

RESOURCING/

JOB DESCRIPTION:

Postdoctoral Research Associate



Ref Number:	NATS-047-21
Salary Scale:	Grade 7: £34,804 - £39,152 per annum
Contract:	For a fixed term period of 36 months AND Full-time
School/Department:	School of Biosciences
Location:	University of Kent, Canterbury Campus
Responsible to¹:	Dr Marina Ezcurra
Responsible for:	N/A
Expected start date:	December 2021

The Role

The successful candidate will contribute to the development of a project funded by The Biotechnology and Biological Sciences Research Council, "The power of microbes: *C. elegans* as a model to identify microbiome effects on age-related muscle function"

One very promising but largely unexplored avenue to promote healthy ageing is the gut microbiome, the community of microbes in our guts. A series of studies link the microbiome to host ageing, but the underlying mechanisms remain unknown. An important limitation in microbiome research has been the lack of simple model systems enabling high-throughput and unbiased approaches. Our lab has established an ideal model consisting of the nematode *C. elegans* and a simplified experimental microbiome. In this project, we will use the model to discover the molecular mechanisms underlying microbiome effects on age-related motility, and to work towards innovative ways to use the microbiome to improve health and quality of life for ageing people.

A PhD in microbiology, biochemistry, biomedicine or related subject is required prior to taking up this position. Candidates in the final stages of completing their degree are encouraged to apply provided they can provide a reference attesting that their PhD viva will be held before December 2021.

Appointment of the successful candidate is expected to start not later than December 2021.

For informal enquiries, contact Dr Marina Ezcurra, Lecturer in Molecular Biosciences School of Biosciences (M.Ezcurra@kent.ac.uk)

¹ Line Manager may be subject to change and will be confirmed in the employment contract issued to the successful candidate.



Key Accountabilities / Primary Responsibilities

- Undertake research at an internationally competitive level.
- Carry out the research programme described in the grant application
- Contribute to the development of the research project
- Disseminate research results through peer-reviewed publications and conference presentations.

Key Duties

- Develop an independent approach to the research project in both the design and execution of the necessary experiments in order to deliver the specific aims of the grant.
- Maintain excellent lab notebooks to document all aspects of the work performed.
- Report on progress at lab meetings on a regular basis.
- Help supervise other lab members e.g. MSc/PhD students both technically and academically.
- Attend national/international conferences relevant to the research and present research findings orally or as a poster.
- Use initiative to monitor and study literature related to the project
- Prepare manuscripts for publication and/or patent applications based on the outputs of the project.
- With mentoring from PIs, to undertake continued professional development of their skills as a research scientist, including: day-to-day budgetary management of grant resources, and development and submission of grant applications
- Disseminate findings to a wider audience including non-scientists
- Possess sufficient breadth or depth of specialist knowledge in the discipline and of research methods and techniques.
- Contribute to further applications for funding an extension of this project or related work

Such other duties, commensurate with the grading of the post that may be assigned by the Head of Department or their nominee.

Health, Safety & Wellbeing Considerations

This role involves undertaking duties which include the Health, Safety and wellbeing issues outlined below. Please be aware of these, when considering your suitability for the role.

- Regular use of Display Screen Equipment
- Working with chemicals (inc. requirement to wear latex gloves and inc. work with CO₂ or N₂ gasses)

Internal & External Relationships

Internal: Dr Marina Ezcurra is the project supervisor; the post is situated within the Ezcurra lab, part of the School of Biosciences, which encourages interactions in a dynamic interdisciplinary research environment. The Ezcurra lab provides a vibrant and inclusive research environment, with close connections to other research groups working on ageing, microbiome and model organisms. Relationships and interactions include weekly meetings with other research groups, providing with opportunities for research discussions and feedback with other academics and research staff/students.

External:

Progressing relevant research by working with external collaborators both in the UK and overseas. The Ezcurra lab collaborates with several external research groups. The research programme involves collaborating with researchers with complementing expertise as well as with other model organisms (*Drosophila* and mice), offering an opportunity to develop communication and collaboration skills.

Person Specification

The Person Specification details the necessary skills, qualifications, experience or other attributes needed to carry out the job. Please be aware that your application will be measured against the criteria published below.

Selection panels will be looking for clear evidence and examples in your application, or in your cover letter where applicable, which back-up any assertions you make in relation to each criterion.

Qualifications / Training	Essential	Desirable	Assessed via*
PhD in microbiology, biochemistry, biomedicine or related relevant discipline (or to be in the final stages of obtaining such a qualification)	✓		A, I

Experience / Knowledge	Essential	Desirable	Assessed via*
Experience in basic molecular biology and genetics	✓		A, I
Experience in microbiology/microbiome research		✓	A, I
Experience in <i>C. elegans</i> research		✓	A, I
Experience in bioinformatic approaches		✓	A, I
A track record of publications as first or corresponding author in high quality peer review journals		✓	A
A track record of presentations at national and international conferences		✓	A, I
Experience in supervision or management of research projects		✓	A, I
Experience in writing research proposals		✓	A, I

Skills / Abilities	Essential	Desirable	Assessed via*
Ability to carry out research independently	✓		A,I
Excellent research skills in	✓		A,I
Good written and oral communication skills	✓		A,I
Good team working skills	✓		I
Ability to meet deadlines	✓		I
Good skills with computers for instrument control and data analysis		✓	A,I

Additional Attributes	Essential	Desirable	Assessed via*
Enthusiasm and motivation for research	✓		I
Ability to generate new research ideas		✓	A, I
A commitment to your own continuous professional development.		✓	A, I

***Criterion to be assessed via:**

A = application form or CV/cover letter

I = interview questions