

Job description

Post title and post number	Medical Statistician - 54641
Organisation advertising Description	School of Health and Population Sciences College of Medical and Dental Sciences
Post number	54641
Full-time/Part-time	Full time
Duration of post	Fixed term until 31 October 2016
Post is open to:	Internal and external candidates
Grade	7
Salary	Starting salary is normally in the range £28,695 to £37,394. With potential progression once in post to £39,685 a year.
Terms and conditions	Research and Analogous
Closing date	2 September 2015

Job summary

The post holder will primarily conduct network meta-analysis for projects on i) the prevention of postpartum haemorrhage and (ii) controlled ovarian stimulation. They will also provide statistical advice and collaborative support to research staff in the Birmingham Women's Hospital (BWH) academic unit.

Main duties

- Provide statistical advice for the design of clinical trials, meta-analysis and network meta-analysis, under the mentorship of a senior member of the Biostatistics Team.
- Contribute to grant applications for evidence synthesis projects under the mentorship of a senior member of the Biostatistics Team.
- Determine appropriate statistical analysis of study data and write statistical analysis plans, under the mentorship of a senior member of the Biostatistics team.
- Undertake appropriate statistical analysis of study data, and contribute to presentations and publications, under the mentorship of a senior member of the Biostatistics Team.
- Undertake meta-analyses and network meta-analysis to provide a reliable synthesis of previous evidence on treatment efficacy and to identify future key research questions.
- Provide statistical advice and/or analysis of data as part of the Biostatistics unit's support and advice service. This will involve liaising with clinicians, systematic reviewers and health economists.
- Lecture on basic statistics and evidence synthesis methodology and provide in-house staff training.

- Carry out statistical methodological research relevant to the studies being undertaken within the Biostatistics team and BWH.

Person specification

- Graduate in a numerate-related subject.
- MSc or PhD in Statistics OR a relevant higher degree, with experience (at least 2 years) of working as an applied medical statistician.
- Knowledge of medical statistics, clinical trials, and evidence synthesis.
- Experience of applying statistical techniques e.g. logistic regression, multi-level models, sample size calculations.
- Skills in statistical programming in WinBUGS and/or STATA
- Experience of data extraction/reporting techniques (preferably Access/SQL).
- Ability to work well both on own initiative and as part of a team.
- Evidence of good inter-personal, verbal and written communication skills.
- Meticulous attention to detail and high levels of accuracy.
- Aptitude for analysis which is real life and problem driven.
- Interest in the application of statistical techniques for medical problems.
- Willingness to learn new techniques.
- Ability to impart statistical concepts to non-statisticians.
- Experience of writing peer-reviewed publications

Dimensions

The post holder will assist in the statistical advice and support to BWH's evidence synthesis and clinical trial research programme that addresses a wide and interesting range of medical problems of practical relevance to patients, carers and health care providers. The post holder will work alongside a number of statisticians within the Biostatistics group as well as experienced clinicians at BWH. The Unit is currently running network meta-analyses and a large number of international/national randomised trials that the post holder could support.

Statisticians are encouraged to take an interest in the medical areas, and understand the clinical issues and problems relating to the disease areas in which they work. This enables them to contribute to disease-specific research at a national and international level.

This post provides an excellent opportunity for a recent graduate to gain the necessary experience to develop into a medical statistician within a leading academic/clinical research environment. The biostatistics group and BWH provide a stimulating, friendly environment with first-rate facilities and an interesting and diverse research portfolio

Planning and Organising

A flexible attitude and an ability to organise work to meet deadlines, while handling more than one task at a time is needed.

Problem solving/Decision Making

An ability to contribute to decisions on the appropriate methodology to apply to research questions is required.

Internal and external Relationships

There will be in-house teaching commitments and occasional contributions to postgraduate and continuing professional development courses run by the School and other departments

As part of the Statistics team and the Unit's support and advice service, the post holder will help to advise potential clinical trialists and other researchers on the feasibility, design and analysis of proposed studies and sit on project management groups.

The University

With more than 7,000 staff and 30,000 students, we were the first – and are now one of the largest - civic universities in the UK. Our heritage as the original 'redbrick', is combined with one of the most compelling and ambitious agendas in higher education. Quite simply, at Birmingham we make things happen. Home to world-class researchers - whose work in everything from developing next generation engine technologies to harnessing quantum technology to solve everyday problems makes a real difference to people's lives - we provide innovative solutions to big problems. We think, recruit and compete worldwide.

Being named the *Times and Sunday Times* University of the Year 2013-14 recognised a transformative time in our history characterised by our bold, ambitious strategy and innovative approach to the challenges facing the sector. The University is a pioneer in sector-leading initiatives, including our 'Birmingham Fellows' programme, which has so far seen around 70 of the world's best early career academics join us; and the much-emulated unconditional offers strategy for exceptional students. We have a clear vision for the future, ambitious leadership, world-leading academic strengths and a secure financial base. With an annual turnover of more than £520 million, we use our financial strength to invest in the intellectual and physical future of the University. Judicious planning has enabled us to embark on a £500 million capital development programme. Over the past three years, some £250 million has been invested in the Birmingham campus including a new library, a major sports centre, outstanding new student accommodation and a state-of-the-art student services hub. We have been encouraging bold, independent thinking and providing exceptional academic programmes that stretch and challenge for more than a century, and the new University of Birmingham School will continue this tradition; providing an outstanding academic education for the city's young people and serving as a centre of teacher education in the region.

Birmingham is a leading member of the Russell Group and a founder member of the Universitas 21 global network of research universities (<http://www.universitas21.com/>) and our Vice-Chancellor is the current Chair of both groups.

Exceptional Research

The University is one of the UK's most successful institutions in terms of attracting research funding. We have a portfolio of over 2600 live projects with an award value to the University of £594 million.

Our research record speaks for itself. More than 80 per cent of all research carried out at Birmingham is rated as internationally excellent or world-leading, according to the latest UK-wide research quality survey (REF 2014). The results also showed that 87 per cent of our research activity has a global impact, confirming our position among the world's top universities for research in a broad range of areas, from History and Education to Chemical Engineering and Psychology.

Long established as a pioneer in the field of medicine, Birmingham scientists were the brains behind the first heart pacemaker, the use of aspirin and the synthesis of Vitamin C. 'Great minds, in the right location' sums up our unique combination of cutting-edge laboratory work, clinical expertise and first-class surgical facilities all housed on one vast life sciences campus. The Institute of Translational Medicine (ITM), which is scheduled to open later this year, will build on Birmingham's excellent track record in clinical trials and help to progress the very latest scientific research findings from the University into enhanced treatments for patients across a range of major health issues including cancer and liver disease. Bringing together the University, the University Hospitals Birmingham NHS Foundation Trust, and Birmingham Children's Hospital, it will increase capacity and enable more patients to be co-located alongside clinicians and researchers. It will also make it easier for firms to engage with clinicians and academics, bringing additional investment into the city. This vision is reflected in Birmingham's ambitious project to create a four hectare science park specifically for the life sciences adjacent to the University and Hospital to attract cutting edge health and pharmaceutical research firms into the city, driving economic growth alongside medical and scientific innovation.

These investments reinforce the University's position today as a world leader in, for example, the development of new treatments for cancer, heart, and liver disease, as well as innovative transplant technologies and new drugs to combat antibiotic resistance.

This strength in life sciences is reflected throughout our College of Life and Environmental Sciences which is home to one of the best stand-alone Psychology schools in the country as well as one of the top three centres for research into Sport, Exercise and Rehabilitation Science. Supported by a major gift from a philanthropist, the University is developing a unique institute for forest research which will investigate the effect of rapid climate change on tree canopy development and pathogens.

The University's arts and humanities researchers are among the very best in the UK, highlighting our world-class research programme. Philosophy, History, Classics, Theology and Religion, and West African Studies are amongst the top ranked departments in the country and recognised for bringing significant benefits to society.

In the Physical Sciences we boast outstanding academic and research credentials, including in Chemical Engineering, in which we were recognised with a Queen's Anniversary Prize in the Jubilee year, and in Physics, where we have just received investment of £80 million to develop Quantum Technologies. Our substantive links with industry include receiving a £60 million investment from Rolls-Royce and the Higher Education Funding Council for England (HEFCE) for the world-leading High Temperature Research Centre.

In the Social Sciences we have developed a broad range of initiatives, focused on enhancing, supporting and developing public sector services across the city and nationally. The Public Service Academy (PSA) brings together the University's teaching, research, consultancy and knowledge transfer expertise in public services. Working with a range of key public service partners, including Birmingham City Council, our work is focused on key themes including cohesion, health and wellbeing and localisation. Our Health Services Management Centre provides a combination of research, teaching, professional development and consultancy to health and social care agencies and has established a unique reputation as a 'critical friend' of the

healthcare community. The Institute of Local Government Studies (INLOGOV) is the leading UK centre for the study of local public service management, policy and governance. With more than 40 years of experience working within local government and the public sector, it shapes the very latest thinking for public servants.

Our research helps to shape the national political agenda too. The ground-breaking Birmingham Policy Commissions bring together key figures from the public, private and third sectors with our academics to generate new thinking on contemporary issues of global, national and civic concern. Commissions to date have included reports on the shape and nature of local public services in a 'big society', the future of nuclear energy in the UK and the security impact of drones.

Outstanding Students

At Birmingham we encourage bold, independent thinking and provide exceptional academic programmes that stretch and challenge. We understand that every student is an individual with a unique learning style and have invested in the latest learning facilities and technologies. As a result we attract students with the finest academic credentials and year on year applications for our undergraduate places are growing rapidly and more impressively than they are nationally or for comparable universities. This year we will welcome approximately 8,000 undergraduate and postgraduate students. We are committed to delivering a first-class experience for our students in every aspect of their university life. This is also why the University was ranked 11th in the Times Higher Education Student Experience Survey 2013 and 17th out of 123 UK universities in The Complete University Guide for 2015 and in The Guardian University Guide 2015. These latest league table results further strengthen Birmingham's position as a Top 20 university and reflect our recent performance in other highly-regarded league tables, such as the The Times and Sunday Times Good University Guide 2014, which ranked the University in 16th place overall.

Global Outlook

Rated 64th in the QS World University Rankings 2014-15, the University has a significant international presence. The breadth of our research in China, and particularly in the Guangzhou region, is testament to the success of our collaboration with the local government and universities there. In Brazil, the Universities of Birmingham and Nottingham are working together in a unique collaboration to develop a network of strategic partnerships with Brazilian universities, as well as the oil and gas industry. In North America, the University has a major collaboration with the University of Illinois at Urbana Champaign underpinned by a flourishing network of faculty-faculty relationships. Our partnerships in India continue to develop and have been strengthened by our Chancellor, Indian-born entrepreneur and Cross-Bench Peer Lord Bilimoria of Chelsea. We also have partnership agreements with many of the world's leading universities; an office in New Delhi and a presence in Brussels. More information about our strategic global engagements and international research focus can be found on our website (<http://www.birmingham.ac.uk/International/global-engagement/index.aspx>)

Cultural Assets

The University's many cultural assets take in the Shakespeare Institute at Stratford-upon-Avon, which has direct working links with the Royal Shakespeare Company; the Ironbridge Institute in Shropshire, and the Barber Institute of Fine Arts - our own art gallery that houses works by many of the greatest artists in the western tradition.

The Edgbaston campus also includes Winterbourne House and Garden, a unique Edwardian heritage attraction that is home to more than 6,000 plant species from around the world. Our cultural profile was significantly enhanced with the opening of the Bramall Music Building in 2013. This houses the Elgar Concert Hall, named after our first Professor of Music, Sir Edward Elgar, and is a striking venue that complements our global reputation in music, attracting some of the most talented musicians from across the world to study here.

Sport

Sport is integral to life at Birmingham and we are ranked third in the UK for the quality of student sport. Our new sports development, also due to open early next year, will include the city of Birmingham's first 50-metre swimming pool – an asset not only for our students and staff but for the wider community.

Future Investment

Our plans for the future are underpinned by long-established financial probity. We contribute £1 billion a year to our region's economy. Our surpluses and substantial philanthropic support are re-invested into the intellectual and physical fabric of the institution, enabling us to plan with confidence for the future and to continue to invest in the facilities and services that are required for high-quality research, and an outstanding student learning experience.

Led by our Vice-Chancellor, Professor Sir David Eastwood, the University is structured for swift decision-making, enabling us to capitalise on our academic range and financial strength as well as the opportunities that emerge in the fast-changing global HE environment.

The City of Birmingham

Birmingham is the UK's second city and a major European centre as well as being the only place in the UK listed in the *Rough Guide's* Top 10 places in the world to visit in 2015. It is a city of historical interest and contemporary vision and has a rich and diverse community that creates a vibrant, multicultural and exciting place to live and work. In the recent Sunday Times/Zoopla report 'Best Places to live in Britain' three areas of Birmingham, Harborne, the Jewellery Quarter and Moseley all made the top 50 best places to live in Britain with Moseley being voted the overall winner.

It is home to the internationally renowned Birmingham Royal Ballet and one of the world's greatest concert venues, the Symphony Hall. The City Museum and Art Gallery houses the world's finest collection of Pre-Raphaelite paintings, alongside a major collection of Old Masters, Modern and Contemporary pictures, while the iconic Bullring is one of the largest dedicated shopping facilities in Europe. Sports and recreation are also well served; the city offers international Test cricket, top-flight football, international championship golf and top-class rugby. As a multicultural city, Birmingham is also renowned for the breadth of its cuisine and has more Michelin starred restaurants than any other English city outside London.

Birmingham is within an hour's drive of Stratford-upon-Avon and the Cotswolds. From Birmingham International Airport, more than 50 different airlines operate scheduled services to 100 destinations worldwide. The University has its own dedicated railway station, while 50 million passengers a year use Birmingham New Street Station, which will be at the centre of the proposed high-speed rail network. London is 80 minutes away by shuttle service, with trains every 20 minutes.

The College of Medical and Dental Sciences

College Overview

The University is structured into five Colleges, and the College of Medical and Dental Sciences (MDS) is the largest with over 1400 members of staff covering the whole range of pre-clinical and clinical disciplines.

From 1st October 2015, MDS will be changing its academic structure from the current five Schools to eight Institutes as below:

- Institute of Cancer and Genomic Sciences
- Institute of Cardiovascular Sciences
- Institute of Applied Health Research
- Institute of Immunology and Immunotherapy
- Institute of Inflammation and Ageing
- Institute of Metabolism and Systems Research
- Institute of Microbiology and Infection
- Institute of Clinical Sciences

The seven Research Institutes are focused academic units in identified areas of high-performing research excellence, each with an ambitious strategy and empowered leadership. Drawing together outstanding researchers around coherent and highly collaborative themes, they will be responsible for driving the further development and delivery of the institutional Life Sciences research strategy, championing interdisciplinary collaboration across the University's Colleges and in partnership with our local NHS Trusts. Each will support a broad translational pipeline, supporting fundamental research excellence through to clinical and applied health programmes, ensuring that our research delivers clear impact in health and wealth. Co-location and core focal points for each of the Research Institutes will ensure access to key facilities and resources and promote collaboration, as well as enabling further potential efficiencies in provision of high quality professional services support; particularly that associated with core academic administration and in support of teaching and research delivery.

While each of our Research Institutes will contribute to the delivery of outstanding teaching, our dedicated ***Institute of Clinical Sciences*** will provide the clear focus for integrating our education and training programmes, co-ordinating all teaching, student engagement and related activity across the College and including a number of operational and management sub-units. The Education Institute will deliver an improved, high quality student experience, support increased recognition of the value of education and teaching contribution and allow an enhanced emphasis on pedagogy within MDS.

A diverse range of committed and high-performing Professional Services staff, managed through integrated College-wide teams, underpin and provide support to the academic activity of the College. The current model of central management with localised focus and delivery provides high-quality support both understanding of and

directed according to academic need, which will continue and be refined in the new academic structure.

University of Birmingham Life Sciences Strategy

The Life Sciences Strategy (LSS) has been developed following detailed engagement both internally and externally. The LSS aims to establish the University as an outstanding, distinctive centre for Life Sciences research and education focused specifically on areas relevant to human health including clinical and biomedical sciences and human biology.

The LSS is focused on consolidating and building upon our research and teaching activities in this area across the whole campus. It will help to deliver the region's ambition for establishing Birmingham as the UK capital for the Life Sciences sector, and the national vision to improve healthcare, contribute to economic growth and make the UK the best place to invest in life sciences research.

College Location

The principal base of the College lies immediately between the main campus of the University in Edgbaston and the new Queen Elizabeth Hospital Birmingham (QEHB), University Hospitals Birmingham NHS Foundation Trust (UHBFT) with a number of other key buildings both on and off campus. Other NHS Trust partners are also on the same campus including Birmingham Women's Hospital and the Barberry (Psychiatric) Hospital.

Research

MDS is the largest of the University's five Colleges and, with over 900 researchers and around £60M research funding per year, it represents a major international centre for biomedical research.

Our overall research objective is to develop and promote excellence in basic and clinical science with an ultimate goal of delivering improvements in human health. We take pride in a truly translational pipeline, delivering cutting edge clinical trials and patient studies, underpinned by cell and molecular biology research on both model organisms and humans.

Our research is supported by peer-reviewed multi-million-pound funding from Research Councils UK, medical research charities such as Wellcome Trust, Cancer Research UK, Leukaemia & Lymphoma Research and the British Heart Foundation, the National Institute for Health Research (NIHR) and Department of Health as well as the European Union, together with strategically important support from other government bodies (HPA, DSTL) and industrial partners (e.g. GSK, Novartis) including SMEs (e.g. Oxford Immuntotec, Inhibtex).

The new research institutes focus around our scientific strengths and are targeted to areas of major clinical significance.

The ***Institute of Cancer and Genomic Sciences*** represents our major academic strengths in fundamental cancer research, particularly around cell biology, haematology, genetics and genomics, and cancer clinical trials. The latter of these is driven through our CRUK Cancer Clinical Trials Unit, which is the national lead for paediatric cancer trials. Additional key infrastructure includes an Experimental Cancer Medicine Centre, and the success of academic Haematology has provided a model for the development of an LLR-funded Trials Acceleration Programme (TAP) via Birmingham that links research nurses in 13 UK leukaemia centres, part of our wider status as a national LLR Centre of Excellence. A key driver for our future development will be the award of the West Midlands Genomic Medicine Centre, the largest in the UK and linking all 18 regional NHS Trusts, with academic leadership based within this Institute.

Our ***Institute of Cardiovascular Sciences*** is a developing area of strength, focused around two key themes: Vascular Inflammation, Thrombosis & Angiogenesis; and Clinical & Integrative Cardiovascular Sciences. With a BHF Chair and a number of senior BHF Fellows, this is a highly collaborative cluster of activity, particularly championing interdisciplinary strengths through partnerships such as the EPSRC Physical Sciences for Health integrated Centre for Doctoral Training and the NIHR Surgical Reconstruction & Microbiology Research Centre (SRMRC).

The ***Institute of Applied Health Research*** is focused in two broad areas: (i) primary care & population health research; (ii) healthcare evaluation & methodology, and there is expertise in the main community focused clinical disciplines: public health, primary care and occupational medicine, and methodological expertise in biostatistics, health economics, clinical trials, evidence synthesis, medical ethics and qualitative research. Leading both the Birmingham Clinical Trials Unit (BCTU) and the Primary Care Clinical Research and Trials Unit (PC-CRTU), internationally-recognised expertise is driving not only their specific disciplines but also providing an exceptional collaborative framework for developing and delivering translational outputs from UoB's wider research portfolio.

The ***Institute of Immunology and Immunotherapy*** builds on the longstanding success of our MRC Centre for Immune Regulation, now driving translational outputs through closer integration with leading cancer immunology expertise. The NIHR Biomedical Research Unit (BRU) in Liver Disease forms another key focus around which we are leading both nationally and internationally, with the establishment of our Advanced Therapies Facility providing state of the art cell and gene therapy suites with pharmacy facilities designed for gene, cell and biological therapies. Our Clinical Immunology Service supports a range of national cancer trials, and is the beneficiary of a recent £7.3M MRC Clinical Infrastructure award to provide 'deep' phenotyping of patients involving immunological, metabolomic and DNA sequence analysis.

Our ***Institute of Inflammation and Ageing*** benefits from a highly collaborative leadership team focused on translational outputs, based within a dedicated wing of the new QEHB. The strength of their vision is represented by a number of major national awards, including the MRC-Arthritis Research UK (ARUK) Centre for Musculoskeletal Ageing (with Nottingham); ARUK Centre of Excellence in the

Pathogenesis of RA (with Glasgow and Newcastle); ARUK Experimental Arthritis Treatment Centre; NIHR SRMRC; NIHR Healthcare Technology Cooperative (Trauma); and the Healing Foundation Burns Centre, as well as our key role in the NIHR Translational Research Partnership on Joint & Related Inflammatory Disease and NIHR SRMRC “Trauma” Centre along with collaborators in cardiovascular and microbiology research.

The ***Institute of Metabolism and Systems Research*** is another rapidly-developing area, drawing on longstanding strengths in endocrinology and reproductive health as well as metabolomics to create an integrated translational environment. As well as a key role in the MRC-ARUK Centre for Musculoskeletal Ageing Research, excellence in rare disease is recognised through our leadership of the UK paediatrics theme in the NIHR NOCRI Translational Research Collaboration ‘Rare Diseases’. The Institute also provides much of the academic drive for our NIHR-Wellcome Trust Clinical Research Facility, with facilities both at University Hospitals Birmingham and Birmingham Children’s Hospital, and recipient of the largest national NIHR award in the last round of funding.

The ***Institute of Microbiology and Infection*** draws together one of the largest groupings of academic expertise in this area nationally, expert microbiologists, immunologists, biochemists and chemists, with technical expertise in next generation sequencing, genomics, proteomics, molecular and structural biology, biotechnology and modelling. Diverse research programmes encompass fundamental science of model organisms to the biochemical and biophysical analysis of microbial components to translational research on key pathogens of medical and veterinary importance. Major interests include pathogenomics, chromosome architecture and gene regulation, plasmids and mobile DNA, physiology and adaptive response, cell wall structure and membrane proteins, pathogenesis and host-pathogen interactions, infection and host-immune response, antibiotic and antimicrobial resistance and environmental biotechnology.

Education

Each year the College trains over 370 medical students including the Graduate Entry course (around 120 medical students are able to intercalate on a choice of programmes after the second, third or fourth year of their course), 70 dental students, 20 biomedical materials science students, 140 biomedical science students, 125 nursing students, 70 pharmacy students and 60 physician associate students. Medical student teaching takes place at all hospitals in Birmingham and many of the hospitals in the Black Country.

There are also approximately 450 postgraduate taught students and 400 research students in the College, managed by a cross-College Graduate School. The College has excellent library and reference facilities including the newly refurbished Barnes library and Doug Ellis Learning Hub.

Partnerships

Our partnerships with our local NHS Trusts are exemplified through [Birmingham Health Partners \(BHP\)](#), an exciting collaborative platform between the University, Birmingham Children's Hospital (BCH) and UHBFT that enables rapid movement from laboratory discovery to patient benefit, fostering new therapeutic and healthcare innovations by creating a truly integrated environment for researchers and clinicians. This University-NHS strategic alliance led to the largest single renewal grant from NIHR of £12.8m for the Birmingham NIHR Wellcome Trust Clinical Research Facility (NIHR-WT CRF), which supports a paediatric facility at BCH, a satellite facility in the Centre for Translational Inflammation Research (CTIR; located within the QEHB) and gene and cell therapy programmes within our Advanced Therapies Facility (ATF).

The ATF also houses the Human Biomaterials Resource Centre (HBRC) which works with a large number of NHS Trusts in the region and acts as the hub for a number of collaborative initiatives such as the 100,000 Genomes Project which draws upon our unique population demographic through a collaboration of 18 NHS Trusts. This collaboration also showcases our partnership with the West Midlands Academic Health Science Network (WM AHSN), which brings together NHS commissioners, providers of NHS services, industry, academia and representatives of the people of the West Midlands to support the spread and adoption of innovation across the region.

We have a growing portfolio of projects with international partners including a large number of Horizon 2020 awards and more specialist strategic collaborations such as Universitas 21 and Sun Yat Sen University, China. We also partner with many other Universities both in the UK and overseas on collaborative research projects and more recently, split site PhD opportunities. These partnerships maximise our research outputs, and provide PhD students with opportunities to broaden their knowledge and skills across multiple world leading institutions.

In addition to the NHS Trusts in our immediate vicinity, the College works closely with many of the [teaching hospitals](#), clinical commissioning groups (CCGs), and training practices across the West Midlands. Students are encouraged to broaden their knowledge and experience by working across a wide range of organisations and experiencing the varied cultures and demographics of the West Midlands.

In addition to external partnerships, our cross campus collaborations within the University are vital, to share expertise and knowledge across disciplines, as well as facilities, equipment and resources. We have strong relationships with all four University Colleges, most notably with the College of Life and Environmental Sciences in connection with the Life Sciences Strategy as noted above. Other strong links are with the Business School, within the College of Social Sciences for education delivery, and with the College of Engineering and Physical Sciences for both teaching and research activity.

Facilities

The College has an impressive range of facilities and continues to develop, expand and improve them to support education delivery and research activity.

This includes the £35m Institute of Biomedical Research, the £11.8m [Wolfson Centre for Medical Education](#), and a prosectorium facility for anatomy teaching incorporating 10 ventilated tables and high tech AV teaching aids.

Recent investments include the refurbishment of the Medical School building foyer and Barnes library providing impressive visitor and student services facilities. As noted above, the College has also developed the state-of-the-art ATF which includes a purpose built HTA-compliant biorepository (HBRC) and a Cell and Gene Therapy Pharmacy which is directly connected to our [NIHR/Wellcome Trust Clinical Research Facility \(CRF\)](#). The College also has a Health Research Bus, a mobile clinical research facility funded via Birmingham Science City. This was the first of its kind and a great development for clinical research in the College.

The [Biomedical Innovation Hub](#) opened in early 2015 on campus within the Birmingham Research Park. This new £6.8m facility, offers fully serviced laboratory and office space for growing life sciences businesses. Just 500 metres from the new ITM, it will support a growing portfolio of medical spin-out companies from the University, deliver a further 35 new business and more than 500 new technology jobs.

2015 will see the opening of the £24m [Institute of Translational Medicine \(ITM\)](#), located adjacent to the University and QEHB. This investment (co-funded by the Department for Business, Innovation & Skills (BIS) and BHP) is an innovative development bringing together world class clinicians, scientists and clinical trials teams to accelerate access to new diagnostics, drugs and medical devices and enable patients to benefit more rapidly from breakthrough therapies and technologies. It will incorporate a new £7.5m MRC funded stratified medicine facility for deliver deep immunophenotyping, metabolomics and single cell genotyping of immunological diseases and an early-phase trial unit and hub to host pharmaceutical companies and SMEs. It is expected to general 600 new jobs in the first five years.

In autumn 2015 we will also see the opening of a new £50m [Birmingham Dental Hospital and School of Dentistry](#). The hospital and school, at Pebble Mill, just a mile from the central campus, is the first integrated, stand-alone dental hospital and dental school to be built in the UK for almost 40 years and will be fantastic opportunity for our Dentistry staff and students to learn and practice.

Finally, we look forward to the opening of the Birmingham City Council's Life Science Campus adjacent to the University in 2017. The Life Sciences Campus will become the principal location nationally for parts of the Life Sciences sector providing a basis for growth bringing high value jobs to the city. It will provide a world class environment for business to start up and grow, as well as those which are expanding or wishing to relocate. The space will be suitable for research and development,

clinical trials, pharmaceutical manufacturing, and regional headquarters, providing opportunities for export rich growth and employment.

These outstanding facilities and partnership working, combined with multi-disciplinary academic excellence across the University and a diverse regional population of over five million provide Birmingham with an outstanding opportunity to occupy a world-leading position in the rapidly evolving Life Sciences sector.