

Job Title: Molecular Microbiology Scientific Officer

Unit/School: ZERO2FIVE Food Industry Centre Cardiff School of Sport and Health Sciences

Grade: 6AB

HERA: ACEMPFUN 04

Core purpose of role

This role will support the delivery of applied food microbiology and molecular surveillance projects within the ZERO2FIVE Food Industry Centre, with a particular focus on *Listeria monocytogenes* and other *Listeria* spp. in food manufacturing environments. The post holder will work directly with food businesses to plan and undertake environmental and food-related sampling, recover and characterise *Listeria* isolates using culture-based methods, perform whole-genome sequencing using the Illumina MiSeq platform, and conduct downstream data analysis to assess strain relatedness, persistence, virulence and stress-tolerance traits.

The post holder will be expected to translate technical findings into clear reports and evidence-based recommendations for industry, supporting improvements in environmental monitoring, hygiene practices, root-cause investigation and control strategies within food manufacturing businesses. The role will also contribute to collaborative technical and scientific projects, contract activity, publication outputs, and the supervision of student projects where appropriate.

Key responsibilities and contributions

- Assist in the supervision of student projects (BSc and MSc).
- Conduct end-to-end microbiological and genomic investigation of food manufacturing environments—encompassing sampling, laboratory analysis, sequencing, bioinformatics, and data interpretation—delivering evidence-based recommendations, supporting research and contract projects, and ensuring robust data management and regulatory compliance.
- Produce, present, and disseminate high-quality technical and scientific outputs—including reports, proposals, and peer-reviewed publications—effectively communicating complex information to diverse audiences and stakeholders through written, oral, and digital channels.
- Build and maintain effective internal and external networks, collaborating with colleagues, students, and peers to share knowledge, foster partnerships, and identify opportunities for future collaboration and funding.
- Provide guidance and support to staff and students while independently managing technical, project, and administrative responsibilities, seeking input where required.
- Actively contribute as a member of the microbiology team, collaborating with colleagues on shared scientific and commercial activities and participating in relevant meetings.

- Demonstrate professionalism and empathy in supporting others, proactively identifying when assistance is needed, and engaging in ongoing personal development and support activities appropriate to the role.
- Apply innovative scientific methods and analytical approaches to interpret data, solve technical challenges, and inform decision-making, while contributing to collaborative team activities and driving continuous improvement in project delivery and service development.
- Plan and manage day-to-day technical and project activities, coordinating with others to ensure efficient use of resources, alignment with programme objectives, and effective delivery of collaborative scientific and contract work.
- Carry out a range of technically demanding tasks requiring specialised skills, while effectively managing varying workloads and balancing project and administrative priorities to meet deadlines, with support where appropriate.
- Is required to be aware of the risks in the work environment and their potential impact on their own work and that of others.
- Demonstrate strong specialist knowledge of relevant scientific methods and techniques, applying this within established programmes while engaging in continuous professional development and promoting awareness of equality and diversity considerations in technical and scientific work.
- The post holder will actively follow Cardiff Met policies including Equality and Diversity policies and maintain an awareness and observation of Fire Safety and Health and Safety regulations.

Person specification

Essential qualifications / Professional memberships

- An MSc or above in a relevant technical area.

Essential experience, knowledge and skills

1. Good knowledge of food microbiology and molecular microbiology within applied settings.
2. Understanding of scientific, technical and innovation activities in food microbiology and manufacturing environments.
3. Broad and/or in-depth subject knowledge to support projects in food microbiology and molecular surveillance.
4. Practical experience of microbiological and molecular laboratory techniques relevant to food and environmental samples.
5. Practical experience of molecular microbiology techniques, including DNA extraction, Illumina MiSeq whole-genome sequencing and data interpretation
6. Experience with bioinformatics tools and workflows for microbial whole-genome sequencing.
7. Ability to analyse microbiological and genomic data and translate findings into clear reports and practical recommendations.
8. Effective communication skills to present complex information through reports, presentations and publications.

9. Ability to support the planning and delivery of technical, scientific and contract projects or proposals.
10. Strong organisational skills, with the ability to complete administrative tasks accurately and on time.
11. Ability to work collaboratively, building effective professional relationships and partnerships within project teams.
12. Proficiency in IT and analytical software, alongside a commitment to continuous professional development (CPD).

Desirable

1. Knowledge of *Listeria monocytogenes* biology, food hygiene practices, and contamination control within food manufacturing environments.
2. Demonstrated experience in applied food microbiology projects, including collaboration with industry partners, technical problem-solving, and engagement with senior stakeholders.
3. Strong track record in scientific communication and dissemination, including peer-reviewed publications, conference presentations, and the ability to build effective professional relationships.

Welsh skill requirements

Welsh is essential to our students and staff and is a key part of our provision and services. For every position at Cardiff Met, proficiency in Welsh language is either essential or desirable. You can find information about the levels by viewing our booklet: [Welsh language skills levels](#). If a skill is listed as essential in the table below, please ensure you demonstrate this in your online application form.

Language level and general descriptor	Listening	Reading	Speaking	Writing
A1 – Beginner Can understand and use familiar everyday expressions and very basic phrases in Welsh.	Desirable	Desirable	Desirable	Desirable
A2 - Basic user Can deal with simple, straightforward information and communicate in basic Welsh.				
B1 - Intermediate user Can communicate, to a limited level, in Welsh about things that are familiar and/or work related.				
B2 - Upper intermediate user Can express myself in Welsh on a range of topics and understand most of a conversation with a native speaker.				



C1 - Fluent user Can communicate fluently in Welsh.				
C2 - Master user Can communicate fluently on complex and specialist matters in Welsh.				

Disclosure & Barring Service requirements

This post does not require a DBS check.

Supporting information

The University is a dynamic organisation and changes may be required from time to time. This job description and person specification is not intended to be exhaustive.

The University is committed to the highest ethical and professional standards of conduct. Therefore, all employees are expected to have due regard for the impact of their personal behaviour and conduct on the University, students, colleagues, business stakeholders and our community. Each employee must demonstrate adherence to our Code of Professional Conduct. In addition, all employees should have particular regard for their responsibilities under Cardiff Metropolitan University's policies and procedures.