MAGDALEN COLLEGE, OXFORD

Two Calleva Centre four-year Postdoctoral Research Associates:

*Understanding evolution using molecules and their markers*

Magdalen College proposes to appoint two Postdoctoral Research Associates in its Calleva Research Centre to work on the project *Understanding evolution using molecules and their markers*. The posts will commence as soon as possible and will be for four years.

*The Calleva Centre at Magdalen College*

Magdalen College, one of thirty-eight colleges within the University of Oxford, carries out research and teaching in the full range of science, social science and humanities subjects. It has several Fellows in Biochemistry, Chemistry and Medicine. For further information on the College see [www.magd.ox.ac.uk](http://www.magd.ox.ac.uk).

The College’s Calleva Research Centre for Evolution and Human Science was inaugurated in October 2010. Its aims are to investigate key questions about the origins, development, causes and functions of human behaviour by bridging the humanities, social, cognitive, and biological sciences within a broad evolutionary framework. The Centre’s work is embodied through successive fixed-term interdisciplinary research programmes that draw on unique collaborations between Magdalen Fellows working in these diverse fields.

*Details of the research programme*

This project falls under the Calleva Centre’s interest in the study of the expression of the human genome and how it physically helps generate a wide array of human behaviour. It is built on existing interests in the labs of Professor Robert Gilbert, Professor Xin Lu and Professor Dame Carol Robinson in the molecular evolution of protein structures and their complexes and the ways in which their expression and function are affected by epigenetic mechanisms. The programme is multidisciplinary, combining data from biophysical, physical chemistry, computational and cell biology techniques. Methodologically it asks how studies of atomic structures and macromolecular assemblies can help us understand evolution in deep time, and how lifetime experience imprints itself on cell biology through epigenetic changes and protein modification in cells. The project is led by Professor Gilbert.

*The posts*

We are seeking two qualified and highly motivated individuals for Postdoctoral Research Associate posts investigating the interface of protein structure and assembly into complexes,
and epigenetic and cell regulatory modifications. One post (PDRA1) will focus on proteins related to human perforin which play key roles in neurodevelopment, neurodevelopmental and degenerative disorders, and the infection of humans by parasites affecting human behaviour and long-term human evolution. The second post (PDRA2) will focus on proteins which play complex roles coordinating cell biology between the nucleus where they impact on gene expression, and the cell surface where they help control cell adhesion.

The applicants will join a stimulating, interdisciplinary research environment with the opportunity to attend seminars, colloquia, and other regularly scheduled research activities at the Nuffield Department of Medicine, the Department of Biochemistry, the Department of Chemistry and Magdalen College, Oxford, as well as receive training in cutting edge combinations of interdisciplinary biophysical, structural and imaging techniques. The Postdoctoral Research Associates will be responsible for research activities such as designing and conducting laboratory experiments, conducting data analyses, and writing manuscripts. In addition, the Postdoctoral Research Associates will participate in grant writing and the development of new projects.

**Responsibilities and duties**

- Manage own academic research and administrative activities related to the project, including small-scale project management, to co-ordinate multiple aspects of work to meet deadlines.
- Ability to generate and test hypotheses using data from a variety of sources, including structural, biophysical, genetic and imaging data, reviewing and refining hypotheses as appropriate.
- Work collaboratively with colleagues from other disciplines.
- Organise team meetings, and help organise seminars and workshops relating to the project, including two Calleva Symposia in years 2 and 4 of the project.
- Contribute ideas for new research projects, and develop ideas for generating research income.

**Communication**

- Contributing to the preparation of scientific manuscripts based on research for publication in peer-reviewed journals.
- Participating in and contributing to didactic activities in the lab (discussions, training of junior researchers).
- Produce and present posters and oral presentations to the local and broad scientific community and non-academic audiences, and be involved in outreach activities related to the projects.
- Represent the research group at external meetings/seminars, either with other members of the group or alone.
Education and training

- Opportunities for training in cutting edge combinations of interdisciplinary biophysical, structural and imaging techniques will be provided.
- Attending appropriate scientific seminars and meetings.

Other General Responsibilities

- Undertaking such other duties as may be required from time to time that are commensurate with the grade and responsibilities of this post, such as project group administration.
- Conducting themselves with due regard to the University Equal Opportunities and Data Protection policies.

Selection criteria

Required

- Hold or be close to completing a relevant PhD/DPhil in biophysics/structural biology/molecular biology.
- Experience with biophysical methods for protein interaction analysis.
- Knowledge of and interest in biological systems relevant to this Calleva Centre project.
- Evidence of ability to write for publication for academic audiences.
- Experience of independently managing a discrete area of a research project. The post holders will be expected to operate largely unsupervised in the day-to-day running of the research and administrative aspects of the project; good attention to detail and excellent organisation skills are essential.
- Within the research group the applicants should work in a collaborative and supportive fashion. Good inter-personal skills with an ability to work co-operatively in a multidisciplinary setting.
- Ability to contribute ideas for new research projects and research income generation
- Excellent communication skills, including the ability to present research proposals and results, and represent the research group at meetings.

The location of the jobs will be in Oxford.

Salary and benefits

The appointments will be made on grade 7 of University Salary Scale, currently £31,604 - £38,833 p.a.

The posts carry an entitlement to join, or to remain a member of, the Universities Superannuation Scheme (USS). The postholders will be entitled to a number of free meals in college, and may participate in the College’s contributory Healthcare scheme.
The College provides for maternity leave on a basis that exceeds the statutory provisions. Provided that they have at least 26 weeks’ service with the College at the 15th week before the expected week of birth, women are eligible for 26 weeks’ maternity leave on full pay, followed by 13 weeks of leave on Statutory Maternity Pay (SMP) and 13 weeks of unpaid maternity leave. Magdalen has a priority claim on three places in the University nurseries. Arrangements are available for paternity leave.

Application procedure

Applications must include the completed application form (available from www.magd.ox.ac.uk/job-vacancies/). Candidates should also submit a detailed (no more than one page) covering letter outlining their suitability for the post(s), and indicating whether they are applying for the PDRA1 or PDRA2 post, or both. The covering letter and completed application form should be emailed to human.resources@magd.ox.ac.uk by 12 noon (UK time) on Monday 3 September 2018.

Candidates should request two referees to send references directly to the same email address by the same date. The College will NOT contact referees and it is each candidate’s responsibility to ensure that the College receives all his/her references by the closing date.

We expect to notify short-listed candidates within one week from the closing date.

The appointments will be subject to satisfactory completion of a medical questionnaire and the provision of proof of the right to work in the UK. Applicants who would need a work visa if appointed to the post are asked to note that under the UK’s points-based migration system they will need to demonstrate that they have sufficient points, and in particular that (i) they have sufficient English language skills (evidenced by (a) passing an approved English Language test with at least CEFR level B1 in reading, writing, speaking, and listening, or (b) having an academic qualification that was taught in English and is recognised by UK NARIC as being equivalent to a UK bachelor’s degree, master’s degree, or PhD, or (c) being a national of a majority English-speaking country); and (ii) that they have sufficient funds to maintain themselves and any dependants until they receive their first salary payment. Further information is available at: www.gov.uk/tier-2-general/overview.

Recruitment Monitoring

A Magdalen College Recruitment Monitoring Form will be found at the following page on the Magdalen College web site: http://www.magd.ox.ac.uk/job-vacancies/ Applicants are requested to complete the form and return it to Human Resources, Magdalen College, Oxford OX1 4AU (or by email to human.resources@magd.ox.ac.uk). Please note that the form is anonymous and is used only to monitor and ensure equality of opportunity for all candidates: it is not part of the selection process and will not be seen by any member of the selection committee.
Data protection

All data supplied by applicants will be used only for the purposes of determining their suitability for the post\(^1\) and will be held in accordance with the principles of the Data Protection Act 2018 and the College’s Data Protection Policy with can be found at [http://www.magd.ox.ac.uk/other-policies/data-protection/](http://www.magd.ox.ac.uk/other-policies/data-protection/).

\(^1\) But NB if the person appointed to the post is a migrant sponsored under the UK’s new points-based migration system, we are required to retain *the applications for all shortlisted candidates* until six months after the College has ceased sponsoring the migrant.