Candidate Information

Position:	Research Fellow
School/Department:	School of Pharmacy
Reference:	19/107187
Closing Date:	Tuesday 19 March 2019
Salary:	£33,199 - £39,610 per annum (potential to progress to £43,266 per annum through sustained exceptional contribution)
Anticipated Interview Date:	Monday 8 April 2019
Duration:	1 year

JOB PURPOSE:

To develop new, and support ongoing, projects within the Pharmaceutical Engineering Group. Current projects are focused on hot melt extruded oral solid dosage forms, formulation strategies for enablement of BCS Class II drugs and development of spectroscopic techniques to support inline characterisation of melt extruded drug delivery systems.

MAJOR DUTIES:

1. Develop and execute research plans in the remit of the project with the aid of the project PI.
2. Design, formulation and analysis of oral drug products that offer either controlled/targeted delivery and/or solubility enhancement. Experience of hot melt extrusion, traditional solid dosage form manufacturing technologies and analytical methods relevant to characterisation of oral drug products.
3. • Knowledge and experience of analytical techniques examples including thermal analysis (DSC, DMTA, TGA), rheological analysis (capillary rheometry, rotary rheometry) powder characterisation methods, Raman spectroscopy, FTIR, XRD spectroscopy, drug release methods, HPLC.
4. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
5. Prepare, often in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.
6. Assist grant holder in the preparation of funding proposals and applications to external bodies.
7. Carry out routine administrative tasks associated with the research project, e.g. organisation of project meetings and documentation and risk assessment of research activities.
8. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines. Development of a literature base.

Planning and Organising:

1. Plan for specific aspects of research programmes. Timescales range from 1-3 months in advance and contribute to research group planning.
2. Plan for the use of research resources, laboratories and workshops where appropriate.
3. Plan own day-to day activity within framework of the agreed research programme.
4. Plan up to 6 months in advance to meet deadlines for journal publications and to prepare posters, presentations and/or papers for conferences.
5. Coordinate and liaise with other members of the research group over work progress.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Provide guidance as required to support staff and any students who may be assisting with research.

Internal and External Relationships:

1. Liaise on a regular basis with colleagues and students. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration. Join external networks to share information and ideas.
2. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

ESSENTIAL CRITERIA:

1. Have or about to obtain a PhD in Pharmacy, Pharmaceutical Sciences, or a relevant engineering discipline.
2. 3 years recent relevant research experience to include experience in pharmaceutics with a specific emphasis on development of solid oral dosage forms
3. Experience of the design, formulation and analysis of oral drug products that offer either controlled/targeted delivery and/or solubility enhancement.
4. Experience of traditional solid dosage form manufacturing technologies and analytical methods relevant to characterisation of oral drug products.
5. Knowledge and experience of analytical techniques including thermal analysis (DSC, TGA), PXRD, Spectroscopic methods (FTIR, UV) drug release methods and HPLC.
6. Ability to contribute to broader management and administrative processes
7. Ability to carry out routine administrative tasks associated with the research projects, e.g., organisation of project meetings and documentation and risk assessment of research activities
8. Ability to communicate effectively, both verbally and in writing.
9. Practical problem-solving skills and independence of thought are required.
10. Knowledge of scientific literature pertaining to the field of solid oral dosage form research
11. Ability to present scientific arguments and data in a clear, concise and confident manner.
12. Ability to present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings
13. A calm and conscientious scientist, able to work in a disciplined manner within a team environment.

DESIRABLE CRITERIA:

1. PhD in pharmaceutical technology with specific emphasis on drug enablement strategies for BCS class II drugs for oral administration
2. Minimum of 12 months (post PhD) recent relevant research experience in pharmaceutics with a specific emphasis on development of solid oral dosage forms
3. Experience of hot melt extrusion
4. Experience of DMTA, rheological analysis, Raman and NMR spectroscopy
5. Experience in supervision of postgraduate and final year undergraduate students.
6. Knowledge of scientific literature specific to formulations strategies for BCS class II drugs