

UNIVERSITY OF TWENTE.

JOB POSTING

Marie Skłodowska-Curie European Training Network "TheLink" (H2020-MSCA-ITN-2014) to Accelerate the Development Chain of Nanostructured Polymers

Recruiting organisation: University of Twente, The Netherlands

Subproject title: Development of nanoporous polymeric materials for blood purification

Expected starting date: 1st February 2015

Background information:

Marie Skłodowska-Curie European Training Networks (ETNs) are joint research and training projects funded by the European Union. Funding is provided for postgraduate researchers from both inside and outside Europe to carry out individual project work in a European country other than their own.

The training network "TheLink" is made up of 10 partners, coordinated by the Fraunhofer ICT in Germany. The network will recruit a total of 15 postgraduates for project work lasting for 36 months.

Nanostructured polymers, composites and phase-separated materials are attracting scientific and industrial interest due to the outstanding properties and functionalities that can be achieved. However, in order to exploit their potential an in-depth understanding of the relationship between nano/micro structures and macro-level properties is required. TheLink therefore aims to generate this knowledge along the material development chain from design to production, combining the disciplines of simulation, characterization and processing. The postgraduate researchers recruited by the network will move the development of polymeric nanomaterials towards a knowledge-based, industrially-feasible approach. Three case studies (phase separated polymers, separation membranes, composites for electrical conductivity/self-diagnosis/EMI shielding) will be used to guide research and training and to demonstrate the project developments.

The advertised subproject will be carried out by one postgraduate ("early-stage researcher") at University of Twente over a period of 36 months.

The objective of the proposed subproject is the development of nanoporous polymeric materials for blood purification. This includes development of nanoporous sorbents of various uremic retention solutes and their integration in a mixed matrix membranes, MMM. The design of the membrane will be supported by the simulations provided by another postgraduate working within the network. The sorbent and membrane structures will be characterized by project partners and the performance will be compared to simulation results.

This subproject is fully funded by the Marie Skłodowska-Curie European Training Network "TheLink" (H2020-MSCA-ITN-2014). The recruited researcher will have the opportunity to work as part of an international, interdisciplinary team of 15 postgraduates, based at universities and industrial firms throughout Europe. He/she will receive theoretical and practical training in the three project disciplines of simulation, characterization and

processing. He/she is expected to finish the project with a PhD thesis and to disseminate the results through patents (if applicable), publications in peer-reviewed journals and presentations at international conferences.

Requirements:

Qualifications / experience:

- Early-stage researcher: a researcher without a PhD, who is in the first four years (full-time equivalent research experience) of his/her research career, measured from the date when he/she obtained the degree which would formally entitle him/her to embark on a doctorate.
- We are looking for a highly motivated and enthusiastic researcher with background in chemical engineering, biomedical engineering, material science or a related topic, with adequate experimental and theoretical skills. We prefer candidates with good team spirit, who like to work in an internationally oriented environment. Fluency in English is a requirement. An interview and a scientific presentation will be part of the selection procedure.
- The candidate should have an interest in the three project-wide disciplines of simulation, characterization and processing.

Mobility:

- The applicant must not have resided or carried out his/her main activity (work, studies etc.) in the Netherlands for more than 12 months in the past three years.

How to apply:

To apply, please send an application letter describing previous research experience and current interests, an updated CV, a copy of both academic degree and official transcripts along with the names and addresses of two referees to:

Prof. Dr. D. Stamatialis (+31 53 4894675 or d.stamatialis@utwente.nl).
University of Twente - MIRA Institute of Biomedical Technology and Technical Medicine,
Faculty of Science and Technology -Department of Biomaterials Science and Technology,
ZH 233, P.O Box 217, 7500 AE Enschede, The Netherlands

Application deadline: December 15, 2014