INSPIRE receives funding from the EU Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 858070

We are looking for a talented and motivated scientist (PhD student) to advance an exciting research project:

Early Stage Researcher (ESR10)

Measuring arterial stiffness at different scales: a new toolbox for safety pharmacology

About INSPIRE – A European Training Network in Safety Pharmacology

The vision of INSPIRE is to advance and "inspire" Safety Pharmacology by exploring new technological capabilities to addressing emerging cardiovascular safety concerns. Hereto, INSPIRE unites expertise from academic teams, technology-providers, pharmaceutical companies, regulators and hospitals to create a European training platform for 15 Early Stage Researchers (ESRs). Key innovative aspects of INSPIRE include: i) in vitro humanized cardiomyocytes assays, ii) unparalleled in vivo hardware/software solutions, iii) in silico predictions of haemodynamics, iv) mass spectroscopy imaging of drug exposure, v) exploration of mechanisms of late-onset CV toxicity, as observed in cardio-oncology, and vi) early integration of feedback from industry and regulators.

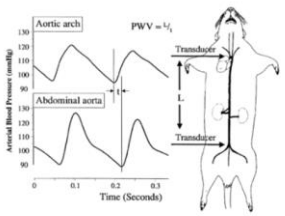
Overall, INSPIRE constitutes a multidisciplinary and intersectoral training programme with a balanced combination of hands-on research training, intersectoral secondments, local courses and network-wide events on scientific and transferable skills, enabling future R&I collaborations. Hence, INSPIRE will equip the future generation of SP scientists with a wide range of scientific knowledge and the ability to adapt to a dynamic industry.

Description of the PhD project

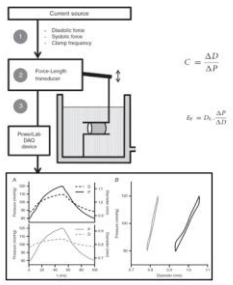
Scientific Objectives:

- Develop a multi-scale platform to evaluate arterial stiffness comprehensively by integrating in vivo and ex vivo measurements.
- Apply this toolbox to investigate chronic drug-induced effects on arterial stiffness.
- Provide input for better experimental modelling (by INRIA).

Pulse Wave Velocity (PWV) by tonometry and ultrasound imaging



Rodent Oscillatory Tension Setup for Measuring Arterial Compliance



Tasks and Responsibilities:

- You perform independently scientific research within a collaborative international research consortium (training network).
- You deliver written reports of your research on a regular basis
- You prepare a doctoral thesis on the topic of arterial stiffness as potential marker for safety pharmacology.
- You publish scientific articles related to the research project of the assignment.
- You (may) contribute (limited) to teaching activities.
- You (may) support the valorization of research results into tangible deliverables
- You participate to scientific meetings and conferences to present your research to the scientific community.
- You actively participate in outreach activities aimed to promote your scientific research to a wider audience.
- The selected candidate will get in contact with the other members of this international consortium and will benefit from the tailored training programme.
- The selected candidate will take part in the following planned secondments: 1. Industrial secondment to Vivonics (1 month, UK) to learn about principles of GLP and quality assurance in safety pharmacology studies. 2. Academic secondment to the University of Nottingham (3 months, UK) for complementary "flowmetry" safety pharmacology studies in rat and guinea-pig.

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About the University of Antwerp – Physiopharmacology Research Group

The research group Physiopharmacology (chaired by prof. Guido De Meyer) is embedded in both the Faculty of Medicine and Health Sciences and the Faculty of Pharmaceutical, Biomedical and Veterinary Sciences. This interfaculty research groups has a track record in basic research in the field of cardiovascular disease, such as arterial stiffening and atherosclerosis. More recent research lines focus on safety pharmacology and cardio-oncology. The latter together with the colleagues from the Cardiovascular Disease Research Group and the cardiologist of the Antwerp University Hospital. More information about the team is available at: https://www.uantwerpen.be/en/research-groups/fyfar/ .
The University of Antwerp is a young, dynamic and forward-thinking university. It is a merger (2003) of the former three university institutions in Antwerp (RUCA, UFSIA and UIA). It ranks 18th in the "QS Top 50 Under 50 2020". The University has ca. 1850 PhD students, 680 tenured professors, over 350 assistants and over 3400 tenured researcher and education staff members. It produces over 3600 peer-reviewed scientific publications per year.
The European Commission has awarded the University the "**HR Excellence in Research**" quality label.

Profile & requirements

- ✓ Applicants must hold a MSc or equivalent in the field of Medicine, Pharmaceutical or Biomedical Sciences.
- ✓ Applicants must have a solid knowledge of cardiovascular (patho)physiology and methods for investigating this.
- ✓ Applicants can be of any nationality, but have to comply with the "Mobility Rule (cf. infra)".
- ✓ Applicants must have an ability to understand and express themselves in both written and spoken English to a level that is sufficiently high for them to derive the full benefit from the network training.
- ✓ Applicants must be eligible to enrol on a PhD programme at the host institution (or at a designated university, in case the host institution is a non-academic organisation).
- ✓ Applicants must have the necessary academic skills and background to make the success of a doctoral degree.
- ✓ ***H2020 MSCA Mobility Rule***: researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of the host organisation for more than 12 months in the 3 years immediately before the recruitment date. Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status are not taken into account.
- ✓ ***H2020 MSCA eligibility criteria***: Early Stage Researchers (ESRs) must be, at the date of recruitment by the host organisation, in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree. Full-Time Equivalent Research Experience is measured from the date when the researcher obtained the degree entitling him/her to embark on a doctorate (either in the country in which the degree was obtained or in the country in which the researcher is recruited, even if a doctorate was never started or envisaged).

Benefits

- ✓ The selected candidate will be employed by the host organisation for 36 months.
- ✓ A competitive salary plus allowances. Moreover, funding is available for technical and personal skills training and participation in international research events.
- ✓ The selected candidate will benefit from the designed training programme offered by the host organisation and the INSPIRE consortium.
- ✓ The selected candidate will participate in international secondments to other organisations within the INSPIRE network and in outreach activities targeted at a wide audience.

Please, find additional information in the *Information note for Marie Skłodowska-Curie ITN fellows*

Application

Interested candidates are invited to apply for this position by filing in the application form on our website (www.inspire-safety-pharmacology.eu), via this link: https://www.uantwerpen.be/en/projects/inspire-safety-pharmacology/job-openings/submit-your-applicat/ .

For additional information

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