

# **Candidate Information**

Position:	Research Fellow in Pharmacy
School/Department:	Pharmacy
Reference:	21/109214
Closing Date:	Monday 25 October 2021
Salary:	£34,304 - 36,382 per annum.
Anticipated Interview Date:	Wednesday 3 November 2021
Duration:	12 months

# JOB PURPOSE:

A Post-doctoral Research Fellow position is available at Queen's University Belfast/School of Pharmacy for a highly motivated individual who would like to develop his/her skills in formulating novel lipid-based photothermal nanoparticles for cancer therapy and imaging. The post will focus on liposomal formulation, besides assessing the biological activity of the developed formulations in vitro and their biodistribution in vivo.

The appointee will be a member of a large interdisciplinary and multidisciplinary team of scientists of different research backgrounds under the supervision of Dr Wafa Al-Jamal. Applicants should have a relevant PhD, ideally in pharmacy, formulation science, drug delivery, material science or any related field, and fulfil all the essential criteria on the person specification. This full-time post is available for a fixed-term period of twelve months.

### **MAJOR DUTIES:**

- 1. Contribute to the conduct of research including data collection, analysis, write up and dissemination of results as publications in high ranking peer reviewed journal, and at national/international conferences in consultation with the PI.
- 2. Plan and manage the day-to-day activities of the research project.
- 3. Contribute to the preparation of future research plans and income generation including contributing to grant applications.
- 4. Work independently and as part of a team as required.
- 5. Contribute to supervision post-graduate students at the Master and PhD level.
- 6. Coach and support colleagues in developing their research techniques.
- 7. Develop productive working relationships with other members of staff and students internally, and with external collaborators.
- 8. Carry out any other tasks as specified by the project supervisor in accordance with the grading of the post.
- 9. Use and maintenance of laboratory equipment as required.
- 10. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
- 11. Carry out routine administrative tasks associated with the research project to ensure that the project is completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.

#### Planning and Organising:

- 1. Follow and refine the project plan to meet the end goals.
- 2. Plan for the use of research resources and laboratories where appropriate.
- 3. Plan own day-to-day activity within framework of the agreed research programme.
- 4. Plan in advance to meet deadlines for journal publications and to prepare presentations and 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. Maintain laboratory equipment relating to the project up-to-date and in good working order.

- 3. Maintain up-to-date lab book and manage data related to the project.
- 4. Ordering of resources, chemicals and materials for use in the project.
- 5. 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.
- 2. Liaise on a regular basis with supervisors, sponsors and collaborators.
- 3. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
- 4. Join external networks to share information and ideas.
- 5. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

# **ESSENTIAL CRITERIA:**

- 1. Have or about to obtain (close to submission) a PhD in pharmacy, formulation science, drug delivery, material science or any related field.
- 2. At least 3 years recent relevant research experience to include the following:
  - Nanoparticles preparation and characterisation.
    - Handling tissue cultures, and performing cell viability assays.
    - High-performance liquid chromatography (HPLC).
  - Hands-on experience performing and analysing pharmacokinetic studies in rodents.
- 3. Good track record of primary author scientific publications in high profile journals.
- 4. Demonstrable ability to perform high-quality research to publish in international journals.
- 5. Demonstrable excellent time management and organisational skills to meet agreed deadlines.
- 6. Ability to contribute to administration relevant to the research. Liaison with external collaborators and sponsors.
- 7. Competence in IT and Internet.
- 8. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.
- 9. Demonstrable ability to work independently and as part of a team to achieve project goals.
- 10. Demonstrate a collegiate approach to team working with the ability to listen to others and develop effective team based solutions.
- 11. Proven ability to write reports and scientific articles based on results obtained.
- 12. Demonstrable ability to communicate effectively in English, both verbally and in writing e.g: to prepare presentations, papers for publication and scientific reports.
- 13. Self-motivated with attention to detail.
- 14. Strong interpersonal and networking skills coupled with an ability to provide advice and support to PhD students.
- 15. Willingness to undertake and apply appropriate training.
- 16. Willingness to work flexibly due to nature of the materials used and generated in the project.

### DESIRABLE CRITERIA:

- 1. Experience in liposome and or polymeric nanoparticles research.
- 2. Experience in photothermal therapy.
- 3. Experience in three-dimensional cell culture.
- 4. Hold a valid Home Office personal licence (modules 1-3).
- 5. Experience in establishing tumour models (e.g. solid, orthotopic or metastatic).
- 6. Experience in vivo imaging techniques (e.g. SPECT/CT, MRI and optical imaging).
- 7. Experience in cell line authentication and mycoplasma testing.
- 8. Supervision experience with post-graduate students and post-doctoral researchers.
- 9. Experience in writing grant applications.