



Candidate Information

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| Position: | Research Technician |
| School/Department: | School of Pharmacy |
| Reference: | 24/112282 |
| Closing Date: | Monday 18 November 2024 |
| Salary: | £28,456 per annum |
| Anticipated Interview Date: | Thursday 28 November 2024 |
| Duration: | Available for 20 months or until 31 August 2026, whichever is soonest |

JOB PURPOSE:

The postholder will be based in the Kett/AIVRT group in the School of Pharmacy under the supervision of Dr Vicky Kett on the AIVRT project in conjunction with Dr Beckie Ingram and will work in partnership with members of the Kett/AIVRT laboratories to offer an effective and efficient technical service for various research studies in the area of immune response to immunology and bacterial infection.

MAJOR DUTIES:

1. Maintenance of in vivo models: animal husbandry, in vivo mouse delivery of therapeutic agents and infectious agents (i.p, s.c, i.t, i.n, inhaled), bronchoalveolar lavage.
2. Ensure comprehensive maintenance of animal lines: in conjunction with other staff and students in Kett/AIVRT group. Familiarity with ATunes and ability to work effectively with BSU staff.
3. Maintain and propagate laboratory cell lines (e.g., macrophages, T cells) and undertake stimulation and/or bacterial infection of these cells to monitor cellular fate (e.g. proinflammatory cell death, cytokine production).
4. Experience in analytical lab techniques: ELISA, Western blotting, PCR, bacterial culture.
5. Analysis of ex-vivo immune cells with cell flow analysis, cytokine quantification.
6. Undertake experimental protocols, either independently or as part of a team, to ensure delivery of experimental data in a timely and rigorous manner. Where possible, these should be done according to existing Standard Operating procedures and Good Laboratory Practice-like standards.
7. Prepare and maintain adequate laboratory records of methods, sample details and results in a timely fashion within specific studies.
8. Adequately operate analytical instruments, and when required, contribute to the development of new or improved methods/techniques to assess protein quality, immune responses, and infection based on technical knowledge and experience.
9. Undertake development/training courses where necessary in order to keep knowledge and skills up to date and relevant for subject specialism including formulation and formulation characterisation. Apply working knowledge of theory and practice, sharing this knowledge with others as appropriate.
10. Provide training to other members of the Kett/AIVRT group in the area of mouse husbandry and delivery of therapeutic agents and infectious agents and on the use of specialist analytical instruments for which expertise has been acquired.
11. Where necessary, prepare and/or update Standard Operating Procedures for protocols related to the research in the Kett/AIVRT group.
12. Maintain and repair equipment/apparatus to ensure it is safe to use and complies with relevant statutory safety regulations. Where not possible, ensure that technical interventions by QUB or external individuals to maintain or repair equipment are undertaken in a timely manner. Ensure general laboratory services and tidiness. Ensure general laboratory services and tidiness.
13. Prepare and maintain adequate laboratory stocks and supplies.
14. Comply with Health and Safety procedures affecting self and others and ensure Health and Safety practices and adherence to SOPs by lab members are maintained to the highest possible standards.

15. Carry out any other duties which are appropriate to the post as may be reasonably requested by Supervisor and attend laboratory meetings.

ESSENTIAL CRITERIA:

1. Academic and/or vocational qualifications e.g 2 A Levels, NVQ level 3, ONC/OND, City & Guilds level 3 or equivalents in a relevant subject i.e biochemistry, molecular biology, microbiology, chemistry or equivalent disciplines.
2. 2 years relevant laboratory experience to include the following:
molecular biology/microbiology/biochemistry research including general experience in a wide range of laboratory methods, but with a special expertise in bacterial protein expression and purification, microscopy techniques.
- Real time PCR, ELISA, Western blotting, immunohistochemistry
- Experience in tissue culture, in particular culturing eukaryotic cells. Experience in DNA, RNA, plasmid purification, DNA sequencing, bioinformatics.
3. Specialist skills and knowledge relevant to the job.
4. Good IT skills.
5. Well-developed understanding of relevant regulations and procedures including Health and Safety requirements and of COSHH regulations.
6. Good communication and interpersonal skills.
7. Ability to develop proficiency in and demonstrate standard equipment and techniques.
8. Ability to prioritise own work within a general plan to meet deadlines.
9. Ability to carry out practical laboratory tasks to a consistently high standard.
10. Ability to keep accurate records and provide reports on project progress.
11. Ability to train junior staff, other research group members, and allocate work.
12. Analytical and problem-solving skills.
13. Ability to work in a team and independently.
14. Due to the nature of the projects, flexibility of working hours will be required.
15. The candidate should be prepared to start work by no later than January 6th 2025 unless agreed otherwise.

DESIRABLE CRITERIA:

1. MSc or BSc degree level qualification or higher in microbiology, molecular genetics, or biochemistry.
2. Home Office modules 1-3.
3. Experience in cytokine arrays and immunochemistry Animal handling, bronchoalveolar lavage, in vivo lung infection, in vivo mouse delivery of therapeutic and infectious agents (intraperitoneal, intratracheal, sub-cutaneous delivery).
4. Experience in immunofluorescence and confocal microscopy using infected macrophages and primary cells.
5. Knowledge of relevant database and presentation software.
6. Understanding of Good Laboratory Practice.
7. Willingness to develop skills in pharmaceutical formulation.

ADDITIONAL INFORMATION:

Informal Enquiries to Shikha Tandel: s.tandel@qub.ac.uk