**JOB DESCRIPTION**

This form summarises the purpose of the job and lists its key tasks

It may be varied from time to time at the discretion of the College in consultation with the postholder

|  |  |
| --- | --- |
| **Job Title: Postdoctoral Researcher (Pathogen Genomics and Virus Genomic Epidemiology; 2 posts)** | **Job ref no: PPS-0357-24** |
| **Grade: 6** | **Department: Pathobiology and Population Sciences** |
| **Accountable to: Sarah Hill** | **Responsible for: N/A** |

|  |
| --- |
| **Job summary:**The Royal Veterinary College (RVC) is seeking two highly motivated Postdoctoral Researchers to join our team within the Genomics for Animal and Plant Disease Consortium (GAP-DC2), co-led at RVC by Prof. Oliver Pybus FRS, Dr. Sarah Hill, and Dr. Jayna Raghwani. These positions offer an exciting opportunity to develop and influence how pathogen genomic surveillance of animals, plants and their ecosystems is conducted and used to identify and respond to emerging threats (including zoonotic viruses). You will work at the intersection of genomics and infectious disease epidemiology.We aim to recruit two outstanding candidates, each of whom will lead work within **one** of the following Research Areas.1. **Postdoctoral Researcher in Phylodynamics:** In this role, you will lead efforts to understand the introduction, emergence and spread of viral diseases in UK farmed and wild animal populations. By applying advanced phylodynamic and related computational techniques, you will analyse virus genomic datasets to reveal and explain disease dynamics. We are particularly interested in candidates passionate about developing innovative methods for rapid data analysis and effective communication of findings to stakeholders in government and industry.
2. **Postdoctoral Researcher in Metaviromics:** In this role, you willimprove detection and response to emerging virus threats in wildlife and their environment using virus genomics and metagenomics. You will play a pivotal role in selecting sentinel populations for genomic surveillance, designing and optimising workflows for metaviromic and pathogen-targeted approaches for wildlife and environmental samples, and analysing the data. Individuals with specialist expertise in bioinformatics, laboratory-based molecular biology, or in both are encouraged to apply.

**Environment and team**We will provide a vibrant and supportive environment in which you can continue to develop your career. GAP-DC2 partners include organisations responsible for disease surveillance in farmed and wild terrestrial animals (the Animal and Plant Health Agency, the Pirbright Institute), aquatic species (Centre for Environment, Fisheries and Aquaculture Science), plants (Fera, Forest Research), and scientists at the governmental Department for Environment, Food and Rural Affairs (DEFRA). We will financially support you to represent the group at international and national conferences. We will encourage you to collaborate with internationally-leading research groups in the UK and abroad, and will help you publish your research in high-impact journals (please see Google Scholar profiles of RVC co-leads Prof. Pybus, Dr. Hill and Dr. Raghwani for examples of our previous publications). The RVC offers excellent opportunities for you to build a strong career profile, including offering internally-funded research and travel grants to Postdoctoral Researchers (e.g., to gain demonstrable experience winning funding or to begin to develop your own independent ideas that can extend GAP-DC2’s already broad and flexible remit). We will support you to gain experience in co-supervising undergraduate and graduate students.You will have access to newly renovated office spaces at the Hawkshead Campus, specialised sequencing laboratories (as needed for your research) and a centralized high-performance computing cluster to tackle large-scale data analysis.The RVC offers a generous reward package including an excellent annual leave allowance, pension scheme, and free membership of the onsite Fitness and Wellbeing Centre. **How to apply**We encourage interested candidates to contact Dr. Sarah Hill (sahill@rvc.ac.uk), who would be pleased to informally answer any questions about the role. When applying, please upload a CV. No cover letter is required, but please ensure that you provide sufficient detail when completing the “Application Questions” to allow us to understand your motivation and how your experience matches the criteria in the Person Specification document. Please note that, as we seek two candidates, we expect you to have specialist skills in one, but not both, of the Research Areas defined above. Each post is expected to be available for two years in the first instance with a flexible start date in early 2025. The posts are open to international candidates.The posts are based at the RVC’s Hawkshead Campus, which can be accessed easily from both the countryside and central London. We are happy to discuss flexible working arrangements that could promote a better work-life balance, including hybrid working within the UK and preferences for part-time roles. |
| **Competency: Analysis & Research****Key tasks:*** Conduct research within the GAP-DC2 project according to the Research Area most within your expertise and in agreement with supervisors. This will include at least one of:

(i) applying phylodynamic and genomic epidemiological techniques to analyse virus genome sequencing datasets, and (ideally, but not essentially) developing new approaches to rapidly analyse and communicate findings.(ii) leading the choice and collation of samples from sentinel species and populations, and the design and deployment of viral genomic surveillance approaches in animals and/or their environments.(iii) developing and deploying robust computational pipelines for assembly and analysis of virus sequencing data, including viral selective sequencing. |
| **Competency: Communication****Key tasks:*** Publish findings in international-quality, peer-reviewed journals.
* Present results through scientific and lay meetings, both nationally and internationally, to ensure that research has influence on professional practice and government policy.
* Regularly discuss ongoing research activities with members of the research partnership.
 |
| **Competency: Teamwork and Motivation****Key tasks:** * Agree clear task objectives with supervisors and co-ordinate work with other members of the project team.
* Contribute where applicable to mentoring research students working in the team in your area of expertise, including participating in group scientific meetings, providing advice on specialist methods and co-authoring publications where relevant.
* Carry out collaborative projects with colleagues in partner institutions and elsewhere.
 |
| **Competency: Initiative and Problem Solving****Key tasks:*** Overcome problems that arise during development and implementation of research with support from the project team.
* Contribute new ideas to the project.
* Act with a high degree of independence.
 |
| **Competency: Work Environment*** Follow good Health and Safety, Ethics and Good Research Practice policies as applicable to your work.
* Conduct yourself according to the RVC’s core values to help create an inclusive and welcoming community; undertake training as and when asked to do so.
* For wet-laboratory posts:lead appropriate daily management of large consumables budget, including choosing any consumables and equipment that you need.
 |
| Flexibility: A degree of flexibility is needed to effectively react to changes in this fast-paced research field and to support the wider goals of the group. The post holder may be occasionally asked to perform work that is not specifically referred to above. |