

Candidate Information

Position:	Research Fellow - Cochrane Lab
School/Department:	Chemistry and Chemical Engineering
Reference:	20/108352
Closing Date:	Monday 21 September 2020
Salary:	£33,797 to £40,322 per annum
Anticipated Interview Date:	Tuesday 6 October 2020
Duration:	3 years or until 31 December 2023 (whichever is soonest)

JOB PURPOSE:

The Cochrane lab are recruiting a post-doctoral researcher to be an active member of the research team and assist in the synthesis of novel antimicrobial peptides. The successful candidate will work on a highly interdisciplinary project involving the chemical synthesis of amino acids and cyclic non-ribosomal peptides, antimicrobial activity and cytotoxicity screening testing and determination of mechanisms of action of antimicrobial compounds. The post holder will be responsible for the planning and delivery of research activity within the project so that the overall research objectives of the project are met. The post is funded for 3 years by the EPSRC with a funding end date of 1 September 2023 (potential for extension to fulfil the full 3 years')

MAJOR DUTIES:

1. To undertake research, under supervision within the research project and as a member of the research team.
2. Design and implement synthetic laboratory-scale approaches towards amino acids and peptides.
3. Use microbiological techniques to assess the activity of synthetic peptides against bacteria, as well as profile their toxicity.
4. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
5. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
6. Prepare in consultation with supervisor, material for publication in peer-reviewed journals and presentations at international conferences.
7. Assist grant holder in the preparation of funding proposals and applications to external bodies.
8. Carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.
9. To carry out occasional supervision of more junior colleagues and students in laboratory matters and in the preparation of written reports, theses, and journal manuscripts.
10. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

Planning and Organising:

1. Plan for the use of research resources, laboratories and workshops where appropriate.
2. Plan own day-to day activity within framework of the agreed research programme.
3. Plan in advance to meet deadlines for journal publications and to prepare presentations and papers for conferences.
4. 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. To exercise diligence and care when using laboratory equipment.
3. 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 the PI and fellow researchers regarding the progress of the project.
2. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
3. Maintain and develop external networks to ensure successful dissemination of the project findings

ESSENTIAL CRITERIA:

1. Have a degree in Chemistry or Medicinal Chemistry (Minimum standard 2:1).
2. Have or about to obtain a PhD in Organic Chemistry.
3. At least 3 years research experience in synthetic organic chemistry.
4. Demonstrable Experience in the synthesis of complex cyclic peptides.
5. Proven Track record of designing synthetic routes and performing multi-step chemical syntheses.
6. Demonstrable Experience in antimicrobial susceptibility testing
7. Proven Ability of applying core analytical techniques, such as: (1D/2D NMR, MS).
8. Proven Ability to supervise more junior colleagues/students in laboratory matters (safety, experimental design, methods), and in the preparation of theses, presentations, reports etc.
9. Ability to contribute to broader management and administrative processes.
10. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.
11. Ability to communicate complex information clearly verbally, through presentation, and in writing.
12. Demonstrable intellectual ability.
13. Ability to assess and organise resources.
14. Ability to take a leading role within the research group.

DESIRABLE CRITERIA:

1. Author on publications in peer-reviewed journals.
2. Experience in synthesis of non-ribosomal peptides.
3. Ability to build contacts and participate in internal and external networks.