Research Fellow

Who are we?

We are the University of Cambridge presence in Singapore called Cambridge CARES, sponsored by the NRF CREATE program CAM.CREATE. CARES also hosts industry-funded and other agencies funded projects. Our team is comprised of world-class scientists and engineers working in a vibrant, fast-paced environment with great opportunities for knowledge and skills development.

CARES is a partner in the Pharma Innovation Programme Singapore (PIPS). The core partners of PIPS are: The Agency for Science, Technology and Research (A*Star), The National University of Singapore (NUS), the Nanyang Technological University (NTU), the Singapore Institute of Technology (SIT), and pharma companies GlaxoSmithKline (GSK), MSD International GmbH (Singapore branch), and Pfizer Asia Pacific.

Within PIPS, CARES is leading a project “DEVELOPMENT OF MULTI-STEP PROCESSES IN PHARMA”, which aims to transform the way how manufacturing processes are developed within the context of pharma. The project will include research developments in the areas of process systems engineering, machine learning and automated experimental systems. The outcomes of the project are expected to be directly transferred to the industrial partners.

Who are we looking for?

We are looking to fill a vacancy of a Research Fellow with experience in process modelling, thermodynamics modelling and molecular modelling. Specific application area is the development of pharmaceutically-relevant reactions that are performed in the liquid phase or are multi-phase, and involve a variety of separation processes. The work will involve developing first principles models exploiting a variety of starting points: from Density Functional Theory and a priori thermodynamic calculations, to empirical process models.

What skills do you have?

Process modelling (using gPROMS, Matlab, Modelica, or other environments), thermodynamic modelling (using ASPEN, COSMOTHERm or other environments), density functional theory calculations for organic chemistry, kinetic modelling, process simulations and optimization methods.

When is position available and for how long?

The position is available from June 1st 2019 as a fixed-term contract for 18 months. The position will be offered subject to probationary period of six months.

What can we offer you?

- A stimulating working-environment with friendly, highly motivated colleagues.
- Opportunities to develop and implement new ideas in a creative environment.
- A competitive salary in line with your skills and experience.
- A one-year contract in the first instance, extendable following satisfactory performance.
- A comprehensive medical insurance cover as part of your employment.

Please note that this post is mainly based in the CREATE Tower at NUS University Town, Singapore. To apply, please send your CV and cover letter (summarising the most relevant skills and experience that you have for the position) to cares@hermes.cam.ac.uk. Informal enquiries could be sent to the academic lead of the project: Prof. Alexei Lapkin (aal35@cam.ac.uk).