



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



## Early Stage Researcher (ESR4) Development of novel telemetry implants with added 3D micro-GPS functionality

### About INSPIRE – A European Training Network in Safety Pharmacology

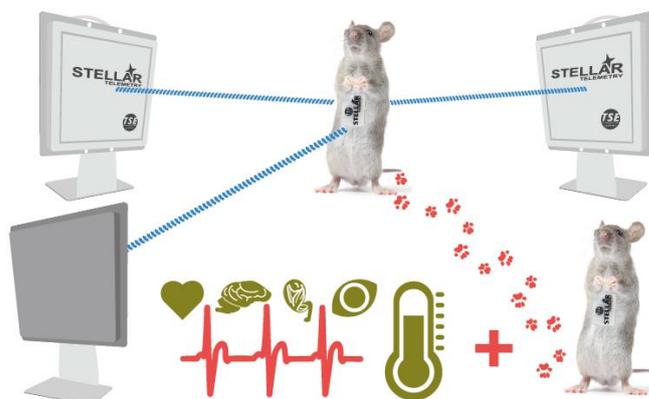
The vision of INSPIRE is to advance and “inspire” Safety Pharmacology by exploring new technological capabilities to addressing emerging cardiovascular safety concerns. Hereto, INSPIRE unites expertise from academic teams, technology-providers, pharmaceutical companies, regulators and hospitals to create 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:

- Measuring and quantifying field strength maps emitted by implants with various transmission power.
- Optimizing transmission parameters to allow maximal positioning resolution.
- Adaptation of the existing field strength and antenna and receiver configuration to enable micro-positioning of animals within their living quarters.



#### 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 development of novel telemetry implants with added 3D micro-GPS functionality.
- 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. Non-academic secondment to Boehringer Ingelheim Pharma GMBH &CO KG (1 month + 3 months, Germany) 1<sup>st</sup> for collecting initial user specs



and 2<sup>nd</sup> for iteration and validation. 2. Academic secondment to Weizmann Institute of Science (3 months, Israel) for comparison(/validation) with video tracking and iteration (joint publication).

### About TSE Systems GMBH

TSE Systems is an innovative biomedical research equipment manufacturer with around 75 employees and offices in Germany, the USA and China. TSE stands out among its peers for its high amount of PhD level scientists throughout the organization, with its scientific team consisting of 14 full-time PhD positions under the leadership of Dr. Harry Knot. TSE R&D has consistently been able to attract funding from national and international sources, including the EU Projects “Ratstream” and “Phenoscale”, and it is currently actively participating in H2020 Programmes. TSE has pioneered the use of home cages in cardio-metabolic and behavioural preclinical research, thus consistently combining the optimal in animal welfare with the highest level of scientific results.

### Profile & requirements

- ✓ Applicants must hold a MSc or equivalent in the field of Engineering and Biomedical Sciences.
- ✓ Applicants must have a basic 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](http://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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