Specialist Trainee (ST1) in Medical Microbiology
HPA Manchester – based at Central Manchester University Hospitals NHS Foundation Trust (CMFT)

Job title:	Specialist Registrar/Trainee or
	in Medical Microbiology
Division:	Microbiology Services Division
Department:	Microbiology
Accountable to:	Consultant - Dr Kirsty Dodgson
Location:	Central Manchester University Hospital NHS Trust
Duration:	Five (5) years

Description and Training Programme

Introduction and overview

This is a whole time Specialist Trainee (ST1) post in Medical Microbiology based in the Department of Clinical Microbiology at Central Manchester University Hospitals Foundation NHS trust.
The post is approved for higher specialist training by the Postgraduate Medical Education and Training Board (PMETB)
The training will cover all aspects of clinical and laboratory microbiology with specific rotations in Health Protection.
The training period last for a minimum of five years during which time the trainee is required to achieve competencies stipulated by the Royal College of Pathologists including competence of the medical microbiology curriculum and complete both parts of the Fellowship of the Royal College of Pathologists (FRCPath) examination.
Progress will be reviewed annually.
The post will attract a National Training Number and provides training towards a Certificate of Completion of Training (CCT).
The Postgraduate Dean confirms that this post has the required educational and staffing approvals.

The Department

Medical Microbiology and Virology are located in modern purpose-built facilities in the Clinical Sciences Building at MRI. Clinical Sciences Building (CSB 1) opened in December 1994, CSB 2 opened in 2003 and CSB in 2009. The building also houses the research and teaching facilities of the

Bacteriology and Virology components of the University Academic Group in Laboratory Medicine

The Medical Microbiology department is part of the Manchester Medical Microbiology Partnership (MMMP) which includes Central Manchester University Hospitals NHS Foundation Trust, Health Protection Agency and University staff co-located at MRI. The MMMP comprises several departments/units. There is the Medical Microbiology department, the Medical Virology department, and the Medical Microbiology department at UHSM (Wythenshawe). The MMMP also provides microbiology services to The Christie (Specialist Oncology Hospital). In addition the MMMP incorporates core HPA functions and hosts the national Meningococcal Reference Unit and a leading Vaccine Evaluation Unit. There is a close working relationship with other Trust microbiology departments in Greater Manchester and the four HPA Collaborating Laboratories in the North West Region.
Infection control has a high profile in the Trust and there is regular and active liaison between the Infection Control teams, Microbiology and Public Health Medicine.

Staff in Microbiology

Professor FJ Bolton	Head of Department RM Executive Lead
Dr. A Dodgson	Clinical Lead and Consultant Microbiologist
Dr. E Kaczmarski	HPA Consultant Microbiologist, RM North West
Dr. A Qamruddin	Consultant Microbiologist, Governance/Audit lead
Dr. K Dodgson	Consultant Clinical Microbiologist & Training lead
Dr. D Sanyal	Consultant Paediatric Microbiologist
Dr. A Turner	Head of Unified Service and Consultant Virologist
Dr. K Mutton	HPA Consultant Virologist
Professor P Klapper	Consultant Clinical Virologist

3 Specialty Registrars (ST)
1 HST Clinical Scientist
1 Specialty Registrar (ST1) in virology

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Training Programme

Induction

It is mandatory for all trainees to attend induction training. This will be organised by the Training Programme Director and will include key local information. Part of the induction may be attendance at the local Trust's induction, and other content will be tailored to the individual trainee's needs. A broad outline of the training programme is given together with clinical and laboratory duties, key personnel and departmental meetings. Each trainee at the first opportunity is shown around the department being introduced to all medical laboratory and secretarial staff and shown key rooms and labs.

Important health and safety information is explained including fire drill and identification of fire exits. Trainees are also issued with security passes and identity badges.

Training will cover laboratory aspects of microbiology, health and safety, clinical skills in a variety of conditions and clinical settings. Opportunity to experience sub-speciality training including virology, health protection and epidemiology, mycology and parasitology will be provided. In addition training in communication and management issues will be given. As this is an HPA training post specific rotations in Health Protection will be provided (see below)

The Curriculum

The educational programme provides:
• broad understanding of the diagnosis and management of infectious disease from a clinical and laboratory perspective
• diagnostic skills required in the practice of clinical microbiology and virology
• understanding of the areas of clinical microbiology detailed in the curriculum
• knowledge of specialist areas such as infection control, mycology and parasitology; level depending on the background and career aspirations of the trainee with an emphasis on Health Protection and the ability to provide a specialist opinion
• communication skills required for the practice of clinical microbiology and the teaching skills necessary for effective practice
• management skills required in the running of the microbiology laboratory
• knowledge of health protection aspects of clinical microbiology and virology.
• experience in research and development and critical assessment of published
work so as to contribute in a team and individually to the development of the service
• acquisition of life-long habits of reading, literature searches, consultation with
colleagues, attendance at scientific meetings, and the presentation of scientific work that are essential for continuing professional development (CPD)
• experience of the practice of clinical governance and audit (specialist and multidisciplinary) through evaluation of practice against the standards of evidence- based medicine, which underpin medical microbiology practice.

The balance between practical laboratory and clinical training will be influenced by educational background, personal interests and guidance from supervisors.

Stages of training and learning

There are four stages in the medical microbiology curriculum. Trainees may not progress to the next stage of training until they have satisfactorily completed the preceding stage.

Stage A of training is 12 months whole-time equivalent. This stage of the curriculum will begin with a formal introduction to the basic principles of medical microbiology and virology. Following the induction period, the trainee will receive instruction and practical experience in further aspects of medical microbiology, virology, infection control and public health. This stage of training will be formally assessed by The Royal College of Pathologists' Medical Microbiology and Virology Year 1 Assessment. This first year will be focused on ensuring the trainee is adequately prepared for the year 1 assessment

Stage B of training is between month 13 and month 36 of whole-time equivalent training. During Stage B of training, the trainee will continue to broaden their experience and understanding of medical microbiology and virology. The knowledge gained during this stage of training will be assessed by the FRCPath Part 1 examination. During this time the trainee will also start their public health specific. This will include a 3 month secondment to the regional HPU.

Stage C of training is between month 25 and month 48 of whole-time equivalent training. This stage of the curriculum enables the trainee to undertake further specialised general medical microbiology training. This stage of training will in part be summatively assessed by the FRCPath Part 2 examination.

Stage D of training is between month 43 and month 60 of whole-time equivalent training. During this time the trainee with spend time on secondment at Colindale. This will ideally be done post Part 2 exam so the timing may differ depending on the trainee and their success in the exam. This stage of the curriculum prepares the trainee for their consultant post. The PYA undertaken at the end of Stage C should identify goals for the trainee to achieve during their final year of training. By the end of Stage D, the trainee should be able to demonstrate a level of knowledge and skill indicating suitability for independent professional practice in medical microbiology. The trainee will be supported to take on acting up roles in HPA laboratories where suitable.

Training

Day to day activity will be based at Central Manchester University Hospitals.
Central Manchester University Hospital NHS Foundation Trust consists of the following hospitals on a single island site: Manchester Royal Infirmary (800 beds), St Mary's Hospital (350 beds), Manchester Royal Eye Hospital (142 beds), the Dental Hospital and the Royal Manchester Children's Hospitals (350 beds) The central site is 44 acres in size and is bounded by Upper Brook Street, Hathersage Road, Oxford Road and Grafton Street. The Dental Hospital is located near to this island side within the campus of the University of Manchester.

Manchester Royal Infirmary is the main teaching hospital to The University of Manchester and is situated adjacent to the Medical School.

The training encompasses:

1. Provision of clinical microbiology advice (supported by other junior staff and supervised by the educational supervisor). The trainee must attend the daily clinical meeting to discuss the interpretation of laboratory results and the appropriate clinical management of patients.

2. Authorisation and interpretation of laboratory reports on specimens, utilising Standard Operating Procedures and under the supervision of consultant staff. The trainee will undergo basic training in laboratory methods by attachments to the different sections of the laboratory. This must be enhanced by regular liaison with the biomedical scientists. The trainee is responsible for completion of their logbook to check their knowledge of laboratory processes.

3. A total of six month in virology over the 5 year training period. This will include practical bench experience, interpretation and authorisation of results and clinical liaison including ward visits.

4. Attendance at relevant departmental meetings as advised by their educational supervisor. The trainee will gain experience of laboratory management and all aspects of quality management including audit and quality assurance

5. Attendance at tutorials and training courses
There is a regular programme of tutorials with one session a week. Trainees are encouraged to attend relevant professional courses.
Recommendations for attending other national courses or conferences can be discussed with the Educational Supervisor.

6. Health Protection Specific Training
Throughout the training program specific rotations in Health Protection will be offered
These include;
3 month secondment to the Regional HPU in Stage B of training to include

- Shadowing at the local Health Protection Unit
- Involvement and training in Outbreak management and support
- Time with Environmental Health Officers involved in outbreak management
- Further infection control training with both the trust and community infection control team investigating outbreaks

3 month secondment to Colindale during Stage D of training to include

- Time at Centre for Infection, Colindale, to one of the specialist reference laboratories
- Time at CDSC (Epidemiology) at Colindale

6 months total in other HPA secondments to be arranged during Stage C/D training (depending on when the trainee achieves the FRCPath Part 2 exam)

- Food, Water and Environment Laboratory at the Royal Preston Hospital
- Sessions at the Meningococcal Reference laboratory based at CMFT
- Sessions with the Vaccine Evaluation Unit based at CMFT
- Attendance at the HPA Infection control and Epidemiology course at Colindale
- Time spent with CDRNE C. difficile ribotyping service
- Time with the regional microbiologist gaining insight into other HPA activities

The schedule of ward rounds when on clinical attachment in Medical Microbiology will be as follows;
Daily clinical meeting with consultants 11am
There is a daily intensive care ward round from 3.00pm-4.00pm
Some, or all, of the ward rounds may be consultant led
An indicative timetable of departmental training activities is shown below:

Day	Time	Activity
Monday	1.00-2.00 pm 4.00-4.30 pm	Trainee teaching sessions Cardiothoracic ICU ward round
Tuesday	9.30-11.00am 1.00-2.00 pm	CDT and Antibiotic ward round Genito-urinary medicine ward round
Wednesday	9.00-11.00 am 2.00-4.00pm	Neonatal medical unit ward round Deanery arranged teaching (as programmed)
Thursday	9.00-11.00 2.00-4.00 4.00-4.30 pm	BMT ward round (The Chrisite) Paediatric ICU ward round Cardiothoracic ICU ward round
Friday	10.00-11.00am 3.00pm-4.00pm	Cardiothoracic wounds ward round Haematology Ward round

Attendance at ward rounds and some meetings depend on hospital/academic team attachment and stage of training

Trainees will also be expected to attend other clinical meetings outside the department as advised by their educational supervisor.

Important information for trainees about The Royal College of Pathologists and the organisation of training (including training and learning logbook) can be found on the College website www.rcpath.org

On-call Responsibilities

During the training programme the trainee will provide out of hours service.

Assessment and appraisal

Trainees will be expected to undertake workplace-based assessment throughout the entire duration of their training in medical microbiology. These will take the form of:

- Case-based Discussion (CbD)
- Directly Observed Practical Skills (DOPS)
- Multi Source Feedback (MSF)

Evidence of competence will be judged based on these assessments, the logbook and portfolio, appraisals and educational supervisor's reports.
Trainees must undergo an annual ARCP at which the evidence of their competence and progress as listed above must be presented.

Teaching Responsibilities

The Department provides training and teaching for a wide range of professional groups, including postgraduate doctors in training, medical students, nurses, Allied Health Professionals, and laboratory staff.

Trainees are expected to contribute to the teaching of medical students, nurses and paramedical students. This includes demonstrations and small group tutorials. Other teaching is on an ad hoc basis.

Attendance at relevant teaching courses is encouraged. Educational supervisors will provide evaluation and feedback on teaching sessions undertaken by the trainees.

Clinical Audit

There is an active Clinical Audit programme within the department and the Pathology Directorate. Trainees are expected to lead audit projects through the "audit cycle". The Trust Clinical Audit Department provides advice and support in all aspects of Clinical Audit.

Management Training

Experience should be gained, under supervision, in planning departmental policies and developing leadership qualities to implement them. Attendance at appropriate management meetings and training courses is encouraged. The trainee should consider undertaking locum consultant duties in the later stages of training.

Senior trainees are expected to participate in the laboratory management meetings and in administration of the department such as organisation of on-call rotas.

Research

Trainees need to develop R&D skills through participation in ongoing research projects. Presentations of research and case reports are encouraged.

Data management skills

It is important that trainees develop data management skills, so that they are familiar with IT, use of spreadsheets, data sheets and statistical packages. Part of this training should be available at Trust-organised courses, direct involvement in clinical audit projects and R&D. These skills can also be developed from evaluating information from the population served by the department and from technical procedures applied in the laboratory.

Health and safety

It is mandatory for trainees to participate in H&S training. All staff must agree to be bound by the safety code of practice of the laboratory and all other agreed protocols. They will be expected to obey all health and safety rules with regard to the laboratory and use of equipment. This will start at induction but will also include specific H&S training sessions and tutorials with senior laboratory staff.

Resources

Trainees' accommodation and equipment

Trainees will be provided with a desk, computer terminal and office space in shared accommodation. There is appropriate bench space and facilities to undertake approved laboratory projects and training.

Postgraduate Education Facilities
The MRI Postgraduate centre at Manchester Royal Infirmary organises a range of educational activities for a wide range of health science postgraduate staff.

Library Facilities
The Medical School library has a comprehensive range of general and specialist medical journals and textbooks, internet access and medical databases.

There is also an up-to-date range of Medical Microbiology journals and textbooks within the Medical Microbiology department, and internet access.

Secretarial
The secretarial staff of supervising consultants will provide appropriate support.

University Links
We have close links with the University of Manchester who are part of the partnership.

The University of Manchester has a rich academic heritage and can lay claim to more than 23 Nobel Prize winners amongst its current and former staff and students. The nuclear age was born in Manchester with Ernest Rutherford's pioneering research that led to the splitting of the atom. The computer revolution started here in June 1948 when a machine built by Tom Kilburn and Sir Freddie Williams, known affectionately as "The Baby", ran its first stored programme. It was here at the University that economist and logician WS Jevons formulated the principles of modern economics. Lewis Namier and AJP Taylor are just two of the world-famous names to grace the University's distinguished Department of History.

It was at Jodrell Bank in Cheshire that a young Bernard Lovell built the world's largest steerable radio telescope just after the Second World War. Great traditions have also flourished in theology, architecture, mathematics, music and law and many other areas.The catalogue of virtuosity goes on and on. Today's University is built on the shoulders of some real academic giants.

Other local facilities
There is a postgraduate medical centre situated on the Manchester Royal Infirmary site. The library has extensive collections of books and journals covering clinical medicine, together with a large range of computerised information sources, plus a quiet place to go and study. Hospital medical staff may also be eligible for a borrower's ticket at the main University Library.

For those with children of all ages, there is a full range of public and private educational institutions covering all age groups. There is day care available on-site on application for the children of MRI staff.

Within the City of Manchester are to be found an unrivalled range of educational facilities and diverse cultural, sporting and other leisure activities, including theatre and musical performances. The Bridgewater Hall is one of Britain's premier venues for classical music and opera and is an impressive example of modern architecture and pitch-perfect acoustics. It is home to the Hallé orchestra and regularly hosts Philharmonic orchestras from around the globe, in addition to opera, jazz and blues concerts. The Manchester Opera House, one of the city's biggest theatre venues, stages more mainstream productions like Bizet's Carmen.

Manchester just wouldn't be the same without its football. Old Trafford is a mecca for United fans; both the tour and the museum are unmissable. And Manchester City's new stadium is definitely worth a visit, too.

For more sporting fun, check out Manchester Velodrome, Britain's only indoor Olympic cycle track and widely regarded as one of the world's best. It's open to cyclists of all abilities, so you can even have a go on the track yourself.

Spend an afternoon looking around Manchester Town Hall, designed by Alfred Waterhouse or visit the city's Cathedral. Look around nearby Castlefield, once home to the Romans and the thriving heart of medieval Manchester, now more famous for its café bars and Castlefield Heritage Centre.

For those interested in design and architecture, The City of Manchester Stadium and the Imperial War Museum North, made the Commission for Architecture and the Built Environment's (CABE) list of England's top 10 Architectural Highlights of the Year for 2003. Manchester's redesigned Piccadilly railway station, Urbis museum, Art Gallery and Piccadilly Gardens have also been praised by CABE.

In addition, the local Manchester Aquatics Centre is a purpose built £30 million pool. This fantastic venue was built for the XVll Commonwealth Games held in Manchester in 2002.In addition to the two 50m swimming pools, used for both training and competitions, there is a specialist diving pool. The Manchester Aquatics Centre also has a range of exceptional facilities including: workout studio, fitness studio, health suite and sunbeds

CONDITIONS OF SERVICE

The appointment is subject to the Terms and Conditions of Service of Hospital and Medical and Dental Staff (England and Wales), as amended from time to time, and also such other policies and procedures as may be agreed by the HPA.

Salary

The Specialist Registrar salary scale is at present £30,992 per annum rising by annual increments to a maximum of £46,708 per annum in accordance with the current nationally agreed salary scale. It is subject to amendment from time to time in the light of national agreements.

Health Clearance and Medical Examination
This appointment is subject to medical fitness and the appointee may be required to undergo a medical examination and chest X-Ray. Potential applicants should be aware of the Department of Health and GMC/GDC requirements with regard to HIV/AIDS and Hepatitis viruses.

Candidates are advised that they will be asked at interview whether they are aware of anything preventing them from fulfilling their professional commitment and this includes health.

Residence
Accommodation may be available and enquires should be made to the relevant hospital regarding availability and costs incurred.

Annual Leave
Specialist Registrars on the 1st and 2nd incremental points of the payscale shall be entitled to leave at the rate of 27 days per year (pro rata) and up to 8 public holidays. Specialist Registrars on the 3rd or higher incremental point on the payscale shall be entitled to leave at the rate of 32 days per year (pro rata) and up to 8 public holidays.

Removal Expenses
You should not commit yourself to any expenditure in connection with relocation before first obtaining advice and approval from the Medical Staffing Department at the relevant hospital, otherwise you may incur costs, which you will be unable to reclaim.

Notification of Termination of Employment
Specialist Registrars are required to give a minimum of three months' notice of termination of their employment.

Infection Control
The prevention of hospital acquired infection is a vital concern for the CMFT. Infections harm patients. Infections also harm the Trust. The post holder is required to ensure, as an employee, that his/her work methods do not endanger other people or themselves.

All staff must be aware of infection prevention and control policies and guidelines, and follow them at all times. Any breach of infection control policies is a serious matter and may result in disciplinary action.

GMC Registration
The appointee is required to have and maintain **full** registration with the General Medical Council. Medical staff are advised to continue membership of one of the Medical Defence Organisations.

Criminal Record Bureau Clearance
The successful candidate will be required to have satisfactory Criminal Record Bureau Clearance for appropriate specialties.