



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

**Research Fellow in Nanoparticle Process Design,
Faculty of Engineering and Physical Sciences**



Salary: Grade 7 (£41,064 – £48,822 p.a.)

Reporting to: Professor Thomas Chamberlain

Closing date: Tuesday 14 April 2026

Reference: EPSCH1129

Fixed term (36 months - to complete specific time limited work)

Location: Leeds main campus

We are open to discussing flexible working arrangements.

Research Fellow in Nanoparticle Process Design, Institute of Process Research and Development, School of Chemistry.

Are you looking to apply your skills in nanoparticle synthesis and automation for the development of novel nanomedicines? Do you have a background in nanoparticle synthesis in continuous flow? Do you want to further your career in one of the UK's leading research-intensive universities?

Overview of the Role

We are seeking a talented, highly motivated and enthusiastic Postdoctoral Research Fellow as part of the EPSRC programme grant “Total Body Nuclear Imaging for the Development of Nanotheranostics”.

This Programme involves 15 co-investigators in a range of disciplines related to PET imaging strategies for the development of healthcare nanomaterials for therapeutic and diagnostic applications, including clinical translation to benefit patients. The programme is mainly hosted by the Research Department of Imaging Chemistry and Biology within the School of Biomedical Engineering & Imaging Sciences at King's College London (KCL), with major additional contributions from colleagues at Queen Mary University of London and University of Leeds, as well as other Departments within KCL.

This role will be based at the School of Chemical and Process Engineering and the Institute of Process Research and Development at the University of Leeds. You will interact with partners to develop automated reactor platforms for the synthesis of multimodal nanomaterials for healthcare applications and radiolabel for PET imaging. The post holder will also be expected to work collaboratively within the programme and provide expertise and support to a large multidisciplinary team of chemists, radiochemists, (radio)biologists, pharmacists, and clinicians.

You will have a PhD in chemical engineering, chemistry, or a related appropriate discipline with experience in the use of automated systems for nanoparticle synthesis, together with a demonstrable record of the ability to solve process and equipment problems and generate new process understanding. The successful candidate will also have experience in nanoparticle characterisation; be self-motivated; able to work independently and will have excellent written and verbal communication skills. They



should be able to demonstrate a proven track record of scientific publications and presentations at international research meetings.

Main duties and responsibilities

- Designing, building and operating automated continuous reactors, associated online analysis systems and control software;
- Synthesising and characterising novel multimodal nanomaterials;
- Compliance to H&S regulation; encouraging and ensuring a safe working environment;
- Interacting effectively and collaborating with members of the project team including industrial and academic collaborators;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own research;
- 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;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

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 (or have submitted your thesis before taking up the role) in chemical engineering, chemistry or a closely allied discipline;
- A strong background in equipment control and/or continuous processing for nanoparticle synthesis;
- Expertise in nanoparticle characterisation;
- Good time management and planning skills, with the ability to meet tight deadlines and manage competing demands effectively without close support;
- A developing track record of peer-reviewed publications in international journals;
- Excellent communication skills both written and verbal, and the ability to communicate your research at national and international conferences;
- A proven ability to work well both independently and in a team;
- A strong commitment to your own continuous professional development.

Desirable

- Experience of pursuing external funding to support research;
- The ability to write computer programs and an understanding of hardware communication protocols with experience of laboratory automation software such as MATLAB or LabVIEW;
- Experience of nanoparticle process scale up;
- Experience in the radiolabelling of nanoparticles.

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:

[Prof Thomas Chamberlain](#), Professor of Digital and Materials Chemistry

Tel: +44 (0)113 343 6468

Email: T.W.Chamberlain@leeds.ac.uk

OR

[Dr Nicole Hondow](#), Associate Professor

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Email: N.Hondow@leeds.ac.uk

Additional information

Faculty and School Information

Further information is available on the research and teaching activities of the [Faculty of Engineering & Physical Sciences](#), and the [School of Chemistry](#).

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.

A diverse workforce

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Engineering and Physical Sciences 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 and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.



The Faculty of Engineering and Physical Sciences are proud to have been awarded the Athena SWAN [Silver](#) Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our [equality and inclusion webpage](#) provides more information.

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.

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 [the Government's Skilled Worker visa page](#).

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit [the Government's page, Apply for the Global Talent visa](#).

