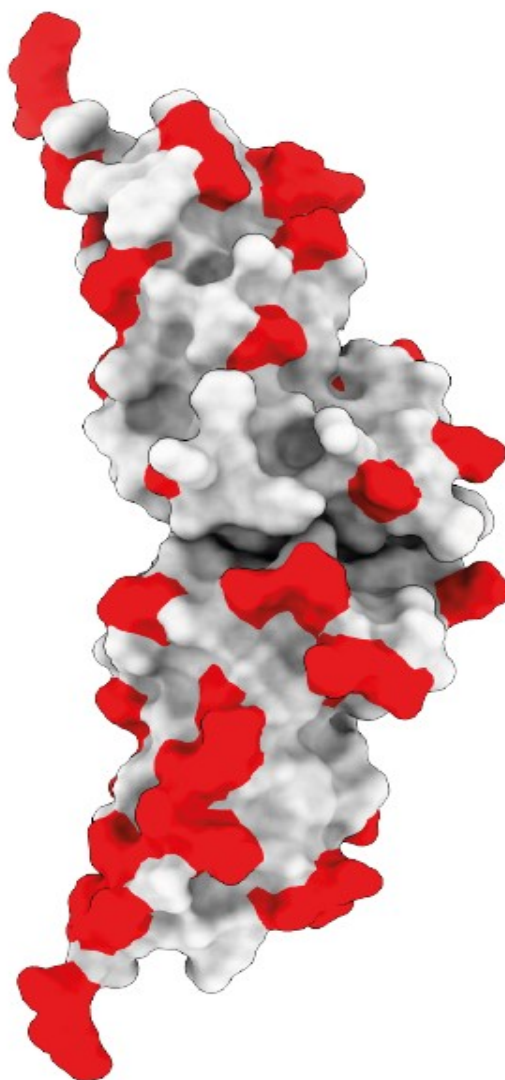


# Research Associate (Fixed Term)

Department of Genetics

Reference: PC43067

Closing date: 29 September 2024



# Research Associate (Fixed Term)

## Salary:

£36,024 -£44,263

## Contract:

Fixed-Term for 3  
years in the first  
instance

## Location:

Central Cambridge

## Department:

Department of  
Genetics

## Responsible to:

Dr Antoine Hocher

## Working

## pattern:

Full-time

Applications are invited for a Postdoctoral Research Associate to join the group of Dr Antoine Hocher at the Department of Genetics in central Cambridge.

We are looking for a curiosity-driven and ambitious biologist to join our small team focusing on molecular mimicry. The successful candidate will be leading key bioinformatics projects of the lab, including screens to identify new DNA mimicking proteins, *in silico* protein engineering to create entirely new mimicking proteins and studying the natural diversity of mimics and their evolution.

The focus of the role will be to establish large scale bioinformatic screens to identify new cases of molecular mimicry. This involves combining protein structure prediction tools (AlphaFold, Rosetta) with tailored structure comparison algorithms.

In addition, the applicant will explore the natural diversity of DNA mimicking proteins to understand the determinants of successful molecular mimicry. This background knowledge will be used in combination with *in silico* protein design tools to explore the production of entirely new mimicking proteins.

The applicant will also have the opportunity to study the implication of DNA mimicking proteins in prokaryotic gene flow, and more particularly in the spread of antibiotic resistance genes.

This is a bioinformatics role, therefore significant coding experience is essential, with knowledge in protein structure analysis. The candidate must be fluent in Python or R with familiarity in high performance computing. Working knowledge of protein sequence evolution analysis would also be valuable. Candidates with a mixed wet-lab and bioinformatics background are encouraged to apply, as the role can potentially be adapted to include wet-lab experiments depending on the candidate's expertise and interests.

A strong knowledge and, more importantly, a broad curiosity about protein-DNA interactions across the tree of life are essential.

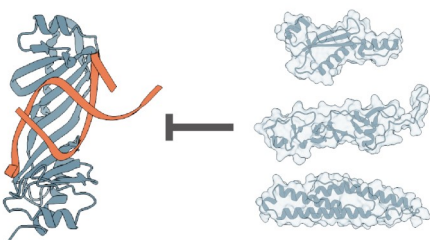
Suitable applicants should hold a PhD in a relevant scientific discipline and be able to demonstrate a driven work ethic and perseverance. A track record in protein structure analysis is a plus. They will ideally have experience of supervising junior lab members and students and be confident at delivering bioinformatic training.

Strong communication skills and the ability to discuss research with different audiences is essential. This includes presenting at conferences, contributing to publications, supporting teaching activities and helping to lead group discussions.

Informal enquiries about the role are welcome and should be directed to

**Dr Antoine Hocher** [ah2368@cam.ac.uk](mailto:ah2368@cam.ac.uk)

The role is available for an immediate start and we will be looking to interview shortly after the closing date. The start date is flexible but ideally no later than January 2025.



# Person specification

	Essential	Desirable
<b>Education &amp; Qualifications</b>		
Holds a PhD in a relevant scientific discipline	✓	
Publications/preprints showing a track record of previous research		✓
<b>Specialist Knowledge and Skills</b>		
Able to demonstrate advanced knowledge of protein biology, DNA based processes as applicable to the role	✓	
Excellent practical and theoretical understanding of protein biochemistry and protein-DNA interactions	✓	
Proficiency in Python or R	✓	
Proficiency in protein structure bioinformatics	✓	
Familiar with cutting edge developments in protein structure prediction		✓
Familiar with latest development in silico protein design		✓
Able to manage own workload and coordinate/supervise others	✓	
Excellent communication and teamwork skills	✓	
<b>Relevant Experience</b>		
Experience developing and optimising cutting-edge protein structure analysis or prediction tools		✓
Experience with high performance computing systems		✓
Experience analysing large protein sequences datasets	✓	
Experience studying phylogenetics		✓
Experience in basic wet lab techniques		✓
Experience preparing high quality figures for publications and presentations	✓	
Experience training, teaching, or supervising others		✓
Experience working as part of an interdisciplinary team	✓	
Experience writing and/or managing grants		✓



The Department of Genetics is a world-class research and teaching environment with particular strengths in quantitative approaches to genomics, epigenetics, population and evolutionary genetics, cell and developmental biology, and microbial genetics. The Department's core staff consists of 20 different research groups led by Principal Investigators (PIs) in academic or senior research roles. In total there are 22 academic staff, 48 members of research staff, 80 postgraduate students and an excellent team of 36 Professional Support Staff.

The Department has multiple collaborative links with other local institutes, particularly the Gurdon Institute, the Sainsbury lab, and the Cambridge Stem Cell Institute as well as with colleagues at the Biomedical Campus, the Wellcome Trust Sanger Institute and the European Bioinformatics Institute. It participates in a range of University Strategic Research Initiatives including Cambridge Neuroscience, Infection and Immunity, and Reproduction. Members of the Department contribute to several of the School of Biological Sciences Research Themes, including leadership roles in Functional and Evolutionary Genomics, and Reproduction, Development and Lifelong Health (<https://www.bio.cam.ac.uk/research/research-themes>) The Department is fully committed to the University Open Research agenda (<https://osc.cam.ac.uk/open-research/open-research-position-statement>) and strongly supports efforts to increase research reproducibility and transparency

The Department is located on the Downing Site in the centre of Cambridge, with an Evolutionary Genetics Laboratory 3 miles to the west of the city centre. The Department prides itself on the excellence of its research and teaching and has recently undergone major refurbishment providing state-of-the-art analytical and experimental research space, with additional community areas. There is a substantial research programme supported by external funding and a teaching programme covering a wide variety of courses ranging from small group tuition to lectures for 300-400 students.

The Department offers a stimulating, friendly and supportive work environment, we encourage innovation in research, teaching and the way we work. All staff are encouraged to play a full part in the life of the Department through teaching, research, participation in a range of seminars, regular staff

meetings and social gatherings and activities. We also have an active social media presence and encourage all staff to share their achievements.

We have a number of Departmental committees (Strategy, Infrastructure, Safety, Postgraduate Education, Teaching and Equality & Wellbeing) with representatives from different staff groups helping to develop and improve our policies and ways of working. These are supported by smaller working groups such as the Library and IT Working Group and the Professional Support Staff Forum.

When possible, the Department encourages a vibrant social life which includes regular happy hours, various get-togethers throughout the year, and a variety of wellbeing activities. The Department values interactions with the wider community and there are opportunities to contribute to outreach through for example the Annual Science Festival, Library activities, interactions with local schools and many others.

The Athena SWAN Charter was launched in June 2005 to recognise and reward commitment to advancing the careers of women working in higher education in science, technology, engineering, mathematics and medicine (STEMM). Although developed to address the lack of female representation in these subjects, the activities that support the Charter contribute towards a more positive working environment for all.

The Department currently holds Athena Swan Bronze Award status, attained in October 2018. This is supported by ongoing activities; actively encouraging female research staff into group leader positions, instigating dignity at work seminars for all staff, publicising and promoting our outreach and public engagement and promoting equality and wellbeing and family friendly policies (amongst others). The Department is committed to building a respectful working environment and fully supports the University Research Culture Action Plan (<https://www.postdocacademy.cam.ac.uk/research-culture>).



# The School of the Biological Sciences



**The goal of the School of the Biological Sciences is to deliver education, learning and research at the highest international levels of excellence. Building on our record as a world class University for Biological Sciences we aim to work in innovative ways to achieve ongoing excellence in a supportive and collaborative research and teaching environment.**

The research and teaching carried out in the School is diverse and covers animal, human, plant and microbial science from the atomic, molecular and cellular levels through to tissues, organs, whole organisms, populations, ecosystems, biodiversity, and human behaviour. This research has impacts on health and disease across species, agriculture, conservation and the environment as well as on the pharmaceutical and biotechnology industries, with direct translational relevance to the clinic, public services and social policy, and the bio-economy.

Research in the School is organised in six major Themes, designed to provide integration across the School, encourage new conversations and enhance interdisciplinary networking critical for major innovation:

- Molecules and Cells: The Building Blocks of Life
- Infection and Immunity
- Neuroscience, Psychology and Behaviour
- Functional and Evolutionary Genomics
- Reproduction, Development and Lifelong Health
- Organisms, Evolution and Planetary Resilience

The School has teaching responsibilities in four undergraduates triposes: Natural Sciences, Medical Sciences, Veterinary Sciences and Psychological and Behavioural Sciences. It is part of the Graduate School of Life Sciences, which organizes and manages the graduate training and monitoring for Masters and PhD students, along with the Degree Committee.

# Terms of appointment

## Tenure and probation

Appointments will be made on a fixed-term basis for a period of 3 years in the first instance.

Appointments will be subject to satisfactory completion of a six month probationary period.

## Hours of Work and Working Pattern

The hours for the position are full-time working Monday – Friday.

## Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a defined benefits pension scheme. For further information please visit:

[www.pensions.admin.cam.ac.uk](http://www.pensions.admin.cam.ac.uk)

## Annual leave

Full time research staff are entitled to 41 days paid annual leave inclusive of public holidays.

## 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 to you will be conditional upon you gaining it.

## Health declaration

Once an offer of employment has been made the successful candidate will be asked 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.

## Information if you have a disability

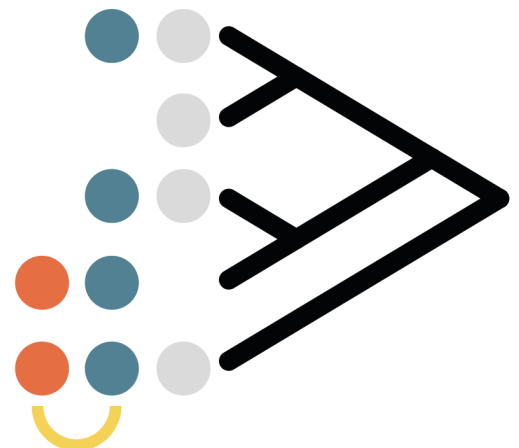
The University welcomes applications from individuals with disabilities.

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 <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, Sam Laister - HR Coordinator, who is responsible for recruitment to this position [s1725@cam.ac.uk](mailto:s1725@cam.ac.uk)





# The University

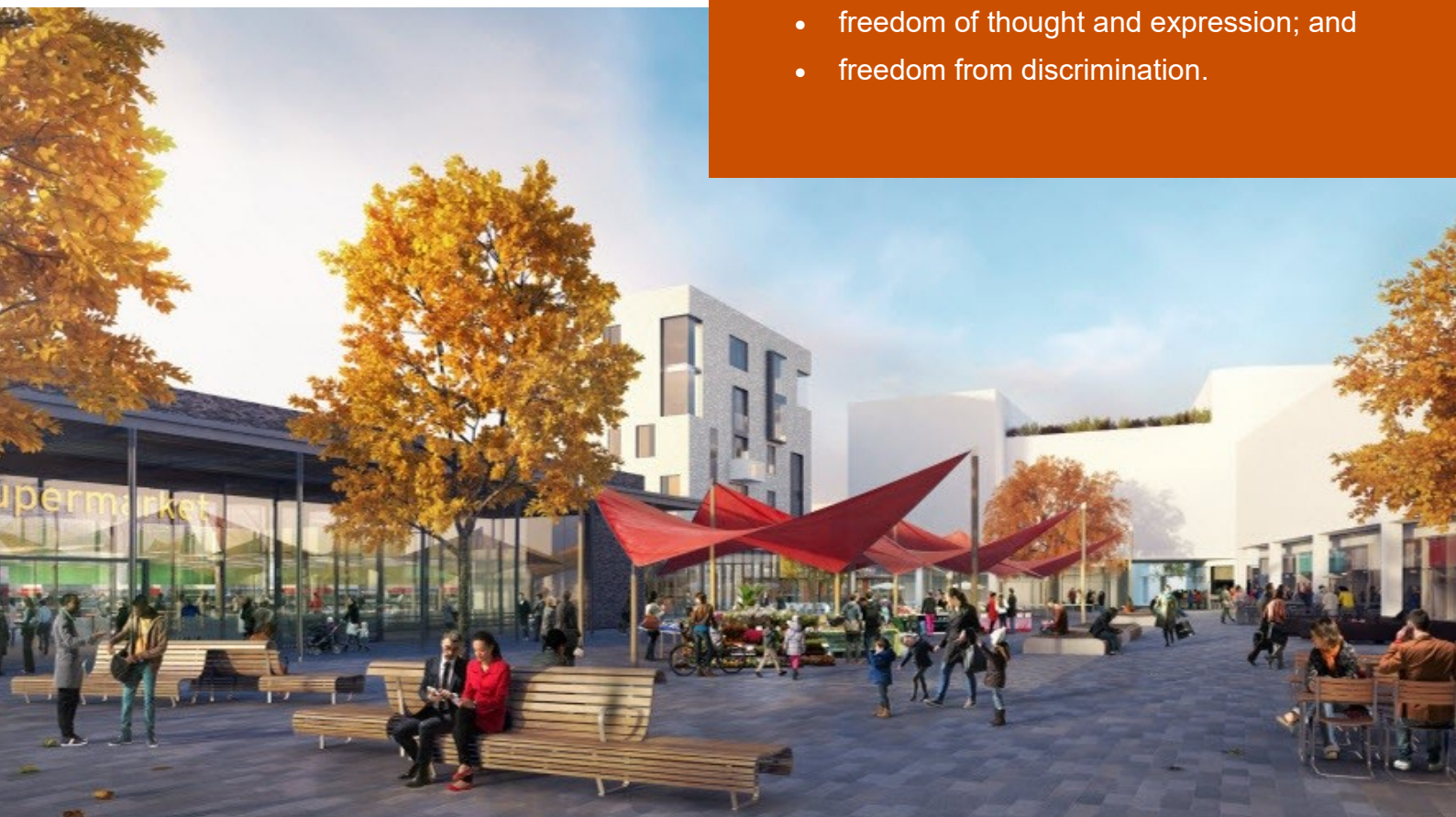
**The University of Cambridge is one of the world's oldest and most successful universities. We are a renowned centre for research, education, and scholarship that makes a significant contribution to society. The University is consistently ranked amongst the top universities in the world. Our affiliates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

Our sustained pursuit of academic excellence is built on a long history of world-leading 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 academic and commercial growth at both the West Cambridge Innovation District, and the Biomedical Campus in the south of the city. Eddington, in North West Cambridge, is a mixed-use development including key worker housing for staff, a community centre and a new primary school, managed by the University. Through these projects, the University is 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 £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 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 undergraduate students, provide student accommodation and pastoral support and deliver small group teaching for undergraduates.

The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching.

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.

“Cambridge graduates and researchers have made – and continue to make – a colossal contribution to human knowledge and the understanding of the world around us. Their work touches on the lives and livelihoods of everyone from patients diagnosed with life-threatening diseases, to residents of areas critically affected by climate change, to children growing up in conflict zones. It has a lasting impact on our society, our economy and our culture: the world is truly a better place thanks to their efforts.”

*Stephen Toope, Vice Chancellor 2019*





# Working at the University

**Working at Cambridge you will join a diverse, talented and innovative community, with more than 23,000 students and over 16,000 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.

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'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.



## **Equality & diversity**

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity groups, including the Women's Staff Network, Race Equality Network and LGBT+ Staff Network. More details are available here: <http://www.equality.admin.cam.ac.uk/>

The University has a bronze Race Equality Charter award, with a framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's silver Athena swan award recognises and celebrates good practice in recruiting, retaining and promoting gender equality.

# 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.**

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances at the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the [Visit Cambridge](#) website.

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.



## Relocation Support

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit <https://www.accommodation.cam.ac.uk/RelocationService/>. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of staff with the costs of relocating to Cambridge. For staff who require a Skilled Worker Visa, Global Talent Visa or Settlement (known as indefinite leave to remain) to take up employment with the University, we offer an interest free [visa loan scheme](#) for current and prospective staff (and their dependants), to help meeting the cost of obtaining a visa.

## Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit <https://www.accommodation.cam.ac.uk/>



# 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.

## 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.



## CAMbens employee benefits

The University offers employees a wide range of competitive benefits, known as CAMbens. CAMbens offers something for everyone across a range of categories, including:

- Financial Benefits, including shopping discounts (both local and national) and a Payroll Giving scheme;
- Relocation and Accommodation Benefits, including relocation assistance and interest-free Rental Deposit Loans;
- Travel Benefits, including Cycle to Work, discounts on train season tickets and interest-free Travel to Work loans;
- Family Friendly and Lifestyle Benefits, including support with childcare and family friendly policies;
- Health and Wellbeing Benefits, including a University Staff Counselling Service, discounts at the University Sports Centre, and other local gyms, and healthcare schemes.





# What Cambridge can offer

## 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 paid emergency leave for parents and carers.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high quality holiday Playscheme may be available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here: <https://www.childcare.admin.cam.ac.uk/>

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 Postdoc Academy supports the postdoctoral community within Cambridge. Further details are available here: <https://www.postdocacademy.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. The University delivers The Festival of Wellbeing annually, which is a programme of stimulating talks and activities, which aim to promote wellbeing and good mental and physical health. The University also hosts the [Cambridge Festival](#), which is a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

## Development opportunities

We support new employees to settle in through various activities as well as supporting their professional and career development on an ongoing basis. Our Personal and Professional Development (PPD) team provide development opportunities for all University employees, including face-to-face sessions, online learning modules and webinars. All employees also have unlimited access to LinkedIn Learning to support their development. Both new and existing employees can undertake funded Apprenticeships, which lead to a range of vocational and professional qualifications. 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. A range of University training providers also offer specialist learning and development in their own areas e.g. teaching and learning, digital literacy, finance, health and wellbeing, safety.





# 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.

Please include a copy of your **CV and a Cover Letter** in the Upload section of the online application. The letter should explain how you meet the requirements of the role, as listed in the Person Specification section of this document. Please do not include any additional documents as we will not be able to consider these as part of your application.

Conversations about flexible working are encouraged at the University of Cambridge. Please feel free to discuss flexibility prior to applying (using the contact information below) or at interview if your application is successful.

Informal enquiries are welcomed and should be directed to Dr Antoine Hoher [ah2368@cam.ac.uk](mailto:ah2368@cam.ac.uk)

If you have any queries regarding the application process please contact Sam Laister [HRadm@gen.cam.ac.uk](mailto:HRadm@gen.cam.ac.uk)

**The closing date for applications is midnight on Sunday 29th September 2024.**

