Research Technician

Biology

Closing date: 17 September 2018

Interview date: To be confirmed

Vacancy reference: 6956
INTRODUCTION

Food production needs to be expanded drastically to feed an ever growing human population. Drought and saline soils are two environmental conditions that greatly depress agricultural production around the globe and it is estimated that around 20-30% of rice yield is lost in areas where these stresses are prevalent. To limit such losses, it is imperative that we develop rice varieties that are more resistant to these stresses, either through breeding or by using engineering.

In this project we will confirm the relevance of alleles previously identified in a GWAS study by using CRISPR/Cas genome editing to generate ‘knock out’ lines that will be functionally characterised for altered tolerance to salinity and/or drought. Your task would include routine genotyping and phenotyping of rice KO lines.
Main purpose of the role

To provide technical and scientific support to a research project and/or programme; to assist with and take responsibility for the organisation, housekeeping and operational management of the laboratory

Key responsibilities

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

- Plan and perform experiments in accordance with the aims and objectives of the project and/or programme and use a range of scientific techniques, processes and procedures within the scope of the role
- Support University research staff in their research, through the independent application of specialist scientific techniques
- Write and maintain accurate records of the research being undertaken, using software packages such as Microsoft Word and Excel; maintain own laboratory records in accessible form
- Prepare written summaries of the research activities undertaken; communicate and make presentations within the research group, at meetings, and other recognised avenues as appropriate
- Provide technical advice, in relation to the research and the techniques used, to other staff members within the wider research team
- Be responsible for the maintenance, repair and operation of laboratory facilities / equipment, and contribute to the organisation, housekeeping and operational management of the laboratory; maintain stocks of consumables
- Provide laboratory inductions, ongoing training, supervision and technical support for undergraduate and postgraduate students, members of staff and visitors using the laboratory facilities and equipment
- Develop laboratory protocols, standard operating procedures and maintenance schedules for laboratory equipment, and be responsible for laboratory operational health and safety processes and procedures
- Responsible for keeping own knowledge and understanding up to date in the field of specialism; translating knowledge of advances in the subject area into research activity
- The post holder may be required to undertake others duties within the scope and grading of the post
## PERSON SPECIFICATION

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<thead>
<tr>
<th>Qualifications</th>
<th>Essential / Desirable</th>
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<tbody>
<tr>
<td>Minimum of two A levels in science subjects</td>
<td>Essential</td>
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<td>A degree in a relevant science subject</td>
<td>Desirable</td>
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### Knowledge

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<th>Essential / Desirable</th>
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<tr>
<td>Database management</td>
<td>Essential</td>
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<td>Knowledge of lab safety regulations and procedures, COSHH</td>
<td>Essential</td>
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<td>Knowledge of modern analytical techniques</td>
<td>Essential</td>
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### Skills, abilities and competencies

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<th>Essential / Desirable</th>
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<tr>
<td>Competency in data handling and archiving</td>
<td>Essential</td>
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<td>Ability to work under pressure while still providing high quality work with attention to detail</td>
<td>Essential</td>
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<td>Ability to work independently, yet in close collaboration with other scientists, particularly researchers working on related topics.</td>
<td>Essential</td>
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<td>Uses initiative to solve unusual or complex problems</td>
<td>Essential</td>
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<td>Planning and organisation skills, including the ability to meet deadlines</td>
<td>Essential</td>
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<td>Good documentation skills; accurate record keeping</td>
<td>Essential</td>
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<td>A high standard of written and verbal communication skills in English</td>
<td>Essential</td>
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<td>Ability to understand and interpret scientific literature and data</td>
<td>Desirable</td>
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<td>Ability to train other people</td>
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### Experience

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<tr>
<td>Working in a research group</td>
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<td>Familiarity with general laboratory management including ordering consumables</td>
<td>Essential</td>
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<td>Keeping concise and accurate laboratory records</td>
<td>Essential</td>
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<td>Operating modern analytical equipment</td>
<td>Desirable</td>
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<td>Carrying out risk assessments</td>
<td>Desirable</td>
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<td>Several months of laboratory work, preferably in at least two different laboratories</td>
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### Personal attributes

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<th>Essential / Desirable</th>
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<tr>
<td>Responsible, reliable, and highly motivated</td>
<td>Essential</td>
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<td>Willingness to learn new techniques and keep up to date with developments in own field of expertise</td>
<td>Essential</td>
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<tr>
<td>Willingness to, on occasion and as required by experiments, work flexible hours</td>
<td>Desirable</td>
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Our department welcomes staff and students from around the world. We celebrate excellence, breadth and diversity across the spectrum of modern biology.

Our research is focused around fundamental science research foci, which are Cell and Developmental Biology, Molecular and Cellular Medicine, Bioinformatics and Mathematical Biology, Infection and Immunity, Ecology and Evolution, Microbiology, Biochemistry and Biophysics and Plant Biology. The Department has successfully continued to establish state-of-the-art laboratory space and maximise our existing 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 major influence on environmental policy, industry and health. This demonstrates our strengths across the biological sciences: from ecology to biochemistry, biotechnology and biomedical sciences. The Department of Biology covers the spectrum of contemporary biological sciences with no internal barriers, and collaboration internally and externally is strongly encouraged. Our Department comprises >70 academic and teaching staff, >100 research associates, >140 professional support staff (technical and administrative), 180 graduate students, and approximately 860 undergraduates. Several senior positions are funded by charities or industry.

Although we are a research-intensive department, our teaching is equally important, and the University holds a Gold Teaching Excellence Framework (TEF) award. Our teaching in the department consistently ranks highly which is reflected in our achievements in the National Student Survey (NSS). We are preparing for departmental TEF awards in 2020. Our aim is to maintain a collegiate atmosphere where academic practice encompasses equitably distributed research, teaching and administrative duties throughout the staff group. Our staff are enthusiastic about interacting with students and have a commitment to delivering high-quality teaching and developing and applying innovative and appropriate teaching techniques using material which creates interest, understanding and enthusiasm amongst students. Staff carry out on-going curriculum review, the review of module content and materials and contribute to the development of teaching and learning strategies.

We currently offer the following degrees within the Department:

BSc/MBiol Biology
BSc/MBiol Ecology
THE DEPARTMENT

BSc/MBiol Genetics
MSc Biodiversity, Ecology and Ecosystems
BSc/MBiochem Biochemistry
BSc/MBiol Molecular Cell Biology
BSc/MBiol Biotechnology and Microbiology
MSc Industrial Biotechnology
BSc/MBiomedSci Biomedical Science
MSc Molecular Medicine
MSc By Research
MPhil
PhD

In addition we run a prestigious BBSRC funded Doctoral Training Partnership (DTP) which brings together the very best molecular, chemical and cellular bioscience research across the White Rose Consortium of Universities (Leeds, Sheffield and York), which maps on to the research themes of the BBSRC. Students benefit from a regional PhD training programme that has interdisciplinary collaboration at its core. This enables students to develop a range of research skills in biological and biochemical areas as well as equip them with core mathematical, data analysis and generic professional skills that are necessary for bioscience research in the coming decades.

As befits a department of our size, we have extensive professional support services which underpin our teaching and research. This includes teams in operational services; horticulture; stores and logistics and teaching laboratory technicians. We provide excellent biological services facilities and mechanical and electronic workshops. We also have administration teams which cover; Health and Safety; Research support to assist with external funding proposals for research activities; a Student and Academic Services team in place to support academic staff and students; a core Department Management Team Hub who support a broad range of administrative processes in order to facilitate the smooth running of departmental activity.

We also have our Bioscience Technology Facility which is a unique resource providing a purpose-built facility for our world-class scientists and technologists working across six bioscience research capabilities. Collectively it brings together a unique range of expertise and equipment, and is recognised as a leading example of how to provide research support in the 21st Century. The focus is on six core areas:
THE DEPARTMENT

Bioinformatics, Genomics, Imaging & Cytometry, Molecular Interactions, Protein Production, and Proteomics. The Department has a dedicated bioinformatics support team within the Technology Facility who can provide help and assistance with a wide range of bioinformatics software.

The Department of Biology operates a set of family-friendly policies and 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 and 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 women whereas good practices support all. We have a Gold Athena SWAN award in recognition of our culture, ethos and activity.
THE UNIVERSITY

Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2018 it is the home of more than 17,000 students across more than 30 academic departments and research centres. Since opening over fifty years ago, we have become one of the world’s leading universities and a member of the prestigious Russell Group.

We are consistently recognised as one of the leading Higher Education Institutes and are ranked 16th in the Times & Sunday Times league table (2017). The University of York has won six Times Higher Education (THE) Awards and five Queen’s Anniversary Prizes.

The University is proud of its association with Athena SWAN, holding 12 awards in support of gender equality, representation and success for all, with gold awards for Chemistry and Biology and a University-wide bronze award.

Of 154 universities that took part in the Research Excellence Framework (REF) in 2014, The University of York ranked 14th overall and 10th for the impact of our research. The University is consistently in the top ten UK research universities and attracts over £60m a year of funding from research alone.

Our vision is to make the University of York a world leader in the creation of knowledge through fundamental and applied research, the sharing of knowledge by teaching students from varied backgrounds and the application of knowledge for the health, prosperity and well-being of people and society.
Attractive workplace

Centred around the picturesque village of Heslington on the edge of the city of York, our colleges are set in an attractive landscaped campus. York enjoys a safe, friendly atmosphere with facilities including bars, shops, theatres and concert halls all within easy walking distance.

The University has undergone an unprecedented period of expansion and renewal since 2000. We have invested in twenty new buildings on the original campus and have completed the first and second phases of a £750m campus expansion. Our investment in new colleges, teaching and learning spaces, laboratories, research facilities and a new sports village mean there has never been a better time to join us.

During this period of change we've worked hard to retain our friendly, informal and collegiate atmosphere, which is important to our core values of inclusivity and interdisciplinarity.

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.
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 recently 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.
Apply online

- Go to https://jobs.york.ac.uk
- Find this job using reference 6956
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 17 September 2018.

What will I need?

We will ask you for details of:

- your employment history
- relevant qualifications
- two referees

You need to be ready to show us how you meet the requirements of the job, either in a written statement and / or by answering questions.

Help and assistance

Direct any informal queries to Dr Fran Maathuis, via telephone, +44(0)1904 328652 or via email at: frans.maathuis@york.ac.uk, alternatively, please contact: biol-dmhub@york.ac.uk

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

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