

Job Title:	Research Fellow in Virology	
Responsible to:	Professor Gill Elliott	
Responsible for:	Not applicable	

# **Job Summary and Purpose:**

To undertake research in accordance with the specified research project(s) under the supervision of the principal investigator.

### Main Responsibilities/Activities

To undertake a range of research activities within a specified research area, assuming responsibility for specific areas of projects and making use of new research techniques and methods, in consultation with the research award holder or supervisor. This may include fieldwork, interviews, laboratory experimentation, critical evaluation and interpretation, computer-based data analysis and evaluation or library research.

Using initiative and creativity to identify areas for research develop new research methods and extend the research portfolio. Analysing and interpreting results of own research. Write up results and prepare papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend appropriate conferences for the purpose of disseminating research results of personal development. The post holder may also contribute to writing bids for research grants and will contribute to collaborative decision making with colleagues in areas of research.

Continually to update knowledge and develop skills, and translate knowledge of advances in the area into research activity.

To plan and manage own research activity in collaboration with others. To carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control.

To contribute to teaching in the Faculty by carrying out student supervision and/or demonstrating within the post holder's area of expertise and under the direct guidance of a member of departmental academic staff, as appropriate.

The post holder may occasionally be required to supervise more junior research staff.



# **Person Specification**

### The post holder must have:

A doctoral degree in a relevant discipline (although individuals who have almost completed a doctoral degree may be appointed). Consideration may also be given to individuals who do not hold a doctoral degree but have required skills based on a number of years' experience in specified / relevant fields

The post holder will have authority over some aspects of project work and must be capable of providing academic judgement, offering original and creative thoughts and be able to interpret and analyse results.

### **Relationships and Contacts**

Direct responsibility to the principal investigator or academic supervisor. The post holder may be asked to serve on a relevant Faculty committee. There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions.

# **Special Requirements**

To be available to participate in fieldwork as required by the specified research project

### All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
  - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
  - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.



#### Addendum

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Job Purpose.

Job Title: Research Fellow in Virology

### **Background Information/Relationships**

Herpes simplex virus (HSV) is an important human pathogen. HSV infection is life-long and once acquired it remains latent in the body. Re-activation results in recurring oral or genital herpes, and less frequently, serious consequences such as blindness or encephalitis.

HSV produces an endoribonuclease called virion host shutoff protein (vhs), a virulence factor that is important for virus infection in the host by controlling the cellular environment, making it favorable for the virus. Nonetheless, it is not yet clear how vhs activity influences the outcome of the disease process. The aim of this project, funded by the Medical Research Council, is to unravel the complexities of vhs activity, further our understanding of its role in virus infection, and identify targets for therapeutic intervention. Using a global approach to look at cellular changes in HSV1 infection, state-of-the-art omics technologies will be used to define the spatial and temporal restraints of vhs activity, and the downstream consequences on the cellular proteome. New tools will be developed to understand how vhs is targeted to its site of action.

This Research Fellow post is within the research group of Professor Elliott, one of five academic staff in the Section of Virology. Other research areas in the Section include virus sensing, innate immunity and virus regulation of translation, and covers research on herpesviruses, poxviruses, caliciviruses and arboviruses. The post also involves collaboration with the RNA biology group of the Systems Biology Section. As such, the successful applicant will have to opportunity to collaborate across both Sections to expand their skills and knowledge in both virology and RNA biology.

### **Person Specification**

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Job Purpose.

Qualifications and Professional Memberships	Essential/ Desirable
A higher research degree (PhD) (or near completion) in a relevant subject	Essential
<b>Technical Competencies (Experience and Knowledge)</b> This section contains the level of competency required to carry out the role (please refer to the competency framework for clarification where needed and the Job Families Booklet).	Essential/ Desirable
Experience of working with viruses in tissue culture	Essential



Special Requirements	Essential/ Desirable
Experience of confocal microscopy	Desirable
Experience of proteomics/secretomics	Desirable
Experience of transcriptomics	Desirable
Experience of working with RNA	Desirable

# **Key Responsibilities**

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Job Purpose.

- 1. Perform standard virological techniques in tissue culture
- 2. Utilize cell fractionation and RNA isolation methodologies
- 3. Quantify RNA by RT-qPCR and mRNA FISH
- 4. Analyze and validate transcriptomic and proteomic datasets
- 5. Contribute to the writing and submission of high-quality scientific papers
- 6. Deliver scientific presentations to the research section and externally at national and international scientific conferences
- 7. Help with day-to-day supervision of undergraduate and postgraduate students in the laboratory

### N.B. The above list is not exhaustive.