Candidate Information

Position:	Research Fellow
School/Department:	Chemistry and Chemical Engineering
Reference:	22/110201
Closing Date:	Monday 17 October 2022
Salary:	£35,333 per annum
Anticipated Interview Date:	Monday 31 October 2022
Duration:	Available until 31/12/2025

JOB PURPOSE:

To be a highly productive, ambitious and collaborative member of the Knipe lab (www.knipechem.co.uk) working to develop new liquid crystalline mesophases in collaboration with researchers at Trinity College Dublin and Kent State, Ohio. Additionally assisting in the development of research proposals and the planning and delivery of the research activity, specifically developing new synthetic routes towards existing and novel liquid crystalline materials and producing these on sufficient scale to be tested by collaborators. The project also funds a PhD student for the Knipe lab, who will work closely with the applicant to ensure project objectives are delivered.

The post is a critical role, and as such, successful applicants will have responsibilities in lab-based research, supervision of junior researchers, day-to-day lab management, authoring of scientific journal articles, and working with collaborators.

MAJOR DUTIES:

1. Undertake research under supervision as a member of the Knipe lab.
2. Design, develop and refine research, specifically developing new scalable synthetic approaches to liquid crystalline materials, and design of said materials.
3. Carry out analyses, critical evaluations, and interpretations of experimental data and the literature using methodologies and other techniques appropriate to area of research for example multi-dimensional NMR spectroscopy, HPLC(MS), mass spectrometry, IR spectroscopy etc.
4. Produce high quality research outputs consistent with project aims and commensurate with career stage. This will include collaborating and co-authoring with PI and project team (as appropriate) on outputs.
5. In consultation with the project team, promote research milestones and outputs at national and international conferences.
6. Assist grant holder in the preparation of funding proposals and applications to external bodies.
7. Carry out occasional educational supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
8. Undertake supplementary duties relevant to the success of the project including administrative duties and additional training and development activities as required.

ESSENTIAL CRITERIA:

1. Normally have or be about to obtain a PhD in synthetic organic chemistry or related areas. (NB 'About to obtain' is normally defined as within 6 months of application date)
2. At least 3 years relevant research experience to include:
   • Significant experience of multi-step organic synthesis.
   • Application of core analytical techniques (1D/2D NMR, IR, MS).
3. Strong publication record commensurate with stage of career.
4. Demonstrable ability to supervise more junior colleagues/students in laboratory matters (safety, experimental design, methods), and in the preparation of theses, presentations, reports etc.
5. Ability to contribute to broader management and administrative processes.
6. Demonstrable ability to take a leading role within the Knipe lab.
7. Practical problem solving skills, independence of thought and initiative.

8. Ability to assess and organise resources.
9. Ability to communicate complex information in English effectively in oral and written format.
10. Commitment to continuous professional development.
11. Ability to take a leading role within the research group.

DESIRABLE CRITERIA:

1. Large laboratory scale synthesis.
2. Synthesis or analysis of liquid crystalline materials.
3. Use of specialist analytical techniques (HPLC(MS), GC, XRD, CD etc.)
4. Ability to build relationships to develop internal and external networks.