-to-end modelling approach to oral drug product development - Marie Sklodowska-Curie Actions (MSCA), Innovative Training Networks (ITN)

InPharma is a MSCA European Industrial Doctorate programme offering a comprehensive training program addressing the challenges of developing emerging drug candidates into new licensed medicines, including innovative modeling and bio-predictive tools tailored to streamline the oral drug product development process.

InPharma brings together global pharmaceutical companies and leading research institutions together as a multi-sectorial team to deliver a unique research and training programme for 13 Early Stage Researchers (ESR) to complete their industrially based PhDs. Each ESR position in InPharma allows the researcher to work towards a PhD at one of our five leading academic institutions. The ESRs will be recruited within 2021 for a duration of 36 months. Every ESR will work on an independent research project which will be flexible enough to match the competence and goals of the candidate. Each ESR will spend a minimum of 18 months based in an industrial sector, which will provide experimental learning opportunities working within the Pharmaceutical drug development sector, and complement the research conducted as part of their PhD.

This job advertisement is about the two open PhD positions at FHNW – University of Applied Sciences Northwestern Switzerland. The PhD graduation is via the University of Basel (ESR 5 & 6) and for more details about the project and the other open PhD positions, please visit the project homepage https://www.inpharma-network.eu/

ESR5: Novel therapeutic deep eutectic systems (THEDES).

Host: FHNW (Switzerland)

PhD awarding institution: University of Basel.

Scientific objectives: New ways are pursued to find and effectively harness so-called novel Therapeutic Deep Eutectic Systems (THEDES). The research work includes the application of computational tools (thermodynamic and molecular modelling) and also much experimental work is planned from compounding to characterisation of mixtures and final dosage forms. Innovation is not only targeted in approaches of finding promising THEDES but there should be also new scientific insights gained into these pertinent new drug delivery systems. Moreover, the industrial environment will guide the research to propose viable results with industrial relevance.

Additional Requirements: M.Sc. (or equivalent graduation) in relevant area (e.g. Pharmacy, Pharmaceutical Sciences or also Chemists and Chemical Engineers)). Proof of English proficiency as communication and teaching language throughout InPharma is English (e.g. TOEFL or similar test, not for native speakers).

Planned secondment:

Host: Zentiva, Czech Republic; Duration: ~18 months; Purpose: Industrial feasibility of novel THEDES.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 955756.

ESR6: Machine learning using supersaturating drug delivery systems.

Host: FHNW (Switzerland)

PhD awarding institution: University of Basel.

Scientific objectives: Several drug delivery technologies are based on the principle of creating drug supersaturation to overcome the hurdle of poor aqueous solubility. This project is primarily on a preformulation level of drugs and their interactions with excipients. Experimental work is planned on mostly high-throughput equipment which enables application of modern approaches of machine learning. Selected mixtures of interest will be also studied by further computational (e.g. molecular modelling) and analytical approaches to elucidate not only innovative drug-excipient mixtures but to provide also a good basis of scientific understanding of drug supersaturation.

Additional Requirements: M.Sc. (or equivalent graduation) in relevant area (e.g. Pharmacy, Pharmaceutical Sciences, or also Chemists and Chemical Engineers). Proof of English proficiency as communication and teaching language throughout InPharma is English (e.g. TOEFL or similar test, not for native speakers).

Planned secondment:

Host: Janssen, Belgium; Duration: ~18 months; Purpose: Experimental data collection;

Host: Hafnium, Denmark; Duration: ~2 months; Purpose: Training and modelling using Q-props® tools.

Contact for information about the positions ESR 5 & 6 (and for application see information below):

Prof. Dr. Martin Kuentz, University of Applied Sciences Northwestern Switzerland, School of Life Sciences, Institute for Pharma Technology, Hofackerstr. 30, 4132 Muttenz, Switzerland (martin.kuentz@fhnw.ch).

Requirements

The applicant must:

- Have a Master's degree (or any equivalent diploma) in a relevant area (e.g. Pharmacy, Pharmaceutical Sciences, but also Physical Chemistry, Chemical Engineering, and Biology with a good background in project-specific scientific fields).
- Should be — at the date of recruitment — an 'early stage researcher (ESR)', i.e. in the first 4 years (full-time equivalent) of his/her research career and must not have a PhD doctoral degree. This is measured from the date when they obtained the degree which would formally entitle them to embark on a doctorate, either in the country which the degree was obtained or in the country in which the research training is provided.
- Satisfy MSCA rules for Trans-national mobility: The applicant should not have resided in the country where the research training activities take place for more than 12 months in the 3 years immediately prior to the recruitment date and not have carried out their main activity (work, studies, etc.) in that country.
- Have solid written and oral communication skills in English as communication and teaching language throughout InPharma is English. Candidates who are not fluent in English are requested to provide proof of English proficiency (in speaking and writing) (e.g. (typically IELTS min. 7, TOEFL internet-based min. 90 or similar level as proven by other tests).

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Applications and Timelines

The details of how to apply are given at the project homepage: https://www.inpharma-network.eu/ . The application is centralised for all ESR positions of the project and follows a **two-steps process**. To apply for a position, a candidate must:

- Fill in the **on line expression of interest and eligibility form:** https://www.inpharma-network.eu/interest . Candidate may also indicate any preferred PhD topic(s) within the InPharma network.
- **Email a full application** to the Recruitment Committee @ inpharma.network@gmail.com. This must include:
    1. Letter of motivation outlining why you should be considered for their preferred PhD position(s).
    2. a detailed CV – Europass format obligatory. This should include details such as education, work experience, skills, dissertations, research interests, career objectives, names and contact details of two referees (at last one academic) who are willing to be contacted about your potential suitability for the position, and/or list of publications if any;
    3. a transcript of his/her master studies' grades (including the overall grade) if available;
    4. Proof of English language proficiency e.g. English language certificates for non-native speakers.
    5. at least one letter of recommendation, preferably by the Master's thesis supervisor. Note, if preferred this letter of recommendation may be sent directly by the Referee to the contact persons below.

Note: Items 1, 2, 3 and 4 (and optionally 5) should be emailed as a single PDF file (<10 Mb) to the Recruitment Committee @ inpharma.network@gmail.com, with 'PhD application InPharma-network' in the subject line.

A candidate who does not complete both steps in the application process will not be considered further.

The deadline for the on-line application is **15 January 2021.**

Applicants **will only be notified if they have been shortlisted for interview** by an InPharma recruitment committee. The selected candidates after interview will be expected to start their research as quickly as possible (target: February – April 2021).

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