



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Microbiology, School of Food Science & Nutrition



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

Reference: ENVFS1134

Fixed-term for 9 months commencing 1st February 2025

We will consider job share / flexible working arrangements

Research Fellow in Microbiology

Microbiome & Nutritional Sciences Group

Food Science & Nutrition

Are you an ambitious researcher looking for your next challenge? Do you have an established background in microbiology, gut microbiome or microbial ecology and functional foods? Are you interested to explore the innovation potential of a scientific discovery to bring the research to marketplace by working with food industry stakeholders? Do you want to further your career in one of the UK's leading research-intensive universities?

We are looking for a highly motivated Research Fellow to join our group engaged in diverse aspects of research on nutrition-microbiota interactions, with emphasis on plant-based proteins. Working alongside our industry partners and the National Alternative Protein Innovation Centre (NAPIC), you will lead projects using our novel *in vitro* model system (MiGut) to assess the effects of alternative proteins on the human gut microbiota and gut health. This project will use a combination of *in vitro* models of the human colonic microbiota, small-scale human dietary interventions, analytical chemistry and both culture-based and culture-independent measurement of the gut microbiome to assess the impact of new and alternative proteins on gut health. Specifically, this project will measure the ability of new/alternative proteins to modify the composition of the gut microbiota, influence microbial production of beneficial metabolites (e.g. short chain fatty acids, amino acids and derivatives, bile acids, small phenolic acids) and improve markers human gut health (e.g. intestinal permeability and inflammation).

You will join the multidisciplinary and diverse Microbiome & Nutritional Sciences Group led by Dr Anthony Buckley, and collaborate with colleagues from Medicine, Mechanical Engineering, and Biological Sciences. You will benefit from collaborations (industry and academia), international conference attendance, and tailored entrepreneurship training. You could also lead your own alternative protein agile projects within NAPIC.

You will have a PhD in Microbiology, Microbial Ecology, Biochemistry, or Biological Sciences or a closely related discipline together with a strong background in gut microbiome and functional foods. You will also have a positive attitude to collaborative research and the drive to make a significant contribution to making this ground-



breaking project a success. Experience working with *in vitro* models and molecular microbiology is required. You will also have good organisational and communication skills, and the ability to work on your own initiative and as part of a team. You will be encouraged to develop your initiative and independence and will have to opportunity to undertake training and career development offered by the University of Leeds.

Main duties and responsibilities

- Undertaking appropriate experimental measurements to model how new/alternative proteins modulate the gut microbiota and their metabolite output;
- Generating independent and original research ideas and methods for measuring the impact of new and alternative proteins on markers of gut health;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own work and 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 and engaging 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;
- Maintaining your own continuing professional development;
- Contributing to the research culture of the School, where appropriate.

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 Microbiology, Microbial Ecology, Biochemistry, or Biological Sciences or a closely related discipline;



- A strong background and experience in gut microbiome, functional foods and microbial ecology;
- Experience in intestinal microbiology, metagenomics (16S rRNA amplicon based metataxonomics and shotgun sequencing), microbial *in vitro* cultivation, and metabolite analysis (GC-MS, LC-MS);
- Experience of using *in vitro* gut models;
- Experience of combining the results of multiple approaches across different disciplines to develop new insights into a field of study;
- The ability to design, execute and write up research independently;
- A proven 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;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close supervision;
- A proven ability to work well both independently and as part of a team;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience of experiments using obligate anaerobic bacteria;
- Experience of using quantitative PCR;
- Experience of using software for fitting data, statistics and data management;

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:

Dr Anthony Buckley, Associate Professor in Gut Microbiology

Email: A.Buckley1@Leeds.ac.uk



Additional information

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

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

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>

Find out more about the [Faculty of Environment](#).

Find out more about the [School of Food Science and Nutrition](#)

Find out more about our [Research and associated facilities](#)

Find out more about [Equality in the Faculty](#)

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

The Faculty of Environment has received a prestigious Athena SWAN silver award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study. Our [equality and inclusion webpage](#) provides more information.



Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@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.

