School of Life Sciences
Postdoctoral Research Fellow
Fixed term until 31 January 2019, Full time
Starting salary starting at £32,004 and rising to £38,183 per annum
Expected start date within 1 month of 1 Jan 2017

The School of Life Sciences is at the forefront of research in the biological sciences in the UK, coming in the top 10 in the REF 2014.

Project title: Investigating the effect of MTC on tau assembly

Applications are invited for a full-time Post-doctoral Research Fellow to join the multidisciplinary research team of Professor Louise Serpell in the School of Life Sciences at the University of Sussex.

Tau is known to play a central role in Alzheimer’s disease where it’s deposited in neurofibrillary tangles. Tau has become a recent target for therapeutics. The team are working with TauRX/Wista to investigate the mechanism of action of a methylene blue derivative on tau assembly and disassembly. The project will involve structural biology and biophysical approaches to investigate the effects of the compound on the structure and assembly of the tau protein.

We are seeking a post-doctoral research fellow to work on this ongoing project. The post will be centred within the Biochemistry and Biomedicine subject group and Sussex Neuroscience within the School of Life Sciences. The research project will involve electron microscopy, X-ray fibre diffraction, NMR, spectroscopic techniques. Previous expertise in working with self-assembling or amyloidogenic proteins/peptides and biophysical approaches is essential.

The School is committed to equality and valuing diversity, and currently holds an Athena SWAN Silver Award. Applications are particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in science and engineering at Sussex.

The University offers various schemes to provide real benefits to parents, these can be found at http://www.sussex.ac.uk/humanresources/personnel/familyfriendlypolicies

Potential candidates are strongly encouraged to make informal contact with Prof. Louise Serpell before applying.

Applications should be accompanied by a full CV, a statement of research interests and aspirations (not more than 4 pages), and the names of three academic referees.

Closing date for applications: 19 December 2016.

The University of Sussex is committed to equality of opportunity
For full details and how to apply see www.sussex.ac.uk/jobs
2. The School/Division

Life Sciences have played a major role in the University of Sussex since 1961. The original School of Biological Sciences (BIOLS), founded by John Maynard Smith, trained some of the world’s leading biologists and biomedical scientists. BIOLS was a beacon of innovation and creativity in its integrated approach to research and teaching. The current School of Life Sciences was formed in 2009 when Professor Laurence Pearl FRS was appointed as its founding Head. Under his leadership the School adopted a unified structure without formal departments. Instead there are six research Subject Groups – Evolution, Behaviour and Environment; Genome Damage and Stability; Biochemistry and Biomedicine; Neuroscience; Chemistry and the Sussex Drug Discovery Centre. Each Subject Group is chaired by a prominent scientist, who is responsible for research leadership. The School’s Faculty currently includes six Fellows of the Royal Society (FRS) and seven Fellows of the Academy of Medical Sciences (FMedSci). There are about 70 teaching and research faculty, over 150 research fellows and technicians, and a small professional services team. The School has the largest research income in the University of Sussex with over £20m in 2015-16.

In the REF2014 more than 96% of the School’s research was rated as ‘world leading’, ‘internationally excellent’, or ‘internationally recognised’. Biological Sciences research was ranked 10th overall in the UK, and 8th on quality of research outputs – comfortably above the majority of Russell Group institutions. The School’s activities all rank in the top-ten in the 2017 Times/Sunday Times Good University and Complete University guides.

The University has committed to building a new teaching and research building scheduled for delivery in 2019-20. This building will bring life scientists from all disciplines together, with both academic and social spaces to benefit the culture and interaction in the School.

Teaching is based on research excellence. The School admits around 500 undergraduates annually on a range of B.Sc. and M.Sc. degrees, and around 80 students on M.Sc. and M.Res. degrees. We have a large and vigorous post graduate research community with over 130 PhD students across all our areas of interest.

The University of Sussex is a research intensive University based on a single campus in Falmer, just outside Brighton in East Sussex. The University has ambitious plans to develop its teaching and research; for example, to move from a taught student population of c13,000 to one of c18,000 by 2018.

3. Senior Leadership and management

The Vice-Chancellor (Professor Adam Tickell) is the senior academic officer and, as Chief Executive, is responsible to the University Council for management of the University. He is supported by an executive group which includes Pro-Vice-Chancellors, the Registrar and Secretary, the Director of Finance and the Director of Human Resources. The Heads of the Schools of Studies at Sussex report to the Pro-Vice-Chancellors.

The Registrar and Secretary head the Professional Services of the University. In addition, under the University Statutes, the Registrar and Secretary is Secretary to the University Council. The Director of Finance reports to the Vice-Chancellor. The Director of ITS reports to the Registrar and Secretary, and the Librarian reports to one of the Pro-Vice-Chancellors.
3. Senior Leadership and management

The Vice-Chancellor is the senior academic officer and, as Chief Executive, is responsible to the University Council for management of the University. He is supported by an executive group which includes the three Pro-Vice-Chancellors, the Registrar and Secretary, the Director of Finance and the Director of Human Resources. The Heads of the Schools of Studies at Sussex report to the Pro-Vice-Chancellors.

The Registrar and Secretary heads the Professional Services of the University. In addition, under the University Statutes, the Registrar and Secretary is Secretary to the University Council. The Director of Finance reports to the Vice-Chancellor. The Director of ITS reports to the Registrar and Secretary, and the Librarian reports to one of the Pro-Vice-Chancellors.

4. JOB DESCRIPTION

Job Title: Research Fellow
Grade: Research Fellow I, Grade 7
School: Life Sciences
Location: Life Sciences
Responsible to: Principal Investigator through to Head of School
Direct reports: n/a
Key contacts: Members of research group, members of faculty within the School and University.

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.

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**

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

1.3 Conduct research projects individually and in collaboration with others.

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

1.5 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.

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

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

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

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

1.9 Present findings to Wista/TAURX at quarterly meetings.

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 Analysis of the effect of MTC on tau assembly and disassembly and binding interactions of MTC with tau
4.2 Creation of research ideas and design of research experiments
4.3 Keeping up with relevant scientific literature
4.4 Keeping accurate and complete records of lab work
4.5 Organising time to appropriately progress the project
4.6 Progression of specific project to level appropriate for publication in a timely manner, and interfacing with supervisor on regular basis to discuss results and project progression/direction
4.7 Presenting results in lab meetings, internal seminars and, if appropriate, external seminars, and aiding new/junior members of the laboratory where appropriate
4.8 Contributing to annual science outreach activity

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.

5. 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. Excellent IT skills.

**ESSENTIAL ROLE-SPECIFIC CRITERIA**

1. Knowledge and practice of structural biology including but not limited to biophysical techniques, electron microscopy, NMR and X-ray diffraction

2. Knowledge and/or practice of protein misfolding/amyloid research

3. Excellent oral communication skills


5. PhD in Chemistry, Biochemistry or closely related subject

6. Professional presentation of data

7. Honesty, motivation, demonstrable independence and commitment

8. Proven ability to develop new skills and set up new techniques

9. Demonstrable ability to work co-operatively as a member of a research team and lead a research project

10. A track-record of lead author, high-quality publications in well cited journals

11. A demonstrated ability to write scientific papers and prepare high-quality figures and images.

**DESIRABLE CRITERIA**

1. Experience of writing research proposals

2. Previous experience in drug compounds/therapeutics

3. Experience of self-assembling or amyloidogenic proteins, their preparation and analysis
4. Collection of electron microscopy images and structural image analysis
5. Collection of X-ray fibre diffraction data and analysis
6. Collection of protein NMR data and analysis