

# Working in Laboratory Medicine at MFT



# It's all here for you in the Division of Laboratory Medicine

**As the UK's largest trust, we offer unparalleled career opportunities, a great work-life balance in one of the country's most exciting cities and the chance to do something unique with your knowledge. It's all here for you to discover at Manchester University NHS Foundation Trust (MFT).**

MFT's Division of Laboratory Medicine is one of the largest pathology services in the UK, with extensive facilities on four sites in key positions across Manchester.

We are one of the most forward-looking Laboratory Medicine divisions in the country. The ground floor of our Clinical Sciences Centre at the Oxford Road Campus has undergone a complete transformation to bring in state-of-the-art equipment which will keep us at the forefront of pathology technological developments for the decade ahead.

In the ever-changing landscape of Laboratory

are continually working to ensure that the division is well-positioned to both adapt to and make the most of advances and progress in the field.

These advances include MFT's fully integrated electronic patient record system, Hive, which has replaced hundreds of electronic and paper-based systems, meaning a single, Trust-wide record for each patient. Hive is now enabling ambitious development of our services.

Changes to Manchester's health economy are happening now. If you want to be part of this exciting development now is your chance.

Whatever you need to be your best, you'll find it all with us. Bringing together hospitals and community services from across Manchester, Trafford and beyond, we are pooling our resources, state of the art facilities and specialist services to deliver even better patient care.

With a diverse pathology service and an extensive ground-breaking research portfolio, we are one of the UK's largest laboratory services. So join us and you'll discover more ways to progress.

We want talented individuals from all backgrounds to choose to join our diverse teams, and so we will support your work-life balance with flexible and agile working options.

Take a look at the following pages to see what life at MFT can offer.

**“We are one of the most forward-looking Laboratory Medicine divisions in the UK”**

Medicine, we believe it is essential that we remain at the forefront of developments and so



# An excellent reputation for training both locally and nationally

**The Division of Laboratory Medicine at MFT is committed to the training of its staff across all grades. The Trust and the DLM have an excellent reputation locally and nationally for training, which we seek to maintain and enhance.**

With regional and national specialist services located within the DLM, staff have opportunities to be trained and work on some of the most state-of-the-art equipment and carry out specialist assays and tests.

All of our laboratories are IBMS-approved to deliver the IBMS Certificate of Competence and the relevant IBMS specialist portfolios, and our

Manchester Medical Microbiology Partnership laboratories are also accredited by the National School of Healthcare Science to deliver the Scientific Training Programme (STP) and Higher Specialist Scientist Training programme (HSST) to support and develop our Clinical Scientist workforce.

The DLM has good connections with local universities and provides placement opportunities for students studying on IBMS accredited degrees.

The DLM also supports a number of apprenticeship courses for its staff to undertake:

- Level 4 Healthcare Science Associate
- Level 6 Healthcare Science Practitioner
- Level 6 and Level 7 Leadership and Management in Health and Social care

Plus many more that support all our staff development needs, including business and administration, project management and healthcare science assistant

The DLM also supports staff who wish to complete NHS leadership academy programmes such as the Mary Seacole and Edward Jenner programmes.

As well as formal qualifications the DLM fully supports its staff to attend short courses, congresses, and user groups to ensure they have the opportunity to continually develop.

Finally, as a MFT employee you will have access to the MFT Learning Hub which has some fantastic eLearning courses to help develop a full range of skills.

The DLM is dedicated to the development of its workforce, both new and existing.

**“Staff are supported fully by the departments’ training leads and team of trainers”**

specimen receptions on all sites are approved to deliver the IBMS Certificate of Achievement for support team. Staff that are eligible for one of these certificates or portfolios are supported fully by the departments’ training leads and team of trainers.

The DLM also supports its biomedical scientist workforce through other IBMS qualifications such as the certificates of expert practice, higher specialist diplomas and other IBMS advanced qualifications.

Our Biochemistry directorate and the

# Masters top-up module now helps when managing section

## Which courses did the department support you in doing?

While undertaking my Masters Degree in Applied Biomedical Science, I had a sandwich year placement in the laboratory where I completed my pre-registration portfolio.

Since qualifying I have undertaken my specialist portfolio in Haematology with Hospital Transfusion Science and a CPD Masters module in Transfusion Science via the University of Greenwich.

## How did the department support you?

I was able to rotate into different sections of the laboratory and undergo training in all areas.

For my pre-registration portfolio I was given half a day a week private study time and half a day a month for my specialist portfolio.

**“For my pre-registration portfolio I was given half a day a week private study time”**

When completing my masters top up module I was given two study days to attend the university in person for the enrolment day and then again to deliver my final presentation.



EMMA TOLLEFSON  
SENIOR BIOMEDICAL SCIENTIST,  
HAEMATOLOGY AND BLOOD TRANSFUSION

## How has the course helped you progress in your career?

After completing my pre-registration portfolio, I was able to register as a Biomedical Scientist and was employed as a Band 5 Biomedical Scientist.

I then progressed to a Band 6 Specialist once I had completed my specialist portfolio.

I had just been successful in gaining my senior role when I undertook the masters top up in Transfusion Science.

My full masters was in Biomedical Science and had limited Transfusion content so having this masters has improved my theoretical transfusion knowledge as well as my knowledge regarding blood product regulations which has helped me when managing this section of the laboratory.



# Training while working as a Medical Laboratory Assistant

**Which course did the department support you in doing?**

IBMS General Portfolio

**How did the department support you?**

After graduating with my biomedical science degree, trainee posts were hard to find so after working in the laboratory as a Medical Laboratory Assistant for two years the department paid for me to complete my portfolio, provided me with a training mentor and our training officer gave me a thorough review before submitting me for assessment.

It took me two years to complete, which is longer than if I was a trainee, however I was completing it in my own time alongside a full time job that took priority.

My rotations through the lab were tailored so that I was able to fulfil all areas of my portfolio, including working running machines and with high risk organisms.

While it hindered most, the pandemic really helped me to be able to complete certain

**“My rotations through the lab were tailored so I was able to fulfil all areas of my portfolio”**

sections of my portfolio including the research and development section, due to being picked to help with initial validation for our SARS-CoV-2 assay.

**How has the course helped you progress in your career?**

Shortly before completing my portfolio I got a position as a trainee biomedical scientist and



HARRIET MORAN  
BIOMEDICAL SCIENTIST, VIROLOGY

two months later became state registered.

Since becoming state registered I have started to work towards becoming a specialist biomedical scientist, again with the support from my department.

I have joined the on call rota, which means I have to communicate with different wards and Specialist Nurses in Organ Donation in the middle of the night, as well as lone working.

I've also been given the opportunity to 'act up' in my role as an Higher Executive Officer, meaning I am the only biomedical scientist in a night shift team.

These are all tasks that show my ability to troubleshoot, communicate effectively and work well as part of a team that I would not have without my state registration.

I am aware that once I become a specialist biomedical scientist I am able to apply for funding through the UK Health Security Agency to complete a MSc and intend to do so, with my end career goal being to go into management or quality.



## Why Manchester?

**Manchester is a city with a rich and dramatic history, a vibrant and multicultural present and always with an eye on an exciting future.**

In recent years MFT has been progressing a plan to provide a single hospital service to the city's population, bringing together NHS Trusts from across the area to create a body capable of taking on this task.

These developments are part of a landmark move to devolve power from central government to Greater Manchester, which has seen a £6bn health and social budget for the region placed in the hands of local decision makers. It means the money can be put to work to address the issues that matter locally. The resulting changes to the structure of Greater Manchester's health economy make this a particularly exciting time to work in healthcare in the city.

The city itself is at the heart of the north of England, and the centre of the second most populous region in the country. Manchester's location, together with road and rail links

a prime position to serve the entire north west of England. Our core area extends from Lancaster in the north to Crewe in the south and from the Welsh border to the Pennines.

But it's not all about work.

Manchester as a place to live has it all. It is a busy, modern city with great retail, leisure and gastronomic options everywhere you look. Manchester's history as one of the centres of the Industrial Revolution is woven into the fabric of the place – keep an eye out for the many representations of the city's bee emblem, a symbol of industry. You can discover the birthplace of the Suffragette Movement (clue: it's about 20 metres away from Manchester Royal Infirmary on our Oxford Road Campus) or maybe visit the site of the Peterloo massacre.

For other cultural options, Manchester is packed with theatres, museums and galleries. And then there is the sport. Two of the world's leading football clubs are here (let's not argue over who is the best!) and you can watch test match and other international cricket at the legendary Old Trafford Cricket Ground.

If you prefer to get away from the city in your spare time then the stunning countryside of Cheshire, Lancashire, Yorkshire and the Peak District is just a short trip away and comfortably close enough for even just an afternoon out. Manchester offers the best of both worlds.

So the question isn't why Manchester. It's why anywhere else?

**“This is a particularly exciting time to work in healthcare in the city”**

connecting it to surrounding towns and cities, means the Division of Laboratory Medicine is in

# The training that made a training lead

## Which courses has the department supported you in doing?

- Specialist Portfolio
- Training for Trainers
- Leadership taster course
- IBMS Certificate of Expert Practice in Leadership
- IBMS Verifier Course

## How did the department support you?

Specialist Portfolio: The portfolio was funded through the department and my line managers signed off the sections for me after having detailed discussions.

Clinical scientists helped me understand scientific principles and oversaw my portfolio work in the specialist section.

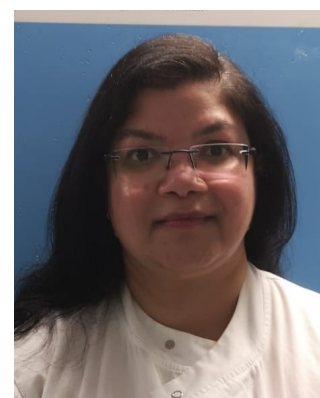
Senior biomedical scientists helped with lab tour practice and checking my portfolio content was relevant to laboratory practices.

**“I now work as a training lead and utilise knowledge from leadership and training courses”**

Training for Trainers: This was funded by the department as I was actively involved in mentoring colleagues with their specialist portfolios.

I undertook this at Manchester Metropolitan University, studying various theories for learning and about dealing with different learning styles.

Leadership taster course: The department facilitated this to enable me to mentor colleagues and understand how I came across to my team members. Some of the group activities helped me identify the benefits of working together, specifically utilising diverse



HETALIKA BANKA  
SENIOR BIOMEDICAL SCIENTIST  
AND TRAINING LEAD, BIOCHEMISTRY

skills to complete projects.

IBMS Certificate of Expert Practice in Leadership: This was funded by the department. I undertook this study in my own time. My line manager helped me understand budget sheets and how funding is sought for various equipment in the lab. He also showed me examples of business cases we had created in the past for critical analysers and fridges.

IBMS Verifier Course: This was also funded by the department as a study leave.

## How have the courses helped you progress in your career?

Completion of my Specialist Portfolio helped me to progress to Band 6.

Training for Trainers and Leadership taster course helped me gain a Band 7 position. I now work as Senior Biomedical Scientist Training Lead and utilise knowledge and experience gained from leadership and training courses. I have now utilised my training skills to help several colleagues complete registration and specialist portfolios.

I am also now an IBMS registration portfolio verifier and specialist portfolio verifier, so I can help my mentees to produce very high quality evidences which are relevant to their practice.

# The road to becoming a clinical scientist

## Which courses did the department support you in doing?

- Scientist Training Programme (2016-2019)
- Higher Specialist Scientist Training Programme (2021 onwards)

## How did the department support you?

Scientist Training Programme: I received support throughout the application process and for the three years I was enrolled on the programme.

I could not have completed the Scientist Training Programme without the excellent help and training from the team in Wythenshawe Biochemistry.

**“I have already received support in the form of study leave and help from colleagues”**

Higher Specialist Scientist Training Programme: I received support for the application process from the Oxford Road and Wythenshawe sites at MFT.

I only started the programme recently but I



DAVID MARSHALL  
SENIOR CLINICAL SCIENTIST, BIOCHEMISTRY

have already received support in the form of study leave and help from my colleagues with any questions or queries I have.

## How have the courses helped you progress in your career?

Undertaking the Scientist Training Programme has allowed me to move from a HCPC-registered Biomedical Scientist to now practice as a Clinical Scientist, which was my ultimate aim since starting in the NHS 10 years ago.

After completion of the Higher Specialist Training Programme, after five years, and full FRCPATH registration, I will be eligible to apply for a Consultant Clinical Scientist post.



# Going the extra mile for the health and wellbeing of our staff

**The trust takes the health and wellbeing of its employees very seriously and provides a range of services to support staff.**

An employee assistance programme called Health Assured is available 24/7 every day of the year. Regular overview sessions are held to make sure staff are aware of this scheme's benefits.

And in addition to the national NHS People support, which offers a confidential phone line, text message service and apps, as well as online guides, the trust also promotes independent mental health support services such as Andy's Man Club and CALM.

**“The trust’s in-house arts organisation runs an innovative wellbeing programme”**

There is a dedicated Health and Wellbeing section on the staff intranet, which brings together links to support for our staff, for example when considering stopping smoking, menopause support and diet and nutrition. This

also features information packs, a regular newsletter and even home and office workouts to help relieve stress.

As an indication of how MFT looks to go the extra mile on the issue, the trust's in-house arts organisation runs an innovative wellbeing programme for staff.

Lime Art's CREATE.CONNECT.UNWIND+ provides expert guidance for staff from respected professionals in a friendly and encouraging environment to help them discover how creativity and wellbeing can work for them.

The trust has also brought together members of staff who have a passion for health and wellbeing and want to support their colleagues at work as Health and Wellbeing Champions.

These champions play a key role in supporting and developing a culture that contributes not only to improve the physical and mental health and wellbeing of their colleagues but also themselves.

Their work includes signposting colleagues to sources of support and advice; establishing staff wellbeing as a regular agenda item at team meetings and huddles; obtaining feedback and suggestions from staff on health and wellbeing activities; and encouraging staff to take part in events or raise awareness of health campaigns.

# Developing an admin career with training and support

## What courses did the department support you in doing?

- NVQ Business and Admin level 2
- NVQ Business and Admin level 3
- Edward Jenner Qualification
- Various lead courses

## How did the department support you?

Various courses were discussed during my appraisals and 1-2-1 meetings and I was actively encouraged by my line manager to undertake these to develop myself and my career within Histopathology.

I was able to shadow areas that were not in my current role but which were relevant to the courses for me to have a better understanding of my qualification.

I was able to attend training sessions both within the department and the Trust.

**“I was able to shadow areas that were not in my current role but were relevant to the course”**



KATE SANDAL  
ADMINISTRATION MANAGER, HISTOPATHOLOGY

## How has the course helped you progress in your career?

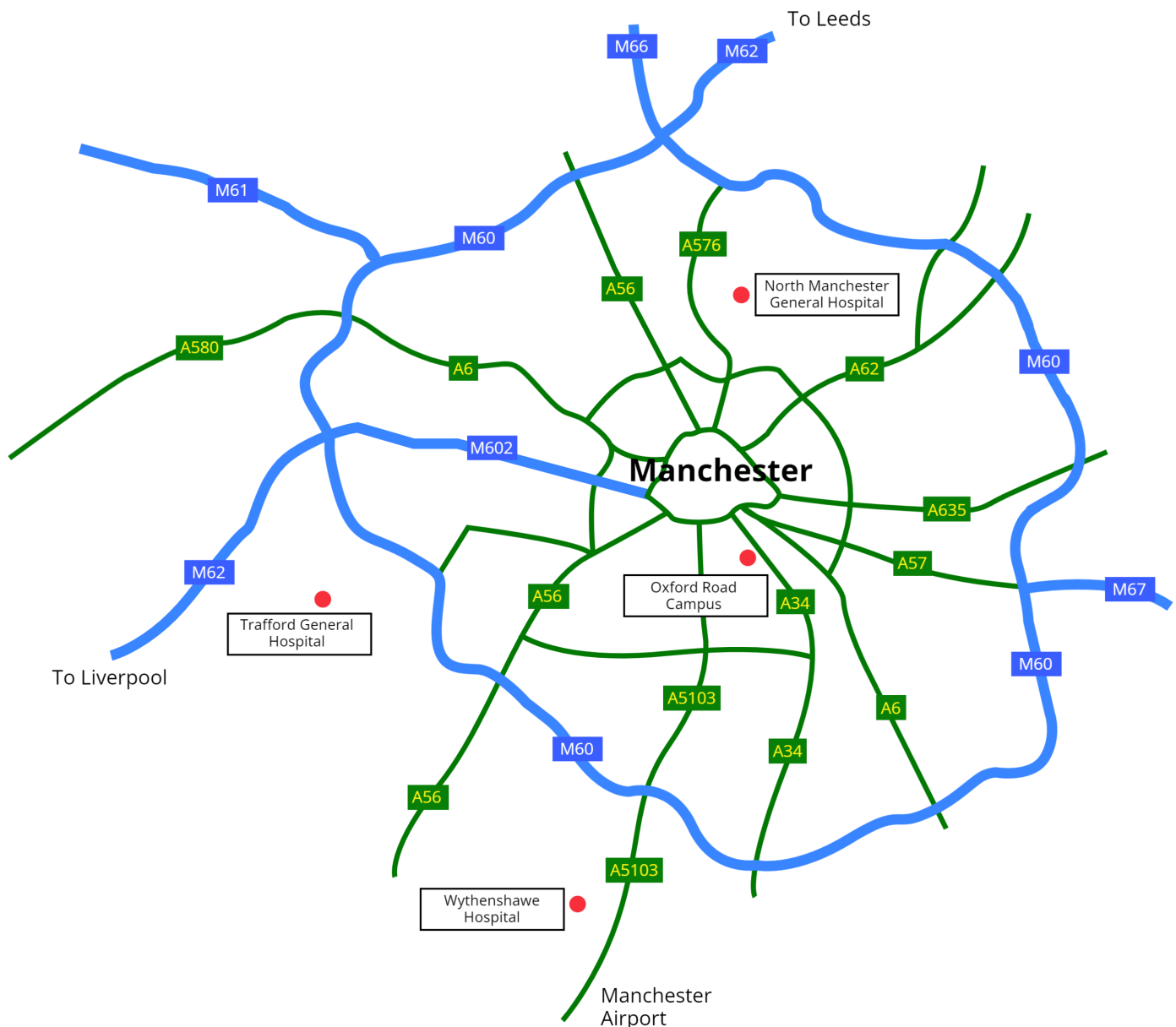
Without the support from my line manager and Histopathology I would not be where I am today.

I started the department with eight years as a receptionist with no previous NHS or Histopathology knowledge.

While furthering my qualifications I progressed through the department to become a Medical Secretary, then Advanced Medical Secretary and I am currently Administration Manager.

The courses I completed along the way, along with the support from my manager, has helped me to progress and develop myself to be the best manager and support I can be for my team.

# Four laboratories covering the whole of Manchester



### The Division of Laboratory Medicine has a network of laboratories stretching across the entire city.

From North Manchester General Hospital to Wythenshawe Hospital in the south, with Trafford General Hospital in the west, and the central Oxford Road Campus, our laboratory facilities are among the largest in the United

Kingdom.

Our laboratories are equipped with state-of-the-art technology, putting us at the forefront of developments in Laboratory Medicine.

In addition, we have strong training links with Manchester Metropolitan University, Salford University and MAHSC - Manchester Academic Health Science Centre.

## One of the UK's largest integrated biochemistry laboratory services

**The Biochemistry department at MFT brings together hospitals and community services from across Manchester, Trafford, Wythenshawe and beyond providing one of the UK's largest integrated Biochemistry laboratory services, with state-of-the-art facilities and specialist services to deliver the very best patient care for all of our patients from newborn to the elderly.**

Alongside a host of specialist and core tests, we also provide the following largely unique highly specialised services:

A comprehensive Azathioprine drug safety service called MeDSS, encompassing TPMT Activity, Thiopurine Metabolites and TPMT Genotype.

Busulfan Pharmacokinetics for precision pre-treatment of patients undergoing stem cell transplants.

Nationally and internationally recognised clinical expertise in specialist paediatric and adult endocrinology and steroid metabolism.

Procalcitonin test to underpin Antibiotic Stewardship.

Cystatin C test allowing evaluation of renal function when creatinine is uninformative or misleading, eg patients with low muscle mass, severe jaundice. The test (and reporting of eGFR using the CKD-EPI cystatin C equation) also allows more precise CKD staging in patients with mildly low eGFR.

FIT for diagnosis of Colon Cancer, and triage of existing patients for Colonoscopy,

FCAL for initial differentiation between Irritable Bowel Syndrome and Inflammatory Bowel Disease; and for monitoring for flare ups in people who already have a diagnosis of IBD (ulcerative colitis or Crohn's disease).

We host a range of analytical therapeutic drug monitoring services including Azoles, Anticonvulsant drugs, Thiopental, Antimicrobials and Immunosuppressants.

State of the Art mass spectrometry assays are used routinely for androgens, vitamin D, avoiding issues of non-specificity that plague immunoassays.

The department is home to the Regional Newborn Screening Laboratory – responsible for screening babies within Greater Manchester, Cumbria and Lancashire for congenital hypothyroidism, cystic fibrosis and haemoglobinopathies.

The Biochemistry Department provides an international service for the measurement of PIIINP as a marker of fibrosis in a variety of disease states.

The department has long established links to universities and clinical research groups for the provision of clinical trials and research assays.

We have an active collaborative research programme in markers of inflammation and lipid metabolism.

We are actively involved with Manchester Academic Health Science Centre (MAHSC) and training of both PTP (Practitioner Training Programme) and STP (Scientist Training Programme) students.

Pro-active Point of Care testing department supporting clinicians across the organisation in enhancing effective patient pathways.



# The cervical screening laboratory for the North West of England

**The Manchester Cytology Centre comprises the cervical screening laboratory for the North West of England, a diagnostic cytopathology service and the largest provider of a comprehensive synovial fluid analysis service in the North West. We are fully UKAS accredited and an approved IBMS training centre.**

## Cervical screening service

The centre provides comprehensive cervical screening services in line with NHSCSP guidance to primary care and hospital trusts in Greater Manchester, Cumbria & Lancashire and Cheshire & Merseyside areas. We are one of eight cervical screening laboratories in England.

The department was awarded the North West England cervical screening contract on 1st July 2019. All samples are HPV primary screened as the first line test with reflex cervical cytology. We have dedicated technical, scientific and consultant teams for reporting cervical cytology and an established cervical sample taker database.

The centre is at the forefront of research projects in the evaluation and implementation of new technologies in cervical screening. We have a dedicated consultant team for the training of rotational medical trainees.

The centre is located close to the North of England Pathology & Screening Education Centre where training/update courses for staff and service users are undertaken.

## Diagnostic cytopathology

We provide a specialist diagnostic cytopathology service with biomedical scientist assistance at a range of FNA clinics, including

adequacy assessment.

We serve many specialised services including gynaecology, respiratory, head and neck, urology and hepato-pancreatobiliary diagnostic services.

We are at the forefront of personalised medicine due to our close working relationship with the Manchester Centre for Genomic Medicine, based at the Oxford Road site, and we prepare a wide range of diagnostic cytopathology samples for molecular testing.

## Synovial fluid cytology service

We provide a comprehensive synovial fluid cytology service and a specialist diagnostic service for crystal arthropathies and other joint related diseases and disorders.

## North of England Pathology & Screening Education Centre (NEPSEC)

An NHSCSP-approved training centre situated in custom-built accommodation, supported on site by purpose-built facilities, with a centre in Wakefield, to cover both sides of the Pennines.

The Division of Laboratory Medicine entered into a strategic partnership agreement with Sheffield Teaching Hospitals NHS Trust to merge two former cytology training centres to establish the largest centre of its kind in the UK.

The centre provides NHSCSP-approved training encompassing the whole of the cervical screening care pathway from sample taking through to treatment, as well as other pathology related training eg FRCPATH pre-exam courses, non-gynaecology cytology, specimen dissection and histopathology reporting.

**General 0161 276 6727**

**Gynaecological cytology 0161 276 5111**

**Diagnostic cytopathology 0161 5110/5115/5116/6727/8804**

**Synovial fluid cytology 0161 276 5115/5116/6727/8804**

## One of the largest centres for the investigation and management of bleeding disorders in the UK

**Our Haematology Directorate provides a complete range of general and specialist tests to support the nationally and internationally recognised research and innovation contributions of the haemostasis and thrombosis, haemato-oncology and haemoglobinopathy clinical care programmes for adults and children.**

The department is the regional centre for adult and paediatric haemophilia diagnosis and treatment and provides specialist testing for the adult and paediatric Comprehensive Care Centres that rank the MFT site as one of the largest centres for bleeding disorders in the UK.

The Manchester Hospitals Haematology Service provides antenatal screening for haemoglobin disorders as part of its repertoire. This includes sickle solubility testing, high performance liquid chromatography for haemoglobin detection and quantification and iso-electric focusing as a confirmatory test. It has been designed to facilitate safe and effective practice of professionals engaged in the screening management care pathway of pregnant women and new-born infants. The laboratory participates in quarterly operational and quality meetings reporting directly to the Trust antenatal screening board. The examinations performed comply with national and local required standards including NHS Sickle and Thalassaemia Screening Programme Standards 2019, Public Health England; NHS Public Health Functions Agreement 2019-20, Service Specification no.18, NHS Sickle Cell and Thalassaemia Screening Programme.

We also provide haematological diagnostic testing for one of the country's biggest paediatric haematological malignancy units and the adult clinical haematology and oncology units.

MFT is the lead for the Greater Manchester Haematological Cancer Diagnostic Partnership (HCDP) service, which has been operational here since the end of 2018. The service is being established under the governance of the GM HCD Partnership Board, with all acute and specialist Trusts in Greater Manchester being represented, along with GM Cancer, Cancer Service Commissioners, and patient representation.

We provide full hospital transfusion services for one of the national Children's Major Trauma Centres and the Adult Trauma and Critical Care units, supported by a team of specialist Nurse Transfusion Practitioners to facilitate education and best practice in the clinical environment.

The directorate provides one of the UK's largest laboratory therapeutic services for the adult and children's haemopoietic stem cell transplantation programmes.

The directorate offers a haematology molecular diagnostic service for the North West of England for inherited bleeding disorders, haematological malignancy and haemoglobinopathy.

The directorate and staff have strong links with the University of Manchester, Manchester Metropolitan and Salford universities and actively support the education and training courses at all levels. We also support the regional haematology registrar training programme which includes a designated haematology laboratory placement at MFT.

## A wide range of both adult and paediatric histopathology services

### **Adult and paediatric Histopathology services operate in separate areas due to the specialist nature of the work.**

The Adult Histopathology service covers a wide range of sub specialist areas of pathology including a comprehensive renal biopsy service. Ophthalmic pathology forms part of Histopathology and provides a diagnostic service in ophthalmic histopathology and cytopathology. It is one of four laboratories within England making up the National Specialist Ophthalmic Pathology Service (NSOPS).

The service is the central site for diagnostic MMR testing and a key centre in the 100,000 Genome project.

The department provides national forensic pathology services in ophthalmic and osteoarticular pathology.

The paediatric histopathology service is a supra-regional referral laboratory located in the Royal Manchester Children's Hospital

The service covers a wide range of pathology including paediatric oncology pathology, muscle enzyme histochemistry and placental pathology.

The immunocytochemistry laboratory provides a wide range of diagnostic tests and is actively involved in multiple research projects.

### **Electron Microscopy**

Electron Microscopy (EM) is housed in a fully furnished unit offering a comprehensive diagnostic ultrastructural analysis service specialising in renal pathology.

The service is underpinned by modern equipment including a JEOL JEM-1400 transmission electron microscope and recently updated ancillary equipment.

Working in the largest diagnostic EM unit in the North West, a strong team of highly skilled, experienced and dedicated EM staff deliver a high quality EM service for MFT and a number of external customers across the north of England.

### **Mortuary**

The mortuary service is fully compliant with the HTA.

The adult mortuaries provide body storage and post mortem services for the Trust and Manchester City Coroner. The paediatric mortuary is a specialised regional service providing body storage and post mortem services for the North West region and 13 Coroners.

# The biggest immunology department in the North West

**The Greater Manchester Immunology Service (GMIS), based at MFT, delivers routine and complex immunology laboratory services to Greater Manchester and beyond. We provide immunology services to the whole N5 region and are the biggest immunology department in the North West.**

GMIS has a well-staffed department, proactively developed and supported by Continuing Professional Development (CPD) and academic courses.

GMIS has state-of-the-art laboratory facilities and equipment, fully upgraded to the latest specification as part of a managed service.

We were the first immunology laboratory in the UK to install multiplex testing platforms, dramatically reducing turnaround times.

GMIS is at the forefront of developing electronic

links with its users.

We maintain close liaison with service users in order to develop and improve the provision of diagnostic immunology services.

GMIS has always responded to users requests for innovation in service it provides.

On a visit to the department, Lord Carter of Coles, who has led two major reviews of NHS pathology services, said of our laboratory: "It stands out as a leading exemplar in this country"

Ours was the first UK NHS laboratory to be successfully inspected to UKAS ISO 15189 accreditation.

GMIS provides the flow cytometry service for the Haematological Cancer Diagnostic Partnership across Greater Manchester.



## Detecting, diagnosing, monitoring and controlling communicable diseases

**The Manchester Medical Microbiology Partnership (MMMP) is a collaboration between Manchester University NHS Foundation Trust (MFT) and UK Health Security Agency (UKHSA).**

MMMP protects the population from infection by detecting, diagnosing, monitoring and controlling communicable diseases. MMMP is committed to providing a high quality clinical, analytical and advisory service.

We provide Clinical Diagnostic Microbiology and Virology services, including Molecular Diagnostics.

Specialist services on site include the UKHSA Meningococcal Reference Unit and the UKHSA Vaccine Evaluation Unit. MMMP aims to take into account the needs and requirements of its users and other stakeholders and to operate in a safe manner for staff, visitors and patients.

We have extensive Molecular Diagnostic laboratories, containing state of the art equipment for Rapid Polymerase Chain Reaction (PCR) assays for bacterial, fungal and viral pathogens and sequencing facilities for genotyping and resistance monitoring.

There are major paediatric clinical specialities in cystic fibrosis, paediatric neurosurgery, and the paediatric burns unit this in turn leads to microbiological specialities in these areas.

MMMP has a comprehensive Bacteriology repertoire, including specialist respiratory and enteric services.

We have a major focus on the training of medical microbiologists.

Manchester is home to the largest clinical virology laboratory in the UK. During the COVID pandemic the Virology department has

been at the forefront of protecting the local population and the patients at MRI, leveraging the large capacity enabled by the Roche MES and UKHSA support including developing and validating many of the testing systems in current use today.

The laboratory opened its genomics laboratory in SMH in 2021 to sequence SARS CoV2 positive samples for genotyping and mutation detection. This laboratory continues to expand recently adding the diagnostic sequencing of influenza A and meningococcal samples.

We provide extensive molecular services for many infectious disease targets, including high through-put real time PCR and sequence-based techniques, including supporting the Meningococcal Reference Unit.

The Virology Department has a wealth of expertise in molecular diagnostic developments.

The Oxford Road Campus is a major testing centre for the National Chlamydia Screening Programme.

The department supports the National Cancer Screening Programme with the development of molecular diagnosis of human papilloma virus (HPV).

We provide a dried blood spot service, validated for blood borne viruses and syphilis screening. The service has been especially designed for blood borne viruses, including the screening and genotyping of hepatitis C virus (HCV) in community settings.

Both the serology and molecular sections of the department utilise state of the art equipment and provide regional and national support as part of the laboratories' UKHSA role.

# A wide range of highly specialised mycological tests

**The Mycology Reference Centre Manchester (MCRM) offers a highly specialised diagnostic service primarily serving Manchester, the north of England and Scotland but also receives daily referrals from throughout the UK and beyond.**

Based at Wythenshawe Hospital, we provide a wide range of specialised mycological tests and have a considerable research and development portfolio.

The MCRM laboratories are well equipped with a full range of analytical and automated platforms and enjoy the support of infectious diseases and respiratory clinical teams. In addition to conventional, culture-based diagnostics the laboratory offers a portfolio of tests such as Aspergillus and pan-fungal EIAs, real-time PCR and pyrosequencing for analysing respiratory samples.

We are an integrated part of the medical mycology community locally (FoBMH, MFIG, MMMP, MFT, ), nationally (UK-CMN, Public Health England) and internationally.

MCRM is a well-established, UKAS accredited (ISO 15189:2012 Medical laboratories) service providing an integrated conventional and

molecular diagnostic service.

The centre was the first laboratory in the world to be accredited by the European Confederation of Medical Mycology as a Centre of Excellence in Clinical and Laboratory Mycology.

MRCM is an integral part of The Manchester Fungal Infection Group (MFIG), which unifies NHS services (National Aspergillosis Centre) and University of Manchester research and teaching functions, creating one of the leading centres for medical mycology in Europe. The Manchester Fungal Infection network is made up of 120 NHS doctors, Clinical Scientists, nurses and University of Manchester researchers.

The MRCM aims to continue to deliver a patient-focused service with an international reputation and be a premier supplier of mycology diagnostics to the NHS. We are implementing ambitious plans for modernising and improving service delivery.

The MRCM is also a EUCAST Antifungal Susceptibility Testing Collaborative Laboratory and a European Fungal PCR Initiative Collaborative Centre.

# Division of Laboratory Medicine

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