Candidate Information

Position:	Research Fellow
School/Department:	School of Pharmacy
Reference:	24/111590
Closing Date:	Monday 4 March 2024
Salary:	£37,841 - £42,567 per annum
Anticipated Interview Date:	Friday 15 March 2024
Duration:	12 months, or available until 31 March 2025, whichever is sooner.

JOB PURPOSE:

To join the research team led by Professor Dimitrios Lamprou to participate in an NIH-funded project grant. This grant is a close collaboration between the Lamprou Lab and 3 other world-renowned labs in the USA. The Lamprou Lab (www.emergingtechnologieslab.com) is applying Emerging Biopharmaceutical & Pharmaceutical Technologies in the Manufacturing of Sustainable and Safer Drug Delivery Systems, Medical Devices & Implants. We seek a highly ambitious and motivated individual to design and manufacture by 3D printing technologies a microfluidic Eye-On-a-Chip system that will mimic the eye for drug screening. The successful candidate will be a fundamental pillar of the project. The candidate will lead in planning and performing experiments and strengthening established collaborations. Thus, the post is suited to applicants with a meticulous work ethic and a team-player approach. Applicants must demonstrate such skills within their CV and interview. The position is available for 1-year with the possibility of further extension.

MAJOR DUTIES:

1. Design, develop, prepare, and fully evaluate an eye-on-a-chip microfluidic system.
2. Design, develop and refine experimental apparatus and analytical methods to obtain reliable data.
3. Undertake research in organ-on-a-chip and conduct the research activities as a member of a research team.
4. Perform relevant physicochemical characterisation, e.g., spectroscopic (e.g., FTIR,), Microscopic (e.g., light, fluorescence, SEM), Rheological, and mechanical testing.
5. Contribute to developing new or improved methods/techniques to meet the requirements/milestones of the project.
6. Present regular progress reports to Prof Lamprou and research group members, including USA collaborators.
7. Provide training and supervision to junior members of the team as required.
8. Prepare, in consultation with supervisor, material for publication in journals and presentations at national and international conferences.
9. Assist Prof Lamprou in preparing funding proposals and applications to external bodies.
10. Undertaken development/training courses to keep knowledge and skills current and relevant for subject specialism. Apply working knowledge of theory and proactively share this knowledge with others as appropriate.
11. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
12. Read academic papers, journals, and textbooks to keep abreast of developments in own specialism and related disciplines.
13. Carry out routine administrative tasks associated with the research project to ensure milestones are completed on time and within budget. These might include the organisation of project meetings and documentation, financial control, and risk assessment of research activities.

ESSENTIAL CRITERIA:

1. Have or are about to obtain" (Thesis must be submitted by the starting day of the project) PhD in lab-on-a-chip and/or Biosensors microfluidics or a closely related area. (*about to obtain means thesis submitted on commencement of employment).

2. Significant hands-on experience in a wide range of laboratory skills relevant to this project, to include:
   - Development of microfluidic platforms,
   - Use of relevant 3D printing methods to the manufacturing of the lab-on-a-chip, microscopy (e.g., confocal, SEM), and in physicochemical methods for the analysis of the materials that will be used for the manufacturing of the chips.
3. Authorship of at least three manuscripts published in internationally recognised peer-reviewed journals. This should be commensurate with the stage of career and experience
4. Ability to contribute to broader management and administrative processes.
5. A meticulous approach to experimental procedures and excellent record-keeping skills.
6. Contribute to the School’s outreach programme by links with industry, community groups etc.
7. Sufficient experience with the employment of statistical tools in research and data analysis.
8. Ability to communicate complex information clearly.
9. Ability to build contacts and participate in internal and external networks.
10. Demonstrable intellectual ability.
11. Ability to assess and organise resources.
12. Updated on latest developments in own specialism and related discipline.
13. Excellent organisational skills and capable of carrying out experiments to a consistently high standard.
14. Motivated, ambitious and team player.
15. Excellent problem-solver.
16. Open to work irregular hours, including evenings and weekends.
17. Will be required to travel to collaborative laboratories nationally and internationally.
18. Willingness to work with human tissues.

DESIRABLE CRITERIA:

1. Experience in cells relevant to the project.
2. Experience in 3D printing (e.g., bioprinting, DLP).
3. Experience in manufacturing and analysing a lab-on-a-chip system.
4. Experience in staff training and student supervision.
5. Experience in research project management.
6. Experience using electronic lab books.
7. Evidence of having presented at conferences (poster and/or oral presentations).
8. Long-term and well-defined career goals.