Chair in Engineering Biology
Department of Biology

Closing date: 1 August 2021
Interview date: 8 September 2021

Vacancy reference: 9535
INTRODUCTION

The Department of Biology at the University of York is aiming to launch an initiative in Engineering Biology and make a series of new academic appointments in this area.

Building on existing strengths in Industrial Biotechnology, Synthetic Biology, Biomedical Science, and our international reputation for the translation of world-class bioscience into Impact, we aim to recruit a new Professor who will take a strategic lead in developing Engineering Biology at York.

The successful appointee will help to support the development of our broad-ranging research portfolio, which is characterised particularly by strengths in challenge-led life sciences research and its translation into technologies with industrial, clinical, societal, and environmental impact.

We are looking for an outstanding research scientist whose interests complement and deepen existing strength and expertise across the department and University.

We are interested in applicants with research programmes that consist of excellent fundamental science that is targeted at making high impact science discoveries as well as developing novel solutions for biotechnological and/or clinical use. Applicants should have a well-developed research portfolio and a desire to be a leader and mentor for early career colleagues.

You will work in a collegial way and be open to the excellent opportunities for interdisciplinary working at York. You will have the opportunity to take advantage of several major research initiatives at York, depending on your research interests.

Our departmental research ethos is to support excellent research that is aligned to tackling global challenges (Sustainable Food & Fuel, Health & Disease, Environmental Change), and we expect the appointee's work will integrate with on-going activities in at least one of our Research Centres (CNAP, YBRI and YESI).

The position will be based in the Department of Biology with access to both our world-class Bioscience Technology Facility containing state-of-the-art imaging, proteomics, genomics and bioinformatics and biophysics facilities and an excellent Biological Services Facility.

The Department of Biology is ranked among the top ten UK departments for research excellence and 1st in the UK for generating impact beyond academia (https://www.york.ac.uk/biology/research/).

Professor James Moir
Head of Department, Biology
JOB DESCRIPTION

Main purpose of role

Chairs at York are expected to advance their subject nationally and internationally and to contribute to maintaining the University as an international centre of excellence for the relevant subject area through research and publication, teaching, networking and consultancy.

Chairs are required to undertake the duties outlined below:

Key Responsibilities

(Role holders will be required to undertake some or all of the duties below)

To support the research activities of the Department

- To design and be responsible for delivery of modules and teaching programmes for undergraduate and graduate students
- To play a leading role in departmental and interdepartmental curriculum development and quality enhancement
- To coordinate team teaching, as required, including liaison with other staff and with postgraduates who teach
- To design and mark assessments, and give feedback
- To supervise undergraduate and graduate projects and dissertations
- To carry out teaching in Continuing Professional Development
- To undertake pastoral support of students, as a personal supervisor or in another designated role
- To support and promote fully the University and Department teaching quality assurance standards and procedures

To contribute to the efficient management and administration of the Department

- To make an important contribution to the leadership and management of the Department, including supporting early career staff and developing new collaborative initiatives
- To attend Departmental meetings, meetings of the Board of Studies, and other committees and working groups within the Department and University
- To carry out relevant professional duties, commensurate with the Professorial grade
- To undertake specific departmental roles and management functions as may be reasonably required by the Head of Department

JOB DESCRIPTION

At a glance

<table>
<thead>
<tr>
<th>Salary</th>
<th>Commensurate with experience on the Professorial scale.</th>
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<tbody>
<tr>
<td>Hours of work</td>
<td>37 per week (flexibility available)</td>
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<tr>
<td>Contract type</td>
<td>Open</td>
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<tr>
<td>Based at</td>
<td>Heslington Campus</td>
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To support the teaching objectives of the Department

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# PERSON SPECIFICATION

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Essential/Desirable</th>
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<tbody>
<tr>
<td>PhD in science or engineering discipline or equivalent experience</td>
<td>Essential</td>
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<td>Membership of professional societies</td>
<td>Essential</td>
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<tr>
<th>Knowledge</th>
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<tr>
<td>Outstanding and internationally recognised knowledge of relevant subject area</td>
<td>Essential</td>
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<tr>
<th>Skills, Abilities and Competencies</th>
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<tr>
<td>Ability to define, lead, manage and attract funds for internationally excellent research, operating across disciplinary boundaries</td>
<td>Essential</td>
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<tr>
<td>Proven leadership and managerial skills</td>
<td>Essential</td>
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<tr>
<td>Ability to manage and interact with staff and students at all levels and to contribute to broadening the strategic development of the Department</td>
<td>Essential</td>
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<tr>
<td>Evidence of international collaboration</td>
<td>Desirable</td>
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<tr>
<td>Evidence of peer review activities</td>
<td>Desirable</td>
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<table>
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<tr>
<th>Experience</th>
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<tbody>
<tr>
<td>International leader in a major research field, leadership of research group/theme</td>
<td>Essential</td>
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<td>Substantial publication record in leading peer-reviewed journals</td>
<td>Essential</td>
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<td>Attraction and effective supervision of postgraduate students</td>
<td>Essential</td>
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<td>Significant and sustained success in accessing research grants and other external funding</td>
<td>Essential</td>
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<tr>
<td>Exceptional achievement in curriculum development, course design and teaching, learning and assessment methods at UG and PG levels and in encouraging student access and engagement</td>
<td>Essential</td>
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<tr>
<td>Invited presentations at major international conferences</td>
<td>Essential</td>
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<tr>
<td>Effective and sustained involvement in major administrative tasks or positions of responsibility within a department or research unit</td>
<td>Essential</td>
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## PERSON SPECIFICATION

### Experience (continued)

<table>
<thead>
<tr>
<th>Experience</th>
<th>Essential / Desirable</th>
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<tbody>
<tr>
<td>Authorship of books</td>
<td>Desirable</td>
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<tr>
<td>Editorial duties with journals</td>
<td>Desirable</td>
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<tr>
<td>Activity as an invited examiner at other institutions</td>
<td>Desirable</td>
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<tr>
<td>Participation in national teaching initiatives or international equivalents</td>
<td>Desirable</td>
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### Personal Attributes

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<tr>
<th>Attribute</th>
<th>Essential / Desirable</th>
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<tr>
<td>Demonstrable capacity for strategic thinking and planning</td>
<td>Essential</td>
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<td>Ability to take a lead in key administration functions within the department</td>
<td>Essential</td>
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<tr>
<td>Self-motivated, pro-active and innovative</td>
<td>Essential</td>
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ABOUT THE DEPARTMENT OF BIOLOGY

The Department of Biology at the University of York welcomes staff and students from around the world. We celebrate excellence, breadth and diversity across the spectrum of modern biosciences.

Our Department comprises over 80 academic and teaching staff, 100 research staff and 150 professional support staff (technical and administrative). We are the largest academic department at York with approximately 1000 undergraduate and 180 graduate students.

Our research is focused around fundamental science research foci, which are Biochemistry and Biophysics, Bioinformatics and Mathematical Biology, Cell and Developmental Biology, Ecology and Evolution, Industrial Biotechnology, Infection and Immunity, Microbiology, Molecular and Cellular Medicine, and Plant Biology.

The Department has successfully continued to establish state-of-the-art laboratory space and a new teaching building opened in Autumn 2016. In the 2014 Research Excellence Framework (REF) exercise, the Department of Biology was again placed in the top 10 in the UK. We are ranked 1st for impact outside academia - our research has had a major influence on environmental policy, industry and health. This demonstrates our strengths across the biological sciences: from ecology to biochemistry, biotechnology and biomedical sciences; collaboration across disciplines both internally and externally is strongly encouraged and valued.

The Biology Department runs highly successful taught undergraduate and masters degree programmes in Biology and specialist areas including Biochemistry, Biomedical Sciences and Biotechnology. We expect the successful candidate will provide leadership, ideas and new disciplinary strengths to influence the development of our taught portfolio. The department has a diverse graduate student body and we would expect the successful candidate to build a research group of graduate students and post-docs.

York Biology has an excellent reputation for applying fundamental research to create societal impact, and through this new initiative we are exploring all aspects of engineering biology with the view to developing new research areas especially where these complement existing strengths in, for example, bio-based production of chemicals and high value products, utilisation of sustainable feedstocks for bio-production, improving agriculture and bioremediation, and advanced medical sciences.

Within the Biology Department the Centre for Novel Agricultural Products (CNAP) uses scientific methods and knowledge to harness the power of plant and microbial science to address major global challenges for the development of sustainable fuels, pharmaceuticals and chemicals and to enhance food security.

The recently established cross-disciplinary York Biomedical Research Institute (YBRI) includes strands focused on Immunology, Haematology & Infection, Neuroscience and...
ABOUT THE DEPARTMENT OF BIOLOGY

Molecular & Cellular Medicine. YESI (York Environmental Sustainability Institute) supports interdisciplinary global challenge research around sustainability across the university and with national and international stakeholders.

Additional strengths include: York Structural Biology Laboratory (YSBL) is part of the Chemistry Department but is co-located with Biology, and includes a state-of-the-art new building housing X-ray crystallography, NMR and cryo-EM facilities. The Biological Physical Sciences Institute (BPSI) supports research across the life-physical sciences axis and involves colleagues from Biology, Chemistry, Physics, Electronic Engineering and the Medical School. The BioYork initiative, based in the Biology Department at York, uses our world class research and knowledge base to drive the development of UK bio-based industries through strategic connections between bioscience research and industrial partners.

Department Ethos

The Department of Biology operates a set of family-friendly policies and, where appropriate to the role, welcomes applications that are made on a part-time and job share basis.

We will do our best to accommodate such requests where possible. Staff working patterns are flexible, a formal flexitime system is also in operation and the University has a nursery on site. We are proud to foster a supportive culture that helps staff and students reach their full potential and we embrace equality, diversity and inclusion as well as the values of the Athena SWAN Charter in all our departmental activities. Our philosophy is that poor working practices discriminate disproportionately against any potentially disadvantaged group whereas good practices support all.

We have a Gold Athena SWAN award in recognition of our culture, ethos and activity.
OUR COMMITMENT TO EQUALITY, DIVERSITY AND INCLUSION

Founded on the principles of excellence, equality and opportunity for all, the University is proud to create an environment that attracts staff and students from all over the world. What we gain from diversity is immeasurable.

Our Equality, Diversity and Inclusion Strategy, which was developed in partnership with our staff and student communities, describes our commitment to create a culture where everyone can contribute to university life, knowledge and growth.

We want to create a working, learning, social and living environment that will enable all staff and students to achieve their full potential. Our strategy sets out an ambitious set of objectives to succeed in our commitment, but we have a challenging journey ahead. We recognise that we are not truly representative of our communities locally, nationally and internationally. We would like to pay particular focus to gender parity across all levels, particularly in senior roles; the recruitment, retention and success of a more ethnically diverse staff and student community; an accessible and inclusive campus and ensuring that the values and behaviours we expect from everyone embrace inclusive responsibility and leadership.

Opportunity for all

Our outreach programmes and widening participation work have made us one of the most socially diverse universities among our peers. The York Students in Schools (YSIS) programme has been providing a helping hand in the city's classrooms for 25 years, placing around 700 students with local schools every year. It recently introduced a new English and Mathematics tutoring scheme.

A report by The Reform Research Trust in September 2017 ranked York second out of 29 high-tariff institutions for our track record in increasing access for disadvantaged students from 2011/12 to 2015/16.

Wellbeing and support

Students are encouraged to balance their studies with activities and interests to give them a healthier and more rounded student experience. We have invested heavily in support of physical health with new and improved sports facilities, and in mental health through our Open Door counselling and crisis team which now opens in the evenings during term time. We have also developed a support network of staff trained in Mental Health First Aid. University staff have access to wellbeing help and support, and can access advice through our site. We have launched a new health and wellbeing plan with actions informed by our latest staff survey.
THE UNIVERSITY OF YORK

We are a world-class institution, focused on creating an environment of excellence in which all our students, staff and researchers can thrive. Our Research Strategy encompasses our vision that York should provide a home for some of the best research in the world. (https://www.york.ac.uk/research/)

We are a high-performing member of the Russell Group, ranked 16th in the Guardian’s Best University UK Universities 2021 League Table, and 30th in the Complete University Guide 2020. We have been awarded TEF Gold for our research-led teaching which provides "consistently outstanding outcomes for students from all backgrounds".

Our Equality, Diversity and Inclusion Strategy speaks to the core of our values. We hold 16 awards from Athena SWAN, recognising the advancement of gender equality: representation, progression and success for all.

Our vision is to be a university for public good, supported by five key strategic themes:

- Internationalism
- Sustainability
- Civic responsibility
- Research
- Student experience and teaching

At the heart of the region

The University is deeply embedded in the local community of North Yorkshire. Our values and commitment to the public good have never been more important. We are a hub for sharing knowledge, inspiring collaboration and enriching lives.

Across the University, we are mobilising our knowledge, our people and our resources to tackle the immediate and long-term challenges created by the coronavirus crisis.

https://features.york.ac.uk/who-we-are/
Our campus community

Located within walking distance of York city centre, our safe and beautiful campus is home to our ten colleges and most departments. We also have departments located in the city centre at the historic King's Manor, and we are investing in the sustainable development of our whole campus.

All York students become members of our college system, which provides an inclusive and a valuable sense of community on campus alongside the cultural offerings of the thriving city of York.

We have a thriving international community and are committed to providing staff moving to York with as much support as possible through our Relocation Package and Welcome Officers.

The University is committed to promoting a diverse and inclusive community - a place where we can all be ourselves and succeed on merit. We offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff engagement forums, campus facilities and services to support staff from different backgrounds.

For further information please visit our employee benefit pages

https://www.york.ac.uk/admin/hr/employee-benefits/selection/introduction/
THE CITY AND THE REGION

The City of York

Internationally acclaimed for its rich heritage and historic architecture, York’s bustling streets are filled with visitors from all over the world. Within its medieval walls you will find the iconic gothic Minster, Clifford’s Tower and the Shambles - just a few of the many attractions.

But York isn’t just a great place to visit - it's also a great place to live and work. While nourishing a vibrant cosmopolitan atmosphere, York still maintains the friendly sense of community unique to a small city.

Visit www.visityork.org for more information on the city of York

Shopping, culture and entertainment

York boasts specialist and unique boutiques but also all the high street stores on its busy shopping streets. Alongside them you will find cinemas, theatres, an opera house, art galleries, a vast range of restaurants, live music venues and clubs. York is particularly renowned for its multitude of pubs and bars, from the modern to the medieval.

Housing and schools

Whether you choose to live close to the city, in one of the surrounding villages or further afield, you will find a wide range of housing within comfortable distance of York and the University. For families, the area has a range of excellent schools both in the state and independent sector.

Great location

York is one of Britain’s best-connected cities. Halfway between London and Edinburgh on the East Coast mainline, on intercity trains you can reach London King’s Cross in less than two hours and Edinburgh in two and a half hours. York is also well served by road links, and it is easily accessible from the A1, M1 and the M62.

For those travelling from overseas, Manchester Airport is two hours away and Heathrow Airport just three and a half. Flights from nearby Leeds Bradford Airport provide easy access to mainland Europe. By Eurostar from London St Pancras, Paris is just over six hours away.

Yorkshire

The Lonely Planet guide declared Yorkshire the third best region in the world to visit. There is something to cater to every taste, whether it be the rugged landscapes of the Moors or the Dales, the picturesque seaside towns of Scarborough and Robin Hoods Bay, the gothic architecture of Whitby or the vibrancy of cosmopolitan Leeds.
HOW TO APPLY

Apply online

- Go to https://jobs.york.ac.uk
- Find this job using reference 9535
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 1 August 2021.

What will I need?

We will ask you for details of:

- Your CV
- A letter describing how you meet the requirements of the job
- A statement of your research and teaching intentions

You will also need to provide details of three academic referees (one International) and one Employment referee.

Help and assistance

Please direct informal enquiries to Professor James Moir (james.moir@york.ac.uk).

If you have any questions about your application, contact the HR Services team:

recruitment@york.ac.uk
+44 (0)1904 324835