Aston University

School of Life and Health Sciences

Fully-Funded MRC Industrial Case PhD Studentship

Development of novel in silico tools for predicting in vivo performance of single-unit formulations incorporating multiple drug candidates

Applications are invited for a four year interdisciplinary research studentship funded by MRC and Viridian Pharma Ltd to be undertaken within the School of Pharmacy (all applications must be through the School of Life and Health Sciences) at Aston University. The school was rated recently by the Sunday Times as best in its class, making specific reference to is applied research subjects. The high quality of research in Aston's School of Life and Health Sciences (LHS) was confirmed in the last Research Assessment Exercise (RAE) - with research in Allied Health Professions and Studies ranked 3rd out of 63 UK Higher Education Institutions. Additional information about research in the School can be found at http://www1.aston.ac.uk/lhs/research/

The studentship is an exciting opportunity for any individual who has a keen interest in working in a highly dynamic and competitive research environment at the interface between formulation development and *in silico* predictive modelling. The studentship will be supervised by Dr Afzal Mohammed and Dr Raj Badhan at Aston University and Dr Julian Smith who will be based at Viridian Pharma Ltd. Any queries related to the advertised studentship can be emailed to Dr Afzal Mohammed at a.u.r.mohammed@aston.ac.uk

The project is built on recent research findings at Aston Pharmacy School which has resulted in the development of in silico predictive models of drug absorption by integrating key biological elements (such as spatial distribution and quantification of transporter proteins) influencing the process of drug absorption (Badhan et al., 2009) together with development of in vitro assessment technique for dynamic drug permeability using Caco2 cell lines (Khan et al., 2011). The core objectives within the proposal involve formulation development of orally disintegrating tablets using direct compression followed by thorough characterisation of the system including assessment of tablet properties, permeability assessment and development of *in silico* models.

Financial Support:

The studentship comprises a MRC maintenance stipend for the student (currently **£16,090 per annum tax free**) and payment of Home/EU tuition fees. The studentship is available under the MRC funding model for the duration of your registration**.** **Overseas Students are not eligible to apply**. To check further into eligibility, please refer to the MRC Website.

Application Requirements:

- Eligible Applicants should have or expect to hold a good Bachelor (Hons.) Degree of either First Class or Upper Second Class or hold a Masters Degree (MSc/MRes) in a relevant discipline (e.g. Pharmaceutics, Biochemistry, Biotechnology, Chemistry).
- EU Applicants will need to demonstrate adequate proficiency in English Language skills, with a minimum score of 620 (260 minimum in computer test) in TOEFL or IELTS with minimum marks of 6.5 in each section and an overall band of 7.0.
- The Studentship is funded for 4 years, subject to a satisfactory progress review at the end of the first year, and submission by 4 years is required**. The anticipated Registration is 1st October 2012.**
- Enquiries should be addressed to the Principal Supervisor Dr Afzal Mohammed (E-mail: a.u.r.mohammed@aston.ac.uk).
- **To apply please complete the online application form at** http://www1.aston.ac.uk/lhs/research/postgraduate-research/apply/ and please quote the reference 'MRC-Mohammed' on all applications.
- **The Closing Date for Applications is: Monday, 16th July 2012.**