

# Research Fellow in Drug Discovery

**University of York** - *Centre for Immunology (CII), Department of Biology, or York Structural Biology Laboratory, Department of Chemistry*

**Location:** York

**Salary Range:** £32,236 — £39,609 per year

**Hours:** Full Time/ 37 hours per week

**Ref Number:** 7005

**Contract Type:** Fixed Term / up to 3 years

**Closing date:** 7 October 2018

We are looking to recruit 2 highly motivated postdoctoral Research Fellows to conduct independent research on early-phase drug discovery for leishmaniasis and/or Chagas disease as part of a GCRF network on neglected tropical diseases. You will develop a research programme on identification and validation of drug targets in consultation with a University of York sponsor. You will be expected to form an integrated cohort with 3 research fellows at the University of Durham and to contribute to the aims of the network. You will apply new methods of genetic or chemical target validation for trypanosomatid disease.

## Role

- To conduct independent research under the auspices of a named sponsor and to contribute to the production of research
- To assist in the identification and development of potential areas of research and the development of proposals for independent or collaborative research projects.
- To contribute to the success of the Network on Neglected Tropical Diseases through interactions with UK and international partners.

## Skills, Experience and Qualifications

- You will already possess a PhD in molecular genetics, molecular parasitology or related science
- Knowledge in biochemistry to engage in high quality research and an understanding of a range of research techniques and methodologies
- Knowledge of early phase drug discovery
- Knowledge of working with human or animal infective pathogens

The post is funded by GCRF and is available for up to three years.

For informal inquiries, please contact [jeremy.mottram@york.ac.uk](mailto:jeremy.mottram@york.ac.uk) or [Tony.wilkinson@york.ac.uk](mailto:Tony.wilkinson@york.ac.uk)

**For further information and to apply on-line, please click on the 'Apply' button below.**

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*of York*



# Research Fellow in Drug Discovery

Departments of Biology or Chemistry

**Closing date:** 7 October 2018

**Interview date:** To be confirmed

**Vacancy reference:** 7005

**Vacancies:** 2







## INTRODUCTION

Two Junior Research Fellowships are available as part of a recently funded (£7.8M) GCRF Global Network in Neglected Tropical Diseases. Three additional Junior Fellows will be recruited at the University of Durham. This Network, led by the University of Durham brings together multidisciplinary researchers at 14 global institutions across the UK, South America and South Asia to identify and validate new drug targets for leishmaniasis and Chagas disease. The Fellowships are aimed at early-career researchers with some postdoctoral experience (e.g. between 2-6 years) who wish to undertake a period of supported, independent research that complements ongoing work at the University of York. The Fellows' research will also align with the research aims of the Network - to identify and validate new drug targets for leishmaniasis and Chagas disease. You must identify a York sponsor (see <https://ntd-network.org> for the list of available sponsors that include Professors Jeremy Mottram, Paul Kaye, Tony Wilkinson, Jon Timmis and Dr Pegine Walrad) who will provide scientific guidance during the application process and throughout your fellowship. The research sponsor will guarantee you access to space and resources to carry out your research. Fellows will also be expected to form a cohort with the fellows in Durham and to also forge links with global partners within the Network and help it to meet its aims (see <https://ntd-network.org>). Research in the network spans scientific disciplines in molecular and cellular parasitology, chemical biology and structural biology, biochemistry and biophysics.

The Research Fellowships are for up to 3 years and come with support for consumables, travel and access to a small equipment fund.

# JOB DESCRIPTION

<b>At a glance</b>	
<b>Salary</b>	£32,236—£39,609 per year
<b>Hours of work</b>	37 Hours per week
<b>Contract type</b>	Fixed term (up to 3 years)
<b>Based at</b>	Centre for Immunology (CII), Department of Biology, or York Structural Biology Laboratory, Department of Chemistry, University of York

## Main purpose of the role

- To conduct research under the auspices of a named sponsor and to contribute to the production of research
- To assist in the identification and development of potential areas of research and the development of proposals for independent or collaborative research projects

## Key responsibilities

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

- To conduct individual and collaborative research projects, duties to include: analysis and interpretation of research data; use of appropriate research techniques and methods; writing up of research results and dissemination through publications, seminar and conference presentations and public engagement and outreach activities; contributing to the identification of possible new areas of research
- To contribute to the preparation of research proposals and applications to external bodies
- To undertake appropriate organisational and administrative activities connected to the research project, including conference organisation, and the development of promotional or educational material including website maintenance and development
- To develop and initiate collaborative working internally and externally, duties to include: the building of internal contacts and participation in internal networks; collaboration with colleagues on joint

projects as required; participation in and identification of external networks in order to share information and identify potential opportunities for collaboration and possible sources of funding; attendance at and contribution to relevant meetings

- To provide guidance to other staff and students, as required, as well as coordinating the work of small research teams
- To assist with undergraduate teaching in own area of expertise.

## Departmental specific responsibilities

You will be responsible for carrying out early-phase drug discovery research for leishmaniasis and/or Chagas disease using a variety of molecular, biochemical, cellular and immunological parasitology approaches. You will work in close collaboration with other investigators involved with the network, including those working in interdisciplinary research. You will assist in supervision and training of research and undergraduate students in research methods in molecular parasitology.

# PERSON SPECIFICATION

	Essential / Desirable
Qualifications	
First degree in biochemistry/molecular biology or related science	Essential
PhD in molecular parasitology or equivalent experience	Essential
Knowledge	
Knowledge in biochemistry to engage in high quality research	Essential
Knowledge of a range of research techniques and methodologies	Essential
Knowledge of early phase drug discovery in Leishmania, T. cruzi or other parasitic protozoa	Desirable
Has research expertise in an area that will complement and enhance the department's research strategy and goals	Essential
Knowledge of working with human infective pathogens	Desirable
Knowledge of working under pathogen containment regulations	Desirable
Knowledge of Home Office regulations and experimental design in animal studies	Desirable
Skills, abilities and competencies	
Highly developed communication skills to engage effectively with a wide ranging audience, both orally and in writing, using a range of media	Essential
Ability to write up research work for publication in high profile journals and engage in public dissemination	Essential
Ability to develop research objectives , projects and proposals for own and joint research, with the assistance of a mentor if required	Essential
Competency to conduct individual and collaborative research projects	Essential
Ability to identify sources of funding and contribute to the process of securing funds, with collaborators if required	Essential
Competency to make presentations at conferences or exhibit work in other appropriate events	Essential
Excellent skills in parasitology	Desirable
Excellent research skills	Essential

# PERSON SPECIFICATION

	Essential / Desirable
Creativity in experimental design	Essential
Competency in manipulation of parasites	Desirable
Willingness to learn and apply new techniques	Essential
Current Home Office personal licence holder (or equivalent) or willingness to hold such	Desirable
<b>Experience</b>	
Experience of carrying out both independent and collaborative research	Essential
Experience of writing up research work for publication	Essential
Ability to work as part of a team and also to work independently using own initiative	Essential
Experience of working with parasites	Desirable
Experience of working under pathogen containment regulations	Desirable
Experience of working with models of experimental leishmaniasis	Desirable
Experience in supervising junior members of a team	Essential
Experience in contributing to general lab duties	Essential
Experience of imaging techniques	Desirable
<b>Personal attributes</b>	
Attention to detail and commitment to high quality	Essential
Collaborative ethos	Essential
Interest in and enthusiasm for the subject matter of the project(s)	Essential
Positive attitude to colleagues and students	Essential
Willingness to work proactively with colleagues in other work areas/institutions	Essential
Ability to plan and prioritise own work in order to meet deadlines, including using initiative to plan re-search programmes	Essential
Commitment to personal development and updating of knowledge and skills	Essential





## THE DEPARTMENT

Centre for Immunology and Infection ([www.york.ac.uk/cii](http://www.york.ac.uk/cii))

The Centre for Immunology and Infection Unit (CII) is an Interdepartmental Research Centre created by the Hull York Medical School and the Department of Biology at the University of York. The research within the CII ranges from fundamental studies on immunology, microbiology and parasitology through to first-in-man clinical research. Our aim is to develop a greater understanding of the processes underlying chronic infectious and non-infectious disease, and thus to develop new approaches to prevention and treatment.

Supported by major infrastructure investment the Centre was established in 2004 and expanded into additional purpose built accommodation in 2010. Within the current 2000m<sup>2</sup> of research and office space, we have excellent facilities for research on ACDP HG3 organisms. Proximity to the Biosciences Technology Facility and Biological Services Facility of the Dept. of Biology ensure ready access to state of the art and well-supported cutting edge [technology platforms](#) and animal facilities (to HG3). Access to human tissues (blood, biopsies) is facilitated through our shared investment in the [York Clinical Research Facility](#) and the associated Research Tissue Bank (housed within the CII). Research in the CII has a focus on chronic diseases of infectious, autoimmune and hematological origin.

Staff with a direct interest in leishmaniasis research in the network include Paul Kaye (Professor, immuno-parasitology) Pegine Walrad (Anniversary Lecturer, molecular

parasitology), and Jeremy Mottram (Professor, molecular parasitology). Thus, the CII provides both a scientifically rich environment to support research and one that is highly supportive of the career development of young researchers.

**York Structural Biology Laboratory** ([www.york.ac.uk/chemistry/research/ysbl](http://www.york.ac.uk/chemistry/research/ysbl))

The York Structural Biology Laboratory (YSBL), affiliated to the Department of Chemistry and located in the Bioscience Building, is a large and internationally renowned grouping focusing on the structure and function of proteins and their assemblies with other macromolecules and their complexes with cognate ligands and inhibitors. The laboratory has a long tradition in the determination of protein structures using X-ray crystallography, the goal of the research being to understand the molecular basis of fundamental biological processes with the targets usually having medical or industrial importance. York is home to experimental and computational methods used by crystallographers worldwide (MOLREP, REFMAC, COOT) as well being a major centre for the UK collaborative effort in crystallographic computing, CCP4. Protein NMR spectroscopy is also established at York and a cryo-Electron Microscopy Facility will open in the summer of 2019. YSBL expertise encompasses Chemical Biology and structure based methods to design ligands to act as chemical tools to disrupt and probe the biology of specific proteins and pathways.

Tony Wilkinson (Professor, Structural Biology) is directly

involved in the leishmaniasis research of the network with other YSBL having interests/expertise that have been applied to leishmania targets.

## **Department of Biology**

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.

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: 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.



## Department of Chemistry

[The Department of Chemistry](#) was placed in the top ten UK universities for Research Power by the 2014 Research Excellence Framework exercise (REF). The excellence of Chemistry at York was recognised in the 2018 Guardian League Table Guide and Complete University Guide where it achieved outstanding 2nd and 4th places, respectively. The Department has nearly 60 academic staff (5 FRS), approximately 160 graduate students (mainly studying for PhDs) and over 80 research associates and fellows. The Department has a group of coherent laboratories, recently extended and modernised, which provide an excellent environment for both teaching and research; £35M has been spent on new buildings and equipment in the last seven years. Staff in the Department of Chemistry undertake research in a wide range of fields and there are particular strengths in analytical and archaeological science, atmospheric chemistry, chemical and structural biology, green chemistry, materials chemistry, metalloproteins, organometallic and catalytic chemistry, synthetic organic chemistry and time-resolved spectroscopy. Like the Biology Department, Chemistry has an Athena Swan Gold Award and is committed to working arrangements that augment Equality and Diversity and Family-Friendly Practice.



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## 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.





## THE UNIVERSITY

### 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](http://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.



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### Apply online

- Go to <https://jobs.york.ac.uk>
- Find this job using reference 7005
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 7 October 2018.

### What will I need?

You will need to upload:

- your CV
- a letter describing how you meet the requirements of the job
- 2 page research outline that clearly states how the programme of work you wish to develop: a) aligns with the key aims of the NTD Network; and b) how you would use the fellowship to build an independent research career
- A letter of support from your sponsor at the University of York

You will also need details of 2 referees.

### Help and assistance

Direct any informal queries to [Jeremy.mottram@york.ac.uk](mailto:Jeremy.mottram@york.ac.uk) or [Tony.wilkinson@york.ac.uk](mailto:Tony.wilkinson@york.ac.uk)

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

[recruitment@york.ac.uk](mailto:recruitment@york.ac.uk)

+44 (0)1904 324835