

# TECHNICIAN IN MICROBIOLOGY

School of Biological Sciences

TC881

**CANDIDATE BROCHURE**





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# WHAT MAKES UEA SO SPECIAL?

The University of East Anglia is a publicly funded major UK research and teaching university. It was built to embody a radical new vision for higher education, where interdisciplinarity is crucial and excellence in both research and teaching is valued. UEA consistently ranks within the top quarter of universities in the UK for the quality of research and teaching.

As a major regional employer and cultural centre, we take our regional civic responsibilities very seriously and have kept our sights on the people and place we call home. In fact, we launched our University Civic Charter in October 2023; created from in-depth community engagement, renewing our commitment to the region as part of our 60th anniversary.

There are many things which make UEA special, not least of which is the community of staff and students that work and study here. UEA includes four Nobel prize winners, including Sir Paul Nurse and Sir Michael Houghton, and many fellows of the Royal Society and British Academy amongst our alumni and current staff.

Our campus is home to Sir Denys Lasdun's iconic brutalist architecture set in hundreds of acres of beautiful country park that includes a large broad (lake). In the spirit of Lasdun's ambition to inspire an anatomy of ideas, today, UEA is tackling some of the key challenges of the changing world. UEA's research combines disciplines

and breaks new boundaries across its priority research themes of climate, creative and health.

UEA is the place where global warming was first documented. Since the 1970s, UEA's Climatic Research Unit, and more recently Tyndall Centre for Climate Change (Headquarters hosted at UEA), have played a pivotal role in developing temperature records and climate models, contributing to the understanding of climate change, and informing global policy. Our Professors Corinne Le Quere and Rachel Warren were recipients of Nobel Peace Prize (2007), awarded to Al Gore and the Intergovernmental Panel for Climate Change (IPCC) in recognition of efforts to increase public knowledge of anthropogenic climate change. Environmental Science and Global Studies at UEA continue to be a major powerhouse for research and teaching.

UEA is widely regarded as a pioneer in creative writing, having established the UK's first Creative Writing Masters programme in 1970. This renowned programme has since attracted and produced numerous successful writers, including Booker Prize winners such as Ian McEwan and Anne Enright, and Nobel Prize Winner Kazuo Ishiguro. In recent years, UEA academics have played a pivotal role in the discovery and presentation of the Gloucester Royal shipwreck (Norfolk's Mary Rose). Our iconic Sainsbury Centre for Visual Arts is a major museum and arts research facility.



Health research at UEA not only embraces the Faculty of Medicine and Health but draws in research from both social and natural sciences. Research under this theme has made major contributions in the fields of healthy ageing, epidemiology and involving citizens (via our innovative Citizens' Academy) in improving health care outcomes. This theme benefits from close association with the other major research institutes on the Norwich Research Park; notably the Norfolk and Norwich University Hospital and the Quadram Institute. The Norwich Cancer Research Network, and Norfolk Institute for Healthy Ageing, are examples of key mechanisms for delivery of real impact from health research at UEA.

UEA has been a major success over the last 60 years and looks forward with confidence to the next 60 years.

For an informal discussion about the post please contact David Lea-Smith, Associate Professor in Microbiology via [D.Lea-Smith@uea.ac.uk](mailto:D.Lea-Smith@uea.ac.uk).

## UEA is part of the Norwich Research Park

Norwich Research Park (NRP) membership locates UEA in one of the largest concentrations of research institutes in the whole of Europe – four independent internationally-renowned research institutes: John Innes Centre, Quadram Institute, Earlham Institute and The Sainsbury Laboratory; with the University of East Anglia and Norfolk and Norwich University Hospitals NHS Foundation Trust, supported and funded by The John Innes Foundation, The Gatsby Foundation, and UKRI Biotechnology and Biological Sciences Research Council.

The NRP provides an ideal environment for collaborative use of infrastructure and facilities, with a single portal for academics and businesses to access the specialist facilities across the Park.

The Enterprise Centre is a regional business, knowledge and innovation hub, with workspace provision and supports over 80 businesses working alongside UEA staff and students in a dynamic and vibrant entrepreneurial community. On the wider NRP, there are dedicated laboratory and office spaces in the Innovation Centre and Centrum hosting over 600 staff within a total of 115 businesses and spinouts.



## OUR BENEFITS

UEA offers a fantastic benefits package for staff. We recognise all our staff have different priorities and lifestyles so we are continually reviewing our offering to ensure there are benefits which suit everyone. Current benefits include:



Competitive  
Rates of Pay



20 Days  
Holiday



14 Additional  
Statutory and  
Customary days



Contributory  
Pension



Staff  
Development



Sportspark  
Discount



Research  
Support



Health and  
Wellbeing



Library



Campus  
Facilities



Care Leave  
Policies



Sainsbury  
Centre for  
Visual Arts



Ofsted  
Outstanding  
Nursery



And much  
more!

Further information can be found on our [Staff Benefits page](#).



# THE ROLE

In this project the applicant will assist in the research under the supervision of Prof Jonathan Todd and Associate Professor David Lea-Smith to study “DMSP synthesis in cyanobacteria and a range of heterotrophic bacteria via a novel biosynthetic process” which is funded through a NERC grant. The aim of the project is to study the production of DMSP in diverse bacterial species, the level of global production of DMSP and its degradation products and how this affects the global climate.

The successful applicant will assist in quantification of DMSP and DMS stocks, and synthesis and catabolic rates from saltmarsh and marine samples. Specifically, they will perform RNA isolation, cloning, qPCR, protein purification and GC/LCMS. The postholder will be responsible for appropriately archiving storing lab microbes and environmental samples. Significant laboratory experience and bacterial culturing methods are required along with strong oral and written communication skills. This project offers the opportunity to develop a broad range of scientific skills and regularly interact with a broad range of scientists in cutting edge research to address key environmental issues.

## KEY RESPONSIBILITIES

- Significant laboratory experience and bacterial culturing methods.
- Growth and maintenance of bacterial cultures in small scale bioreactors.
- Use gas chromatography (GC).
- Use molecular biology techniques including RNA isolation, cloning, qPCR, protein purification.
- Contribute ideas, including enhancements to the technical or

methodological aspects of the study, to the research project, thus providing substantial ‘added value’.

- Determine and deploy appropriate methodologies for research, with advice and support.
- Assess research findings in relation to the need/scope for further investigations.

## LABORATORY SUPPORT AND SERVICES:

- Organisation of the daily running of research laboratories.
- Preparation of potentially hazardous materials.

## HEALTH AND SAFETY:

- Preparation of COSHH and Risk Assessment forms.
- Researching information in relation to correct Health and Safety practice and policy.
- Maintaining training records.
- Assisting in the preparation of Health and Safety reports.

## GENERAL:

- Undertake additional or alternative duties commensurate with the grade as deemed appropriate by the PI.
- Contribute to the continuous development of the School.
- Positively Support and promote the University’s values in all aspects of work.
- Abide by all University Regulations and Policies relevant to the role.
- Observe the strict rules of confidentiality applicable to work within the School.

# THE PERSON

## EDUCATION, EXPERIENCE AND ACHIEVEMENTS

- Hold or expect to be awarded within 3 months of appointment, a BSc in a relevant research area (E)
- Significant laboratory experience and bacterial culturing methods (E)
- Experience in growth and maintenance of bacterial cultures in small scale bioreactors (E)
- Experience in using gas chromatography (GC) (D)
- Experience in molecular biology techniques including RNA isolation, cloning, qPCR, protein purification (D)

## SKILLS AND KNOWLEDGE

- Ability to work in a proactive and results driven manner (E)
- Strong organisational skills; ability to plan and manage own workload, meeting deadlines (E)
- Demonstrable administrative and prioritisation skills with the ability to manage a varied workload in a high paced environment (E)
- Meticulous with strong attention to detail (E)

- Excellent interpersonal skills; ability to quickly establish and maintain good working relationships at all levels (E)
- Competent user of Microsoft Outlook, Word, Excel and Powerpoint (E)
- Ability to interpret results (E)
- Ability to work collaboratively with colleagues (E)
- Awareness of ethical issues involved in research (E)
- Analytical skills (E)
- Ability to stimulate and encourage commitment to learn in others (E)
- Report writing skills (E)
- Good time management skills (E)

## PERSONAL ATTRIBUTES

- Demonstrate the UEA Values & behaviours and work with colleagues to embed them within the team (E)
- Willingness to change and develop work practices (E)
- Proactive and self-motivated and willing to take ownership of tasks without close supervision (E)

- Confident, articulate and credible (E)

**Essential Requirements (E)** are those, without which, a candidate would not be able to do the job.

**Desirable Requirements (D)** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

# FURTHER INFORMATION

This full-time post is available from 1 July 2024 on a fixed term basis for 22 months.

Salary will be £24,715 to £28,131 per annum on Grade 5 on the single salary spine.

**Place of Work** - The University is strongly committed to providing an excellent student experience and research environment, and it is expected that all staff will be available on campus to carry out their duties during their working week in support of these goals.

The flexibility of the hybrid-working model allows the possibility of remote working, but it is the expectation that all appointments will be UK based, with any overseas working agreed in advance by exception only.

There will be varying requirements for different roles, further details will be discussed at interview.

If successful you will be asked to show evidence of right to work in the UK prior to any formal offer being made. Non-British and non-Irish nationals entering the UK to undertake employment or who are currently in the UK will have to meet eligibility criteria under the points-based immigration system. The University may be able to provide sponsorship under the Skilled Worker route if relevant criteria are met.

The post is superannuable under the Group Personal Pension and there is an annual holiday entitlement of 20 days plus statutory (8 days) and customary (6 days) holidays, pro rata for part-time. The University is committed to creating an environment where the health, welfare and safety of all students and staff is of paramount importance. The University's Safeguarding Policy addresses both child protection and safeguarding children, young people and vulnerable adults within the work of the University. Appointment will be subject to a satisfactory Occupational Health Assessment to be carried out by the University's Occupational Health Service.

Information on the benefits of working at UEA can be found at <https://www.uea.ac.uk/about/working-at-uea>.

If you require the information contained within this candidate brochure in a different format please email [staff.recruitment@uea.ac.uk](mailto:staff.recruitment@uea.ac.uk)

## HOW TO APPLY

To apply for this vacancy, please follow the online instructions at: <https://vacancies.uea.ac.uk>

The closing date for this role is 11:59pm on **17 May 2024**.

Please note that the application form contains an Equal Opportunities section which must be completed. The Equal Opportunities information will not be made available to the selection panel and will not form any part of either the short-listing or decision making process.

It is anticipated that interviews will take place via Microsoft Teams or in person on **10 June 2024** and if you have not heard by this date please assume you have not been shortlisted on this occasion.

Candidates should note that travel and incidental expenses incurred in attending an in-person interview will not be reimbursed.





# ABOUT THE SCHOOL

Head of School: Professor Tamas Dalmay

The School of Biological Sciences assembles a dynamic academic community rated as one of the best of its kind in the UK. The School carries out fundamental and applied research of international excellence and impact across the full spectrum of biology, from ecology and conservation, population and evolutionary biology, to biochemistry, microbiology, genetics, cell and developmental biology and biomedicine. The School comprises a total of 68 faculty members, 9 administrative staff, 48 research associates, and approximately 200 postgraduate students and 820 undergraduates. The School is committed to diversifying its workforce and to the wellbeing of all its staff. We already hold an Athena SWAN Silver Award in recognition of our advancement towards gender equality

**Teaching** - The School offers a wide range of research-led degree programmes (over 25) at undergraduate and postgraduate levels. We offer 4-year variants of several BSc programmes (Year Abroad, Placement Year, and Foundation Year). Student satisfaction is ranked highly by our students, with our courses averaging 94% for 'Overall Satisfaction' in the latest National Student Survey (NSS 2020). The outcomes for BIO degree courses are strong, with over 80% of BSc students obtaining degrees at the 'good honours' level (First or Upper Second Class) in 2018/19.

**Research** - In the last Research Excellence Framework (REF2014), the School achieved major gains in the rankings of all of its research areas. The panel identified outstanding research across all the School's research themes, with 80% of our research outputs and 100% of our research environment and research impact evaluated as world-leading or internationally excellent. Research in the School is organised in overlapping Themes, connecting biology at all scales, from molecules, genes and genomes to populations and ecological communities:

- Molecular Microbiology
- Plant Science
- Cells and Tissues
- Organisms and Environment

In addition, our Teaching Theme focuses on teaching, scholarship and education research in biosciences to support excellence in pedagogy across the School and the Faculty of Science.



# ABOUT THE FACULTY

The Faculty of Science is home to a vibrant community of students, staff, and visitors. Our lively environment allows high quality, innovative research across a broad spectrum of themes. This vibrant culture provides a base for our research-led teaching and underpins all our activities from influence of government policy to presentations at local schools.

Our seven Schools of Study engage in world leading research. You can find out more about activities in our Schools on our Faculty information pages.

- School of Biological Sciences
- School of Chemistry
- School of Computing Sciences
- School of Environmental Sciences
- School of Engineering
- School of Mathematics
- School of Pharmacy

Our Schools are bolstered by degree courses in Actuarial Science, Natural Sciences, Physics and Geography.

We are also part of the Aurora Network, a network united by our commitment to build a different kind of inclusive university community. Learn more about the Aurora University Network on their website.

**“Science at UEA is remarkable for its collaborative, dynamic and ambitious outlook and we are looking for new faculty members who can both contribute to and benefit from this wonderful environment for research and teaching.”**

Professor Mark Searcey, Pro-Vice Chancellor Science





# OUR VALUES

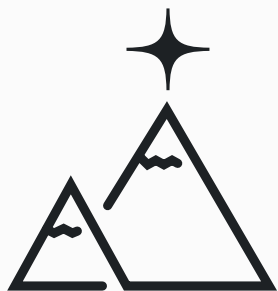
Shaped by staff, our UEA values represent a core set of standards for how we behave as an employer, drive excellence in teaching, learning and research, and collaborate as an anchor institution in our local community.

From tackling global challenges, striving for student and staff success, and creating a vibrant inclusive environment, our values are what unite us.

- ✦ AMBITION
- ✦ COLLABORATION
- ✦ EMPOWERMENT
- ✦ RESPECT



## OUR VALUES (CONTINUED)



### AMBITION

**We are ambitious for our future success.**

We are forward-thinking and brave in our approach and decisions. We make space for innovation and creativity, seizing opportunities that are responsible and sustainable. We are ambitious for the advancement of education and research.



### COLLABORATION

**We are collaborative in our approach.**

We work together with shared purpose. We build connections, share ideas and develop new networks. We champion our regional, national and global relationships and demonstrate that together we can achieve greater goals and positively influence the world around us.



### EMPOWERMENT

**We empower ourselves and each other.**

We develop ourselves and others, trusting people to make decisions based on their expertise and knowledge. We continually improve systems and processes to support us in working in an agile and efficient way.



### RESPECT

**We respect each other.**

We treat everyone with respect and dignity. We value diversity and foster a community where people can express different thoughts and views. We are open to challenge, so we can learn and improve. We encourage a positive, inclusive environment where everyone has opportunities to fulfil their potential.



# ACCOLADES

- Queen's Anniversary Prizes for Higher and Further Education have been awarded to UEA for international development studies (2009), creative writing (2011) and environmental sciences (2017). Notable alumni include Sir Paul Nurse (1973, Nobel Prize for Medicine 2001), Kazuo Ishiguro (1980, Nobel Prize for Literature 2017), Michael Houghton (1972, Nobel Prize for Medicine 2020) and Sarah Gilbert (1983) who led the Oxford University team to develop a COVID-19 vaccine, approved in 2020.
- Our Doctoral College, established in 2018, hosts six Doctoral Training Partnerships and integrates Faculty and School provision for 1600 Postgraduate Research Students (including those from across the Norwich Research Park), enabling collaboration and innovation.
- We recognise our global impact and were one of the first universities to declare a climate and biodiversity emergency in June 2019. Our sustainable campus, including over 50 acres of environmentally valuable parkland, is constantly evolving with ambitions to be 100% net zero by 2045 or sooner.
- UEA is a University of Sanctuary, an accreditation given to universities that show an ongoing commitment to creating a welcoming culture of inclusivity and awareness.
- UEA was awarded the Silver Athena SWAN Award in 2019, and all our Schools hold awards at Bronze or Silver.

**A vibrant place to study, learn and work, UEA is a very special place.**





# A SUSTAINABLE UNIVERSITY

At UEA, we are now working to create a university that will be even better in the future, and we are working to achieve net zero carbon by 2045 (or earlier). Our Sustainable Ways vision is one of a resilient university – where consumption is efficient and self-generated energy supports low carbon goals, supported by a vibrant community of world-leading researchers and inspired graduates.

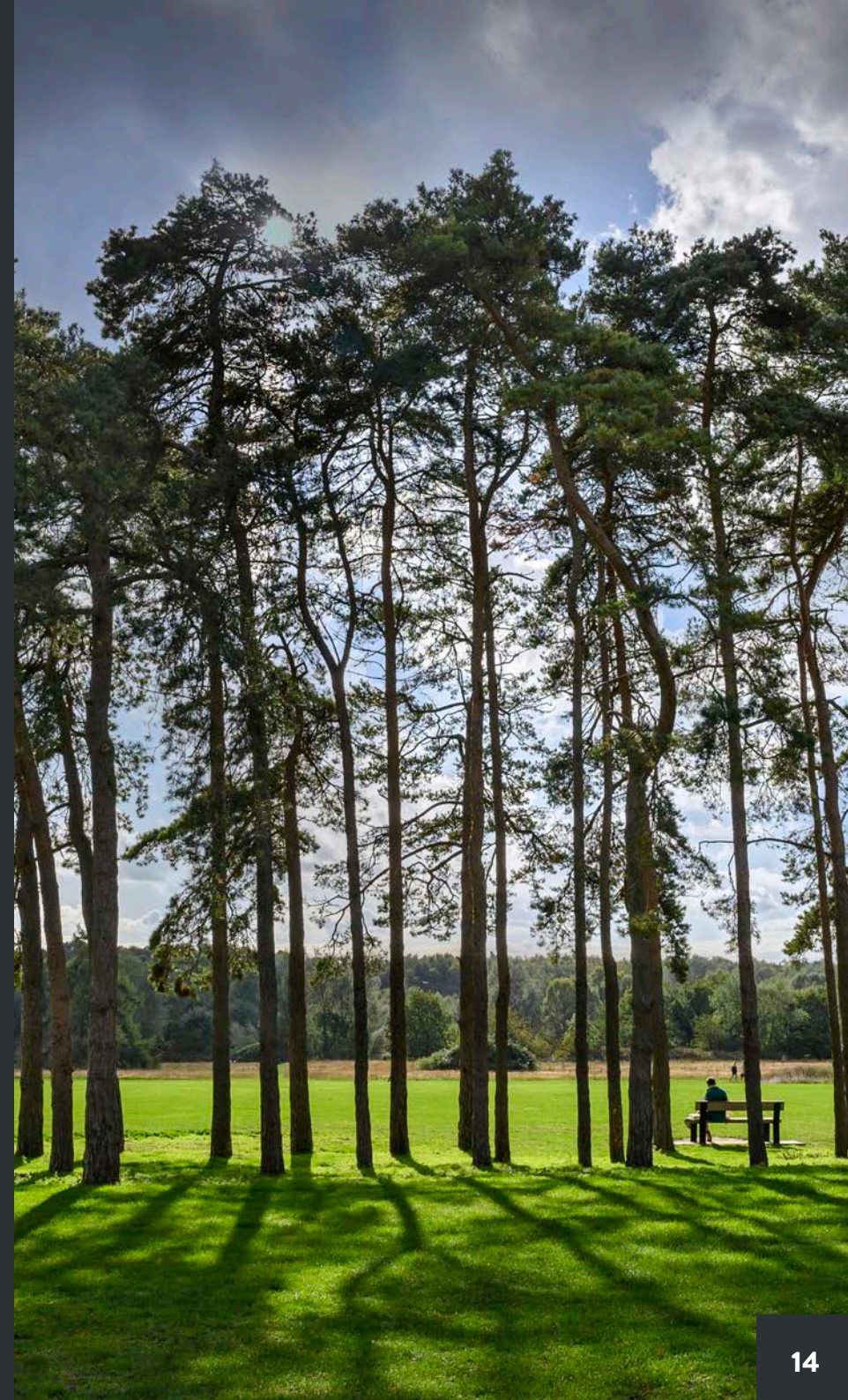
At a basic level, our sustainable development means that we try to balance the ‘three pillars’ of environmental, economic and social elements.

We challenge our environmental impact through on-site energy generation and a district heating and cooling network, reducing our reliance on grid electricity and therefore fossil fuels. We promote and use recycled and ‘eco’ products such as biological cleaning materials. We champion local suppliers and ethical causes, including Fairtrade and vegan products. We seek to ensure value for money in a holistic, whole-life costing sense in our new buildings and procurement contracts.

## OUR INITIATIVES

Central campaigns, such as holiday shut-downs or awareness day events, support a whole-University approach to energy saving and other initiatives.

Follow us on Twitter [@SustainableUEA](https://twitter.com/SustainableUEA)





# OUR CAMPUS

UEA is based on a campus that provides top quality academic, social and cultural facilities to over 17,000 students.

Although located in 320 acres of rolling parkland, virtually no part of the campus is more than a few minutes' walk from anywhere else, so everything is close at hand – the library, nursery, health centre, supermarket (incorporating a post office), banking facilities and restaurants. Amongst the striking buildings is the UEA's Sainsbury Centre for Visual Arts, which contains the Robert and Lisa Sainsbury Collection – one of the greatest art collections formed in Europe during the 20th Century.

The University has invested in new learning and teaching and research spaces, including a celebrated new Enterprise Centre that underpins its commitment to promoting student enterprise and entrepreneurship.

Sport and Recreation plays a major part in the life of the University of East Anglia, centred around the major Sportspark facility which is one of the most successful community sport facilities in the UK. This accessible and affordable facility provides a diverse range of activities, and incorporates a 50m Olympic size swimming pool, indoor climbing wall, coaching resource centre and sports injury clinic.





# NORWICH

## A CITY OF STORIES

The city's motto is 'A fine city' and its strong cultural heritage has seen Norwich maintain the best of its historical character whilst developing to become one of the most vibrant and attractive cities in Europe. Norwich offers miles of riverside walks and cycle ways, and a unique collection of 1930's parks. The city is surrounded by beautiful countryside and within easy reach of the stunning Norfolk coast.

Norwich is a UNESCO World city of Literature, the first in the UK, as well as being one of the newly named Tech Cities recognising the growth of digital businesses in the region. The most prominent high-rise building, apart from the castle, is the magnificent 11th century cathedral, which still dominates the skyline. The city's medieval centre of cobbled streets remains largely intact, but there is still space for modern buildings such as the city's centrepiece, the Forum, which is a striking piece of contemporary architecture. The glass front overlooks the colourful open-air market (one of the largest in the country) and reflects the city in all its diversity.

The city is consistently rated as one of the top ten shopping venues in the UK. Norfolk and Suffolk attract thousands of visitors each summer. The famous Norfolk Broads are among the most important wetlands in Europe and a haven for rare plants, wildlife and insects. The Broads attract holidaymakers who come to navigate the intricate natural network of waterways formed by the Rivers Bure, Yare and Waveney and their tributaries.

For further information about UEA's excellent facilities, staff benefits, picturesque campus and the UEA working environment, please visit the 'Careers at UEA' microsite <https://www.uea.ac.uk/about/working-at-uea>. Additional information about living and working in the city of Norwich can be found at <https://www.workinnorwich.co.uk/>



*If there is another city in the United Kingdom with a school of painters named after it, a matchless modern art gallery, a university with a reputation for literary excellence which can boast Booker Prize-winning alumni, one of the grandest Romanesque cathedrals in the world, an extraordinary new state-of-the-art public library then I have yet to hear of it. Norwich is a fine city. None finer.*

**STEPHEN FRY**





# LOCATION

Some cities you've heard of, others you have to discover. Norwich is one of the most beautiful, modern historic cities in Britain. It's a city that celebrates the independent, stimulates creativity, promotes change and encourages diversity.

UEA is a campus university located 3 miles from the centre of Norwich. Situated in the heart of Norfolk, which means it's an ideal location to explore Norwich and beyond.

## BY RAIL

LONDON • 2 HOURS

CAMBRIDGE • 1 HR 15 MINS

BIRMINGHAM • 4 HOURS

Many European cities (including Paris and Amsterdam) easily accessible by train

## BY ROAD

KINGS LYNN • 1 HOUR

CROMER • 45 MINUTES

SOUTHWOLD • 1 HOUR

## BY AIR

NORWICH AIRPORT • 20 MINUTES

STANSTED AIRPORT • 2 HOURS

London is a major airline hub and all main international destinations are easily accessible



An internationally renowned university, UEA is ranked in the UK Top 30 (The Times/Sunday Times 2024, Guardian University Guide 2023 and Complete University Guide 2023) and the World Top 50 (Times Higher Education Impact Rankings 2023), where it ranks in the World Top 100 for research citations (Times Higher Education World University Rankings 2023), reflecting the international excellence of its research environment. The University holds UK Teaching Excellence Framework Silver status.

### **Equality, Diversity, Inclusion and Wellbeing**

The University is committed to diversifying its workforce and to the wellbeing of all our staff. For example, we already hold an Athena Swan Silver Institutional Award in recognition of our advancement towards gender equality. Further details on our broader Equality, Diversity, Inclusion and Wellbeing work can be found on our [website](#).

