1 Advertisement

Post Title: Research Fellow in Immunology
School/department: Brighton and Sussex Medical School

Hours: full time hours considered up to a maximum of 37.5 hours per week. Requests for flexible working options will be considered (subject to business need).

Contract: fixed term for 3 years

Reference: 6820

Salary: starting at £34,304 to £40,927 per annum

Placed on: 11 November 2021

Closing date: 24 January 2022. Applications must be received by midnight of the closing date.

Expected interview date: ASAP

Expected start date: ASAP

Previous applicants need not apply

A three-year fixed term appointment for a Postdoctoral Fellow is available in the Department of Clinical and Experimental Medicine at Brighton and Sussex Medical School.

The post holder will be responsible to the Chair in Immunology, Professor Florian Kern.

The work will cover two main project areas with large technological overlap, one exploring the effect of Cytomegalovirus (CMV) infection on the vascular system and immunological ageing, the second related to basic T-cell target protein discovery and epitope mapping.

The projects require general experience in immunological laboratory techniques including flow-cytometry, cell culture, cellular activation assays, and molecular biology, however, additional practical knowledge of virological techniques will be of advantage.

The ability to design and conduct experiments independently is essential.

The Chair of Immunology focuses on the role of cellular antigen specific immune responses in infectious diseases and at older ages. The Immunology research group cooperates internationally to maintain the highest level of technology and expertise in this area.

A stimulating and supportive environment is provided.

Please contact Prof. F. Kern (f.kern@bsms.ac.uk) for informal enquiries.

The University is committed to equality and valuing diversity, and applications are particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in Science, Technology, Engineering, Medicine and Mathematics (STEMM) at Sussex.

Please note that this position may be subject to ATAS clearance if you require visa
sponsorship.

For full details and how to apply see our vacancies page

www.brighton.ac.uk/jobs  www.bsms.ac.uk

The University of Sussex values the diversity of its staff and students and we welcome applicants from all backgrounds.

2. The School / Division

Please find further information regarding the school/division at https://www.bsms.ac.uk/index.aspx

3. Job Description

Job Description for the post of: Research Fellow in Immunology

Department: Brighton and Sussex Medical School

Section/Unit/School: Department of Clinical and Experimental Medicine

Location: Medical Research Building

Grade: 7

Responsible to: Prof Florian Kern

Responsible for:

CORE JOB DESCRIPTION

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<tr>
<th>Job Title:</th>
<th>Research Fellow in Immunology</th>
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<tbody>
<tr>
<td>Grade:</td>
<td>Research Fellow I, Grade 7</td>
</tr>
<tr>
<td>School:</td>
<td>Brighton and Sussex Medical School</td>
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<tr>
<td>Location:</td>
<td>Medical Research Building</td>
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<tr>
<td>Responsible to:</td>
<td>Prof F. Kern</td>
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<tr>
<td>Direct reports:</td>
<td>n/a</td>
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<tr>
<td>Key contacts:</td>
<td>Members of research group, members of faculty within the School and University.</td>
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</table>
Role description: Research Fellow I is an early career-grade research position. Post-holders will be expected to contribute to the work of the research team, and also to develop their research skills with support from more experienced members of staff. The work will cover two main project areas with large technological overlap, one exploring the effect of Cytomegalovirus (CMV) infection on the vascular system and immunological ageing, the second related to basic T-cell target protein discovery and epitope mapping. The vast majority of elderly people are infected with CMV and there is now good evidence that CMV has a major impact on the cardiovascular system in a significant subset of CMV-infected people. Our work will explore antigen-specific immune responses in elderly people using a variety of methods such as T-cell stimulation assays, cell culture and cytotoxicity assays, peptide arrays along with multi-parameter functional readouts, PCR, ELISA, Elispot and potentially other techniques.

The successful candidate will be required to design, supervise and perform experiments with human immune cells based on ex-vivo stimulation and the measurement of functional responses, proliferation, the generation of T-cell lines, mapping of T- and B-cell epitopes, mRNA analysis and quantification using real time PCR.

The post holder may need to work in a containment level 3 environment to allow experiments using viral stocks (for example CMV) for live cell infection. The work might include HIV infected materials. They will be expected to work with a high level of independence on these projects, however will report to and discuss results and strategies with the Chair of Immunology during regular meetings.

PRINCIPAL ACCOUNTABILITIES

1. To engage in individual and/or collaborative research activity resulting in high-quality publications; and to develop research funding and knowledge exchange income individually or in collaboration with others, as appropriate, depending on the size and scope of the bid.

2. To contribute to School teaching activities.
KEY RESPONSIBILITIES

1. Research, Scholarship & Enterprise

1.1 Develop research objectives and proposals for own or joint research, at acceptable levels, with assistance if required.

1.2 Conduct research projects individually and in collaboration with others.

1.3 Analyse and interpret research findings and draw conclusions on the outcomes.

1.4 Produce high-quality research outputs for publication in monographs or recognised high-quality journals, or performance/exhibition, as appropriate, and contribute to the School's REF submission at acceptable levels of volume and academic excellence.

1.5 Contribute to the preparation of proposals and applications to external bodies, for example for funding purposes.

1.6 Individually or with colleagues, explore opportunities for enterprise activity, knowledge exchange income and/or consultancy, where permissible.

1.7 Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.

1.8 Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

2. Teaching & Student Support

2.1 Undertake teaching duties, if required.

2.2 Assist in the assessment of student knowledge and supervision of student projects if required.

2.3 Assist in the development of student research skills, for example as part of a postgraduate supervision team.

3. Contribution to School & University

3.1 Attend and contribute to relevant School and project meetings.

3.2 Undertake additional duties, as required by the Principal Investigator and/or Head of School.

4. Role-specific duties

4.1 Supervise one or more PhD students in the lab and/or a research assistant

4.2 Manage project budgets in collaboration with the Chair in Immunology
4.3 The applicant will be expected to write or participate in writing reports, publications, and project grants including submission of projects for ethical and NHS Trust approval in accordance with the research governance framework.

4.4 The research fellow is expected to participate in organising internal lab meetings, and immunology seminars with internal and external speakers.

4.5 Keep abreast of current developments in the area of immunological research.

4.6 Participate in management and maintenance of communal facilities within the Medical Research Building.

This Job Description sets out current duties of the post that may vary from time to time without changing the general character of the post or level of responsibility entailed.
INDICATIVE PERFORMANCE CRITERIA

- A PhD or equivalent scholarly or relevant professional activity
- Pursuing a line of independent research within a research group.
- Publishing research (either from a recently completed PhD or new original research).
- Other forms of externally recognised professional practice of creative output of a standing equivalent to regular publication of original research.
- Initiating, developing or participating in links between the University and external bodies such as business and industry, the professions, community organisations and policy-makers.
- Evidence of successful engagement in teaching or supervision.
PERSON SPECIFICATION

ESSENTIAL CRITERIA

1. Normally educated to doctoral level, or other equivalent qualification, or appropriate level of experience, as appropriate to the discipline (see role-specific criteria below).

2. Evidence of engagement in high-quality research activity.

3. Excellent presentation skills, with the ability to communicate effectively, both orally and in writing, with students, colleagues and external audiences.

4. Ability to work individually on own initiative and without close supervision, and as part of a team.

5. Ability to exercise a degree of innovation and creative problem-solving.

6. Excellent organisational and administrative skills.

7. Ability to prioritise and meet deadlines.

8. Flexibility to work outside normal hours if required by experiment timings

9. Excellent IT skills.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. Recent practical experience/proficiency in operating a multi-colour flow-cytometer independently including instrument set-up, calibration, data handling etc.

2. Recent experience in the analysis of flow-cytometry data from human and/or animal cells

3. Good general theoretical knowledge and understanding of flow-cytometry technology

4. Skilled in cell biology/cell culture and cell-based assays

5. Highly adept in immunological experimentation with human/animal cells using standard laboratory methods

6. Good general knowledge of human/animal immunology

7. Basic knowledge of human cell biology and human blood cell subsets

8. Good practical knowledge of molecular biology

9. General understanding of issues relating to the management of research, including ethics approvals and funding

10. Ability to guide more junior staff and students
DESIRABLE CRITERIA

1. Emerging track record of high-quality publications in reputable journals and other appropriate media of similar standing.

2. Experience of generating research or knowledge exchange income.

3. Proficient in the use flow cytometry (or equivalent) with 6-10 colours (8-12 parameters), including data evaluation and presentation

4. Ability to perform functional T-cell assays, general flow-cytometry, intracellular activation marker staining and proliferation assays

5. Basic knowledge in virology

6. Basic skills in virology (infection of cell lines, producing viral stocks, etc)

7. Experience in containment level 3 (CL3) and containment level 2 (CL2) work with infectious agents

8. Skilled in the production of human/animal T-cell lines, theoretical background and hands-on experience

9. Knowledge of Cytomegalovirus biology

10. Experience with Elisa, Multiplex Elisa

11. Proliferation assays using dye-dilution, cytotoxicity assays

12. Elispot technology

13. Experience in supervising students in a laboratory

14. Writing experience