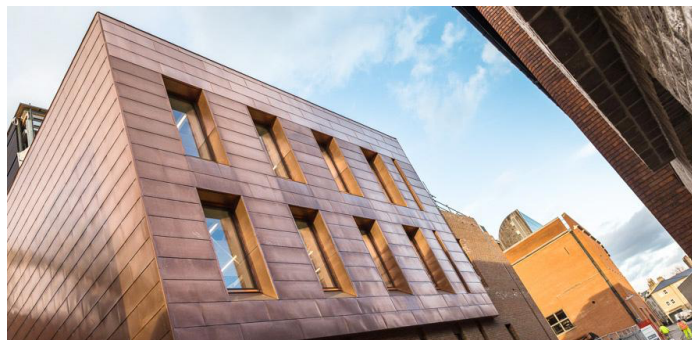
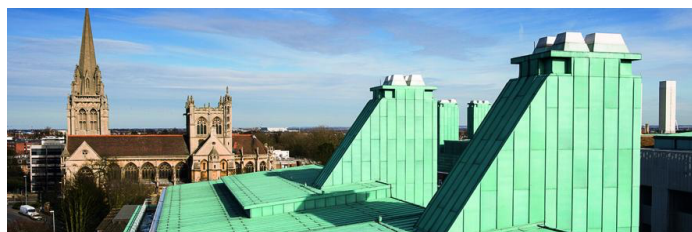


Assistant Professorship in Simulation of Energy Materials

Yusuf Hamied Department of Chemistry
Closing date: 11th October 2024
Job Reference: MA42761



Assistant Professorship in Simulation of Energy Materials

Salary:

£45,585 - £57,696

Contract:

Permanent

Location:

Central Cambridge

Department:

Yusuf Hamied
Department of
Chemistry

Responsible to:

Head of Department

Working pattern:

Full-time

Start date:

1st January 2025 or soon after

The role

Applications are invited for a University Assistant Professorship (Research and Teaching) to work in the area of the theory and simulation of materials relevant to the energy transition. Areas of interest include (but are not limited to): simulation and modelling of materials (at the atomistic through to continuum level) for energy generation, storage and conversion, and in catalysis. A strong commitment to working closely with experimentalists is a key requirement for this post.

The successful applicant will have an excellent record of research in the theory and simulation of materials and will be expected to develop a dynamic, high-quality and externally-funded research programme at an international level. Interdisciplinary and collaborative research is strongly encouraged across the university and its associated institutes, and is especially important for this post.

This professorship will underpin the new *Advanced Materials for the Energy Transition* (AMET) taught MPhil Programme, which is a joint course between the Departments of Chemistry, Materials Science & Metallurgy, and Physics at the University of Cambridge. For the first five years of the appointment, the successful candidate will primarily focus their teaching and administration on co-directing the AMET MPhil, working closely with co-directors in the other departments involved. As a co-director, the successful candidate will be involved in the running of the MPhil with tasks including: course management; the admission of students; creation and delivery of lectures; examining; and running projects. We are expecting between 20-30 students to be admitted to the new MPhil from October 2025. The assistant professor will also support teaching and administration at other levels in the department.

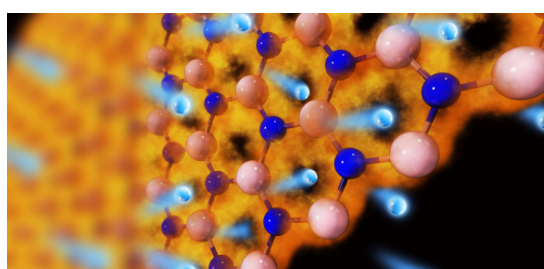
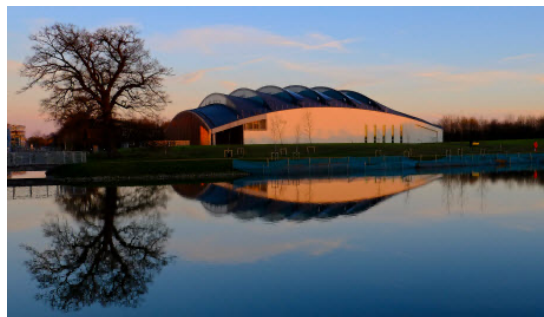
The post will be based at the Yusuf Hamied Department of Chemistry. Office space for the appointee and their group will be provided within the Department.

The Department is active in promoting policies to address historic underrepresentation of women and minority groups in its workforce. Candidates from underrepresented groups, as well as candidates with a track record in addressing barriers to such groups accessing education, are particularly encouraged to apply.

Applicants should have a PhD in a relevant subject area, a strong record of relevant research, and must show evidence of enthusiasm and ability to teach a range of relevant topics at both undergraduate and masters level



Key responsibilities



Key responsibilities

The successful candidate will develop a research programme in the theory and simulation of materials relevant to the energy transition. A strong commitment to working closely with experimentalists is a key requirement for this post. In addition to research, the successful candidate will co-direct the AMET MPhil and will be involved in the teaching needs of the Yusuf Hamied Department of Chemistry at undergraduate and postgraduate levels.

Research: Further the subject by research and other activities which enhance its growth as a field of scholarship, including producing publications and submitting grant applications.

Teaching: The appointee will carry a full teaching load. For the first five years of the appointment, the successful candidate will primarily focus their teaching on co-directing the AMET MPhil which includes the following tasks: course management; student admission; development and delivery of courses; supervising laboratory classes and projects; and examination duties (setting and marking). In addition, the successful candidate will support some undergraduate related teaching and administration.

Other duties: General contribution to the academic work of the University commensurate with interests and skills, and the requirements of the Department.

Application process

Applicants should upload:

- (i) A document containing your Curriculum Vitae (CV), research publications list, and a brief narrative (300 words maximum per output) on each of your three outputs you consider most significant.
- (ii) A research proposal of no longer than three pages, including a description as to how your research plans fit with existing activities in the Department. It is not necessary to review the overall plans of existing research in Cambridge except where they are directly relevant to your proposal.
- (iii) A two-page statement on your approach to teaching and how you believe you can contribute to the success of the AMET Taught Masters and teaching in the Department.
- (iv) A one-page statement focusing on your contributions to and/or vision for improving research culture as well as Equality, Diversity and Inclusivity.

Shortlisted candidates will be invited to visit the department, to give research and teaching presentations, for informal discussion and formal interview.

Person specification

Essential

Desirable

Educated to degree level, with a PhD in Chemistry or a closely related discipline.

√

Evidence of excellence in research including a developing bibliography of research publications and the potential to develop a research programme to strengthen and complement existing research fields in the Department

√

A track record of securing research funding

√

Evidence of the successful teaching of chemistry and/or closely related fields at undergraduate and postgraduate level.

√

Willingness to contribute to the academic administration of the Department

√

An interdisciplinary and collaborative approach to research

√

Committed to advancing Equality, Diversity and Inclusion in STEM research and Higher education

√

The Yusuf Hamied Department of Chemistry



The [Yusuf Hamied Department of Chemistry](#) consists of a large number of strong research groups covering a very wide spectrum of science, centred on chemistry, but ranging from molecular biology to geophysics.

The appointee will find a warm welcome, and much support, from the flourishing [Theoretical Chemistry](#) and [Materials Chemistry](#) research interest groups.

Theoretical chemistry has deep roots in Cambridge starting from the pioneering work of John Lennard-Jones and carried forward by major figures such as David Buckingham, Nick Handy, Ruth Lynden-Bell, and Daan Frenkel: the tradition continues to this day. The appointee will have the opportunity to join the [Lennard-Jones Centre](#). The Centre brings together researchers from different departments across the University of Cambridge with a common interest in materials and molecular modelling and aims to foster an inclusive environment from which new ideas and collaborations can emerge.

The Department offers excellent support for new academics in the form of a generous and flexible start-up package, along with active mentoring from established academics. New recruits are also invited to join our Early-Career Academic Network, an important source of support, mentorship and sociability through its regular lunch-time meetings. The department supports flexible and family-friendly working policies (detailed below in the section *What Cambridge can offer*).

The Department consists of about 50 permanent members of the academic staff, 140 support staff, 300 postgraduate students and 200 postdoctoral research workers. The research is supported by a wide range of sources including the Research Councils, the European Union, industry and charities. The Department also receives direct funding from the University to maintain key support staff and facilities, along with significant

income from endowment funds.

The appointee will join a thriving group of academic staff members many of whom have been awarded major medals and prizes. In international comparisons the Department is consistently ranked in the top four and is the highest ranked department in the UK.

The range of research in the Department is exceptionally varied, and much of it is carried on in collaboration with other departments in Cambridge. The University encourages translational research and the commercial exploitation of intellectual property, and several members of the academic staff have spun out companies which have attracted significant funding.

The Department is housed in a single site in the centre of Cambridge. Two significant recent additions have been main to the main building: the Centre for Chemical Informatics (added in 2000) which houses research space, a library/study area and our 'Cyber Café'; and the Chemistry of Health building (added in 2018) which houses biological/biophysical research and a commercial incubator.

We attract applications from the highest quality PhD students and postdoctoral research staff from around the world. The administrative and support staff are of the highest calibre, enabling and supporting our research and other activities.

The teaching of undergraduate chemistry takes place within the framework of the Cambridge Natural Sciences Tripos. Chemistry is the most popular subject for first-year Natural Science students (about 450 each year), and it remains a popular subject right through the end of the course. Our third year class is typically 120, and of these about 80 go on to complete the fourth year (thus gaining an integrated masters). Current research in the Department is strongly represented in the latter years of the course.

Terms of appointment

Tenure and probation

Appointments are to the retiring age for established academic positions. For University Assistant Professors, the appointment is subject to satisfactory completion of a five year probationary period.

Working pattern

This is a full-time post

Pension

You will automatically be enrolled to become a member of the Universities Superannuation Scheme (USS). If you are already a member of the NHS Pension scheme, you may be eligible to continue in the scheme and should contact the Pensions section of the University: www.pensions.admin.cam.ac.uk

Annual leave

Subject to compliance with the Statutes and Ordinances relating to leave, full time officers are entitled in any holiday year to take a minimum of 28 days annual paid holiday. These periods are inclusive of public holidays that fall outside Full Term.

Sabbatical leave

Cambridge is generous in having statutory provision for leave of absence of one term for every six terms of service. Academic staff use this opportunity for study and research.

Residence

It is a requirement of the role that you are resident in the University during term-time.

College membership

Membership of a College adds an important social and many of the University's academic community find attractive.

Appointment to a College fellowship is a separate matter from a University appointment. Most colleges expect their fellows to take part in undergraduate supervision and College administration, for which the College provides modest remuneration additional to University salary.

Many academic staff will be invited to join a College as a teaching fellow, but it is not compulsory for academic staff to be a member of a College. The Head of Institution or senior colleagues can offer more advice.

General information

Pre-employment checks

Right to work in the UK - we have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. If you do not have the right to work in the UK already, any offer of employment we make will be conditional upon you gaining it.

Health declaration - once an offer of employment has been made the successful candidate will be required to complete a work health declaration form.

Qualifications - the person specification for this position lists qualifications that are essential and/or desirable. Please note that if you are offered the post you will be asked to provide your relevant original certificates of these qualifications.

References - offers of appointment will be subject to the receipt of satisfactory references.

Equality, Diversity and Inclusion

The University of Cambridge is committed in its pursuit of academic excellence to equality of opportunity and to a proactive and inclusive approach to equality, which supports and encourages all under-represented groups, promotes an inclusive culture, and values diversity. We particularly encourage women and /or candidates from a Black, Asian and Minority Ethnic background to apply for this vacancy as they are currently under-represented at this level within our University.

Information if you have a disability

The University welcomes applications from individuals with disabilities.

We are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so and, if successful, to assist them during their employment. Information for disabled applicants is available at

www.admin.cam.ac.uk/offices/hr/staff/disabled/

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time. If you prefer to discuss any special arrangements connected with a disability, please contact, the Department's Academic Secretary, Dr Howard Jones, who is responsible for recruitment to this position.

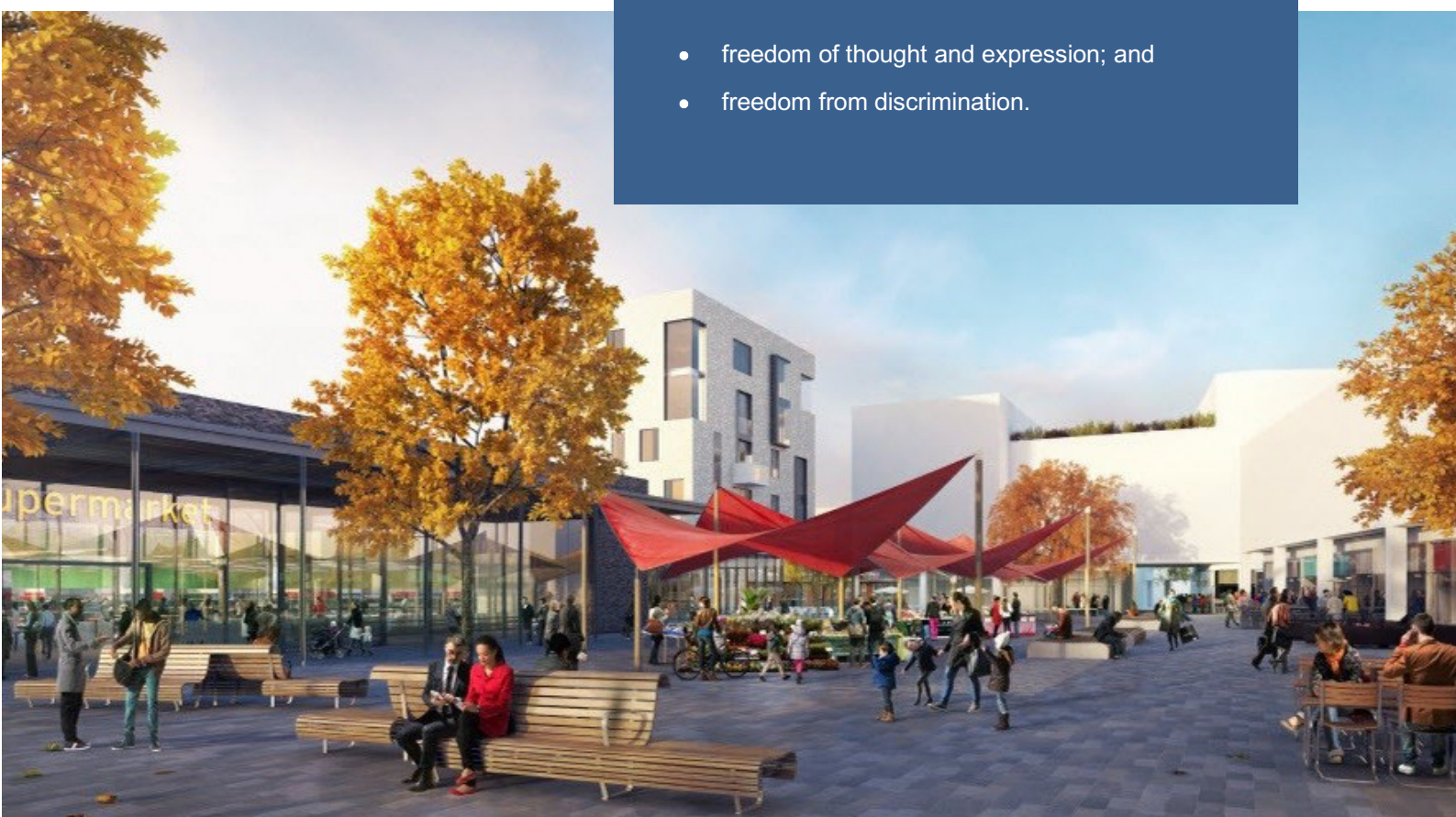
The University

The University of Cambridge is one of the world's oldest and most successful universities. We are a renowned centre for research, education, and scholarship that makes a significant contribution to society. The University is consistently ranked amongst the top universities in the world. Our affiliates have won more Nobel Prizes than any other University.

Our sustained pursuit of academic excellence is built on a long history of first-class teaching and research within a distinctive collegiate system. For eight centuries our ideas and innovations have shaped the world. Our principal goal is to remain one of the world's leading universities in an increasingly competitive global higher education sector. Today the University of Cambridge is at the centre of a cluster of over 4,300 businesses employing 58,000 people. Our capital investment projects include the West Cambridge site, the North West Cambridge development and the growth of the Biomedical Campus in the south of the city. The North West Cambridge development includes the opening of a primary school – the first in the UK to be managed by a University. So we are deeply embedded in, and committed to serving, our local community. These are all conspicuous signs of a University that is not only adapting to new needs, but also anticipating the future.

Our mission is to contribute to society through the pursuit of education, learning, and research at the highest international levels of excellence. Our core values are:

- freedom of thought and expression; and
- freedom from discrimination.





About us

The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public, representing one of the country's highest concentrations of internationally important collections.

The University has an annual income of £1.66 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £400 million per annum and continues to grow.

The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support.

The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit students, provide

Our ideas and innovations have shaped the world. Our campaign, 'Dear World... Yours, Cambridge', will raise £2 billion to help us shape all our futures.

student accommodation and deliver small group teaching. The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching and conducting research.

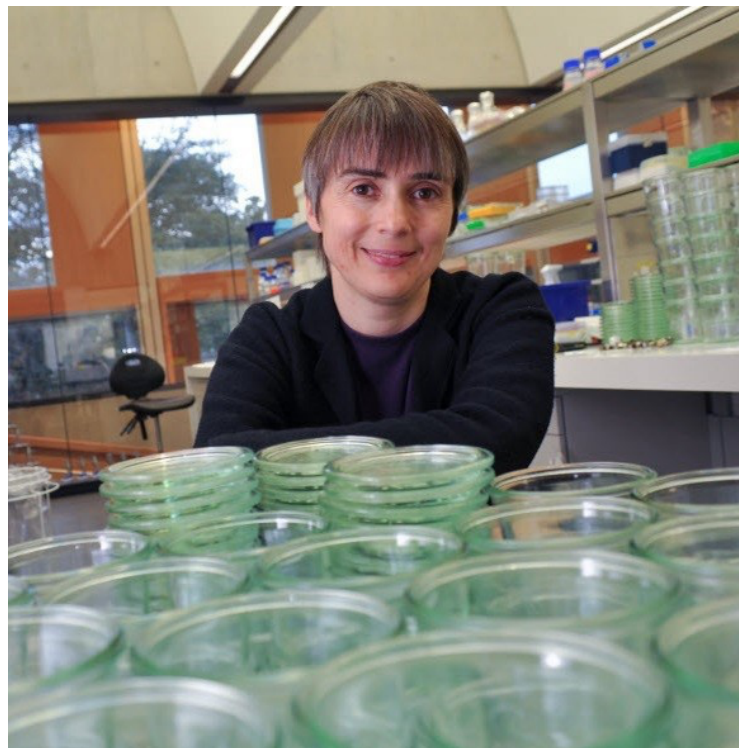
The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a new science and technology campus to the west of the city centre, and is now expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with our continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and we continue to redevelop our historic city centre sites demonstrating our determination to ensure that we can offer the best facilities and opportunities for our staff and students.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

Working at the University

Working at Cambridge you will join a diverse, talented and innovative community, with more than 18,000 students and over 11,000 staff from all walks of life and corners of the world.

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels. Furthermore, the University's Athena SWAN award recognises and celebrates good practice in recruiting, retaining and promoting women. We offer a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment. The University has signed up to the Race Equality Charter, a notional framework for improving the representation, progression and success of minority ethnic staff and students within higher education.



Living in Cambridge



Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.

If you prefer the faster pace of life, London is a 45 minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away.

The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes.

Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

Further information about attractions in and around Cambridge can be found at [Visit Cambridge](#), the official tourism website for the city.



What Cambridge can offer

We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work. The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a career break scheme for academic and academic-related staff, with additional flexible working policies for all other staff.

CAMbens employee benefits

We offer a CAMbens scheme for University employees, providing access to online and in-store shopping discounts and cashback. With more than 2,000 participating retailers, employees can save money on a wide range of household expenses, from groceries and clothes, to holidays and insurance and much more. A range of local discounts are also available, helping employees to save money whilst also supporting local Cambridge businesses. CAMbens Cars and CAMbens Cycle to Work salary sacrifice schemes are also available, which enable employees to save money on transport costs. A 10% discount rate on the purchase of train season tickets, bulk buy tickets and an interest free travel to work loan are also available for staff of the University of Cambridge.

Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of family-friendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave

entitlement of 18 weeks full pay and emergency family care support via My Family Care. In addition, our highly regarded workplace nurseries, childcare vouchers, a childcare salary sacrifice scheme and a high quality holiday play scheme are available to help support University employees with caring responsibilities. The Newcomers and Visiting Scholars Group is an organisation within the University run by volunteers whose aim is to help newly arrived wives, husbands, partners and families of Visiting Scholars and members of the University to settle in Cambridge and give them an opportunity to meet local people. The Office of Postdoctoral Affairs supports the postdoctoral community within Cambridge. Further details are available here: <https://www.opda.cam.ac.uk/>

Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. There are many societies in Cambridge catering for almost every taste and interest. Whether you want to take part in a sport, participate in music or drama, pursue a hobby, or join a political group, you will almost certainly find that a society exists for this purpose. The University also hosts the [Cambridge Festival of Ideas](#), as well as [Open Cambridge](#) weekend, which together attract over 50,000 visitors per year. The festivals are a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.



What Cambridge can offer

Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings. Payroll giving is also a simple, tax-efficient way for employees to make monthly donations to charity.

Relocating to Cambridge

The University Accommodation Service exists to help employees in their search for a rental home in Cambridge. A new University development at NorthWest Cambridge called Eddington offers subsidised rented accommodation to University staff. The development consists of high quality furnished one and two bedroom apartments. For more information about the development and how to apply please visit the [website](#).



The importance of helping individuals settle into a new area is also recognised by the University. The [Shared Equity Scheme](#) provides financial assistance to qualifying new members of staff with the purchase of living accommodation, where they have to relocate to take up their appointment. Removal expenses are also available for qualifying new members of staff.



Equality, Diversity and Inclusion

The University has a vibrant and varied community. We support and encourage under-represented groups and we value diversity. We welcome applications from individuals with disabilities. Our recruitment and selection procedures follow best practice. We have an Equal Opportunities Policy, along with a range of diversity networks for women, black and minority ethnic and lesbian, gay, bisexual and transgender staff. More details are available here: <http://www.equality.admin.cam.ac.uk/>

Development opportunities

We support new employees to settle in through various activities. The encouragement of career development for all staff is one of the University's values and we put this into practice through various services and initiatives. Our Personal and Professional Development Department provides development opportunities and courses for all University employees. These include face-to-face sessions, online learning modules and webinars. Employees may also apply for financial support to undertake training that will lead to a qualification. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. The CareerStart@Cam programme also supports employees in assistant staff roles who do not hold higher education qualifications to develop their skills, experience and qualifications.

Whether it is understanding the molecular basis of neurodegenerative diseases, or helping farmers in India increase their yield, or discovering better ways to live in large cities – I know that what we do in Cambridge affects lives, and livelihoods, the world over.

Vice Chancellor Emeritus, Professor Sir Leszek Borysiewicz, 2016

How to apply

Applications should be submitted online via the University of Cambridge jobs page www.jobs.cam.ac.uk by clicking “Apply online” in the job advert. You will need an email address to register for our online system

As a signatory of DORA (<https://sfdora.org>), the University is committed to assessing research on its own merits rather than on the basis of the journal in which it is published.

Informal enquiries are welcomed and should be directed to:

Professor James Keeler, Head of Department

Email: hod@ch.cam.ac.uk

The closing date for applications is 11 October 2024

