



UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

Research Fellow in Coloration in Flow, School of Design, Faculty of Arts, Humanities and Cultures



**Salary: Grade 7 (£39,105 - £46,485 p.a. depending on experience)**

**Reporting to: Professor Richard Blackburn**

**Reference: AHCDE1296**

**Location: University Main Campus**

**0.8 FTE, Fixed Term until 31.07.25 to complete a specific task or time limited work. We are open to discussing flexible working arrangements.**

# **Research Fellow in Coloration in Flow – Reduction of environmental impact and microfibre generation in fibre coloration through innovative dyeing methods**

## **School of Design**

### **Overview of the Role**

**Are you an ambitious researcher looking for your next challenge? Do you have an established background in polymer chemistry, colour chemistry and materials engineering? Do you want to further your career in one of the UKs leading research intensive Universities?**

Spin or dope dyeing has been identified as a more sustainable option to produce coloured fibres through either melt or wet-spinning, but this process has its limitations. However, there is potential to dye never-dried fibres during wet spinning. This project will explore microfibre generation during traditional dyeing methodologies and compare to microfibre generation (which theoretically could be none) during the in-situ dyeing method, helping to close a key data-gap in microfibre generation and provide a solution to prevent this microfibre generation during coloration rather than a remedial approach after microfibre generation. The project will involve designing and building a fully-working wet-spinning and coloration rig that can be used for different dye-fibre systems.

### **Main duties and responsibilities**

As a Research Fellow your main duties will include:

- Designing, planning and conducting a programme of investigation, in consultation with Professor Richard Blackburn
- Generating independent and original research ideas and methods in sustainable polymers and sustainable coloration methods with an aim to extend the Sustainable Materials Research Group research portfolio;
- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals, and by presentation at



national and international meetings;

- Working independently and as part of a larger team of researchers, both internally and externally, to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- Contributing to the supervision of junior researchers and PhD students and acting as a mentor to less experienced colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own research;
- To contribute to, and to encourage, a safe working environment.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

## Qualifications and skills

### Essential

- A PhD in Chemistry or a closely allied discipline;
- Expertise in extraction of proteins from waste and wet spinning of protein fibres;
- Experience of working with regenerated protein fibres and in green chemistry.
- Expertise in coloration processes and dyeing textile fibres, 3d-printing and building machines and in electronics and computer coding.
- Expertise in sustainability metrics calculations and life cycle analysis
- Experience of analytical techniques to measure fibre strength and colour properties of fibres.
- The ability to design, execute and write up research independently;
- A track record of peer-reviewed publications in international journals;
- Excellent communication skills, both written and verbal, and track record of communicating your research at national and international conferences;
- Good time management and planning skills, with the ability to meet tight deadlines;
- A proven ability to work well both independently and as part of a team;
- A strong commitment to your own continuous professional development
- Evidence of pursuing external funding to support research.
- Experience of working with industry



## How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

## Contact information

To explore the post further or for any queries you may have, please contact:

**Professor Richard Blackburn**  
**Professor of Sustainable Materials**  
Email: [r.s.blackburn@leeds.ac.uk](mailto:r.s.blackburn@leeds.ac.uk)

## Additional information

### Working at Leeds

We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

### Our University

As an international research-intensive university, we welcome students and staff from all walks of life. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the School of Design we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

### Information for disabled candidates

Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found under the 'Accessibility' heading on our



[How to Apply](#) information page or by getting in touch by [emailing HR via hr@leeds.ac.uk](mailto:hr@leeds.ac.uk).

## **Criminal record information**

### **Rehabilitation of Offenders Act 1974**

«A criminal record check is not required for this position. However, all applicants will be required to declare if they have any ‘unspent’ criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

### **Salary Requirements of the Skilled Worker Visa Route**

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information please visit: [www.gov.uk/skilled-worker-visa](http://www.gov.uk/skilled-worker-visa).

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: <https://www.gov.uk/global-talent>.

