

# RESOURCING/

## JOB DESCRIPTION:

### Research Associate (Molecular Genetics)



<b>Ref Number:</b>	<b>STM-100-19</b>
<b>Salary Scale:</b>	<b>Grade 7: £34,804 - £40,322 per annum [pro rata if applicable]</b>
<b>Contract:</b>	<b>For a fixed term period of 3 years full-time</b>
<b>School/Department:</b>	<b>School of Biosciences</b>
<b>Location:</b>	<b>University of Kent, Canterbury Campus</b>
<b>Responsible to:</b>	<b>Head of School or nominee</b>
<b>Responsible for:</b>	<b>N/A</b>
<b>Expected start date:</b>	<b>01 April 2020</b>

#### The Role

You will work on a project funded by the Leverhulme Trust entitled, “Mechanisms of meiotic drive: how do genes break Mendel’s laws?”

The project is based at the University of Kent Canterbury campus, in collaboration with a group based at the Earlham Institute in Norwich.

The work will use cutting-edge single-cell ‘omics, RNA-Seq and ChIP-Seq techniques to study how transmission ratio distorters manipulate the processes of gametogenesis and/or fertilisation so that they are passed on to more than 50% of offspring, and the consequences of this “drive” for genome structure.

#### Key Accountabilities / Primary Responsibilities

You will be responsible for experimental work, data analysis and publication of the findings emerging from this project.

You will report directly to Dr Peter Ellis at the University of Kent, and will be responsible for (i) the day-to-day running of the project and (ii) liaison with collaborating groups both within and outside Kent.

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HERA: Grades 1-10 only (not used for research or academic roles)

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You will also provide technical and practical advice to postgraduate and undergraduate students working on related projects within the Ellis lab.

### Key Duties

- To 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.
- To maintain excellent lab notebooks to document all aspects of the work performed.
- To report on progress at lab meetings on a regular basis.
- To help supervise other lab members e.g. MSc/PhD students both technically and academically.
- To attend national/international conferences relevant to the research and present research findings orally or as a poster.
- To 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

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 Screen Display Equipment
- Working with chemicals (inc. fixatives and solvents, requirement to wear protective gloves (latex or nitrile) and work with CO<sub>2</sub> or N<sub>2</sub> gasses)
- Working with biological agents (Genetically modified organisms – bacterial and yeast strains, mammalian cell lines and tissue samples)

### Internal & External Relationships

**Internal:** University of Kent based reproductive biology, genetics and DNA damage labs, particularly Dr Marta Farre-Belmonte; more generally a range of researchers based in Biosciences including academic staff and postgraduate students.

**External:** Collaborators, including Dr Iain Macaulay (Earlham Institute) and Dr Julie Cocquet (INSERM, Paris) and members of their research groups.

### 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.

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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 degree in Biology, Biochemistry or related discipline or equivalent	✓		A
Home Office Personal license holder or willingness to acquire a license		✓	A / I

Experience / Knowledge	Essential	Desirable	Assessed via*
Bioinformatic analysis of 'omics data, particularly RNA_Seq and ChIP-Seq	✓		A / I / T
Good understanding of evolutionary genetics and phylogenetic reconstruction	✓		A / I / T
Good understanding of comparative genomics	✓		A / I / T
Summarising and presenting scientific data	✓		T
At least one publication in a peer-reviewed journal	✓		A / I
Good programming skills in at least one programming language (python, R, perl)	✓		A / I
Familiarity with high-performance computer clusters (HPC)		✓	A / I
Experience with single-cell sequence analysis		✓	A / I
Generation of sequencing libraries for 'omics work including RNA-Seq and ChIP-Seq		✓	A / I
DNA and RNA manipulation techniques		✓	A / I
Experience of supervising students		✓	I

Skills / Abilities	Essential	Desirable	Assessed via*
Good interpersonal skills and ability to communicate technical information	✓		T
Ability to work as part of a team	✓		I
Good technical lab skills	✓		I

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Good general organisational skills	✓		I
Ability to take direction, follow protocols and pick up techniques quickly	✓		I
Ability to set up experiments with due care and attention	✓		I
Good IT skills and competency with numerical data and data processing	✓		I
Able to work to deadlines	✓		I

Additional Attributes	Essential	Desirable	Assessed via*
Enthusiastic, motivated, efficient, creative, punctual.	✓		I
Flexible working hours when required	✓		I

**\*Criterion to be assessed via:**

**A = application form or CV/cover letter**

**I = interview questions**

**T = test or presentation at interview**