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Research Associate in Genetic Vector Control

Department/Division/Faculty:	Department of Life Sciences, Faculty of Natural Sciences
Campus/Location:	South Kensington Campus
Job Family/Level:	Research Job Family, Research Associate* (Research Salary Scale)
Responsible to:	Dr Federica Bernardini
Line management for:	N/A
Key working Relationships (Internal):	Academic and research staff, members of the laboratory, administrative staff
Key Working Relationships (External):	External collaborators, Mathematical Modelling groups, a variety of expertise within the Target Malaria Consortium
Contract type:	Full time - Fixed Term to 31 August 2028, extendable for an additional 12 months subject to funding availability.

Purpose of the Post

We have an exciting opportunity for a Research Associate to join our research programme focused on developing self-limiting genetic strategies for the population suppression of *Anopheles* mosquitoes. You will conduct independent research as part of a small, collaborative team, contributing to the improvement of proof-of-principle technologies with the aim of advancing them towards potential future deployment. The role will also involve identifying and evaluating new target genes and developing novel molecular tools to support the next generation of genetic approaches for mosquito population control.

Key Responsibilities

Research Duties:

- Plan, design and conduct research within the Group's research programme, taking initiative in developing and implementing experimental approaches.

- Develop and apply appropriate experimental techniques and methodologies for the collection, analysis and interpretation of data.
- Ensure the validity, reliability and reproducibility of research findings, maintaining accurate and well-organised records of experimental work and results.
- Analyse and interpret research data and contribute to reports for research sponsors.
- Disseminate research findings through publications in peer-reviewed journals, presentations at national and international conferences, internal seminars and research meetings.
- Develop research collaborations with colleagues within Imperial College and with external collaborators in the UK and internationally.
- Contribute to research grant applications and the development of new research opportunities.
- Provide guidance and support to staff and students, including PhD students, undergraduate and postgraduate researchers, and research assistants, as appropriate.
- Where appropriate, coordinate the work of small research teams.
- Contribute to the smooth running of the Group's laboratories and facilities, working collaboratively with scientists, technicians and students.
- Attend relevant workshops, conferences and training activities and contribute to activities that enhance the profile and reputation of the Group, Department and College.

Other Duties

- Comply with relevant College, Division and laboratory health and safety policies and undertake required training.
- Undertake appropriate professional development, administrative duties and meetings as required.
- Undertake any other reasonable duties as required by the Head of Group or Head of Division/Department/Section.

Person Specification

Requirements

Candidates/post holders will be expected to demonstrate the following:

**Essential (E)/
Desirable (D)**

Education

Hold a PhD in molecular biology, genetics or a closely related discipline.

E

Experience

Practical research experience in a relevant molecular biology, genetics or related research environment, demonstrated through research experience and peer-reviewed publications.

E

Practical experience in molecular cloning and genetic construct design, including techniques such as Gibson Assembly or Golden Gate cloning.

E

Experience with molecular analysis of DNA and RNA, including sequencing data and its interpretation

E

Experience with husbandry of mosquitoes or other model organisms

E

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Experience with mosquito embryo injections.	D
Previous working experience with CRISPR-Cas9 or related genome-editing technologies	E
Basic experience in programming and computational data analysis, particularly using Python, Bash and/or R.	E

Knowledge

Knowledge of molecular biology and genetics.	E
Knowledge of research methods, experimental design and appropriate statistical approaches.	E
Knowledge of CRISPR-Cas9 and genome-editing systems.	E
Knowledge of molecular approaches to the genetic control or population management of mosquito vectors.	E
Knowledge of bioinformatics, data science and computational approaches to biological data analysis.	E

Skills & Abilities

Ability to critically review and interpret scientific literature.	E
Ability to develop and apply new concepts, techniques and experimental approaches.	E
Creative and systematic approach to problem-solving and experimental troubleshooting.	E
Ability to analyse, interpret and communicate scientific findings clearly and effectively.	E
Excellent written communication skills, including the ability to prepare scientific manuscripts and reports.	E
Excellent verbal communication skills and the ability to communicate effectively with colleagues and collaborators.	E
Ability to organise and manage your own research with minimal supervision and to prioritise work effectively to meet deadlines.	E
Ability to work collaboratively as part of a research team and contribute positively to a shared research environment.	E
Ability to coordinate or direct the work of a small research team and support the development of others.	E
Flexible, proactive and adaptable approach to work.	E
Commitment to maintaining high standards of research integrity, confidentiality and laboratory practice.	E
Willingness to undertake relevant training and professional development.	E

Willingness to travel within the UK and internationally for research activities and conferences, as required.	E
Willingness to work occasional out-of-hours or weekend periods where required by the research programme.	E

Further Information

Please note that job descriptions cannot be exhaustive, and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

[Our values](#) are at the root of everything we do and everyone in our community is expected to demonstrate Imperial:

- Respect
- Collaboration
- Excellence
- Integrity
- Innovation

Employees are also required to comply with all Imperial policies and regulations.

We are committed to equality of opportunity, to eliminating discrimination and to creating an inclusive working environment for all. We encourage candidates to apply irrespective of age, disability, marriage or civil partnership status, pregnancy or maternity, race, religion and belief, gender reassignment, sex, or sexual orientation. You can read more about our commitment [on our webpages](#).

Imperial is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see <https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/>

Imperial believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes which are ultimately aimed towards finding new treatments and making scientific and medical advances, and where there are no satisfactory or reasonably practical alternatives to their use. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in our care are treated with full respect, and that all staff involved with this work show due consideration at every level. [Find out more about animal research at Imperial](#).

October 2026