

JOB DESCRIPTION

POST	Post-Doctoral Research Assistant
CONTRACT	Fixed term
REFERENCE NO	243-20
REPORTS TO	David Weetman, Senior Lecturer, Vector Biology
ROLE PURPOSE/SUMMARY	The post-holder will provide bioinformatics and laboratory support for analysis of genomic and transcriptomic insecticide resistance data and samples.
SCOPE/BACKGROUND	Working within a project team bridging the groups of David Weetman and Martin Donnelly, the role would work primarily within the scope of a large programme grant aiming to identify genetic and transcriptomic variation underlying resistance to insecticides used for <i>Anopheles</i> malaria vector control in Africa, and to map the predictive value of diagnostic markers. The role will involve analysis of WGS and RNAseq data sets and characterization of putative insecticide resistance associated variants through laboratory approaches. Development of other research projects to support fellowship applications will be encouraged.

ROLE SPECIFIC RESPONSIBILITIES

	KEY RESPONSIBILITIES	KEY ACTIONS These set out how the Key Responsibilities will be achieved
1	Analyse genomic and transcriptomic data from insect disease vectors and investigate candidate variants	Liaise with staff at LSTM and external partners including the Wellcome Sanger Institute to implement or develop analysis pipelines
		Produce reports detailing preliminary analysis outcomes
		Prepare results for submission to academic journals
		Present results at scientific meetings and consultations with external partners communicating findings internally and to collaborators
		Become involved with data generation via oversight of, or direct involvement in, molecular laboratory work
2	Develop and deliver training	Provide training to project partners from disease endemic countries
		Provide training and supervision for postgraduate students and collaborate on their project analyses
		Provide assistance when necessary to other research scientists in the team
3	Develop novel projects	Help to generate ideas and data to support new project applications
		Apply for research grants/ fellowships in collaboration with PIs

4	Produce and disseminate research outputs	Prepare and write peer-reviewed publications for the scientific community
		Actively engage on writing grant proposals
		Implement effective quality assurance techniques
		Prepare and maintain adequate laboratory records of methods, results, and risk assessments, and undertake analysis and interpretation of data
		Responsible for developing appropriate risk assessments, SOPs, and other research-related health & safety documentation, adhering to local and legal requirements
		Responsible for planning and carrying out laboratory experiments independently and in collaboration with other members of the team
		Manage and analyse data derived from collaborators

FURTHER RESPONSIBILITIES

	KEY RESPONSIBILITIES	KEY ACTIONS These set out how the Key Responsibilities will be achieved
1	General	Work in a safe manner, adhering to local and legal requirements
		Promote equality of opportunity and inclusive practice in all aspects of work undertaken
		Act in a manner that safeguards children and/or vulnerable adults as applicable to the role
		Any other duties commensurate with the grade and nature of the role

PERSON SPECIFICATION

POST	Post-Doctoral Research Associate
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COMPETENCY CRITERIA	ESSENTIAL/ DESIRABLE	WHERE MEASURED
Qualifications & Training		
PhD in relevant area (genetics, biology, biological computing)	Essential	Application
Skills & Experience		
Strong bioinformatic skills	Essential	Application/Interview
Record of publication in peer reviewed international journals	Essential	Application/Interview
Experience of using programmes such as PYTHON and R	Desirable	Application/Interview
Strong molecular genetic analytical skills	Essential	Application/Interview
Experience in molecular laboratory techniques	Essential	Application/Interview
Previous experience in vector biology	Desirable	Application/Interview
An ability to communicate with specialists from a variety of disciplines: vector biology, biostatistics, parasitology, epidemiology	Essential	Interview
Excellent verbal & written communication skills, with the ability to communicate at all levels	Essential	Interview
Ability to maintain accurate records of data and analyses and demonstrate effective record keeping	Essential	Application/Interview
Well-developed research skills with the ability to effectively present research findings in oral and written format.	Essential	Application/Interview
Excellent interpersonal skills with the ability to work as an integral and cooperative member of a multi-disciplinary, multi-national research team	Essential	Application/Interview
Knowledge & Behaviours		
Knowledge and behaviours that support equality, diversity and inclusive practice	Essential	Interview
Knowledge and behaviours that support safeguarding as applicable to the role	Essential	Interview
Ability to work independently using own initiative	Essential	Interview
Flexible attitude to work	Desirable	Interview
Ability to generate research ideas	Essential	Interview
Ability to work independently and as a team player	Essential	Interview
Knowledge of health and safety regulations and legal requirements	Essential	Application/Interview
Knowledge of malaria control, public health, and international health	Desirable	Application/Interview
Knowledge of host-vector relationships and vector behaviour	Desirable	Application/Interview