



Job Description

Post Title	Mass Cytometry Specialist Technician - 80604
Organisation Advertising Description	College of Medical and Dental Sciences
Grade & Salary	Full time starting salary is normally in the range £27,025 to £29,515. With potential progression once in post to £33,199 a year.
Duration of Post	2 years
Part time/Full time	Full time

Job summary

The University of Birmingham has recently made a large strategic investment in additional equipment for the Flow Cytometry Core Facility within the College of Medical and Dental Sciences (MDS). The central facility comprises 2x BD FACS Aria Fusion sorters, 2x BD Fortessa flow cytometers, 1x Beckman Coulter Cyan flow cytometer and 2x Beckman Coulter Cytotflex flow cytometers located within the Institute of Biomedical Research. Additional instruments are supported including a further 3x Beckman Coulter Cyan flow cytometers, 2x BD Fortessa flow cytometers and additional cell sorters. These are in various locations across the university, including the Institute of Translational Medicine (ITM). In addition a Fluidigm Helios Mass Cytometer or Cytof is located in the ITM. Sample preparation and analysis on the Cytof has already been established by research staff, and this will now be offered as a service.

This post will deliver the specialised Mass Cytometry service on the Fluidigm Helios instrument based in the Institute of Translational Medicine in the College Medical and Dental Sciences.

This post sits within the Infrastructure and Facilities team and requires knowledge of flow cytometry, and ideally mass cytometry. The post will involve support in



experimental design for users, and delivery of the specialised mass cytometry service, as part of both the core flow cytometry facility and the ITM. There may also be a requirement to train other staff and to assist in compliance with local SOPs, College and local H&S policies in order to establish and maintain a safe and productive local working environment.

Main duties

SUPPORT PROVISION OF A COMPLETE MASS CYTOMETRY SERVICE

Provide a professional support service for the MDS Mass Cytometry Facility which will include:

- Ensuring the facility operates in an effective and efficient manner at all times and the equipment is run to optimal parameters.
- Assisting University research staff or external stakeholders wishing to use the Fluidigm Helios or Cytof Mass Cytometry facilities, providing advice and guidance on panel design and labelling.
- Contributing to maintenance of equipment, service and calibration as required and all necessary documentation pertaining to these activities is stored appropriately for review by the Technology Hub Manager.
- Supporting the data storage facility, ensuring end user data is stored and backed up securely and older data is appropriately archived to achieve optimal use of available storage capacity.
- Performing basic IT systems administration, with operations including file transfer, scheduled back-ups and long-term archiving of data.
- Training staff in use of equipment and curating competency training records to enable end users to use equipment unsupervised - where appropriate.
- Assisting users on use of the equipment.
- Supporting, together with the Flow Cytometry Technical Specialist/Technology Hub Manager regular Flow and/or Mass Cytometry user group meetings in order to review new technology and developments in the field as well as discuss the usage and capabilities of current instruments
- Supporting the academic staff in the teaching of mass cytometry to students on an occasional basis as directed by the Flow Cytometry Technical Specialist/Technology Hub Manager.
- Promoting the Mass Cytometry service offered by the Technology Hub/Enabling Technologies.

GENERAL ADMINISTRATION AND ORGANISATION

- Supporting use of the Stratocore PPMS management system to control and monitor users' training records and access to equipment. Regularly review the information in the user database for accuracy.
- Assisting the ITM Operations Manager/ ITM Technical Manager/Technology Hub Manager, when required, with invoicing and recharging users for access to equipment.
- Maintaining stocks of consumables, if necessary, generating purchase order requisitions for the College finance office or via the web based ordering system.
- Receiving and correctly storing consumables and chemical reagents, and in particular samples according to relevant legislation and Good Clinical Practice (GCP) guidelines.



- Ensuring that the facilities are maintained in a clean, functional and safe condition to GCP compliance, reporting any problems through the appropriate channels.
- Any other duties commensurate with the grade and skill base of the role holder as directed by the Flow Cytometry Technical Specialist/Technology Hub Manager.

HEALTH AND SAFETY/ENVIRONMENTAL ISSUES

- Ensuring all facility users, working within the area of responsibility, comply with all basic University / College Health & Safety policies.
- Maintaining records - both paper and computer based as appropriate.
- Carrying out regular maintenance processes as appropriate and ensuring records are maintained.
- Reporting any breaches or non-compliance with Health and Safety procedures to the Technology Hub Manager/ITM Technical Manager and/or College Safety Adviser.
- Upholding the correct waste disposal stream as governed by College and local policy for laboratory, recycled and general waste.
- Adopting a proactive attitude to assisting with and implementing carbon reduction and energy saving measures.

OTHER DUTIES

- To actively engage in the Personal Development and Review Process.
- To contribute at a level appropriate with the grade, to internal and external audit procedures, and to regulatory inspections.
- To assist the Technology Hub Manager in identifying and tracking items held on the University Asset Register.
- In collaboration with the Technology Hub Manager, to play a proactive role in developing new initiatives for the service and ensure such initiatives are expressed in a professional format in order to inform senior management.
- In collaboration with the Technology Hub Manager, to assist in the implementation, and where appropriate, make suggestions to improve compliance with the University carbon reduction strategy and the effective use of energy.

Required Knowledge, Skills, Qualifications, Experience

- Proven practical experience of flow cytometry and mass cytometry.
- Degree or equivalent professional qualification in an appropriate subject.
- Minimum GCSE (A*- C) or equivalent in mathematics.
- Extensive experience of similar laboratory based work.
- Positive service attitude and shows courtesy in dealing with others.
- Ability to organise and manage own work load and demonstrate flexibility in terms of work practices/requirements.
- Ability to work under minimal supervision but function as part of a team.
- Knowledge of current relevant H&S policies.
- Proficiency in commonly used software packages.
- Willingness to work towards professional registration.



College Overview and Structure

The [College of Medical and Dental Sciences](#) (MDS) is the largest of the University's five Colleges with over 1,500 members of staff ensuring teaching and research excellence across a wide range of pre-clinical and clinical disciplines.

The College is structured into eight Institutes:

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

Our Institutes are focused academic units in identified areas of high-performing research and teaching excellence, each with an ambitious strategy and empowered leadership. We draw together outstanding academic, clinical and professional services staff around coherent and highly collaborative themes.

The Institutes are responsible for driving the further development and delivery of priority themes identified in the institutional Life Sciences Strategy (see below) and the [College Strategic Framework](#). They are championing interdisciplinary collaboration across the University's Colleges and in partnership with our regional NHS Trusts. Each Institute contributes to our translational pipeline, supporting fundamental research excellence through to clinical and applied health programmes.

This strategy ensures that our research delivers real impact in health and wealth generation and that our educational programmes are informed by our research strengths. Co-location and core focal points for each of the Institutes ensure cohesion, while at the same time promoting cross-Institute working and collaboration.

This is further enabled through access to key College and/or cross-campus-managed facilities and resources and the provision of high quality professional services support including core academic, technical and specialist administration in support of teaching and research delivery.



Professional Services

A diverse range of committed and high-performing professional services staff, managed through integrated College-wide teams, underpin and provide support to the establishment, development and delivery of all aspects of the College's activity. They support academic staff and students and provide core functions and support services in addition to delivering specialist technical services. The model of central management with localised focus and delivery provides flexible, high-quality support according to academic need. The teams operate in close and effective partnership with colleagues across campus and in the NHS.

College Location

The principal base of the College is part of the main campus of the University in Edgbaston, co-located with UHB, and with a number of other key buildings both on and off campus, including the new Birmingham Dental Hospital and School of Dentistry at Pebble Mill, just a mile from the central campus. Other NHS Trust partners are also on the same campus, including Birmingham Women's Hospital and the Barberry Hospital.

University of Birmingham Life Sciences Strategy

The Life Sciences Strategy (LSS) was developed following detailed engagement both internally and externally. The LSS identifies priorities in areas relevant to human health for the University as an outstanding, distinctive centre for [Life Sciences research](#) and education including clinical and biomedical sciences and human biology.

The LSS is focused on building multidisciplinary research and teaching activities across the whole campus. It will help to deliver the region's ambition to establish Birmingham as one of the UK's pre-eminent locations for the Life Sciences sector delivering improved healthcare, economic growth and making the UK the best place to invest in life sciences research.

Integral to the delivery of the LSS is [Birmingham Health Partners](#), a strategic alliance between the University and two major NHS hospital trusts; the Shelford Group member University Hospitals Birmingham NHS Foundation Trust (UHB) and Birmingham Women's and Children's NHS Foundation Trust (BWC). BHP's mission is to harness research strengths in the University and NHS to deliver better treatments and care to patients.

Research

With over 1,000 academic staff and around £80 million new research funding per year, MDS



represents a major international centre for biomedical and health 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 a broad range of funders, including Research Councils UK, medical research charities such as Wellcome Trust, Cancer Research UK (CRUK), Bloodwise, Arthritis Research UK and the British Heart Foundation (BHF) as well as the National Institute for Health Research (NIHR) and the European Union. This is complemented by strategically important support from other government bodies (such as Birmingham City Council, the Greater Birmingham & Solihull Local Enterprise Partnership, the Department for Business, Energy & Industrial Strategy, the Department of Health, the Office for Life Sciences) and increasing funding from industrial partners including large pharmaceutical companies (e.g. GSK and Roche) and SMEs (e.g. Vital Therapies).

The University of Birmingham was ranked in the top 100 universities worldwide for Clinical Medicine and Pharmacy in 2017 by the Academic Ranking of World Universities (ARWU), also known as the Shanghai Ranking.

It was ranked 76th by the QS World University Rankings 2017 for Life Sciences and Medicine, and Clinical Medicine at the University was ranked 87th in the Performance Ranking of Scientific Papers for World Universities 2016 (also known as the National Taiwan University Ranking).

With an average field weighted citation impact of 2.30 for medical and dental sciences our research is truly world-leading and over 25% of our publications appear in the top 10% cited papers worldwide. Our collaborative ethos and the multi- and inter-disciplinary nature of our research are highlighted by the fact that over 75% of our publications are developed in collaboration with national and international partners.

Our Institutes

Our Institutes focus on our scientific strengths and are targeted to areas of major clinical significance.

The [Institute of Applied Health Research](#) is focused in two broad areas: primary care and population health research, and healthcare evaluation and methodology. There is expertise in the main community focused clinical disciplines of public health, primary care and occupational



medicine. Methodological expertise encompasses biostatistics, health economics, clinical trials, evidence synthesis, patient reported outcomes, epidemiology, health psychology and qualitative research.

The Birmingham Clinical Trials Unit (BCTU) is internationally renowned and delivers both specific discipline related research and provides an exceptional collaborative framework for developing and delivering translational outputs from the University's wider research portfolio.

The Institute also hosts the recently awarded £2 million NIHR Global Health Research Group on Global COPD in Primary Care, which is aimed at improving healthcare for patients with lung diseases around the world.

The [Institute of Cancer and Genomic Sciences](#) represents our major academic strengths in fundamental cancer research, particularly in clinical cancer genomics and bioinformatics, genome biology, viral oncology, stem cell biology, haematology, surgery (colorectal, head and neck, gynae and neuro) as well as cancer clinical trials.

The latter of these is driven through our [Cancer Research UK Clinical Trials Unit \(CRCTU\)](#), which is the national lead for paediatric cancer trials. We also host the CRUK Birmingham Centre, receiving £5 million in 2017 to enable new treatment approaches to be developed and made available to patients, with a focus on personalised medicine to meet individual patient needs.

Additional key infrastructure includes an NIHR-CRUK Experimental Cancer Medicine Centre (ECMC) and the success of academic haematology as a national Bloodwise Centre of Excellence, which has provided a model for the development of a Bloodwise-funded Trials Acceleration Programme (TAP).

We also lead a Centre for Rare Diseases, and a key driver for our future development is the West Midlands Genomic Medicine Centre (WM GMC), the largest GMC in the UK and linking all 18 regional NHS Trusts, with academic leadership based within this Institute.

The Institute also hosts the recently awarded £7 million NIHR Global Health Research Unit on Global Surgery, which will establish sustainable international research hubs across a range of low and middle income countries.

Our [Institute of Cardiovascular Sciences](#) is focused around two key themes: vascular inflammation, thrombosis and angiogenesis, and clinical and integrative cardiovascular sciences. Major awards centre on the regulation of platelet and leukocyte responses in vascular diseases, and the pathogenesis of cardiac diseases particularly atrial fibrillation.



With a BHF Chair and a number of senior BHF Fellows, this is a cluster of collaborative activity that champions interdisciplinary working through partnerships, such as the Engineering and Physical Sciences Research Council (EPSRC) Physical Sciences for Health integrated Centre for Doctoral Training and the NIHR Surgical Reconstruction and Microbiology Research Centre (SRMRC).

The Institute is leading the recently awarded joint Universities of Birmingham-Nottingham research centre, the Centre for Membrane Proteins and Receptors (COMPARE), which is developing novel methods for visualising and studying membrane proteins with a particular focus on cardiovascular disease.

The [Institute of Clinical Sciences](#) consists of a number of Schools dedicated to the delivery of research and education, including:

- [Medical School](#)
- [School of Pharmacy](#)
- [School of Nursing](#)
- [School of Biomedical Sciences](#)
- [School of Dentistry](#)

Benefitting from a highly interdisciplinary approach, it works closely with all other College Institutes to ensure delivery of teaching excellence and high quality research outputs. Some of the main focusses of research within the Institute include:

- Dentistry – The School of Dentistry had an outstanding performance in REF 2014 in its unit of assessment. Research in the School of Dentistry is focussed into two overarching themes: clinical and experimental oral sciences and regenerative and rehabilitative science. The School of Dentistry was ranked 19th in the 2017 QS (Quacquarelli Symonds) World University Rankings.
- Nursing – The School of Nursing was ranked 11th in the Complete University Guide 2018 and was ranked 5th in the Times Good University Guide 2018. Research is organised in three themes: risk, violence and abuse, end of life care, and organisation and delivery of services.
- Pharmacy – The principal pharmacy research themes are multi-disciplinary in the areas of drug discovery and development, pharmaceutical formulation and delivery, and clinical pharmacy practice. Pharmacy was ranked 11th in the Times Good University Guide 2018.



The [Institute of Immunology and Immunotherapy](#) builds on the longstanding tradition of research in immunology at the University. This is reflected in the Birmingham Centre of Excellence in Immunology, previously funded through three cycles as the ‘Medical Research Council (MRC) Centre for Immune Regulation’, that is now driving translational outputs through closer integration with leading clinical expertise.

The Institute hosts the recently awarded £12 million NIHR Birmingham Biomedical Research Centre (BRC), which builds on the success of the NIHR Liver Biomedical Research Unit (BRU) and establishment of the Advanced Therapies Facility (ATF). The NIHR Birmingham BRC will help provide improved therapies for a range of inflammatory conditions affecting gut, liver, joint and muscle tissues.

Furthermore, the newly established CRUK Birmingham Centre will fund a ~£5 million initiative focussing on the generation of novel therapeutic approaches – including immunotherapies – arising from innovative fundamental science. Our Clinical Immunology Service supports a range of national cancer trials, and led a £7.3 million MRC Clinical Infrastructure award to provide ‘deep’ immunophenotyping of patients.

The Institute also hosts the new £2.2 million Bacterial Vaccines (BactiVac) network that will bring together academia and industry involved in human and animal vaccine research from the UK and other countries. BactiVac will foster partnership, disseminate relevant information and provide funding to accelerate bacterial vaccine development against global health infections that particularly affect LMICs.

Our [Institute of Inflammation and Ageing](#) benefits from a highly collaborative leadership team focused on translational outputs, based within a dedicated wing of the UHB. The strength of the Institute’s vision is represented by a number of major national awards, including the MRC- Arthritis Research UK Centre for Musculoskeletal Ageing Research (with Nottingham University); Arthritis Research UK Centre of Excellence in the Pathogenesis of RA (with the Universities of Glasgow and Newcastle); Arthritis Research UK Experimental Arthritis Treatment Centre; NIHR SRMRC Trauma Research Centre; NIHR Healthcare Technology Cooperative (Trauma); and the Scar Free Foundation Burns Research Centre, as well as our key role in the NIHR Translational Research Partnership on joint and related inflammatory disease.

The NIHR Birmingham BRC was established in 2017 with £12 million funding. The inflammatory joint disease and inflammatory sarcopaenia themes are led by researchers in the Institute. The NIHR Birmingham BRC will support a five-year programme to better understand a range of debilitating inflammatory diseases for patients in Birmingham and beyond. A £7 million



investment from the Kennedy Trust for Rheumatology Research will also support a new partnership with the University of Oxford to accelerate the development and testing of new therapies for patients with arthritis.

The [Institute of Metabolism and Systems Research](#) offers a highly multi-disciplinary collaborative environment that combines leading excellence in metabolism, endocrinology and reproduction research with world class expertise in metabolome analysis, live cell imaging, model-based and human in vivo physiology and computational systems science approaches.

The Institute drives strategic leadership for the University of Birmingham Metabolomics Core, which comprises a unique cluster of capacity and expertise for metabolome analysis, delivered by the Phenome Centre Birmingham (£7.3 million MRC Clinical Infrastructure award), the Steroid Metabolome Analysis Core, the Metabolic Tracer Analysis Core and the Henry Wellcome Biomedical Nuclear Magnetic Resonance (NMR) Facility. Institute researchers drive key components of COMPARE, developing novel methods for visualising membrane proteins for prevention and treatment of disease.

The Institute's science is translated into health facilitated by a number of translational centres, including the Centre for Endocrinology, Diabetes and Metabolism (CEDAM), the Centre for Women's and New-born Health (CWNH) and Tommy's National Centre for Miscarriage Research (£5 million), alongside key contributions to the MRC-ARUK Centre for Musculoskeletal Ageing and the NIHR Birmingham BRC.

The [Institute of Microbiology and Infection](#) draws together one of the largest groups of academic expertise in this area nationally and internationally. The Institute's staff are 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.



The Institute is supported by two Wellcome-funded PhD programmes, the NIHR SRMRC, the MRC Cloud Infrastructure for Microbial Bioinformatics and the Biotechnology and Biological Sciences Research Centre (BBSRC) supported MicrobesNG, a national platform for microbial genome sequencing and strain repository.

Education

Each year the College trains more than 400 medical students, including a Graduate Entry cohort. Nearly one third of our medical students intercalate on a choice of programmes after the second, third or fourth year of their course. We also train 71 dental students, 23 biomedical materials science students, 160 biomedical science students, 160 nursing students, 70 pharmacy students and 60 physician associate students.

There are also approximately 700 postgraduate taught students and 500 postgraduate research students in the College, managed by a cross-College Graduate School. The College has excellent library and reference facilities including the Barnes library and Doug Ellis Learning Hub, which complement the wider facilities available to students on campus.

The Institute of Clinical Sciences provides a clear focus for integrating our education and training programmes, co-ordinating all teaching, student engagement and related activity across the College to deliver a high quality student experience. The Institute also supports increased recognition of the value of education and teaching contribution through an enhanced emphasis on pedagogy.

We are committed to providing students from all backgrounds with the opportunity to discover education and research in biomedical sciences and healthcare. We deliver a range of widening participation activities to bring students onto campus allowing them to explore what it is like to be a student at our University while giving them an insight into the courses they could study here and the pioneering research underpinning them; almost 3,500 students have received support from our extensive widening participation activities over the last 10 years and around 15% of our medicine intake is now from under represented backgrounds.

Our employability rates within the College are excellent, with some notable alumni in influential positions all around the world.

Highlights from the 2018 National Student Survey included:

- 98% of our Pharmacy students said they were satisfied with the teaching on the course
- 95% of our Nursing students said they were satisfied with the teaching on the course



- 91% of our Biomedical Science students said they were satisfied with the teaching on the course

Working in Partnership

Our partnership working with regional NHS Trusts is very strong, as exemplified by [Birmingham Health Partners \(BHP\)](#), an exciting collaborative platform between the University, University Hospitals Birmingham NHS Foundation Trust (UHB) and Birmingham Women's and Children's NHS Foundation Trust (BWC).

BHP has an outstanding healthcare infrastructure based on a campus that encompasses renowned hospitals, world-class multi-disciplinary research facilities, clinical and industry-focused space and a range of flagship national centres of excellence. Globally Birmingham is one of the few cities that can deliver such comprehensive co-located expertise.

The co-location of the partners allows BHP to deliver an integrated approach to research and healthcare innovation; working together to shape the future of healthcare to benefit our communities and change lives.

BHP will lead one of six new sites across the UK created to address challenging healthcare issues through use of data science, funded by £30 million from Health Data Research UK. The University of Birmingham and University Hospitals Birmingham NHS Foundation Trust will form part of the Midlands site, together with the Universities of Leicester, Nottingham and Warwick.

The Advanced Therapies Facility, incorporating the [Human Biomaterials Resource Centre \(HBRC\)](#), works with a large number of NHS Trusts in the region and acts as the hub for collaborative initiatives such as the 100,000 Genomes Project [West Midlands Genomic Medicine Centre](#) (WM GMC). The WM GMC draws upon our unique population demographic through a collaboration of 18 NHS Trusts co-ordinated by our partnership with the [West Midlands Academic Health Science Network](#) (WMAHSN).

The WMAHSN 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.

The Midlands & Wales Advanced Therapy Treatment Centre (MW-ATTC) is a recently formed health consortium jointly led by the National Institute for Health Research Birmingham



Biomedical Research Centre (NIHR Birmingham BRC) and NHS Wales. It has been awarded funding of almost £9 million to ensure more patients benefit from a new generation of breakthrough therapies.

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

The COMPARE project (outlined above; a collaboration with the University of Nottingham) will harness cutting-edge developments in Super Resolution Microscopy to enable researchers to visualise what happens when a drug or ligand binds to a cell surface receptor or protein in real-time. COMPARE will build on excellent and complementary basic science in both universities to deliver a unique capability for academic drug discovery.

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. We have particularly strong research links with Sandwell and West Birmingham Hospitals NHS Trust who host much of our clinical academic work in rheumatology, ophthalmology and cardiology.

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 other University Colleges, most notably with the College of Life and Environmental Sciences in connection with the Life Sciences Strategy as outlined 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 where programmes in biomaterials, regenerative medicine and biomathematics are particularly exciting. We are also looking to forge stronger links with the College of Arts and Law in areas that include medicolegal and medical ethics and the use of the arts to engage and treat patients.



Facilities

The College has an impressive range of facilities to support its teaching and research activities, which are continually developing to meet changing needs.

The University continues to invest in resources and research facilities to ensure that our academic staff and researchers are able to pursue their research and educational ideas in an outstanding and facilitatory environment. Cross-College enabling technologies platforms support and strengthen our research in key areas including sequencing, mass spectrometry, whole organism and cell imaging, cell sorting and flow cytometry and NMR based metabolomics and structural biology. This is supplemented within the College by our protein expression, genome editing and intra-vital imaging facilities.

Within the Medical School building teaching facilities include the 450 seat Leonard Deacon lecture theatre and the 398 seat Arthur Thompson hall, dedicated practical teaching spaces for pharmacy, anatomy and clinical skills and a prosectorium incorporating 10 ventilated tables and high tech AV teaching aids.

The MedCafé and Wolfson common room provide our students, staff and visitors ample space to interact in a less formal environment while still providing facilities to promote group working.

Our research laboratories are accommodated across several buildings with a large concentration of these in the Institute of Biomedical Research complex where they are arranged to promote collaborative working with access to the ATF, our Human Tissue Authority (HTA) compliant biorepository (HBRC) and the NIHR-WT CRF.

The £24 million [Institute of Translational Medicine \(ITM\)](#), which sits between the College and UHB, was co-funded by the former Department for Business, Innovation and Skills and BHP. It is an innovative development bringing together world class clinicians, scientists and clinical trials teams to accelerate access to new diagnostics, drugs and medical devices thereby enabling patients to benefit more rapidly from breakthrough therapies and technologies.

It incorporates the BHP Centre for Rare Diseases, the NIHR Trauma Healthcare Technology Co-operative (HTC), the Medical Devices Testing and Evaluation Centre (MD-TEC) led by the College of Engineering and Physical Sciences, a new early-phase trials team and a commercial hub to host pharmaceutical companies and SMEs. It provides excellent facilities for interaction between different specialities; Informatics, the ARUK-MRC West Midlands stratified medicine facility, the Centre for Patient Reported Outcomes, biomarkers analysis, and clinical trials



design all have a strong presence along with the NIHR Birmingham BRC, CRUK Birmingham Centre and the NIHR SRMRC.

The [Phenome Centre Birmingham](#) is a large metabolic phenotyping facility led by internationally-recognised metabolomics and clinical experts at the University in collaboration with BHP. It has been established as part of a UK Stratified Medicine initiative led by the MRC to develop capacity and capability to perform large-scale metabolic phenotyping of the human population for stratified medicine. The Centre, along with additional facilities, including the ITM laboratory, were funded through the University's £7.2 million MRC Enhancing UK's Clinical Research Capabilities and Technologies award and Wolfson, bringing technology and infrastructure to design and deliver novel precision medicine trials.

The [BioHub Birmingham](#) is also co-located on campus within the Birmingham Research Park. This £6.8 million facility offers fully serviced laboratory and office space for growing Life Sciences businesses. Just 500 metres from the ITM, it supports a growing portfolio of medical spin-out companies from the University and other local growing businesses.

2015 saw the opening of the new £50 million [Birmingham Dental Hospital and School of Dentistry](#). The hospital and school, at Pebble Mill, is the first integrated, stand-alone dental hospital and dental school to be built in the UK for almost 40 years and provides a superb facility for dental research, teaching and practice.

Investment into the University estate continues across campus, with an ambitious programme of development underway, including targeted investment to further develop and maintain the College teaching and research estate.

Finally, the College is also taking a leading role in establishing a new Birmingham Life Sciences Park (BLSP) adjacent to the University. The Birmingham Life Sciences Park will build on BHP's vision to deliver research that matters as part of an exciting regional and national Life Sciences strategy. It will bring together outstanding researchers, clinicians, policy makers and industry to rapidly translate scientific and clinical insights into patient benefit and economic growth. It will reinforce Birmingham's ability to support innovative and pioneering partnerships that build on the strong existing collaborations.

Our outstanding facilities and strong ethos of partnership working, combined with multi-disciplinary academic excellence across the University and a diverse regional population of over five million mean that Birmingham is ideally placed to occupy a world-leading position in the rapidly evolving Life Sciences sector.



Equality & Diversity

Promoting equality and diversity is at the heart of the College's strategic vision and an issue that the College Board takes very seriously. The newly-formed equality and diversity leadership team will help drive and embed behavioural and cultural change at the University.

They will do this through promoting staff and student diversity activities, signposting staff and students to appropriate policies and services, exploring equality related barriers that may hinder any member of staff or student being successful, providing scrutiny for policy and strategy development and implementation, and providing an advocacy role as and when required for implementation of policy and delivery of plans.

The College was awarded an Athena SWAN Bronze award in October 2018 in recognition of progress made in furthering the recruitment, retention and progression of female academic staff. The College has delivered a comprehensive and innovative range of activities, refreshed and changed policies and taken practical steps to improve the working environment.

The College is piloting provision of technical support for clinical trainees during maternity leave. A fund is also available to help with childcare costs during conferences and a budget is set aside annually to fund SWAN events. Staff can access a range of leadership opportunities and are offered grant workshops and fellowship interview practice. Events and developments are listed online and a [video](#) outlines how SWAN activities can help colleagues in the College.

To find out more about our research, education and outstanding facilities, please visit our website: www.birmingham.ac.uk/mds

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