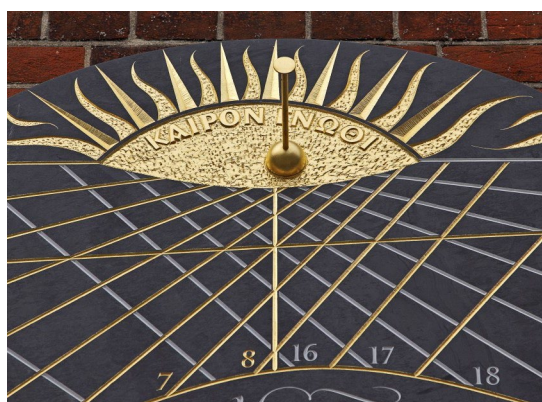


# Assistant/Associate Professor in Energy Materials

Department of Materials Science & Metallurgy  
Closing date: 15 October 2024  
Job Reference: LJ42813



# Assistant/Associate Professor in Energy Materials

## Salary:

£45,585 - £57,696 or  
£61,198 - £64,914

## Contract:

Permanent

## Location:

West Cambridge

## Department:

Materials Science  
& Metallurgy

## Responsible to:

Head of Department

## Working pattern:

Full-time

## Start date:

1<sup>st</sup> January 2025 or soon after

## The role

The Department of Materials Science & Metallurgy (DMSM) invites applications for an Assistant/Associate Professorship in Energy Materials.

The Department offers a world class research and teaching environment ([www.msm.cam.ac.uk](http://www.msm.cam.ac.uk)). The successful candidate will have a world-class research track record in the area of Energy Materials and present a compelling vision for a long-term science programme, building on the Department's existing capabilities and taking advantage of the unique research environment in Cambridge to build collaborations and deliver new science and applications.

The Assistant/Associate post will underpin the new "Advanced Materials for the Energy Transition" (AMET) Taught MPhil Programme, which is a joint course with the Departments of Physics and Chemistry 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 Taught MPhil, working closely with co-directors in the DMSM and the Departments of Physics and Chemistry. 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. They will also support teaching and administration at other levels in the department.

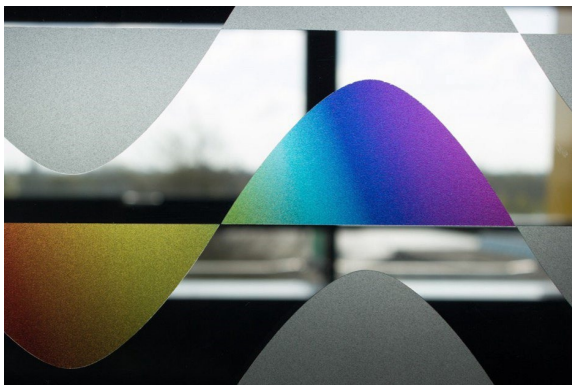
The post will be based at the Department of Materials Science and Metallurgy, and laboratory and office space for the appointee and their group will be provided within the Department.

The Department is active in promoting policies to address historic underrepresentation of women and minority groups in its workforce. We have an active forum on Equality, Diversity and Inclusion (EDI), and are working towards external certification. Candidates from underrepresented groups, as well as candidates with a track record in addressing barriers to EDI in 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 wide range of Materials Science courses successfully at both undergraduates and master's level. This work will include the delivery of new courses for AMET, the development of new teaching materials, lecture courses, examinations and laboratory classes at undergraduate and graduate levels.



# Key responsibilities



## Key responsibilities

The successful candidate will develop a research programme in Energy Materials. In addition to research, the successful candidate will co-direct the AMET Taught MPhil and will be involved in the teaching needs of the DMSM 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:** Carry out 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 Taught MPhil which includes the following: 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.

General contribution to the academic work of the Department of Materials Science & Metallurgy and the University beyond teaching and research will be commensurate with interests and skills and the requirements of the Department.

## Application process

Applicants should upload:

- A document containing your Curriculum Vitae (CV), research publications list, and a brief narrative (300 words maximum per output) on each of the three outputs you consider most significant.
- A research proposal of no longer than 3 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.
- 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.
- 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 Materials Science, or a closely related discipline and sufficient breadth and/or depth of knowledge to be able to teach materials science at a high standard at postgraduate and undergraduate levels.

√

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 and engagement with industry

√

Evidence of the successful teaching of materials science and related field at undergraduate and postgraduate level.

√

Willingness to contribute to the academic administration of the Department

√

An interdisciplinary and collaborative approach to research

√

Demonstrable commitment to the advancement of women's careers in science, and to the University's wider commitment to equality, diversity and inclusion.

√

**In addition to the above criteria, applications at the level of Associate Professor will be expected to show evidence of the following;**

Consistently conducts research addressing significant questions, and advancing the boundaries of the field.

√

Consistently delivers excellent teaching that benefits from and engages with a research-rich environment and is intellectually challenging

√

Consistently delivers high-quality research supervision and ensures that early-career researchers receive opportunities to develop their potential

√

Consistently makes an effective contribution to the wider academic community and promotes collegiality

√

# The Department of Materials Science and Metallurgy



**The Department has over 30 academic staff, (including staff extended beyond retirement age, established academic staff and early-career research fellows), approximately 50 administrative, technical and other support staff, and around 80 postdoctoral researchers, 150 postgraduate students and 20 visiting scientists at any time. Our research falls into six themes: structural materials, device materials, materials chemistry, clean energy and sustainability, medical and pharmaceutical materials and materials characterisation (particularly electron microscopy).**

In 2013 the Department moved to a new purpose-built building on the West Cambridge Site. This is the first time all academic groups have been housed together in a single building.

In the last UK Research Excellence Framework (REF 2021), for the first time, our Department was included within the Engineering Unit of Assessment (UoA), together with the Department of Chemical Engineering and Biotechnology, and the Department of Engineering. 99% of the submission as a whole was rated 'world leading' or 'internationally excellent'.

Research funding totals around £12M per annum, and come from a variety of sources: about 40% from the UK research councils and government, 40% from the EU (including a large number of European Research Council grants), 20% for industry, overseas governments and charities.

The Department offers a 3 or 4 year BA/MSci degree within the Natural Sciences Tripos (NST), with the majority of students completing the 4-year course. In year 1 the students read four subjects, in year 2 three subjects, before specialising in one subject only. Over 280 take Materials Science in year 1, over 80 in year 2, and over 25 in years 3 and 4. In addition, 15-20 students are admitted each year to the one-year MPhil in Micro- and Nanotechnology Enterprise administered by the Department. Further details of the teaching programme can be found on the teaching pages of the departmental website: <http://www.msm.cam.ac.uk/teaching>. We are expecting between 20-30 students to be admitted to the new Taught MPhil on "Advanced Materials for the Energy Transition" (AMET) from October 2025.

We have a thriving Graduate School. Almost all postgraduate research students are working for the PhD, which they complete on average in 3.5 years. We play a prominent role in a number of centres for doctoral training, including the NanoDTC and the CDT in Computational Methods for Materials Science (in collaboration with the Department of Physics at Cambridge).

For more information: <https://www.msm.cam.ac.uk/>

# Terms of appointment

## Tenure and probation

Appointments are to the retiring age for established academic positions. For University Associate Professors and 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/](http://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. Further information can be found here:

<https://www.admin.cam.ac.uk/univ/so/2019/chapter11-section1.html#indexterm-d358e257>

## 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 and 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. (Please see relevant guidance before inclusion:

<https://www.hr.admin.cam.ac.uk/recruitment/equality-law-and-recruitment/exceptions-equality-law/positive-action> )

### 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/](http://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 Rosie Ward, who is responsible for recruitment to this position.

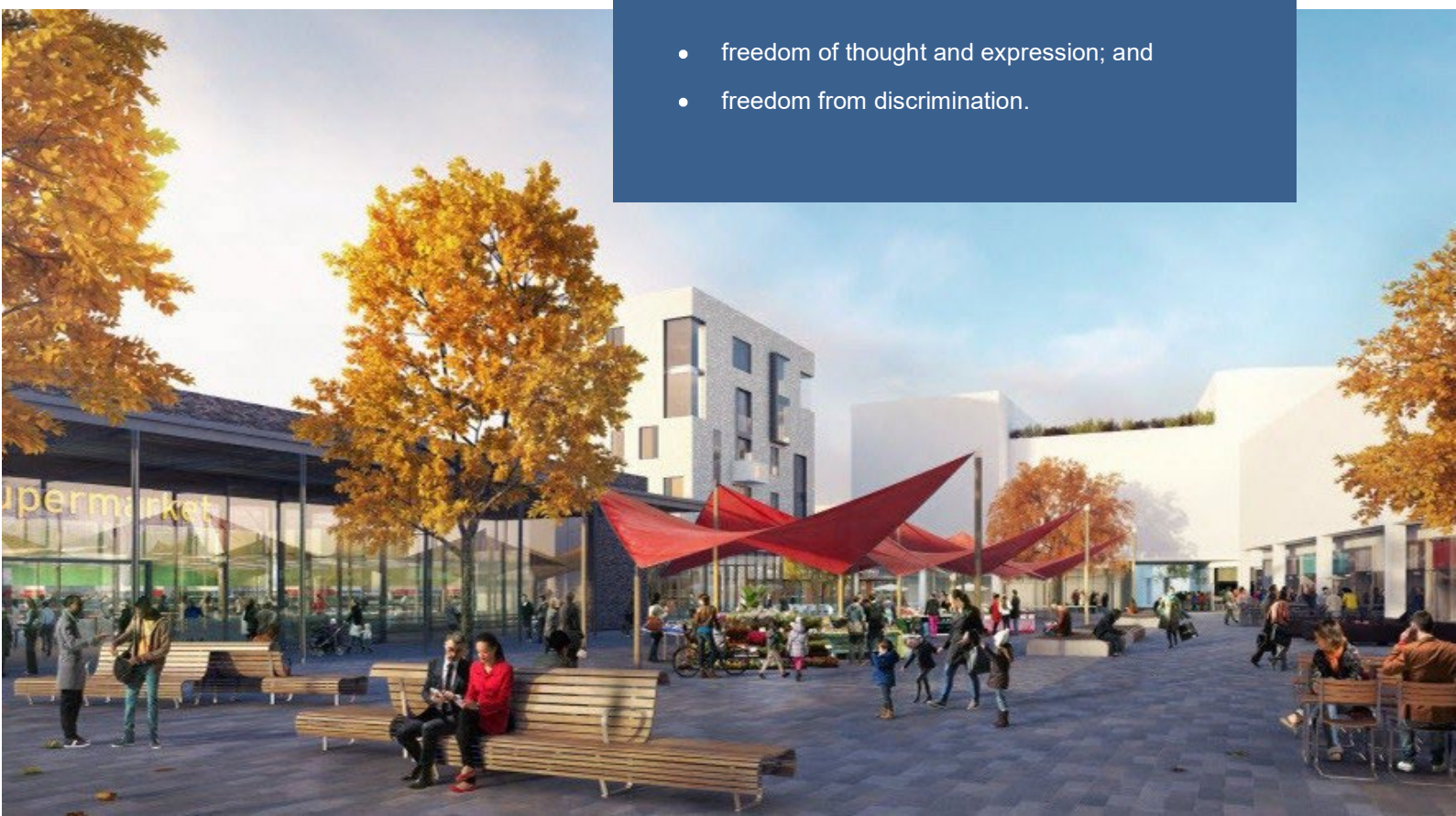
# The University

**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.

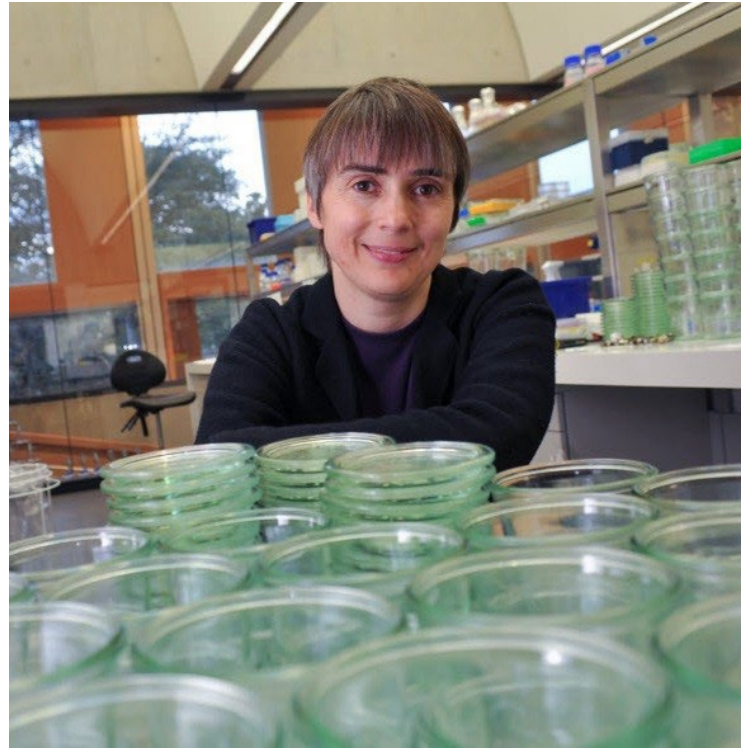
Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; 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](http://www.visitcambridge.org), 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 Science Festival and 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 [www.nwc.cambridge.co.uk](http://www.nwc.cambridge.co.uk)



The importance of helping individuals settle into a new area is also recognised by the University. The Shared Equity Scheme <https://www.hr.admin.cam.ac.uk/pay-benefits/cambens-employee-benefits/financial/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

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](http://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:

The Office of the Head of Department  
(James Elliott, Ruth Cameron, and Jason Robinson)

**Tel:** +44 (0)1223 334561

**Email:** [hod@msm.cam.ac.uk](mailto:hod@msm.cam.ac.uk)

The closing date for applications is 15 October 2024