BonePainII - **Marie Sklodowska-Curie Innovative Training Network**
Internal Code: BonePainII _01_2019
Application Deadline: March 15, 2019 (23h59 GMT)

We have one (1) open position for a PhD student for 3-years, in the EU-funded Innovative Training Network BonePainII (www.bonepain.eu), at the Institute of Biomedical Engineering (INEB)/Institute for Innovation and Health Research (I3S), Porto, Portugal.

The PhD student position is 3D microfluidic based models to address the pathological nerve fibers outgrowth associated to bone metastases.

Expected starting date June 1, 2019.
The application deadline is March 15, 2019.

About the BonePainII Network
BonePainII is a European Innovative Training Network to promote frontline research, innovation and education within bone pain. Millions in Europe and beyond suffer from bone pain, which is a debilitating complication of many musculoskeletal disorders such as arthritis and bone metastasis. The BonePainII network has participants from 6 European countries and encompasses 8 academic groups and 4 industries all committed to creating an outstanding training program for 15 early stage researchers (ESRs) to elucidate the mechanisms of bone pain and develop new medicines.

This project is part of the EU-funded project BonePainII, www.bonepain.eu.

The project is funded by the European Union's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie grant agreement No 814244.

Project title: 3D microfluidic based models to address the pathological nerve fibers outgrowth associated to bone metastases.
You will be 1) performing 3D co-cultures in microfluidic devices, 2) investigating the axonal sprouting mediated by the "vicious cycle" and 3) Validating the 3D microfluidic based model for drug screening.

The work will be conducted at the Neuro & Skeletal Circuits group of INEB/i3S(https://www.i3s.up.pt/content/scientific-platform-detail?x=124)

For the present project two (2) research exchanges are planned with the following consortium partners: NATURWISSENSCHAFTLICHES UND MEDIZINISCHES INSTITUT AN DER UNIVERSITAET TÜBINGEN, Germany and CELLECTRICON, Sweden.

The candidate will be enrolled in the Doctoral Program of Biomedical Engineering of the Faculty of Engineering of the University of Porto (www.fe.up.pt).

About INEB (www.ineb.up.pt)
The Mission of INEB is to generate knowledge, by promoting research, advanced training and technology transfer in biomedical engineering. INEB is an internationally recognized interdisciplinary research institution, where integrative engineering solutions are applied to improve human health, involving specialists in biomaterials, tissue regeneration, nanomedicine, bioimaging, medical signals, biology and medicine.

About i3S (www.i3s.up.pt)
The Institute for Research and Innovation in Health, i3S, headed by the University of Porto (UPorto), brings together four institutions and researchers from several schools of UPorto. i3S results from the long-term

collaboration between Instituto de Biologia Molecular e Celular (IBMC), Instituto de Engenharia Biomédica (INEB), Instituto de Patologia e Imunologia Molecular da UPorto (IPATIMUP) and some research groups from Faculdade de Medicina da UPorto (FMUP), encompassing joint projects, co-supervision of PhD students, sharing of large equipment and employment of research staff under coordinated policies. i3S was among the 11 Portuguese research institutions rated as "*Exceptional*" by the National Foundation for Science and Technology. i3S focuses on 3 Integrative Programs:

- Neurobiology and Neurologic Disease
- Cancer;
- Host Response and Interaction;

About University of Porto (www.up.pt)
Founded in 1911, the University of Porto (U.Porto) is a benchmark institution for Higher Education and Scientific Research in Portugal and one of the top 200 European Universities according to the most relevant international ranking systems.
The U.Porto combines high quality education focused on individual vocations and talents as well as market needs with the claim to being the greatest birthplace of science in Portugal. The U.Porto has the richest academic community in Portugal and brings together the country's highest ranked students, a highly qualified scientific and teaching staff and a growing number of international students, teachers and researchers. Its fully equipped campus embedded within the city guarantees an optimal academic, scientific, and also social and cultural experience.

Supervision:
The principal supervisor will be Meriem Lamghari, email: lamghari@ineb.up.pt, phone +351 220 408 800

Required qualifications
The successful candidate must hold MSc degree or equivalent in biomedicine or bioengineering with specialization in tissue engineering/regenerative medicine or equivalent. Experience with primary cell culture and cell and molecular biology is required. It is also meritorious if you have a background in neurosciences and/or cancer bone biology. Some previous experience in cell culture in microfluidic devices will also be a distinction. Fluency in English is required.

General job description
Your key tasks as a PhD student are to:
• Manage and carry through your research project
• Participate in the BonePainII training and network activities
• Take PhD courses
• Write scientific articles and your PhD thesis
• Participate in national and international congresses and scientific meetings
• Research stay at an external research laboratory within the BonePainII network
• Disseminate your research

Key criteria for the assessment of applicants
• Relevant skills and knowledge
• Previous publications
• Relevant work experience
• The grades achieved during bachelor/master studies
• Other professional activities
• Language skills
• Assessment of the candidate's motivation letter

Formal requirements: Mobility and eligibility criteria
The candidate must not have resided or carried out his/her main activity (work, studies, etc.) in Portugal for more than 12 months in the last 3 years immediately prior to his/her recruitment – unless as part of a procedure for obtaining refugee status under the Geneva Convention.
The candidate must be an Early-Stage Researcher (ESR): at the date of recruitment he/she must be in the first four years (full-time equivalent research experience)[1] of his/her research career and must not have not been awarded a doctoral degree.

[1] This is measured from the date when a researcher obtained the degree which would formally entitle him or 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, irrespective of whether or not a doctorate is or was ever envisaged.

Terms of employment
The terms of employment and salary are in accordance with the local and national rules and in accordance to the rules and regulations laid down by the European Union's Horizon2020 Marie Sklodowska-Curie Action European Training Network Exact salary will be confirmed upon appointment.

Questions
For further information, applicants may contact the principal supervisor: Meriem Lamghari.

How to apply
Applicants are requested to submit their application electronically at
http://portal.i3s.up.pt/gestaocandidaturasineb/index.php?codigo=BonePainII_01_2019 including (in pdf):
• Cover letter: Letter stating the interest in and qualifications for the project (max. one page).
• Full CV.
• List of publications.
• Diploma and transcripts of records: Master´s degree diploma (including grade transcripts for bachelor´s and master´s degrees). Applicants with a Master´s degree from abroad should also enclose a short description of the grading scale used.
• short summary of the thesis (max 1 page)
• 2 letters of recommendation including contact details for references.
• For those applicants whose principal language of instruction during their BSc/MSc was not English it will be an advantage if they enclose IELTS or TOEFL test scores or equivalent proof of English skills.

Candidates must submit their application electronically by clicking the following link

http://portal.i3s.up.pt/gestaocandidaturasineb/index.php?codigo=BonePainII_01_2019

Deadline for applications: March 15, 2019.
Applications will be evaluated by an assessment committee consisting of the principal supervisor and 2 other members of the BonePain network or the Department.
Shortlisted candidates will be invited for an interview (e.g. via Skype). In case of highly qualified, but unsuccessful applications, applicants have the choice of having their application forwarded to another suitable BonePain network member for consideration.

Non-discrimination and equal access policy: INEB actively promotes a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.