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**Cambridge University Hospitals NHS Foundation Trust**

**Addenbrooke’s Hospital**

**PHE Public Health Laboratory, Cambridge**

**EDUCATIONAL JOB DESCRIPTION AND PERSON SPECIFICATION**

**ACADEMIC CLINICAL FELLOWSHIP**

**IN MEDICAL VIROLOGY**

**Summary**

This is a three year fixed-term. This post is based in the Public Health England Clinical Microbiology Public Health Laboratory, Cambridge (“CMPHL”) within Addenbrooke’s Hospital. The successful applicant will be a medical graduate who wishes to pursue an academic clinical career that combines excellence in clinical and academic medical virology and related public health functions. Accordingly, the training elements of the post will include clinical and practical experience in the operation and management of clinical diagnostic services in virology (75%), supervised and appraised to standards required by the Royal College of Pathologists, and academic training in translational medical virology (25%). The post holder will be expected and supported to develop academic skills and apply for a fellowship or research funding to undertake a higher degree or further research. The post is for candidates at ST3 level or above with outstanding potential for a career in academic clinical virology, who can finish training and obtain either CCT or Certificate of Eligibility for Specialist Registration (CESR) in virology in 2017. The post attracts an Academic National Training Number NTN(A).

 *[NOTE: This document describes the clinical and academic roles of the post and the training programmes associated with each of them. It also provides more general information on the CMPHL at Addenbrooke’s Hospital. A series of annexes provide more detail on (A) the Conditions of Employment relevant to the Specialty Registrar status (B) Key organisations and personnel, (C) Guidelines for Training and learning plan), (D) Person specification (E) supplementary information on the medical virology training programme.]*

**Diagnostic Service and Training Roles (75% FTE)**

The successful applicant will carry out their clinical training and service commitments in the Public Health England (PHE) Clinical Microbiology Public Health Laboratory, Cambridge (CMPHL) within Addenbrooke’s Hospital. All StR trainees have their office accommodation located within the Department. Further details of the hospital, CMPHL and clinical training environment and programme are given below.

**Cambridge University Hospitals NHS Foundation Trust**

Cambridge University Hospitals NHS Foundation Trust (“The Trust”) incorporates Addenbrooke’s Hospital, the Rosie Maternity Hospital and Fulbourn Hospital. Addenbrooke's Hospital (1100 beds) lies on the southern boundary of Cambridge City, occupying a site which is shared by the University of Cambridge School of Clinical Medicine, the Medical Research Council, the Regional Blood Transfusion Centre and the GSK Research Institute. Close links with the University have given the hospital an international reputation for converting research and development into practical health care.

The Rosie Maternity Hospital (94 beds and 19 Special Care Cots) is also located on the Addenbrooke’s site, and includes the Regional Neonatal Intensive Care Baby Unit.

Fulbourn Hospital is situated on the outskirts of Cambridge, approximately 3 miles from the Addenbrooke's site. It provides the main inpatient base for general and specialised Psychiatric services, supplemented by outpatient and community services.

The Research activities subtended by these clinical units and the University of Cambridge are formally recognized as constituting the Cambridge Biomedical Research Centre, and have been accorded National Status as one of five Academic Health Centres in England and Wales.

The Trust employs some 7,500 staff and serves a local population of 0.5 million and provides specialist services at Regional and National Levels.

**PHE Public Health Laboratory, Cambridge (CMPHL)**

The CMPHL, or “the Department” plays a dual role as both the Clinical Microbiology/virology Laboratory and a Public Health Laboratory, Part of Specialist Microbiology Services Network of PHE, and is located in the John Bonnett Clinical Pathology Laboratories block, located within Addenbrooke's Hospital. The CMPHL provides microbiology laboratory services for hospitals in the Cambridge Health District and for general practitioners in local Clinical Commissioning Groups and also supplies microbiological services for environmental health investigations and fulfils other PHE functions. It is anticipated that, from 1st October 2013, CMPHL will extend services to Transforming Pathology Partnership (including other 6 NHS Trusts and their GP catchment areas) as one of two ‘Hub’ labs. In addition, it performs serological and molecular investigations on referred specimens from the other 18 laboratories in the East of England and Lincolnshire. Specimens for molecular diagnosis are received from throughout the UK. There are on-suite discard laboratory autoclaves and facilities for handling Hazard Group 3 organisms.

Amongst the specialist services provided by CMPHL are the liver, lung and heart transplant programmes administered by Addenbrooke's and Papworth Trusts. Regional specialties in Cambridge (including Neurosurgery and Neurology, Oncology, Haematological Medicine and Renal Transplantation and Dialysis) also make substantial use of the Department. Extensive clinical liaison to provide advice on the diagnosis and chemotherapy of microbial disease, and on control of infection is undertaken with regional and other clinical services. There is an 11 bedded isolation unit within Addenbrooke's Hospital for community and hospital acquired infections, supervised on a rotational basis by Infectious Diseases Physicians. A Consultant in CMPHL is the Infection Control Doctor. A team of nurses in infection control collaborate closely with staff of the laboratory as do the Consultants in Communicable Disease Control for Cambridge and Huntingdon.

***Departmental workload***

With a bacteriology workload of over 470,000 specimens per year, Serology 187,000 specimens per year, Chlamydia 60,000 specimens per year, Molecular investigations 55,000 per year, the Department’s total throughput exceeds **815,000** specimens per year.

***Accreditation***

The Department has full CPA accreditation, and Royal College of Pathologists’ educational accreditation.

***Personnel***

*Consultants*

Dr M Farrington (Lead PH Microbiologist) - Locum

 Dr N Brown (Clinical Services Director, Infection Control Doctor)

 Dr S Aliyu (Joint Appointment with Infectious Diseases)

 Dr J Sule (Training Programme Director for Microbiology)

Dr David Enoch

 Dr J. Foweraker (Papworth site)

 Dr Margaret Gillham (Papworth, part time)

 Dr Ruth Kappeler (Papworth, part time)

 Dr Fiona Cooke (Local Lead in Training for Microbiology)

 Dr Sima Jalili (Hinchingbrooke Hospital)

2 Consultant Virologists

Dr H. Jalal (Virology Lead)

Dr H. Zhang (Deputy Clinical Services Director, Training Programme Director for Virology)

1 Consultant Clinical Scientist in Virology

Dr Kate Rolfe

2 Academic Consultants

Dr Estee Torok (Senior Clinical Fellow)

Dr Chris Smith (0.2 FTE, Senior Lecturer/ Honorary Consultant Medical Virologist)

*Senior Scientific Staff*

3 AfC Band 8 Clinical Scientists (Bacteriology & Virology)

3 Research Assistants (Bacteriology & Virology)

*Specialist Nurses*

5 infection control nurses at the Addenbrooke's site

*FRCPath trainees*

6 StRs in Microbiology

3 StR in Virology (1 Clinical Lecturer, 1 Infectious Disease/Virology, 1 StR virology – vacant for a fixed period of three years from October 2013 to September 2016 when the post holder is doing OOPR)

*Management and BMS Staff*

1 Regional Head of Operations - (Laura Ryall)

1 Laboratory Manager - (Laura Ryall)

1 Modernisation Manager - (Dave Pearce)

5 AFC Band 8

11 AFC Band 7

23 AFC Band 6

13 AFC Band 5

6 BMS Trainees

*Administrative and Clerical Staff*

12 Clerical Officers including 1 at Papworth

***Managerial Structure***

In April 2003, the management CMPHL passed from the Public Health Laboratory Service to the Health Protection Agency (HPA), which became part of Public Health England as an executive agency of the Department of Health from 1st April 2013. Within the Trust, the Department of Medical Microbiology is part of Investigative Sciences Directorate. The Clinical Services Director, Dr N Brown is accountable to the Divisional Director Dr Trevor Baglin for Addenbrooke’s clinical responsibilities.

**Clinical Training**

The objective of the training is for the trainee to meet all requirements and standards across the training curriculum published by the Royal College of Pathologists: *Curriculum for specialty training in medical virology, May 2010* (<http://www.rcpath.org/resources/pdf/med_micro_curric.pdf>). The major component will be training by apprenticeship under consultant supervision. The proportion of time spent on clinical training, including infection control, will comply with the Royal College of Pathologists recommendations of 50-80%. As this is a three year fixed-term training programme and the entry is at ST3 or above, the postholder will be expected to finish training and obtain either CCT or Certificate of Eligibility for Specialist Registration (CESR) in virology in 2017.

***Educational Supervisor***

From the outset, the post holder will have an Educational Supervisor who will act as mentor, and with whom an individual training programme is agreed, designed on an annual basis, to ensure specific training needs are met and aim at completing training by end of September 2016. The Educational Supervisor for this post will be Dr Hamid Jalal.

***Induction***

All trainees must attend the induction courses run by the Hospital Trust and the HPA, and receive comprehensive induction packs. Formal induction will commence immediately the trainee joins the Department. The Departmental Safety Supervisor will provide the majority of the Health & Safety induction and maintain records of this.

***Training Agreement***

Guided by the College’s training curriculum, an annual training agreement (training and learning plan) will be drawn up by the trainee for discussion and approval by the educational supervisor. This training agreement is an important part of the documentation for appraisals. Guidance on writing training agreements is provided in Annex C.

***Range of Clinical duties***

The post holder will participate in routine work of the Department in clinical liaison, laboratory diagnosis and infection control. This includes authorization of laboratory reports, dealing with telephone enquiries from clinicians and participating in ward rounds. The appointee will liaise closely with clinical colleagues concerning the diagnosis and management of patients, and infection control. These duties include liaison on a daily basis with specialist and non-specialist units at Addenbrooke’s and other hospitals, and with GPs. A Consultant Medical Virologist will closely supervise all these duties. Where appropriate, bench work training in all sections of the laboratory will be provided. The Department has a comprehensive collection of Standard Operating Procedures for laboratory operations, and all laboratory procedures undertaken within the Department. A separate SOP provides guidance on authorisation of reports by medical staff. As a Specialty Trainee, the post holder will participate in the Department’s out-of-hours on-call rota, which includes attendance at the laboratory over weekends or bank holidays and operates on a 1 in 4 basis. The Trainee will be advised of banding by Medical Staffing. An indicative weekly timetable of duties and training is shown; this timetable may vary to meet individual training needs.

Table. Indicative weekly timetable of duties and training

|  |  |  |
| --- | --- | --- |
|  Day (9am – 5pm) | Time | Activity |
| Monday | 1230 - 13301300 - 1400 | Papworth Transplant ward roundInfection Lecture |
| Tuesday | 1300 - 1400 | Trainees tutorial |
| Wednesday | 1000 - 12001230 - 13301600 - 1700 | Infectious Diseases ward roundHospital Staff RoundHIV/GUM Discussion Group |
| Thursday | 1230 -13301400 - 1530 | Case of the weekDepartmental seminarAdult Haematological Oncology ward round |
| Friday | 1100 – 133014:30-15:00 | Transplantation, Paediatric Intensive Care, Paediatric Oncology UnitCase Discussion Meeting  |

***Additional duties***

These will involve cover for the absence of colleagues on annual and study leave. Locums will not normally be engaged. All StRs will be expected in the normal run of duties to cover for the occasional brief absence of colleagues. In addition, he/she will be expected to perform duties in occasional emergencies and unforeseen circumstances without additional remuneration, at the request of the Director of the laboratory, Lead Public Health Microbiologist and/or appropriate Consultant in consultation, where practicable, with colleagues, both senior and junior. Commitments arising under these provisions are however, exceptional, and practitioners will not normally be required to undertake work of this kind for prolonged periods or on a regular basis except where it enhances the trainee's career development.

***Other main training components (see Annex E for details)***

**Public Health** – Since this is a PHE funded ACF/StR training post, the trainee will have various opportunities to receive relevant training for public health functions and the time spent training in this area will be 6 months. This will be organised and achieved by combination of several approaches depending on trainee’s interest and training background/level, for example:

* training by apprenticeship under PHE consultant supervision within the CMPHL
* attachment to PHE Regional Epidemiology Unit
* attachment to PHE Local Health Protection Team (former HPU)
* attachment to PHE Specialist and Reference Microbiology Services, Colindale
* attachment to PHE Special Pathogens, Porton
* attendance of relevant PHE courses or other public health related courses
* Undertaking FRCPath training modules or audit/service evaluation projects in public health related topics

**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” under consultant supervision. The Trust Clinical Audit Department provides advice and support in all aspects of Clinical Audit.

**Management** -Relevant experience will be gained, under supervision, in planning departmental policies and developing the leadership qualities to implement them. Tutorials will be provided by senior laboratory staff on specific topics. Attendance at appropriate management meetings and training courses is encouraged. The trainee will participate, on a rotational basis, in the following administrative duties: chair of the ST training committee, secretary to the CMPHL District Management Committee, and organising the Trainees Tutorial or Thursday Lunchtime seminar series.

**Data management** – training is provided through hands-on exposure, for example to audit projects, exercises in R&D, evaluation of information from the population served by the Department and from technical procedures applied in the laboratory. The trainee will have access to a PC shared with other StRs, providing access to the hospital network, and with a separate server space for word processing, Epi-info, Excel and Access databases and email, together with internet access providing links to Medical Databases.

**Research** – There are active clinical-oriented R&D activities in the CMPHL that the trainee is encouraged to participate or collaborate on as well as research training in the Division of Virology, University of Cambridge or PHE Colindale/Porton (see details below).

**Teaching** - Teaching responsibilities include tuition within the courses for which CMPHL is responsible including to undergraduate medical students. All trainees are strongly encouraged to attend courses in teaching skills offered within the Trust. The post holder will also be involved in the instruction of Health service personnel, including postgraduate doctors in training, nurses, Allied Health Professionals, and laboratory staff.

**Health & Safety** –The Department of Microbiology has a Hazard Group 3 containment laboratory, and on-suite discard laboratory autoclaves.It is mandatory for trainees to participate in Health & Safety training. This will start at induction but will also include specific H&S training sessions and tutorials with senior laboratory staff. All trainees are required to comply with Trust, HPA and departmental Health & Safety policies and procedures.

***Courses, Attachment or Rotation***

The StR will be encouraged to attend relevant courses of post-graduate training. Training via attachment can be provided in the Departments of Infectious Diseases and Genitourinary Medicine. There will be attachments to Clinical Virology in accord with the current training curriculum recommendations.

***Other training support***

The trainee will be provided with office space, a desk; filing cabinet and shelf space. Appropriate bench space and facilities will be provided to undertake approved laboratory projects and training. Appropriate secretarial support will be provided. Trainees have free access to the departmental library with a comprehensive inventory of current texts and journals and access to the world wide web via the NHS net. The Addenbrooke’s Postgraduate Medical Centre and the University Clinical School Library are situated on-site at Addenbrooke's Hospital.

**Study leave** will be granted in accordance with paragraphs 250-254 of the Terms and Conditions of Service for Hospital Medical and Dental Staff.

***Assessment and Appraisal***

Individual assessment and appraisal for all StR are provided to enhance professional development. These include formal work-based assessment, trainee-supervisor three monthly progress review and annual appraisal. These, together with academic appraisal, will inform the Educational or Academic Supervisor’s Report for the Annual Review of Competency Progression (ARCP) carried out by the Deanery.

**Academic Roles in Medical Virology (25% FTE)**

The successful applicant will carry out their research training and commitments in collaboration with the Division of Virology of the Department of Pathology, University of Cambridge, which is located one floor below the CMPHL, or PHE Colindale.

**Department of Pathology**

The Pathology Department [http://www.path.cam.ac.uk/] is situated on the Downing Site in central Cambridge, and is one of the largest Departments in the School of Biological Sciences. It is a leading research institution with a yearly research income of £9M. In the 2008 Research Assessment Exercise, Department staff featured in five Units of Assessment, due to the breadth of the Department’s interests. The Department’s submission contributed to over half of the University’s submission to the Infection and Immunology Panel and a third of the submission to the Cancer Panel. Between 35% and 45% of the profile of these submissions was graded as 4\* (world-leading), and 80% – 85% in 4\* plus 3\* (internationally excellent or higher). All were ranked either first or second in the UK in the Times Higher Education analysis of these profiles. In the Teaching Quality Assessment of 2000, the last year in which comprehensive rather than selective teaching assessments were carried out in UK Universities, Pathology was grouped with the Departments of Biochemistry and Genetics in the Molecular Biosciences Unit of Assessment and scored 24/24. The Department's research seeks to understand - and so ultimately arrest and reverse - disease processes of medical and social significance. The research of the Department is organised into five Divisions: Cell and Molecular Pathology, Immunology, Microbiology and Parasitology, Molecular Histopathology and Virology. The Department also has a major yearly commitment in the teaching and training of over 800 undergraduate students of medicine and of veterinary and natural science. In its research laboratories it provides training for over 70 graduate students. Members of the Department also contribute, together with colleagues in the National Health Service and Health Protection Agency, to provision of diagnostic services within Addenbrooke's Hospital and the Anglia Region.

**The Division of Virology**

The Division of Virology occupies about 800 sq.m. of dedicated laboratory space contiguous with laboratories occupied by virologists in the Department of Medicine. There is also space dedicated to virology within the Department of Pathology’s laboratories in Tennis Court Road in central Cambridge. Research income is predominantly from the MRC, the Wellcome Trust and the BBSRC and the whole life value of current grants is about £6m. The division is staffed by 8 principal investigators, 17 post doctoral scientists, 22 post graduate students and 15 technical/support staff. The principal investigators are: G.L. Smith (Head of Department and Wellcome Trust Principal Research Fellow), I.G. Goodfellow (Head of Virology, Wellcome Trust Senior Research Fellow), S. Efstathiou (Professor), I. Brierley (Reader), S.C. Graham (University Lecturer and Sir Henry Dale Research Fellow), J. Sterling (Clinical Lecturer - Dept. of Medicine), C. Crump (University Lecturer and Royal Society University Research Fellow), A. Firth (Wellcome Trust Career Development Fellow).

The topics of research on RNA viruses include the molecular biology of human caliciviruses and other positive strand RNA viruses (Goodfellow), the translational control of virus gene expression (coronaviruses and retroviruses) (Brierley) and the identification of novel viral coding strategies (Firth). Research on DNA viruses includes the replication, pathogenesis and immune evasion of vaccinia virus (Smith, G.L.) the pathogenesis and immune evasion of gammaherpesvirus (Efstathiou), herpes simplex virus latency (Efstathiou), herpes virus and polyomavirus assembly and egress (Crump), structural biology of virus proteins involved in pathogenesis and replication (Graham) and the pathogenesis of human papillomavirus infections (Sterling). The Division has extensive collaborations with virologists in the Department of Medicine (<http://www.med.cam.ac.uk/>) the Cambridge Veterinary School (<http://www.vet.cam.ac.uk/>) and the Wellcome Trust Sanger Institute (<http://www.sanger.ac.uk/>). Further details of the Division’s research activities can be found on the following website: <http://www.path.cam.ac.uk/research/virology.html>.

**PHE Colindale and Porton**

*PHE Colindale*'s remit includes specialist and reference microbiology services and infectious disease surveillance, including outbreak investigation. R&D dedicated to infectious diseases aspects of public health is part of PHE Colindale's function. For microbiology this is particularly focused on improvements in strain characterisation, seroepidemiology and improved diagnostics.

*PHE Porton*'s remit includes specialist and reference microbiology services for high containment pathogens, translational research and the manufacture of biopharmaceutical products. PHE Porton undertakes both basic and applied research into understanding infectious diseases, as well as  translational research in conjunction with our partners in  industry and academia in order to develop and test interventions for public health, including  new products such as vaccines and diagnostics. The site also plays an important role in preparing for and co-ordinating responses to potential healthcare emergencies, including possible acts of deliberate release.

**Academic Training**

The objective is to provide a training environment to acquire knowledge, experience and skills needed to conduct research under supervision and obtain an externally-funded further research opportunity (e.g. PhD or other fellowship) by the end of three years. The post holder will be expected to complete a portfolio of research and project work with generated data, learn data analysis and present at scientific meetings. When sufficient data are generated, the postholder will participate in the preparation of scientific papers for publication in high quality peer-reviewed journals and contribute to Research Ethics and grant applications.

***Academic Supervisor***

The post holder will have an Academic Supervisor who will supervise the trainee’s research theme/project and a mentor who can take a broader view of the student’s research progress and potential. This will be undertaken provisionally by Professor Ian Goodfellow of Division of Virology, University of Cambridge. In the event that research work is undertaken at Colindale/Porton, additional project supervision will be provided by suitably qualified individuals.

***Research***

The appointee will be encouraged to find a research niche in translational medical virology. To facilitate this, depending on previous experience of the appointee and in the initial phase, there is an opportunity to rotate though research disciplines and groups that would include exposure to laboratory theory and methods, and statistical analysis. The appointee can then engage actively in research work with a view to preparing manuscripts for publication, an application for research ethical approval as appropriate, and a grant application.

Current diagnostic and translational research themes within the department are focused on the utility of high-throughput genome sequencing technologies in understanding strain variation, pathogenesis as well as diagnostic and public health microbiology/virology. These are carried out in collaboration with Clinical Genetics at Addenbrooke’s, the university department, PHE Colindale, Sanger Centre and others.

**Other local facilities**

There is a postgraduate medical centre situated within the School of Clinical Medicine on the Addenbrooke's Hospital site. Library facilities for all hospital staff are provided by Cambridge University Medical Library, which is also located in the Clinical School building. The library, a branch of the main University Library, has extensive collections of books and journals covering clinical medicine, together with a growing range of computerised information sources. Hospital medical staff may also be eligible for a borrower's ticket at the main University Library.

The university city of Cambridge offers unrivaled educational facilities and diverse cultural, sporting and other leisure activities, including theatre and musical performances. The Fitzwilliam Museum is world renowned.

For those with children of all ages, there is a full range of public and private educational institutions covering all age groups. There is a pre-school crèche on-site for the children of Addenbrooke's staff.

There is a shopping concourse within the Hospital with excellent facilities - an Advice Centre, Bank, Café, Clothes Boutique, Dry Cleaners, Financial Advisory Services, Florist, Hairdressing salon, Handicraft shop, minimarket, Newsagent/stationer/confectioner, Shoe repair/Gift Shop, Solicitor and Travel Agent. There is a Food Court, which offers 'fast food' - sandwiches, hamburgers and pizzas, as well as more conventional options from early morning to late evening.

In addition, the Addenbrooke’s Frank Lee Centre provides staff with comprehensive sports facilities for swimming, squash, multi-sports hall, floodlit outdoor multi-sports facility, Profiles Fitness Suite and a bar with food.

# Further details and advice

Interested applicants are advised to contact:

Dr Hongyi Zhang

PHE Public Health Laboratory Cambridge

Addenbrooke’s Hospital

Hills Road, Cambridge CB2 0QQ

hongyi.zhang@addenbrookes.nhs.uk, 01223-348030

Dr Hamid Jalal

PHE Public Health Laboratory Cambridge

Addenbrooke’s Hospital

Hills Road, Cambridge CB2 0QQ

hamid.jalal@addenbrookes.nhs.uk, 01223-216816

Candidates are invited to visit the laboratory by appointment.

**For further information please contact:** Health Education East of England, 2-4 Victoria House, Capital Park, Fulbourn, Cambridge, CB21 5XB heee.recruitmenthelpdesk@nhs.net

Alternatively, please visit the NIHR website: <http://www.nihr.ac.uk/funding/academic-clinical-fellowships.htm>

**Annex A**

# Conditions of appointment

The post is subject to Terms and Conditions of NHS Hospital Medical and Dental Staff.

For those candidates who meet the requirements as a Specialty Registrar the post is subject to the terms and conditions above. (Salary scale for Specialty Registrar to be confirmed).

Newly-appointed StRs may be eligible for reimbursement with the whole or part of the cost of their removal expenses, provided that the removal is necessary to comply with the PHE requirements concerning the place of residence.

Membership of the National Health Service Pension Scheme is available, unless an officer decides to opt out or is ineligible to join

***Base***

The post is based in The University of Cambridge Dept. of Pathology, Division of Virology and the CMPHL, Addenbrooke’s Hospital.

***Indemnity***

As the postholder will only be indemnified for duties undertaken on behalf of Health Protection Agency. The postholder is strongly advised to ensure that (s)he has appropriate professional defence organisation cover for duties outside the scope of the PHEand for private activity within PHE. For on call duties provided to other organisations as part of cross cover out of hours arrangements the NHS Litigation Authority has confirmed that those organisations will provide indemnity for the postholder.

***Flexibility***

The NHS and the PHE (Scottish Centre for Infection and Environmental Health) are currently working in a climate of great change. It is therefore expected that all staff will develop flexible working practices both within the organisation on a cross-directorate basis, and with external organisations and relevant public health networks, to be able to meet the challenges and opportunities of working within the field of health protection.

***Mobility***

The post holder will be expected to work at any establishment at any time throughout the duration of his/her contract, normally within the location of NSC.

***Aspects of Confidentiality***

The postholder must at all times maintain the complete confidentiality of the material and information that they handle.

***Public Interest Disclosure***

Should a consultant have cause for genuine concern about an issue (including one that would normally be subject to the above paragraph) and believes that disclosure would be in the public interest, he or she should have a right to speak out and be afforded statutory protection and should follow local procedures for disclosure of information in the public interest.

***Data Protection***

If required to do so, obtain, process and/or use information held on a computer or word processor in a fair and lawful way. To hold data only for the specified registered purpose and to use or disclose data only to authorised persons or organisations as instructed.

***Health & Safety***

Employees must be aware of the responsibilities placed on them by the Health & Safety at Work Act (1974) also Food Hygiene Legislation to ensure that the agreed safety procedures are carried out to maintain a safe condition for employees, patients and visitors.

Centre/divisional directors - are responsible for co-ordinating health and safety activities in their centres/divisions and will determine the necessary management structure and arrangements. Directors will ensure that their actions and decisions at work reinforce the requirements of PHE’s health and safety policy and arrangements.

Managers - are responsible for implementing the Agency's health and safety policies and arrangements and for ensuring that risk assessments, safe systems of work, control measures and staff training are up to date and effective. Managers will inspect premises, ensure accidents and incidents are reported/investigated and assist in auditing health and safety management arrangements.

All staff must comply with any health and safety training: report all accidents, incidents, illnesses and untoward occurrences to line management without undue delay and must not interfere with or misuse anything provided in the interest of the health, safety and welfare of other employees. The organisation has a no smoking policy.

***Equal Opportunities Policy***

It is the aim of the organisation to ensure that no job applicant or employee receives less favourable treatment on grounds of gender, religion, race, colour, sexual orientation, nationality, ethnic or national origins or is placed at a disadvantage by conditions or requirements which cannot be shown to be justifiable. To this end, there is an Equal Opportunities Policy and it is for each employee to contribute to its success.

***Diversity***

You are at all times required to carry out your responsibilities with due regard to the Agency’s diversity policy and to ensure that staff receive equal treatment throughout their employment with the PHE.

***Smoking policy***

The PHE has a policy that smoking is not allowed in the work place.

***Risk management***

All staff have a responsibility to report all clinical and non-clinical accidents or incidents promptly and, when requested, to co-operate with any investigation undertaken.

***Conflict of interests***

You may not without the consent of the PHE engage in any outside employment. In accordance with the Agency’s conflict of interest policy, you must declare to your manager all private interests, which could result potentially in personal gain as a consequence of your employment in the Agency. Interests that might appear to be in conflict should also be declared to your manager.

In addition, the NHS Code of Conduct and Standards of Business Conduct for NHS Staff (HSG 93/5) requires you to declare all situations where you or a close relative or associate has a controlling interest in a business (such as a private company, public organisation or other NHS voluntary organisation) or in any activity which may compete for any NHS contracts to supply goods or services to the PHE. You must therefore register such interests with the Agency, either on appointment or subsequently whenever such interests are gained. You should not engage in such interests without the written consent of the PHE, which will not be withheld unreasonably. It is your responsibility to ensure that you are not placed in a position that may give rise to a conflict between your private interest and your duties.

## Code of conduct for professionally qualified staff groups

All staff are required to work in accordance with their professional group’s code of conduct (e.g. NMC, GMC, Department of Health Code of Conduct for Senior Managers, CIPD, etc).

***Criminal Record Bureau Checks (where relevant – This will be outlined on the Recruitment Requisition Form)***

Any applicant who is short-listed for this post will be asked to complete a disclosure form as the post holder will be required to have contact with vulnerable adults or persons under the age of 18. The successful candidate will be subject to a criminal record check from the Criminal Records Bureau prior to the appointment being confirmed. The disclosure will include details of cautions, reprimands, and final warnings, as well as convictions if applicable.

***Appraisal***

All staff are required to partake in a joint annual review of their work.

***Values and Behaviours***

The PHE has developed and published a clear vision for the direction of the organisation. A set of values and behaviours have also been developed and agreed to underpin this vision and these are listed below. Applicants and employees will be expected to demonstrate an understanding of and commitment to these values and behaviours, which will be assessed through the recruitment, selection and appraisal processes.

1. **Our values**
* ***Striving for excellence***

We strive for excellence and professionalism in all our activities to ensure we are respected and recognised as an expert organisation by the health and scientific community and by the public.

* ***Respecting others***

We respect and value our staff as the cornerstone of the Agency’s success, we manage them fairly and we value our diversity as a source of strength.

* ***Innovation***

We strive for continuous improvement and innovation in all aspects of our work and measure ourselves against the best in health protection.

* ***Integrity***

We demonstrate open, honest and ethical behaviour in all our interactions, operating within clearly defined levels of accountability and authority.

* ***Focus on quality service***

We are committed to meeting the needs of those we serve and work with by delivering the highest quality of service.

1. **Behaviours**

For all staff:

* Be an effective team worker, demonstrating respect for others and valuing diversity
* Take personal responsibility, learning from experience and sharing knowledge
* Focus on agreed outcomes and the needs of those we serve and work with
* Be flexible and positive about change
* Be aware of the impact of our own behaviour on others

In addition, for those staff with the responsibility for managing others:

* Give clear leadership to staff, leading by example and setting high standards
* Communicate often and clearly – face to face where possible
* Value and recognise the ideas and contributions of all team members, thanking them for their input and delegating work to develop them and realise their potential
* Ensure that resources and priorities are balanced appropriately
* Give regular feedback on performance and manage poor performance effectively

**Annex B**

## Key organisations and personnel

|  |  |  |
| --- | --- | --- |
| Organisation | Office | Personnel / Contact Details |
| The Royal College of Pathologists 2 Carlton House Terrace, LondonSW1Y 5AFwww.rcpath.org  | Postgraduate Education DeptExaminations DeptJCHPTCATT | Joanne BrinklowPostgraduate Education Officer020 7451 6759 joanne.brinklow@rcpath.org Peter AndersonExaminations Officer020 7451 6757 peter.anderson@rcpath.org Joint Committee on Higher Pathology TrainingChairman – See College website for functionCollege Virology Advisory Training TeamChairmanDr Ken Mutton ken.mutton@hpa.org.uk |
| Royal College of Physicians | JCHMT | Relevant for infectious diseases, metabolic medicine, haematology, immunology.Joint Committee on Higher Medical Training5 St Andrews PlaceRegent’s ParkLondon NW1 4LB020 7935 1174www.jchmt.org.uk/  |
| General Medical Council (GMC) | Registration Dept | 178 Great Portland St, London W1W 5JE020 7580 7642website: www.gmc-uk.org |
| Specialist Training Authority (STA) |  | 70 Wimpole Street, London W1M 7DE020 7935 8587website: www.sta-mrc.org.uk |
| Addenbrooke’s Hospital | Clinical Director for Investigative Sciences Divison*TPD for Virology**TPD for Microbiol*ogy*TPD for Infectious Diseases*Trust Personnel Dept Occupational Health Dept | Dr Trevor Baglin trevor.baglin@addenbrookes.nhs.ukDr Hongyi ZhangDr Jumoke SuleDr Andrew CarmichaelDepartment of MedicineBox 11101223 216243Miss Alison Risker Head of Medical StaffingBox 154, Addenbrooke’s Hospital 01223 586673Dr Geraldine Martell Occupational Health DeptBox 172 |

**Annex C**

**Guidelines for Training – learning plan (training agreement) for StR**

At the beginning of each training component the trainer and trainee should discuss the trainee's educational needs over the coming training period. In this regard, the trainee should take the initiative in drawing up a learning plan. It is intended that the learning plan should be a learner-centred approach and will take into account:

1. the trainee’s previously acquired knowledge, skills and experience
2. the objectives of the relevant Royal College of Pathologists core training programme
3. the time, resources and educational priorities available in the current training placement

A learning plan to meet these needs should be discussed and agreed by the trainer and trainee, covering:

a. the identification of appropriate education and training objectives to be achieved, covering skills, knowledge and attitudes to patients and colleagues and in line with the relevant Royal College of Pathologists core training programme. Any objectives, the achievement of which is a prerequisite for progression to the next stage in the training programme should be clearly identified as such

b. how the training placement itself will help achieve these objectives

c. any formal training that may be required and how this will be provided

d. responsibilities the trainee has to secure his/her achievement of the objectives.

The agreed written learning plan should be signed off by both trainer and trainee and should be forwarded to the Chair of the Specialty Training Committee prior to the ARCP. It is the responsibility of the Training Committee to ensure that this plan is appropriate to the trainee's stage in the training programme. A sample pro forma is attached for guidance although learning plans already in use locally can continue to be used.

**JOINT COMMITTEE ON HIGHER PATHOLOGY TRAINING (JCHPT)**

## LEARNING PLAN FOR SPECIALTY REGISTRARS

**Name of StR:** **Specialty:** **NTN:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Objective | **Key tasks** | **Formal teaching/****training required**  | **Criteria to assess** **satisfactory completion** | **Planned** **completion** **date** | **Date** **completed** | **Trainer’s** **initials** **when****completed** |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |

Plan agreed by …………………………………. and …………………………………… Date ………………………………………

(Trainer) (Trainee)

**Annex E**

**Supplementary information on the training programme**

GENERAL

The major component in training will be training by apprenticeship on clinical attachment (including Infection Control) under consultant supervision. This Royal College of Pathologist’s stipulates that 50-80% of the trainee’s time should be training by apprenticeship. For this post 25% of the time will be spent doing diagnostic and public health virology research.

There will be a named Consultant Supervisor, who will construct and oversee the individual training programme (see below) and act as mentor.

ROLE OF THE CONSULTANT SUPERVISOR

The Consultant Supervisor will supply reference copies of the Royal College of Pathologists' Core Training Programmes for Microbiology and Introduction to the StR Grade in the Pathology Specialties (reference copies downloadable from the College Website).

The Consultant Supervisor will introduce the Trainee to the most important texts and journals in Medical Microbiology and Virology held in the department.

The Consultant Supervisor will introduce the trainee to other important references (working party reports, local policies, etc.). At the Cambridge HPA Laboratory these are included in the Welcome Pack.

The Consultant Supervisor will introduce the trainee to the facilities of the local library, including Internet and CD-ROM search facilities.

The Consultant Supervisor will inform the trainee of the programme of Departmental and Hospital educational meetings (as listed elsewhere). The supervisor will ensure that the trainee has the opportunity to make presentations at such meetings from an early stage.

The Programme Director and Consultant Supervisor will ensure the Trainee is aware of forthcoming educational opportunities by circulating details of local and national meetings as they are advertised.

The Programme director and Consultant Supervisor will ensure that the Trainee is kept abreast of important developments in Medical Microbiology by circulating copies of official documents, reviews, etc., as they are published.

The Consultant Supervisor will discuss the role of membership of learned societies.

Registration with the Royal College of Pathologists is mandatory and should be undertaken at the earliest opportunity (registration form available at the College Website).

The Trainee will work with the Consultant Supervisor to produce a written annual training programme.

The Consultant Supervisor should meet regularly with the trainee for tutorials (including informal weekly tutorials, see below) and approximately three-monthly, to review progress against the training plan (see ‘Appraisal’, below).

CONSTRUCTION OF A PERSONAL TRAINING PROGRAMME (LEARNING PLAN)

The Trainee will draw up an annual individual training programme with the Supervisor, employing the Model Training Programme laid out below, in collaboration with the Programme Director in Medical Microbiology. The model programme will be modified as necessary in the light of the Trainee's needs, previous experience and local training opportunities to produce a personal Training Programme. The individual timetable will be discussed with each trainee, but it is anticipated that most trainees will wish to sit the FRCPath Part 1 at the earliest opportunity.

The Training Programme will be constructed on starting the appointment, and will plan activity for the year ahead in detail. Activity in later years will be planned in less detail but will include major components such as FRCPath examinations. Progress against the plan will be reviewed at the three-monthly meetings with the Supervisor. Further detailed plans for the forthcoming year will be produced at the end of the first year, and annually thereafter.

The Trainee's programme may be entered in the Trainee's copy of the Royal College of Pathologists Training record for Medical Microbiology.

ONLINE TRAINING PORTFOLIO

The Trainee will maintain the Royal College of Pathologists Training Portfolio for Medical Microbiology. The Trainee will present this to the Supervisor before the annual ARCP.

APPRAISAL

Informal meetings with the Consultant Supervisor will take place according to the needs and stage of training. In the first year this should be at least monthly

The Three-Monthly Training Review summary chart should be completed by the trainee and discussed with the Supervisor at every three-monthly meeting. The Review supplements the Royal College of Pathologists Training Record for Medical Microbiology, presenting a summary of progress against the training plan in brief note form. It also allows important issues to be recorded for future action and maintains a written record of Supervisors’ and Trainee’ comments and appraisals. The Royal College of Pathologists Training Record for Medical Microbiology should be also be reviewed, and initialled by the Supervisor at these meetings, every six months. Appraisal will also be carried annually out by the academic supervisor.

Annual local and GMC satisfaction survey provides the trainee with opportunities to give feedback on the training programme.

***Assessment – Annual Review of Competency Progress (ARCP)***

The Trainee should copy and complete the Eastern Deanery’s ARCP documentation and present them for the Annual Meeting. The trainee should discuss it with the supervisor. The Trainee should bring the completed form to the ARCP assessment meeting for review. Further information is available on the Royal College of Pathologists website – http://www.rcpath.org

**COURSE COMPONENTS**

BENCHWORK

The trainee will rotate through all sections of the laboratory at each site, which will be included in the Training Record. Timing will be according to previous experience and individual needs.

The trainee should study relevant regulations and literature during this period and consider attending a relevant course (see below).

CLINICAL

The trainee will work closely with the Consultant Medical Virologists, training by apprenticeship in clinical liaison. The Consultant Medical Virologist on clinical duty will discuss the day's clinical workload with the trainee and be available for prompt discussion of cases beyond the trainee's expertise. The trainee will gain experience in the management of infection by frequent ward visits to discuss individual cases with clinical colleagues.

At Cambridge, when on clinical duty, the trainee will participate in ward rounds as detailed elsewhere. The trainee will make regular ward visits in order to gain direct experience of the role of Medical Virology in the management of infection. The trainee will also be encouraged to develop individual links with a particular unit (an intensive care unit or ward with a large infective case load, e.g., Haematological Oncology, Transplantation) and undertake joint clinical research projects and audit with the unit.

The trainee and Supervisor should consider the value of a one-week attachment to the Department of Genito-urinary Medicine's clinic and a 2-week attachment to the Department of Infectious Diseases in the fourth year of StR training.

BACTERIOLOGY AND OTHERS

At least six months will be spent in bacteriology. The period may be extended if required and there is scope to include other short-term attachments to HPA functions or virology centres within the training programme.

CONTROL OF HOSPITAL INFECTION

Experience in Infection Control will be gained through handling routine work during the clinical blocks and on-call, by accompanying the Infection Control Team on visits throughout the hospital, by attending the Trust’s Infection Control Committee on a rotational basis and by specific attachments. The trainee should attend the Hospital Infection Society/Laboratory of Hospital Infection Course on Hospital Infection Control, Colindale (see below).

PUBLIC HEALTH

Public Health-related training will be provided in the form of combination of several approaches depending on trainee’s interest and training background/level, for example:

* training by apprenticeship under PHE consultant supervision within the CMPHL
* attachment to PHE Regional Epidemiology Unit
* attachment to PHE Local Health Protection Team (former HPU)
* attachment to PHE Specialist and Reference Microbiology Services, Colindale
* attachment to PHE Special Pathogens, Porton
* attendance of relevant PHE courses or other public health related courses
* Undertaking FRCPath training modules or audit/service evaluation projects in public health related topics

RCPath TRAINING MODULES

There are mandatory modules in the training curriculum, which are required to be completed and submitted to The College’s Examination Department at least 4 months before applying to sit FRCPath Part 2. These (with the time taken to complete them) are:

|  |  |
| --- | --- |
| **Module** | **No of weeks** |
| 3000 Word Review article | 4  |
| Critical Review of assay | 1 |
| Audit of assay | 2 |
| Audit of clinical utility of assay | 2 |
| 4 case reports | 4  |
| Critical review of outbreak | 1  |
| Out of hours log book | (No extra time) |
| Attendance of infection control meeting | (No extra time) |
| Business case | 1  |
| Attendance at H&S meetings  | 0.5 |
| Risk/COSHH assessment | 0.5 |
| Research | 12  |
| Epidemiology | 2  |

TUTORIALS

These will be arranged in the host laboratory according to the trainees' requirements, employing the expertise of local and Regional Medical Microbiologists.

The Trainee should also meet with the supervisor (or colleague) frequently for weekly for an informal tutorial. The current work of the trainee and consultant could usefully be reviewed in this tutorial.

TEACHING COMMITMENTS

The trainee will be expected to contribute to local educational meetings. At Cambridge, the trainee will progress from participation in the Part I Pathology demonstrations to delivering small group tutorials and course lectures for medical undergraduates. Training in the art of teaching is by apprenticeship, courses are also available locally (see below).

MANAGEMENT

The trainee will become familiar with management issues through the involvement in day-to-day work of the laboratory, by attending the meetings listed below, and in the weekly consultant tutorial.

The trainee will attend General NHS Management course(s) (Appendix 3.1-4). Management issues in Medical Microbiology will be also be covered in local tutorials at Cambridge PHL and other laboratories on attachment.

Trainees should be offered the opportunity to join appointment committees for laboratory staff (as an observer) in the fifth year of training.

Trainees developing a special interest in management and administration may enrol in courses leading to a degree or diploma (eg. MBA, DMS).

The Trainee will gain experience in administration by participating, on a rotational basis, in appropriate laboratory activities. At Cambridge these include: secretary to the CMPHL committee, membership of the laboratory technical committee, organising the intra-Departmental lecture series and trainee tutorials, organising the medical trainees' on-call rota.

The Trainee should act as an observer at a Departmental appointment committee on at least one occasion, annually.

Committees

The trainee will become familiar with the form and content of committee work by attending the following:

1. Departmental committees (full member)

Virology Technical Committee

Laboratory Management Committee

Safety Committee

Medical trainees' committee (chair rotates among trainees)

Other *ad hoc* committees

 2. Hospital committees (observer status)

Infection Control Committee

Legionella Control Committee

Drug and Therapeutics Committee

3. Regional committees (observer)

Regional Microbiology Advisory Group

Regional Virology Forum

Regional Epidemiology Forum

AUDIT

All medical personnel take part in Clinical Audit and the trainee will become familiar with its execution as part of the work of the laboratory. The trainee will be expected to participate in the collection and analysis of data required for local, regional and national audit. The trainee will be expected to participate in at least one audit project, annually. In the final year of training, the StR should perform a CPA vertical audit.

RESEARCH

Training in research will be based within the University of Cambridge Department of Pathology’s Division of Virology and supported by an Academic Supervisor who will arrange training in medical research and guide the trainee in generating research data and applying for externally-funded research or higher degree opportunities. In the event that research work is undertaken at Colindale or Porton, additional project supervision will be provided by suitably qualified individuals.

**ON-CALL**

Virology - Medical

The trainee will participate in the on-call rota for out-of-hours advice in Medical Virology when judged ready by the Supervisor.

Virology - Technical

Technical on-call will be provided (by the BMS staff at Cambridge). The trainee should observe technical on-call on at least one occasion

**FUNDING**

Research

The laboratory costs of research must be established and sources of funding identified by the Trainee and Supervisor and the other consultants. In general, funding for research will be sought from external funding bodies.

Study

Funding for courses, conferences and travel will be sought from Trust/Regional funds. Receipts for expenses must be retained for reimbursement.

Any shortfall will be divided between the trainee and laboratory research/educational funds, the proportion to be decided according to individual circumstances by the Supervisor and by agreement with other senior laboratory staff (the Core Group at Addenbrooke's Microbiology Laboratory).

On call

Reimbursement for telephone expenses incurred during the course of on-call duties is available from the Trust.

**Educational Meetings at CMPHL**

1. Addenbrooke's Microbiology Department Meetings (Thursday lunchtime)

2. Trainee Medical Microbiologists Tutorials (Tuesday afternoons)

3. Joint Clinical Microbiology and Infectious Diseases Department Clinical Infection Meetings (Monday lunchtime)

4. Addenbrooke's Hospital Medical Staff Round (Wednesday lunchtime)

5. Postgraduate activities at Addenbrooke's Postgraduate Medical centre (Surgical, Anaesthetic, Institute of Public Health, Gastroenterology and Clinical Nutrition, Obstetric & Gynaecological, Paediatric and GP meetings, as detailed in monthly bulletins).

**Selected Courses for Trainee Medical Microbiologists/Virologists**

The requirement for specific courses will be assessed on an individual basis and according to available funding. Trainees are encouraged to attend some of the following courses.

See also Training in Infection website hosted by National Electronic Library of Infection <http://www.trainingininfection.org.uk/IntegratedCRD.nsf/TII_Courses?OpenForm>

1. Management Courses include:

Contact Addenbrooke's Postgraduate Medical Centre for locally run courses

Clinical Management Course for Specialty Registrars in Pathology

Keele University *Usually in final year of training*

 Association of Clinical Pathologists (ACP) Management Course in Laboratory Medicine for Pathologists in Training

University of Warwick.

3 days.

Organised by Dr Hugh Mackay

Contact ACP Central Office, 221 Preston Road, Brighton, East Sussex, BN1 6SA. Tel 01273 561188

 Management Training Programme for Pathologists (post FRCPath)

Association of Clinical Pathologists and School of Postgraduate Medical Education, University of Warwick

1 day

Contact Carmel Parrott, School of Postgraduate Medical Education, Humanities Building, University of Warwick, Coventry CV4 7AL. Tel 01203 523913

2. MSc in Clinical Microbiology

The London Hospital Medical College

1 day per week, 30 weeks per year, 2 year course

3. Parasitology Courses

 Liverpool School of Tropical medicine Parasitology courses

<http://www.lstmliverpool.ac.uk/learning--teaching/lstm-courses/short-courses/lb01---laboratory-diagnosis-of-faecal-parasites>

 OR

London School of Tropical Medicine and Hygiene Parasitology courses

<http://www.lshtm.ac.uk/study/cpd/index.html>

4. Introductory Course on the Epidemiology and Surveillance of Infectious Diseases

HPA Communicable Disease Surveillance Centre, Colindale

3 days, Quarterly

5. Hospital Infection Society/Laboratory of Hospital infection Course on Hospital Infection Control, Colindale

5 days

6. Diploma in Hospital Infection Control (Dip HIC)

London school of Hygiene and Tropical Medicine, Hospital Infection Society and Public Health laboratory service

2 year, part-time course

Contacts; Dr BD Cookson, Professor C. Roberts, PHLS HQ

7. Centre for Applied Medical Statistics, Department of Public Health and Primary Care, University of Cambridge offers courses in statistics <http://www.phpc.cam.ac.uk/cams/cams-introductory-statistics-courses/>

1. Mycology Courses

 British Society for Medical Mycology courses

 <http://www.bsmm.org/conferences.asp> or

PHE Identification of Pathogenic Fungi course

Contact Mycology Reference Laboratory, Bristol

1. Antibiotic Susceptibility Testing

**BSAC Standardized Disc Susceptibility Testing Method Residential workshops 2012
University of Wolverhampton**

[http://www.bsac.org.uk/Susceptibility+Testing/Residential+Workshops+and+User+Group+Meetings](http://www.bsac.org.uk/Susceptibility%2BTesting/Residential%2BWorkshops%2Band%2BUser%2BGroup%2BMeetings)

9. Training the Trainers courses are available at Addenbrookes. Contact Postgraduate Medical Centre

10. Presentation Skills Course

Medical Photography, Addenbrooke's Hospital

11. Preparation for the FRCPath practical examination

 Department of Medical Microbiology, St Thomas’ Hospital, London

1. The Wellcome Trust Sanger Institute offers a variety of courses in genomics and sequencing.

<http://www.wellcome.ac.uk/Education-resources/Courses-and-conferences/Advanced-Courses-and-Scientific-Conferences/Advanced-Courses/index.htm>

**Model Training Programme**

**ACF/STR IN MEDICAL VIROLOGY**

This is a model to be modified according to the individual trainee's needs and previous experience by the Consultant Supervisor and trainee, in collaboration with the Programme Director in Medical Virology. An October 1st start date is assumed.

The academic component (25%) can be arranged in smaller or significant blocks varying according to previous experience of the trainee, nature of research projects and clinical rota.

**Year 1**

*Clinical (75%)*

8 months Virology, including:

* clinical virology
* infection controls and public health functions
* participation in the on-call rota under consultant supervision after a period of 1-3 months
* Public health related courses

1 month Microbiology attachment

*Academic (25%),* PHE Lab, academic department or Colindale/Porton

**Year 2**

*Clinical (75%)*

# 8 months Virology, including:

# clinical virology

* participation in the on-call rota

# infection controls and public health functions

* Public health related courses
* FRCP Part 2 examination
* attachment to other PHE facilities

1 month Microbiology

*Academic (25%)*, PHE Lab, academic department or Colindale/Porton

**Year 3**

*Clinical (75%)*

8.5 months Virology, including**:**

# clinical virology

* participation in the on-call rota

# infection controls and public health functions

* FRCP Part 2 examination
* Public health related courses
* attachment to other PHE facilities

0.5 month Management training

*Academic (25%)*, PHE Lab, academic department or Colindale/Porton