

## JOB DESCRIPTION

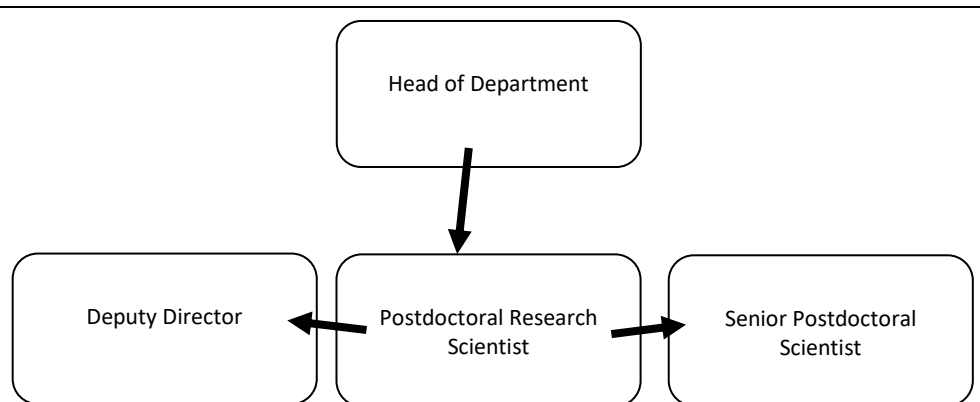
Job title: Postdoctoral Research Scientist

Pay Band

6

Department: Vaccines and Diagnostics

Reporting Structure:



Staff reporting to postholder:

None

Main purpose of job:

Postdoctoral research scientist post (3 years) as part of the BBSRC-funded project: Unravelling the mechanisms of resistance to the macrocyclic lactones in the sheep scab mite, *Psoroptes ovis*

Main duties of postholder:

- Work across the project team to conduct experiments to understand the mechanisms underlying macrocyclic lactone resistance in the sheep scab mite, *P. ovis*

- Undertake *in vivo* cross-mating between ML-susceptible and ML-resistant mite populations to generate F<sub>1</sub> progeny for bulk segregant analysis (BSA)
- Combine this with transcriptomic analysis to identify the mechanisms of ML resistance
- Apply a population genomics approach to track the emergence and spread of this resistance in the UK
- Assist with the routine maintenance of the *in vivo* sheep scab infestation model hosted at MRI
- Monitor the progress of experiments and maintain accurate records of procedures and observations
- Analyse experimental data using statistical methods to evaluate experimental outcomes
- Document all research findings, experimental procedures, and results. Preparing reports, scientific papers, and presentations to communicate findings to the scientific community and stakeholders
- Working closely with other researchers and institutions involved in the project to share findings, collaborate on research, and integrate various approaches
- Publish high-quality research articles
- Keep abreast of advancements in parasitology and drug resistance, to continually improve the project's efficacy and add value to the overall scientific community
- Promote the Moredun Group through presentations, workshops and meetings to present and discuss scientific outputs

**PERSON SPECIFICATION**

	<b>Essential</b>	<b>Desirable</b>
<b>Attainments:</b>	A PhD or equivalent in a relevant field	A PhD in molecular parasitology, genetics, drug resistance
<b>Experience:</b>	Proven experience in parasitology, or a related field	
	Experience of large animal handling, or a willingness to be trained	Experience performing <i>in vivo</i> studies
	Proficiency in <i>in silico</i> analysis and manipulation of genomic and transcriptomic datasets, or be willing to be trained in this area	

**Skills:**

Strong skills in data analysis and interpretation	
Problem-solving abilities, e.g., the ability to identify challenges and develop innovative solutions within the scope of the project	
A track record of publishing research findings in peer-reviewed journals	
<b>Communication</b> - excellent interpersonal and communication skills when dealing with a wide range of managers and staff  Ability to present data to scientific audiences and collaborators  Excellent written communication skills to provide data reports and manuscripts for publication	
<b>Managing relationships</b> – Ability to interact with project partners, with tact and diplomacy to deliver on research objectives  Able to build and maintain effective working relationships with a range of people	
<b>Team working</b> - ability to work flexibly and effectively as part of the team	Ability to work effectively with staff to deliver on research project objectives
<b>Resilience</b> - strong ability to work with ambiguity and constantly changing circumstances and issues.	
<b>Planning and organisation</b> - able to prioritise and plan activities taking into account deadlines and resources	Ability to plan, organise and undertake <i>in vivo</i> trial work
<b>Decision making</b> – able to take independent action where necessary in line with policies and procedures	Ability to quickly assimilate complex information and take effective decisions when required
<b>Flexibility</b> – ability to adapt and work effectively with a variety of situations, individuals or groups  Able to understand and appreciate different and opposing perspectives	

	on an issue and to adapt an approach as the situation changes	
<b>Other skills</b> (please specify)		
<b>Other requirements</b> (please specify)	Willingness to undertake some work outside of normal working hours when required (e.g. during <i>in vivo</i> studies)  Willingness to travel for sampling and routine project meetings as required	