

Job Description

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<p>Job purpose (a brief summary of the role)</p>	<p>To provide technical support to post-doctoral research staff and principal investigators undertaking research projects.</p> <p>This Senior Research Technician will assist postdoctoral research staff, students and principal investigators in the Roper and Holden labs at the University of Warwick undertaking research into the molecular microbiology of the bacterial cell wall.</p> <p>This is wide ranging role on a 5-year project which will involve the post holder engaging in a varied activities from basic microbiology and media preparation through to complex experiments in support of structural biology, biochemistry single molecule biophysics studies. The experience and skill sets of the successful applicant may guide their initial focus and participation on the project but the successful postholder will have the opportunity and expectation that they will be involved in a wide range of molecular studies.</p>
<p>Duties and responsibilities</p>	<ol style="list-style-type: none"> 1. Planning and undertaking of experiments as scheduled in project proposal. 2. Assist with construction and characterization of genetically modified bacterial strains, principally for recombinant protein expression using molecular biology techniques such as cloning, DNA extractions, PCR or molecular analysis, gel electrophoresis, phenotype analysis. 3. Assist with purification and characterisation of recombinantly expressed proteins from bacterial samples. 4. Assist with further chemical modification of proteins and other samples, eg by fluorescent labelling. 5. Assist with preparation of samples for biochemistry, structural biology and single molecule biophysics experiments. 6. Preparation and maintenance of bacterial cultures, protein and microscopy samples as well as project specific chemicals and biological buffers 7. Contribute to management of the project on a day-to-day basis including managing equipment and purchasing consumables, making recommendations for purchase of new equipment and maintenance issues. Monitoring progress and advising the PI of any issues likely to lead to a delay in the project 8. Keep inventories of reagents and bacterial strain collections up to date. 9. Support smooth running of the laboratory by tasks such as induction and training of new lab members, procurement of group consumables, preparing standard reagents, and contributing to compliance with local health and safety regulations. 10. Communications including attending weekly research group meetings and sharing/contributing ideas, communication with other research groups both inside and outside of the Department (exchanging information, seeking and advising on techniques etc). 11. Drafting results of analysis for input into scientific publications. <p>The duties and responsibilities outlined are not intended to be an exhaustive list but provide guidance on the main aspects of the job. The postholder will be required to be flexible in their duties.</p>

Person Specification

The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.

Essential Criterion No.	Essential Criterion Description	Measured by
E1	Laboratory-based research masters level degree or equivalent laboratory experience demonstrating substantial experience, in subjects such as Microbiology, Biological or Biomedical Sciences, Chemical Biology or Biochemistry.	A & C
E2	Have experience of planning and undertaking of experiments, including assessing the conditions needed and using appropriate techniques	A & C
E3	Experience of working in a laboratory environment & have the ability to run a project on a day-to-day basis	A & C
E4	Have experience of working with a PI to analyse the requirements of a project, including setting the projects milestones including an awareness of financial project budget constraints	A & C
E5	Be able to take an active role in laboratory and project meetings, including giving presentations on your own work and communicating progress or problems to PI	A & C
E6	Use of software including Microsoft applications (word, excel, teams) and willingness to use other applications including laboratory information management systems to organise and report on experiments and data.	A & C

Desirable Criterion No.	Desirable Criterion Description	<i>Measured by</i>
D1	Experience in one or more molecular biology techniques e.g. DNA preparation and handling PCR, gene cloning, mutagenesis, CRISPR, Gene knockout and replacement techniques	A,C & D
D2	Experience in one or more Protein purification and chemistry techniques e.g., Protein expression and purification, protein concentration, handling and storage, Protein-protein interaction studies and analysis, fluorescent labelling of proteins	A,C & D
D3	Have experience of drafting results for input into scientific publications	A & C
D4	Have experience of supervising less experienced technical staff and PhD Students	A & C