

# North Bristol NHS Trust

## Job Description

### Job Details

#### SECTION 1 – JOB DETAILS

Job Title: Laboratory Manager  
Grade: Band 8a  
Department: Neuropathology  
Directorate: Neurosciences  
Location/Base: Southmead Hospital | Flexible Working accomodated

### Job Summary

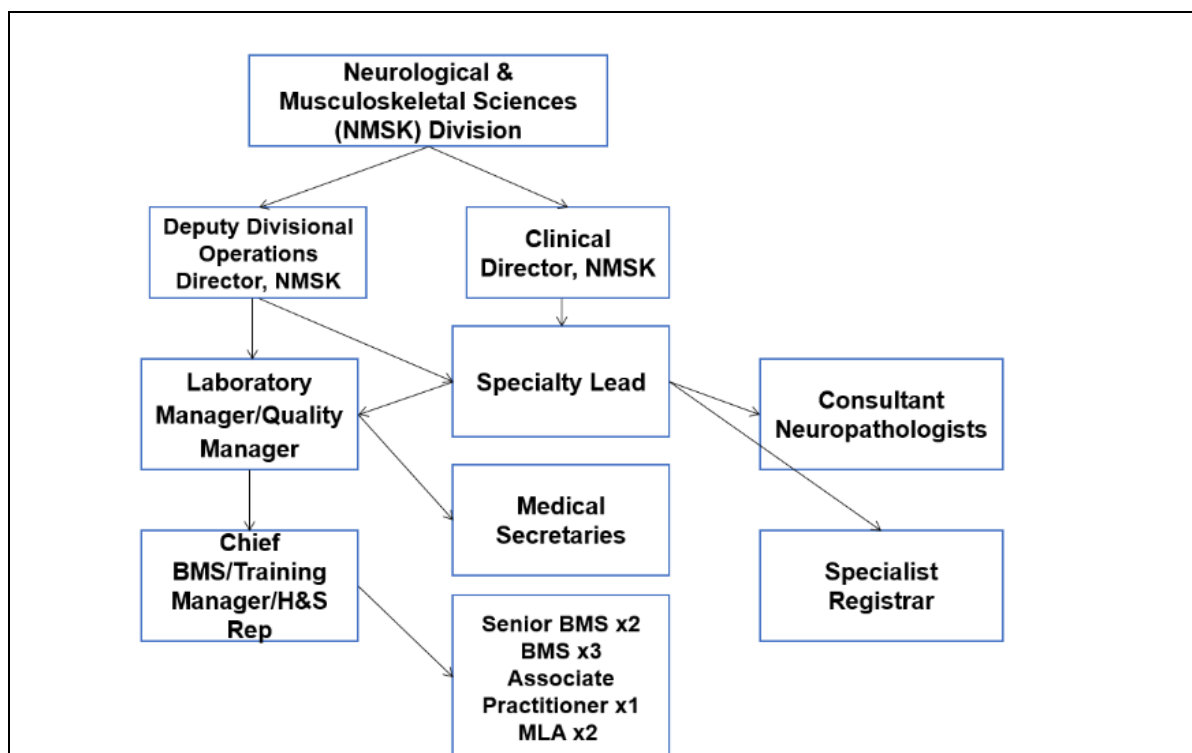
To manage and supervise the range of specialist technical services offered by the Department of Neuropathology.

To manage the Department's resources, to include both biomedical scientists and administrative staff.

To be responsible to the Clinical Head of Department & the Neurosciences Directorate Manager for the strategic management of the Department's laboratory services.

To develop and maintain the Department's use of the Trust laboratory information management system.

### Organisation Chart/Accountability



### Knowledge, Training, Experience And Skills Required

- First degree Biomedical Sciences, with specialisation in cellular pathology MSc / FIBMS in cellular pathology
- State registration with HCPC essential
- Completion of a recognised management training course, and experience of staff and resource management
- Active involvement in biomedical sciences CPD activities
- Knowledge and experience of the clinical laboratory accreditation process
- Extensive knowledge and experience of a broad range of histopathology techniques, to include immunocytochemistry, muscle enzyme histochemistry, nerve biopsy analysis and specialised post-mortem neurohistology methods
- Knowledge and experience of the handling of biohazardous biological materials, including prion-infected tissues
- Knowledge and experience of the preparation of specimens for transmission electron microscopy (including knowledge of semithin section histology and experience in the selection of blocks for electron microscopy)
- Experience of teaching and training both pre- and post-registration biomedical scientists, including in specialist neuropathological techniques
- In-depth knowledge and experience of the application of information technology in a clinical laboratory setting

### Main Duties & Responsibilities Of The Post

## **1. Departmental management**

### ***Staff***

- To be responsible for the management and personal development of all biomedical scientists, medical secretaries and support staff in the Department, and to oversee regular performance review to enable the specific training requirements of each individual to be assessed.
- To ensure that all staff, including visiting trainees, are appropriately trained and supervised, and to oversee their training in specialist techniques for the analysis of neuropathology specimens
- To ensure the provision of professional development programmes for Department staff, and opportunities to participate in scientific and other activities of professional laboratory organisations
- To deploy staff flexibly and effectively, to provide an efficient and timely laboratory service able to meet variations in work pattern and clinical demand
- To manage the regular rotation of biomedical scientists through all sections of the laboratory, ensuring proficiency in all aspects of neuropathology technical work
- To deputise in the absence of the Laboratory Director for non clinical duties.

### ***Finance***

- To plan and manage the Department's service budget as delegated by the Laboratory Director, to include regularly reconciling this to ensure its accuracy
- To manage the medical staffs' individual research budgets and other non-NHS contracts (e.g. with the Medical Research Council), as appropriate and as delegated by the Laboratory Director
- To advise the Laboratory Director of the adequacy of the financial resources available at all times of the financial year and to assist the budget-holder in keeping the different types of departmental expenditure within budget
- At all times to pursue further means of achieving increased financial and operational efficiency in the running of the Neuropathology technical service

### ***Resources***

- To ensure that the fabric of the Neuropathology Department premises is maintained, by liaising with the Hospital Estates Department to effect alterations or repairs as needed
- To ensure the appropriate maintenance and repair of all departmental scientific equipment.
- To identify the need for purchasing new or replacement capital equipment, to be responsible for developing the business case for the purchase and to lead on the selection and purchase of the equipment
- To ensure the accuracy of the Department's Capital Asset Register

- To select and monitor departmental laboratory suppliers as delegated by laboratory Director
- To be responsible for ordering, receiving, storing and authorising payment for all goods and services used by the Department as delegated by Laboratory Director.

***Professional activities***

- To ensure the department can provide evidence that it fulfils the requirements of **BS EN ISO 15189:2012** by meeting the appropriate standards for:

The laboratory infrastructure and facilities

The servicing and maintenance and calibration of equipment

The safety of the working environment and the establishment of clear health and safety policies

The Quality System and process documentation and records

Appropriate levels of staffing, and staff development and appraisal

Internal Quality Control and External Quality Assessment

Assessment and response to the needs of service users

Service Agreements

- To ensure that the Department and its staff comply with the Trust's clinical governance guidelines, and national data protection legislation
- To promote safe working conditions and practice within the Department by ensuring that staff adhere to all appropriate:
  - health & safety policies and legislation
  - departmental protocols
  - standard operating procedures
- To organise adequate provision for security and fire prevention
- To work with the Department's consultant staff in formulating annual plans and projections for the neuropathology service, taking into account changing local, regional and national trends in clinical demand, innovations in technical methodology and Health Authority priorities and requirements
- To record and analyse workload statistics and performance indicators, and to evaluate techniques pertaining especially or exclusively to neuropathology, to develop appropriate workload indices for these techniques and to audit departmental performance against the relevant indicators on a regular basis
- To undertake and supervise the development of additional specialist procedures when these are required, and to keep pace with the development of relevant technical innovations
- To represent the Department at relevant North Bristol NHS Trust, regional and national meetings

- To manage the Department's archive of retained organs, and, for each case, to ensure compliance with the consent wishes of the next-of-kin concerning the ultimate fate of the specimen, and to represent Neuropathology on the NBHT 'Retained Organs Group' Committee
- To facilitate and participate in the Department's research and development activities, liaising closely with the relevant Institute of Clinical Neuroscience research groups in University of Bristol

## 2. Neurohistology services

To be responsible for maintaining and managing all of the following specialist technical services offered by the Department, and whenever necessary, to participate in these areas to cover periods of increased demand or staff shortage.

- *Paraffin wax histology of surgical biopsies* -  
Assisting a pathologist with specimen cut-up  
Autonomously performing the cut-up and macroscopic description of some specimens, as appropriate and as agreed with consultant staff  
Processing and embedding specimens into wax  
Microtomy of wax blocks using a rotary microtome to produce sections for mounting on slides  
Staining of these slides by a range of dye methods to demonstrate specific tissue components
- *Paraffin wax histology of autopsy specimens to include* -  
Processing and embedding large specimens into wax  
Microtomy of large dimension wax blocks using a base-sledge microtome to produce sections for mounting on larger non-standard sized slides  
Staining of these slides by a range of dye methods to demonstrate specific tissue components  
Using various specialised silver impregnation techniques to demonstrate morphological features specific to the nervous system
- *Urgent intraoperative diagnostic methods:*  
Rapid staining of biopsy tissue smears for intraoperative diagnosis  
Freezing and cutting sections of intraoperative biopsy tissue in a cryostat, mounting and staining of the sections
- *Free-floating staining methods for autopsy specimens of the nervous system* -  
Rapid freezing of large formalin-fixed specimen blocks in liquid carbon dioxide  
Microtomy of these blocks by use of a freezing microtome to produce sections which are held suspended in fluid  
Staining of these suspended sections by various methods  
Transferring of the stained sections to slides for mounting
- *Enzyme histochemistry of muscle biopsies* -  
Dissection, sampling and rapid freezing of specimens in isopentane cooled in liquid nitrogen  
Use of a cryostat to cut sections of the frozen muscle for mounting on glass slides  
Performing a range of enzyme histochemical incubations on mounted sections of the specimen to demonstrate the pattern of activity of these enzymes in the muscle tissue

- *Preparation of nerve biopsies for analysis*  
Rapid subdivision of fresh nerve biopsies for cryostat sectioning, paraffin histology and resin histology  
Semithin sectioning of resin-embedded sections in preparation for morphometry (e.g. determination of fibre densities, fibre diameter histograms, G-ratios), as well as for microscopic assessment and for selecting blocks for ultrathin sectioning and electron microscopy  
Preparation of nerve biopsies for teasing of fibres
- *Immunohistochemistry and immunocytochemistry -*  
Immunolabelling of tissue on slides supporting: sections of wax-embedded tissue, dried sections of frozen tissue cut using a cryostat, or cell preparations produced in a cytocentrifuge  
The application of appropriate pre-treatments to slides prior to incubation  
The use of standard and enhanced immunolabelling procedures and various amplification methods for a range of primary antibodies (currently approximately 100) and diagnostic applications  
Calibration of reagents and methods to ensure their optimal specificity and sensitivity  
Identification and assessment of control material for use with the Department's panel of primary antibodies
- *Cytology methods -*  
Preparation of slides containing cells extracted from cerebrospinal fluid and tumour cyst fluid suspensions by use of a cytocentrifuge  
Staining or immunolabelling of these slides for microscopy

### **3. Electron microscopy**

To have managerial responsibility for the provision of a transmission electron microscopy (TEM) service within the Department. This includes ensuring the department has the skill base needed for the following activities:

- Dissection and processing of specimens
- Cutting 0.5µm thick resin sections in an ultramicrotome, and mounting these on slides for staining and review by light microscopy, and morphometry if applicable
- Use of an ultramicrotome to cut ~90nm-thick resin sections and the mounting of these sections on support grids for examination in the electron microscope
- Contrasting of the sections with metallic salts
- Performing histochemical or immunocytochemical techniques on some electron microscopy specimens to demonstrate the presence of specific tissue components
- Examining on specimens by electron microscopy and interpretation of ultrastructural morphology
- Capturing of relevant specimen images for diagnostic evaluation, by use of the electron microscope digital imaging system
- Managing the collection of images with image archiving software, and ensuring that there are appropriate back-ups
- Use of image processing software for digital correction or enhancement of captured images as required

- Provision of basic electron microscope maintenance to include renewing of filaments and performing alignment adjustments to the column components, and liaising with external service personal for complex support

#### **4. Information systems**

To manage and develop the department's information systems, to include:

- Oversight of Neuropathology aspect the Laboratory Information Management System,
- Providing support for new and existing users of the Department's sub-network, and liaising with NBT IT staff in integrating the system with the Trust-wide network
- Management of the data back-up systems
- Provision of first-line departmental support in the use of the Laboratory Information Management System and in other software applications running on the network

#### **5. Quality management**

As Quality Manager, the post-holder has overall responsibility for implementing and maintaining the Neuropathology Department's quality system, and is expected to ensure that it conforms to the standards defined by Clinical Pathology Accreditation (UK) Ltd. This includes regularly reviewing policies and procedures in all sections of the Department with the authority to propose or implement appropriate changes. The key duties in this role are as follows:

- To have responsibility for writing and reviewing the Department's quality manual, and to supervise, and participate in, the production of the department's policies, protocols and standard operating procedures
- To manage the document control process using a dedicated database application
- To coordinate the department's participation in the NEQAS external quality assurance schemes, and, as a result of feedback, to review the Department's performance and assess the need to adapt methodology in the context of best practice
- To be responsible for defining and maintaining internal quality control standards
- To design and implement a range of audit activities to regularly assess the performance of all aspects of the Department's work, and to analyse the data generated using appropriate IT tools
- To manage and report on the Department's adverse incident log
- To monitor the Department's quality indicators
- To co-ordinate awareness of the needs and requirements of user's of the Neuropathology service

- To report all matters arising from the management of the quality system to Department meetings and the annual management review, and record these reports
- To report all adverse incidents and non-conformities to the Department manager in writing in a timely fashion, and additionally to the clinical head of Neuropathology immediately if patient safety may be compromised.

### Working Conditions / Effort

- Physical demands involve the use of IT workstations, microscopes and laboratory equipment requiring continual repetitive movements (e.g. microtomes to cut sections of pathological specimens) for considerable periods during each working day.
- A high level of concentration is required to ensure accuracy and consistency in the documenting, preparation and labelling of pathological specimens. Still higher concentration levels are necessary when checking and assessing specimens.
- A range of pathological specimens is received and processed in the Department on a daily basis, including:  
fresh and formalin-fixed samples of tissue biopsied during neurosurgery  
formalin-fixed complete brains and spinal cords removed at autopsy  
fresh muscle and nerve biopsies  
fresh samples of cerebrospinal and tumour cyst fluid
- There is regular handling of hazardous chemicals under controlled conditions and of pathological specimens under appropriate levels of containment. The greatest risk is presented by prion disease cases such as CJD and variant CJD in which the infective agent is not denatured by routine detergents or specimen fixation procedures.
- There is a requirement to wear protective clothing and apparatus. In addition to laboratory coats, protective latex/nitrile gloves are used regularly. Goggles, face-masks and chain-mail gloves are also used when appropriate.
- Some routinely performed techniques require the use of cryogenic agents, which are dispensed and handled with appropriate protection: liquid nitrogen (-190°C) and near-frozen isopentane (-160°C) are used in the rapid freezing of muscle specimens. Cryospray' (-52°C) is used to freeze small biopsy specimens for sectioning in a cryostat. Many specimens are stored in a deep freeze at -80°C.





NBT Cares. It's a very simple statement; one which epitomises how everybody across our organisation goes the extra mile to ensure our patients get the best possible care.

NBT Cares is also an acronym, standing for caring, ambitious, respectful and supportive – our organisational values.

And our NBT Cares values are underpinned by our positive behaviours framework – a framework that provides clear guidance on how colleagues can work with one another in a constructive and supportive way.

## Improving the patient experience through your work

Patients are the most important people in the health service and are at the centre of what we do. Patients and carers are the 'experts' in how they feel and what it is like to live with or care for someone with a particular illness or condition. The patients' experience of our services should guide the way we deliver services and influence how we engage with patients every day in our work.

All staff should communicate effectively in their day to day practice with patients and should support and enable patients/carers to make choices, changes and influence the way their treatment or care is provided. All staff, managers and Board members should work to promote effective patient, carer and public involvement in all elements of their work

We have a duty to involve, engage and consult with patients, carers and families about plans for health facilities and the provision of our services. North Bristol NHS Trust wholeheartedly embraces the principles of patient partnership and has made clear its commitment to involve patients in key aspects of its work, which will be further strengthened through becoming a Foundation Trust.

## Infection control

Compliance with all infection control policies and procedures will form an integral part of the practice of all staff working in a clinical environment. Each staff member will be responsible for familiarising themselves with the Infection Control Manual in the clinical areas and on the Trust's Intranet site. Staff must keep up to date with new policies and subsequent implementation in practice.

Staff must seek support and advice from Infection Control in all instances where cross infection is likely to have occurred or when managing situations involving patients with infections where guidance provided in the Policies is not applicable.

All staff must contact the Occupational Health Dept if they are suffering from any form of infection which may put patients and other staff at risk.

## Commitment to health and safety, no smoking, equal opportunities and harassment and bullying

### **Health and Safety/Security**

It is the duty of every employee to work in such a way that accidents to themselves and to others are avoided, and to co-operate in maintaining their place of work in a tidy and safe condition, thereby minimising risk. Employees will, therefore, refer any matters of concern through their respective line managers. Similarly, it is each person's responsibility to ensure a secure environment and bring any breaches of security to the attention of their managers.

## **Commitment to health and safety, no smoking, equal opportunities and harassment and bullying (cont.)**

### **No-Smoking Policy**

As an NHS employer, the Trust has a duty to its staff and patients to protect them from the health hazard that smoking represents. Consequently, in line with the public health white paper, *Choosing Health*, the current policy will be that smoking will not be permitted anywhere on Trust property including all buildings, grounds and within leased/owned vehicles of the Trust. This applies to all staff, patients and visitors of the Trust. Failure by staff to comply with this requirement may result in recourse to the disciplinary procedure. Employees also have a responsibility to remind members of the public, visitors and other staff to refrain from smoking on Trust premises and to inform the appropriate manager if they witness repeat non-compliance.

### **Equal Opportunities**

North Bristol NHS Trust has given its full commitment to the adoption and promotion of the key principles of equal opportunities contained within current legislation and the Trust's Equal Opportunities Policy.

All staff hold personal responsibility for the application of this policy on a day-to-day basis and should not undertake any acts of discriminatory practice during the course of their employment. Similarly all staff have a responsibility to highlight any potentially discriminatory practice to their line manager, human resources department or trade union/professional associations.

Copies of the Equal Opportunities Policy are available in the Personnel Policies and Procedures file in every department and on the intranet.

### **Harassment and Bullying**

We believe that all people, whether staff, patients or visitors, are entitled to an environment in which the dignity of the individual is respected.

We are also firmly committed to promoting an organisational culture which values diversity and equality of opportunity and to preventing discrimination in all aspects of its employment practices and services. We regard harassment and bullying as totally unacceptable forms of behaviour that will not be tolerated or condoned.

## **Confidentiality and freedom of information**

Information relating to patients' records, diagnosis and/or treatment of patients, staff records, or

information concerning contracts, tenders and other commercially sensitive matters etc. are considered to be **confidential** and must not be divulged without prior authority other than in accordance with the provisions of the Trust's Policy on raising concerns about Health Care Services as may be amended from time to time. Breaches of confidentiality will result in disciplinary action, and may result in dismissal. Managers are also required as a condition of this Contract to represent the views of the Trust in any dealing they may have with Trust employees, their representatives, the media, general public or other organisations in which he/she may come into contact.

However, as a public body, the Trust has a requirement to publish particular information. Therefore, in addition to the above confidentiality requirements you must also comply with all aspects of the law concerned with information handling. For this purpose, the relevant legislation is the Freedom of Information Act 2000. This Act places a legal duty on all staff to comply with the rights of the public to access information. Any altering, destroying or concealing of information held by the Trust with the intention of preventing the legitimate disclosure of all or part of that information will result in disciplinary action, and may result in dismissal.

## Safeguarding

North Bristol Trust are committed to safeguarding and promoting the welfare of children, young people and adults and to protecting them from all risks of harm. The organisation expects all staff to work to national and local children and adult safeguarding policies and procedures. The trust expects all staff and volunteers to be dementia aware and to support the care of people with dementia. All staff are expected to share this commitment and meet the competencies relevant to their role.

## Job Description Agreement

Completed by.....

Authorised by..... Date.....

*This job description is a guide to the duties you will be expected to perform immediately on your appointment. It is not an exhaustive list, and such duties may well be altered from time to time to meet changes in the Trust's requirements. Any such changes will be commensurate with the grade of the post and will be discussed with the postholder prior to the changes being made*