



**THE UNIVERSITY OF NOTTINGHAM
RECRUITMENT ROLE PROFILE**

- Job Title:** Research Associate/Fellow
- School/Department:** School of Medicine, Division of Medical Sciences & Graduate Entry Medicine
- Job Family and Level:** Research and Teaching Level 4 Training Grade/Level 4
- Contract Status:** Fixed-term until 17 April 2018
- Hours of Work:** Full-time (36.25 hours per week). Job share arrangements may be considered for this post
- Location:** A Floor, Medical School, Queens Medical Centre, Nottingham
- Reporting to:** Professor of Breast Surgery

Purpose of the New Role:

This fixed-term post is funded by a MRC Grant to study the autoantibodies levels against tumour associated antigens in Colorectal Carcinoma (CRC). The person appointed will be expected to plan and conduct work using protein microarray technology and will be responsible for writing up their work for publication. The person appointed will have the opportunity to use their initiative and creativity to identify areas for research, develop research methods and extend their research portfolio.

	Main Responsibilities	% time per year
1.	<p>Undertake innovative research on the detection of autoantibodies recognising tumour-associated antigens for early detection of colorectal cancer through protein array development, production and analysis, in support of the work of Professor John Robertson.</p> <p>Planning and conducting experiments and analysing or interpreting the results, keeping accurate records of work undertaken, using specialist computer software to analyse data and to produce diagrammatic representation of results.</p> <p>Suggest and contribute to the development of research techniques and methods in collaboration with colleagues.</p> <p>Performing in depth analysis of experimental data. This will include graphical/ statistical analysis using appropriate software (e.g. Prism GraphPad, Microsoft Excel etc.)</p> <p>Take responsibility for accurately recording experimental data.</p> <p>Writing progress reports to funding bodies that support research and assisting with publication preparation and presentation of data at appropriate national and international meetings. Additionally, contribute to writing applications for research grants e.g. MRC grants</p>	60%

2.	Use specialist equipment to assist in various research project and train students and new researchers, undergraduate and postgraduate projects in specialised and standard techniques and the safe and effective use of equipment.	15%
3.	Ensuring that adequate stocks of equipment and laboratory reagents necessary for the microarray work are available and use internal ordering and record keeping database/systems. Updating the COSHH and Health and Safety information. Production of SOPs for all the equipment and related procedures. These must be accurate, easy to follow and kept up to date to allow high quality, reproducible techniques throughout the University.	10%
4.	The person appointed is expected to make a contribution to teaching that is in balance with wider contributions to research and other activities. Any other duties appropriate to the grade.	15%

Knowledge, Skills, Qualifications & Experience

	Essential	Desirable
Qualifications/ Education	<ul style="list-style-type: none"> • First degree in a biological sciences discipline. • PhD (or near completion) or equivalent in biomedical or biological sciences. 	
Knowledge/ Skills/Training	<ul style="list-style-type: none"> • Antibody-related techniques, including microarray, enzyme immunoassays, and western blotting. • Cell culture and protein expression expertise. • Molecular biology techniques, particularly PCR and cloning. • Problem solving and analytical thinking. • Proven planning and organisation skills. 	<ul style="list-style-type: none"> • Understanding human monoclonal antibody production systems.
Experience	<ul style="list-style-type: none"> • Experience of working in a similar laboratory environment. 	<ul style="list-style-type: none"> • Report /scientific article writing.
Other	<ul style="list-style-type: none"> • Willingness to adopt the Ethos and Principles of the School of Medicine. 	

Additional Information

The Postholder will be expected to undertake further training to develop skills and techniques.



The University of Nottingham strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women's careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.

The School of Medicine holds a Silver Athena SWAN in recognition of our achievements in promoting and advancing the representation of women in science, technology, engineering, medicine and mathematics (STEMM). Please see

<http://www.nottingham.ac.uk/medicine/about/athena-swan.aspx>

Appendix 1

The University of Nottingham

Described by the Times Good University Guide 2017 as “the nearest Britain has to a truly global university” The University of Nottingham has award-winning campuses in the UK, China and Malaysia and hosts a global academic community in all three countries. The University has an institution-wide commitment to embedding an international dimension across all of our activities enabling us to produce graduates who are empowered to excel in a challenging global environment and deliver genuinely world-changing research.

Our reputation for world-class research has yielded major scientific breakthroughs such as Nobel-winning MRI techniques, drug discovery, food technologies and engineering solutions for future economic, social and cultural progress.

Already ranked among the UK’s elite universities and global polls for research excellence, our reputation for world-class research has been further enhanced with the 2014 results of the Research Excellence Framework (REF).

In addition to scoring highly in quality rankings covering major disciplines in science, engineering, the social sciences, medicine, business and the arts, it is Nottingham’s research power rankings which demonstrate the impressive volume of excellent research which is carried out. We are now ranked 8th in the UK on a measure of ‘research power’ which takes into account both the quality of research and the number of research-active staff who made REF returns, confirming Nottingham’s place in the top tier of the world’s elite higher education institutions.

The main University campus is set beside a lake, in an extensive belt of woodland, parks and playing fields. The 330 acre University Park Campus is the focus of life for more than 32,000 students and houses the majority of the University’s academic schools and many of the central Services. The Jubilee campus is situated 2 miles away from the University Park, and provides extra capacity. The University Medical School is situated next to the University Park. Together with the University Hospital, it forms the Queen’s Medical Centre (QMC).

University of Nottingham Medical School

Nottingham has a strong reputation for both clinical medicine and teaching. As one of the most popular medical schools in the country, it is able to select excellent students and produce and attract good junior doctors.

The School of Medicine comprises the Divisions of Cancer and Stem Cell Sciences, Child Health, Obstetrics and Gynaecology; Clinical Neuroscience; Epidemiology and Public Health; Primary Care; Psychiatry and Applied Psychology; Rehabilitation and Ageing; Medical Sciences and Graduate Entry Medicine; Respiratory Medicine; Rheumatology, Orthopaedics and Dermatology and the Nottingham Digestive Diseases Centre.

The School also hosts the Education Centre, the Centre for Interprofessional Education and Learning, the Clinical Research Facility, the Clinical Skills Centre, NIHR Design Service East Midlands, Nottingham Clinical Trials Unit, PRIMIS and Medical Imaging Unit.

The School of Medicine brings together in one School staff undertaking research for the benefit of the health of patients. It includes all primary care and hospital-based medical and surgical disciplines, principally in the Queen’s Medical Centre and City Hospital Nottingham Campuses, Royal Derby Hospitals NHS Foundation Trust and also at the University’s main campus and at the King’s Meadow and Jubilee Campuses. Most of our School’s Senior Researchers and Teachers are also clinicians who dedicate 50% of their time to patient care within the Nottingham University Hospitals NHS Trust & Royal Derby Hospitals NHS Trust. This close juxtaposition brings cutting-edge clinical care to our patients and clinical relevance to our research and teaching. We are closely integrated with our full time NHS clinical colleagues, many of whom are themselves leaders in research and teaching and who work closely with the University and this increases the mutual benefit from integration between the University and NHS.

Mission:

Our mission is to improve human health and quality of life locally, nationally and internationally through outstanding education, research and patient care.

Priorities:

1. **Teaching and learning**, particularly training tomorrow's doctors and teaching specialised postgraduates
2. **Research and research training:** We will perform and support the highest quality "big" research which impacts on human health and disease
3. **Partnership with the NHS** and other healthcare providers
4. **Visibility and profile of the School of Medicine:** We will do what we do better, and we will tell others about it

Ethos and principles:

1. **Having people and patients at the heart of all we do:** our teaching and learning, our research and our patient care
2. **Contribution within the School of Medicine and to society** beyond our immediate roles; helpfulness and service
3. **Openness and fairness**, with particular emphasis on communication (both internal and external) and on equality and diversity among students and staff
4. **Personal and group responsibility** for all aspects of our work, within a culture of opportunity and reward

Our research spans 11 major themes, ranging from cancer to vascular medicine. We work closely with industry and the NHS. Our world-leading research ranges from basic and translational science through to clinical trials, epidemiology, and health services research. Our clear theme is improving human health, underpinning a vibrant postgraduate research training programme leading to PhD or DM. Many of our academics are clinicians, using their expertise to provide cutting edge specialised treatment to NHS patients; reflecting our ethos that patients are at the heart of all we do.

The partnership between University of Nottingham and Nottingham University Hospitals NHS Trust was recently awarded by NIHR, a transformational £23.6 million to to expand their pioneering work into new treatments and diagnostics for a wide range of health problems, establishing a new Biomedical Research Centre (BRC), which will incorporate two existing smaller Biomedical Research Units in the city. The Nottingham BRC will be the leading UK hub in five key areas of health research:

- Deafness and hearing loss
- Gastrointestinal and liver disease
- Respiratory medicine
- Musculoskeletal disease
- Mental health technology

At the core of the Biomedical Research Centre will be Nottingham's world-leading expertise in magnetic resonance imaging (MRI). It means the latest medical imaging research and technology pioneered here can be translated into real benefits for patients in all five of the BRC's research areas.

In the 2014 Research Excellence Framework the four Units of Assessment included in the School of Medicine were among the six most improved in the whole University since RAE 2008: Over 80% of our research in 2014 was graded as world-leading or internationally excellent. Our research spans 11 major themes and ranges from basic and translational science through to clinical trials, epidemiology, and health services research. We work closely with industry and the NHS. Our research is underpinned by a strong postgraduate research training programme leading to PhD or DM. Our major research themes are in Cancer and Stem Cells; Child Health, Obstetrics & Gynaecology; Clinical Neurosciences; Dermatology; Digestive Diseases; Epidemiology and Public Health; Mental Health; Musculoskeletal physiology and disease; Primary Care; Rehabilitation and Ageing; Respiratory Medicine; and Renal Medicine.

The School of Medicine trains tomorrow's doctors on a vibrant undergraduate medical course with a unique intercalated BMedSci, as well in a specialised graduate-entry programme built around clinical problem solving. We teach medicine and related disciplines at both undergraduate and postgraduate level. We have a dedicated clinical academic training programme and are committed to training PhD and doctoral research students and to supporting postdoctoral clinicians and scientists in their research.

Professor Tony Avery is Dean of the School of Medicine.

For further information, please see our website <http://www.nottingham.ac.uk/medicine>

Nottingham

Central within the East Midlands, Nottingham is a vibrant and prosperous city with something to offer everyone. It is one of the UK's leading retail centres and has a huge variety of restaurants, bars and nightclubs which attract people from all over the UK. Culturally, it has good theatres, an arena which attracts both national and international performers and a range of historical interests relating to subjects such as the lace industry, Lord Byron and DH Lawrence. Nottingham is also known for sport, being the home of Trent Bridge Cricket Ground, Nottingham Forest and Notts County Football Clubs, the National Water Sports Centre and the Nottingham Tennis Centre. There is a good network of roads with easy access to the M1 and the A1, a fast frequent rail service to London and other major cities. Nottingham East Midlands Airport is only eighteen miles away.

The city is set within a county of outstanding natural beauty which includes Sherwood Forest, Wollaton Park, lively market towns and wonderful historic buildings. Housing is relatively inexpensive and, in addition to the two Universities, there are excellent schools and colleges available.

To find out more about Nottingham, use the following links:

Nottingham County Council – Tourism <http://www.experiencenottinghamshire.com/>

University of Nottingham <http://www.nottingham.ac.uk>

Zoopla (Guide to local properties) <http://www.zoopla.co.uk/>

My Nottingham (information on schools, term dates, school transport etc.)

<http://www.nottinghamcity.gov.uk/index.aspx?articleid=8524>

Division of Medical Sciences and GEM

This geographically-based, multidisciplinary Division is located on the RDH site.

The Division was established in August 2007, employs >80 staff (biomedical scientists, healthcare professionals, educationalists, clinical academics, administrative & technical staff) & delivers several educational programmes: (i) the first 18-months of GEM, (ii) a new 3-year BSc in Medical Physiology & Therapeutics (began in Sept 2010, 50 students pa), (iii) a 1-yr Foundation programme for 15 students feeding into the BSc, & (iv) postgraduate taught courses. The School also has 53 MD / PhD students.

The Division enjoys excellent links with Derby Hospitals Foundation Trust.

General Information about the city of Derby

Derby is an historic city, which lies at the heart of some of England's most magnificent countryside. The Derbyshire Dales & Peak District National Parks are only a short drive away, with the spa towns of Ashbourne, Matlock & Buxton within easy reach. Southern Derbyshire has a population of approximately 570,000 & is well served by rail & road within easy travelling distance of the M1, M5, M6 & M42. The Nottingham East Midlands Airport is close by.

The city offers a wide range of recreational amenities. The Assembly Rooms & Playhouse offer a wide variety of shows, concerts & productions to suit all tastes. Other nightlife centres around two multi-screen cinemas, various nightclubs, several traditional public houses & excellent restaurants in the city centre & throughout the county. There are various social & cultural facilities, museums, stately homes, castles, gardens & numerous places of historical &

archaeological interest. There are first class facilities for sport enthusiasts within Southern Derbyshire including Derbyshire County Cricket Club & Derby County Football Club.

Housing is both plentiful & reasonably priced, with a choice of country village settings & modern hustle & bustle of city life, with the larger cities of Nottingham & Leicester within easy access. There are many good schools, primary & secondary, both state & private. To find out more about Derby, visit www.derby.gov.uk