

Two PhD candidate positions open (ESR3 - kidney fibrosis *in vitro* model; ESR6 - bioprinting of kidney rudiment for drug safety screening)

Project description

We seek two PhD candidates to join an interdisciplinary team working on the application of bioprinting technologies to develop *in vitro* models and regenerative medicine therapies. In this project, two early stage researcher (ESR) will develop a **bioprinted kidney fibrosis model (ESR3)** and **bioprinting of kidney rudiment for drug safety screening (ESR6)**. This project is part of a H2020 Marie Skłodowska Curie Actions – Innovative Training Networks (SINERGIA, <https://www.sinergia2020.polimi.it/>) with the overall aims to provide breakthrough strategies for the implementation of new *in vitro* preclinical platforms. Innovative technologies, biological models and drug screening approaches will be developed in the effort of bridging the gap between current, simplistic *in vitro* cultures and faithful and effective future physiological models. SINERGIA provides career development and training opportunities for 15 researchers who are in the first 4 years of their research careers. The Consortium will enroll 15 Early Stage Researchers (ESRs): 9 ESRs based at Universities, 4 ESRs at Companies, and 2 ESRs at Hospitals.

Description of the candidate

ESR candidates must hold a Master's degree and have excellent marks from his/her previous studies and courses along with experience in one or more of the relevant fields (e.g. Biology, Biotechnology, Biofabrication, Biomedical Engineering, Technical Biology or equivalent title). Excellent written and oral communication skills in English are mandatory. Knowledge of Dutch is not required.

The desired candidate has the following skills and interests:

ESR3

- Knowledge and experience in working with bioprinting techniques
- Knowledge and experience in synthesis, preparation and characterization of hydrogels
- Knowledge and experience in cell culture and assays

ESR6

- Knowledge and experience in working with pluripotent stem cells culture, maintenance and differentiation
- Knowledge and experience in working with bioprinting techniques and hydrogel formulations

The host

The PhD candidate will have a supervision team comprising Dr. Carlos Mota and Prof. Lorenzo Moroni (MERLN Institute for Technology-Inspired Regenerative Medicine). As part of the consortium, there will be collaboration with the Universitaetsklinikum Aachen (Germany) (ESR3, ESR6), Universitat Basel (Switzerland) (ESR6), Politecnico Di Milano (Italy) (ESR3), Accelera SRL (Italy) (ESR3), STEMCELL Technologies UK Ltd (United Kingdom) (ESR3).

The candidate will join the laboratory of Prof. Moroni at the MERLN Institute at Maastricht University. At MERLN, we are a collaborative, international, and interdisciplinary group with diverse expertise, including biomaterials science, chemistry, tissue engineering, and stem cell biology. We share newly renovated laboratory facilities with modern equipment. We have a long history as leaders in the field of tissue engineering and are particularly well-known for our orientation towards translational research.

Doing a PhD in the Netherlands

For those unfamiliar with the Dutch PhD system, it is the norm to take four years to complete the laboratory work for the degree.

Benefits and Salary

The successful candidates will receive an attractive salary in accordance with the MSCA regulations for early stage researchers. The exact salary will be confirmed upon appointment and is dependent on the Country correction factor (to allow for the difference in cost of living in different EU Member States). The salary includes a living allowance, a mobility allowance and a family allowance (if married or equivalent). In addition to their individual scientific projects, all fellows will benefit from further continuing education, which includes internships and secondments, a variety of training modules as well as transferable skills courses and active participation in workshops and conferences. A personalised Career Development Plan will be defined and monitored to guide ESRs through the career decision-making process.

Are you eligible?

Applicants need to fully respect three eligibility criteria:

- Early-stage researchers (ESR) are those who are, at the time of recruitment by the host, in the first four years (full-time equivalent) of their research careers. This is measured from the date when they obtained the degree which formally entitles them to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the research training is provided, irrespective of whether or not a doctorate was envisaged.
- Conditions of international mobility of researchers. At the time of selection by the host organisation, researchers must not have resided or carried out their main activity (work, studies, etc.) in the Country of their host organisation for more than 12 months in the 3 years immediately prior to their recruitment. Short stays, such as holidays, are not taken into account.
- Network fellows (ESRs) must demonstrate that their ability to understand and express themselves in both written and spoken English is sufficiently high for them to derive the full benefit from the network training.

Applying from abroad?

MERLN houses researchers from across the globe who have successfully navigated the transition of moving to the Netherlands. Maastricht University (UM) is the most international university in the Netherlands and, with more than 16,000 students and 4,000 employees, is still growing. Thanks to its high-quality research and education as well as a strong focus on social engagement, UM has quickly built up a reputation as one of the best young universities in the world.

Maastricht, where we are located, is a warm and welcoming city. The city is known for its fine cuisine, excellent shops and multicultural atmosphere. The founding city of the EU is an international hub with inhabitants from around the world. English is widely spoken, which has helped create a unique and vibrant international community. Thanks to Maastricht's central position in Europe, it is only a short drive away from Belgium, Germany, France and the rest of the Netherlands. The city is family-friendly and possesses an international school and several excellent primary schools.

Application timeline

The deadline for the on-line applications is 01/01/2020. Applications must be submitted through <https://www.sinergia2020.polimi.it/>. Candidates for ESR3 and ESR6 can expect to hear from us within two weeks of the deadline for applications. Video interviews will be scheduled for short-listed candidates. Those proceeding to the second interview round will be invited to a remote interview or to attend an in-person interview whenever possible.

How to apply?

SINERGIA's recruitment and employment strategy is based on an equal opportunities policy and in full compliance with the principle of the Code of Conduct for the Recruitment of Researchers. We value diversity, and do not discriminate based on gender, religion, marital status, age, or cultural background.

By following the link <https://www.sinergia2020.polimi.it/wp-content/uploads/2019/10/application-form-SINERGIA.docx>, you can download the application form. Together with the form, candidates must provide all requested information including a detailed CV and academic track record. During the registration, applicants will need to prove that they are eligible.

A common scoring system and recorded interviews will be used, respecting privacy and protection of the Applicant's data. Female candidates and candidates with disabilities are encouraged to apply. The selection process is based on two steps:

1. Evaluation of the documents provided by the Applicant (Assessment of academic records)
2. For shortlisted candidates, remote interviews will be organized.

The Job Application Form must be filled electronically, signed and sent as an electronic email attachment to sinergia2020@polimi.it in pdf format. Please, use the phrase "SINERGIA application" as subject for this email. In addition to the Job Application Form, candidates should attach in the same email (in 1 zip file) the following documents:

- Two-page application letter containing research interests, skills, career plans and the reasons for applying.
- Academic transcript with grade point average
- Certificate proving date of award of degree which formally entitles to embark on a doctorate (if pending, a letter from the institution stating when it is expected to be awarded)
- Full CV including list of publications where applicable, information about timings of previous academic study and employment, and information about nationality/citizenship – please provide sufficient detail regarding where you have resided and/or engaged in work or study between 1st January 2017 and the date of submission.
- At least two letters of reference, or addresses of referees who have agreed to provide a reference (if referees prefer to send the references directly to the SINERGIA consortium, please ask them to be emailed to sinergia2020@polimi.it before the application deadline).
- For applicants from non-English speaking countries, please attach copies of recent English language certificates where available.

Candidates may apply for more than one fellowship (maximum five), but only with a single application in which the candidate has to provide the list of fellowships for which he/she is applying in order of preference.

For more information, please contact Dr. Carlos Mota (c.mota@maastrichtuniversity.nl).