**NHS GREATER GLASGOW & CLYDE**

# JOB DESCRIPTION

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| 1. **JOB IDENTIFICATION**
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| **Job Title:** | **Development Manager, Band 8A** |
| **Responsible to:** | **Head of Laboratory** |
| **Department:** | **Laboratory Genetics**  |
| **Directorate:** | **Acute Diagnostics** |
| 1. **JOB PURPOSE**
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| To ensure the management and ongoing delivery of high quality genetic diagnostic testing for the West of Scotland and as part of the Scottish Genetics Laboratories Consortium and the Scottish Molecular Pathology Consortium, specialised testing for particular disorders to the whole of Scotland, the UK and overseas. The post holder will be an experience Development Scientist who and will closely with the laboratory’s management team to plan and deliver development initiatives for future service delivery. They will report directly to the Deputy and Head of Laboratory. They will provide managerial and scientific leadership to help deliver developments for a highly skilled and specialised genetics diagnostic service. They provide highly specialist advice to colleagues, clinicians and other healthcare professionals regarding development initiatives within the laboratory. They will work with the Germline, Somatic and Technical Programmes managers, along with scientists and technical staff to implement new services and technologies across an integrated laboratory. |
| 1. **ROLE OF DEPARTMENT**
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| The Laboratory Genetics department, which forms part of the West of Scotland Genetic Services provides a comprehensive diagnostic genetic service for the patients of the West of Scotland (population >2.7 million) and specialised testing for particular disorders to the whole of Scotland, the UK and overseas. It is part of the Scottish Genetics Laboratories Consortium and the Scottish Molecular Pathology Consortium. Based at the new state of the art Laboratory Medicine building at the Queen Elizabeth University Hospital Campus in Glasgow, the Laboratory Genetics department encompasses cytogenetics and molecular diagnostic testing for the specialist diagnosis and/ or monitoring of patients with constitutional (prenatal and postnatal) and acquired (malignancy) genetic abnormalities in hereditary genetic disease, solid tumours as well as adult and childhood leukaemia. The service is funded by National Services Division, NHS Scotland. |

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| The Laboratory Genetics department is the largest of their type in Scotland and they process in excess of 30,000 specimens a year. It collaborates closely with other laboratories in the Laboratory Medicine building including pathology, and with various research groups at the University of Glasgow. The genetic laboratories provide a specialist education and training programme for our healthcare scientists and other healthcare professionals, including continuous professional development, ensuring our workforce is appropriately trained and developed to deliver a high quality diagnostic genetics service. In addition, the genetic laboratories deliver a component of the MSc in Medical Genetics in collaboration with the University of Glasgow. |
| 1. **ORGANISATIONAL POSITION**
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| 1. **SCOPE and RANGE**
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| The post holder is an experience Development Scientist who will report to the Deputy and Head of Laboratory and will deputise for them in their absence. There are >100 members of staff in the Laboratory Genetics department including Consultant Clinical Scientists (Head of Laboratory and Deputy Head), Principal Clinical Scientists, Principal Healthcare Scientists, Clinical Scientists/ Healthcare Scientists Advanced, Healthcare Scientists, Biomedical Scientists, Genetic Technologists, Healthcare Scientist Practitioners, Healthcare Scientist Assistants, Healthcare Science Support Workers and admin and clerical staff.The Laboratory Genetics department receives specimens from hospitals, health centres and general practitioners from the west coast of Scotland and offers a comprehensive genetic service to these users. It works cooperatively with the genetic laboratories in Aberdeen, Dundee and Edinburgh as part of the Scottish Genetics Laboratories Consortium. It delivers a national service for some genetic disorders, through the UK Genetic Testing Network. The post holder will offer management and scientific leadership to ensure the delivery of a highly skilled and specialised diagnostic genetics service. |
| 1. **MAIN TASKS, DUTIES AND RESPONSIBILITIES**
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| Clinical, scientific and technical* To adhere strictly to the departmental policies and Standard Operating Procedures.
* To follow Health and Safety and COSHH regulations, as outlined in the laboratories protocols and policies.
* To perform and organise their own workload and to organise and allocate the workload of other staff in the development programme and in consultation with senior management.
* To be responsible for the time management of multiple tasks ensuring effective delivery of development initiatives.
* To maintain an accurate record of all work undertaken using the Laboratory Information Management System and other IT systems.
* To demonstrate and apply a thorough understanding of the scientific principles involved in the delivery of a diagnostic genetics service, including trouble-shooting of existing assays, offering specialist advice to other colleagues and junior staff.
* To offer advice to members of staff, referring clinicians and other healthcare professionals on development initiatives within the laboratory.
* To analyse and interpret complex research results, and to offer advice and opinion regarding these data to colleagues where expert opinion may differ.
* To produce data and reports for complex results using highly specialised software packages.
* To manage and monitor internal and external quality control procedures and assessments and audit schedules as part of the development programme, in consultation with the quality manager.
* To be accountable for the quality and the delivery of service for the development programme, and to liaise with senior management to ensure new development initiatives meet the standards for UKAS accreditation.
* To attend and participate at local, national and international scientific and clinical meetings in order to maintain knowledge and acquire new skills for continuing service development.
* To perform other duties as deemed appropriate by the head of laboratory.

**Managerial*** To deputise for the head or deputy head of laboratory all matters relating to development initiatives.
* To participate in laboratory management meetings and other appropriate departmental management meetings when asked to do so by the head of laboratory.
* To participate in lectures, seminars and courses to facilitate their personal training and development.
* To be responsible for the day to day management of the development programme, including workload allocation, disciplinary and pastoral duties, and for the annual appraisals of staff.
* To be involved in the recruitment, selection and interviewing of new members of staff.
* To have a sound knowledge of managerial processes and policies, including clinical governance and health and safety at local and NHS level.
* To have a sound knowledge of NHS research and development policies, including IRAS, ethics and research governance.
* To write grant and research funding applications in conjunction with the head of laboratory, for service focused research and development initiatives.
* To be responsible in conjunction with the head of laboratory for the monitoring and controlling the financial expenditure of the development programme.
* Help to formulate departmental policies, operational procedures, training schedules and safety protocols and oversee their practice within the development programme.
* Prepare and update documentation including Standard Operating Procedures and laboratory policy documents, as directed by the quality manager or head of laboratory for matters relating to the development programme.
* To participate in the laboratory internal audit programme as directed by the quality manager.
* To present the results of audit work to colleagues at internal and national meetings.
* To communicate non-compliances to the head of laboratory and quality manager.
* To be aware of and follow the current local, regional and national policies and legislature, and how these apply to development initiatives.

**Research and development*** To take part in research initiatives and investigations at a local and national level, as directed by the head of laboratory.
* To plan and implement a programme of complex development initiatives within the laboratory working closely with the head of laboratory, senior management, other healthcare professional and academic colleagues.
* To coordinate, develop, validate and implement service initiatives designed to improve the efficiency of existing services, in consultation with senior management.
* To coordinate the validation of new equipment, and its implementation into routine service.
* To collaborate with local and national academic partners on research and development initiatives which will help inform the strategic development plans for future service delivery.
* To present the results of service development to colleagues at local, national and international meetings.
* To participate in the evaluation and validation of changes to standard operating procedures.
* Supervise, as required, clinical research of trainees, scientific staff, students and junior medics.

**Training, Education and Human Resources** * To work with the laboratory training officer, ensuring that the training needs of all staff within the development programme are met and comply with local and national guidelines and legislation.
* To develop training and competency documentation for the development programme, in consultation with the training officer.
* To train and supervise clinical/ healthcare scientists and other laboratory staff, as directed by the training officer.
* To contribute to the laboratory’s responsibility for the teaching and training of students and other healthcare professional who may rotate through laboratory genetics, and to providing lectures.
* To report any training issues to the head of laboratory or the training officer.
* To take part in Continuing Professional Development activities to acquire new knowledge and skills for service and personal development.
* To represent the laboratory at local, national and international meetings, as deemed appropriate by the head of laboratory, and to disseminate information gathered at these meeting back to laboratory colleagues.
* To be responsible for the annual appraisal and PDPs of staff that they line manage.
* To ensure an excellent quality of service by providing leadership, maintaining high staff morale and excellent interpersonal communications.

**Enabling the employer to meet statutory requirements*** Comply at all times with the departmental and NHS GG&C Health and Safety policies, security policies, departmental operating procedures and disciplinary codes.
* Report/ensure that any defect or occurrence which may affect safety at work is brought to the attention of the Safety Officer.
* Maintain an awareness of the Data protection act, preserving confidential patient information.
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| **7a. EQUIPMENT AND MACHINERY** |
| The post holder will:* Possess broad ranging detailed knowledge of equipment, technologies and methods used in the diagnostic genetics laboratory. This includes a range of highly specialist, highly complex and expensive equipment and instrumentation.
* Ensure that staff are trained appropriately in the operation of highly specialised laboratory investigations and instrumentation.
* Be responsible for the validation/ or verification of laboratory equipment as part of the development programme.
* Highly complex, and extremely expensive equipment and instrumentation.
* Use a personal computer and other appropriate IT equipment for the delivery of a diagnostic genetics service.
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| **7b. SYSTEMS** |
| The post holder will use a personal computer:* Use Laboratory Information Systems and proprietary software to facilitate laboratory management functions: Compiles reports based on information drawn from numerous systems e.g. workload activity analysis, to access patient and specimen information and to track laboratory workload.
* Be a competent user of highly specialist genetics analysis software for the interpretation of complex genetics diagnostic test results.
* Be a competent user of the Q-Pulse Quality Management, the INVU computerised document control and NHS Greater Glasgow and Clyde Datix incident reporting systems.
* Ensure safe systems of work are in place throughout the service – including COSHH/risk assessments etc.
* Use a personal computer to access medical, scientific and manufacturer’s websites to research information relating to genetics diagnostic test and technical information.
* Produce electronic data e.g. Microsoft Word, Access, Excel, PowerPoint.
* Use a photocopier for duplicating documentation, fax machine for sending and receiving documents and scanners for document archiving.
* Use the telephone for communication both internally and externally.
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| **8. DECISIONS AND JUDGEMENTS** |
| The post holder must take responsibility for their work and for the work of their specialised laboratory area, prioritising workload when necessary. Decisions often need to be made which require an understanding of the laboratories policies, procedures and methodologies. These include:* Work independently and acts autonomously to ensure that service requirements and demands are met for the development programme.
* Deciding on and prioritising own workload and allocating workload of others within the development programme.
* Deciding whether new tests and data/ results meet internal quality control parameters, and where it doesn’t, ensuring adequate quality control for implementation into a diagnostic service.
* Decide whether supplementary tests are required for those cases which produce equivocal or unexpected results, for the development programme and in consultation with the germline, somatic and technical programmes, and head of laboratory when necessary.
* Making decisions regarding problem assays and technical issues, troubleshooting and offering advice and guidance to junior staff where appropriate, in consultation with the germline, somatic and technical programmes managers, and head of laboratory when necessary.
* Analysis and interpretation of research and development results, and having the confidence at offering advice where experts opinions may differ.
* Exercising expert and professional judgements in the interpreting highly complex results which could have an impact on the diagnosis and management of patients with genetic disorders.
* Compiling and authorise highly complex data and reports to ensure the information is clear concise and unambiguous.
* Taking responsibility for the introduction and implementation of new diagnostic genetic tests, technology and equipment into routine testing, for the development and subsequent translation into service in consultation with the germline, somatic and technical programmes managers, and head of laboratory.
* Participates in formulation of strategy to deliver the future needs of the service, along with future development initiatives and quality improvements.
* Highly competent in interpreting complex data in a variety of formats e.g. scientific papers/information, statistical and complex laboratory data and informatics.
* Overseeing the evaluation, in a timely manner, of problems with highly complex tests and make sure that remedial action is instituted.
* Required to evaluate, analyse requirements, interpret, and implement service strategies relating to service development and quality improvement.
* Making decisions in consultation with the quality manager with regard to UKAS and quality issues.
* Resolving issues concerned with staff morale, discipline and grievances.
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| 1. **COMMUNICATIONS AND RELATIONSHIPS**
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| The post-holder will: * + Interpret and elaborate on the relevant policies and guidelines which apply to the work of the Laboratory Genetics department and within the development programme.
	+ Communicate effectively with other healthcare professionals, responding to all enquiries as appropriate (telephone, email or written).
	+ Provide easy to understand interpretation of highly complex laboratory results to colleagues and service users.
	+ Provide advice on the development initiative available to service users.
	+ Interact with staff and service users in highly distressing situations such as adverse outcomes from diagnostic genetic investigations, and be able to deal with and resolve complaints.
	+ Attend the laboratory meeting and laboratory management meetings, discussing laboratory issues with colleagues at these meetings.
	+ Present clinical case reports and research findings to local, national and international scientific meetings and conferences.
	+ Present research findings to conferences or other large groups.
	+ Disseminate information following attendance at scientific meetings and conferences, to colleagues within the laboratory.
	+ Communicate research and other specialist clinical, scientific and technical information to colleagues and will exchange specialist information with colleagues.
	+ Communicate information received at meetings, educational seminars etc. to colleagues in the department.
	+ Maintain good communication with senior staff in the other laboratories which comprise the Scottish Genetics Laboratory Consortium and the Scottish Molecular Pathology Consortium to ensure an integrated service throughout Scotland.
	+ Establish and maintain good communication with the consultants and senior staff within the Laboratory Genetics department and in the other laboratory disciplines within NHS Greater Glasgow and Clyde, to ensure good cooperation and to maximise the use of the resources which are available.
	+ Have excellent and highly developed communication skills and experience in dealing with all levels of staff in order to maintain high morale and good team working within their specialised laboratory area.
	+ Communicate as an effective team member within the Laboratory Genetics department, to ensure optimal use of resources and the delivery of an efficient, high quality service.
	+ Liaise with the training officer when training other members of staff.
	+ Liaise with the quality manager for issues relating to accreditation and quality management.
	+ Liaise with senior management, including the head of laboratory, on other issues relating to laboratory management.
	+ Abide by the NHSGG&C policy on patient confidentiality.
	+ Attend an annual staff review.
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| 1. **PHYSICAL, MENTAL, EMOTIONAL AND ENVIROMENTAL DEMANDS OF THE JOB**
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| **Physical demands*** A combination of sitting, standing and walking is required.
* A very high level of manual dexterity with excellent hand to eye co-ordination is required to carry out highly complex analytical procedures. Often highly intricate work using tiny volumes in single and multi-channel micro pipettes is required (less than 10µl).
* Frequent requirement for sitting in a restricted position for extended periods whilst using a computer workstation and specialist software to analyse highly complex data and results, or to write and authorise patient reports with little opportunity to exercise during this time.
* Requires highly developed physical skills in the use of specialist diagnostic equipment of high monetary value.

**Mental demands*** There is a frequent requirement for prolonged, intense concentration when analysing and interpreting highly complex diagnostics genetic data and results. Often processing very large and highly complex data sets to issue final reports from a range of different procedures.
* There are frequent interruptions for immediate clinical or managerial advice. These interruptions are unpredictable and may require multi-tasking and re-prioritisation of work pattern and changing of task.
* Unpredictable work pattern often fire fighting and prioritising urgent referrals. Diagnostic genetics is a demand led service and with a rapidly increasing volume of referrals, makes forward planning for the needs and development of the service very difficult.
* Organisational skills, especially time management, and the ability to multi-task are very important.
* There is a requirement to prioritise workload to meet deadlines.
* A laboratory is a busy environment, which makes demands on the concentration.
* Regular use of extremely expensive and very fragile equipment.

**Emotional demands*** Emotional stress of ensuring the accurate diagnosis of genetic conditions, and the unambiguous and accurate interpretation of results to the referring clinician.
* Emotional stress of communicating adverse clinical outcomes which can result in termination of pregnancy or cancer diagnosis in affected individuals including children.
* The handling of patient records maintaining patient confidentiality whilst liaising with multiple healthcare professionals is particularly demanding in diagnostic genetic cases as results from one patient often influence risks to other family members.
* The specimens can be from various sources some of which can be distressing (for example recognisable fetal parts).
* Emotional demands of dealing with difficult personnel issues with staff (both personal issues and disciplinary matters).

**Environmental demands*** Frequent exposure to unpleasant working conditions, hazardous chemicals and potentially infectious body fluids and specimens.
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| 1. **MOST CHALLENGING/DIFFICULT PARTS OF THE JOB**
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| The post holder:* Must work with the Laboratory Genetics Management to maintain the service at the forefront of technological developments.
* Must work to very demanding Professional Standard Guidelines. These cover both the necessary quality of the work undertaken and also the acceptable turn-around times.
* Must acquire and maintain knowledge with regards to laboratory procedures, and the interpretation and the reporting of complex data and results, which must be constantly refreshed as practice, guidelines and new scientific literature become available.
* Must have the ability to concentrate for long periods of time whilst analysing and interpreting highly complex diagnostic genetic data and results, and whilst writing and authorising highly complex reports.
* Must be able to multi-task and deal with the unpredictable and often stressful nature of the work carried out in the Laboratory Genetics department including urgent prenatal diagnosis referrals.
* Know that errors in analysis or reporting of results for which the post holder has responsibility will have life changing effects to the patients involved, which in turn places great stress on the post holder.
* Must work under pressure, handle complaints and communicate with all grades of staff throughout the organisation and beyond.
* Must promote excellent teamwork and team spirit within their specialised laboratory area, and deal with difficult staffing issues and personnel problems such as disciplinary actions, conflict resolution and training issues.
* Must train and develop the existing staff skills and help with the recruitment of new staff for their specialised laboratory area, to achieve the most appropriate staff mix for delivering an efficient and high quality diagnostic genetics service.
* Must deliver service improvements often driven by national initiatives or guidelines, which may not attract additional staffing or financial support and therefore must be delivered using the resources available.
* Participation in continuous personal development where there are time constraints due to service commitments.
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| 1. **KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB**
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| * Honours degree in relevant biological sciences subject.
* PhD or DipRCPath/ FRCPath Part 1 (working towards FRCPath), or equivalent, confirming advanced, in-depth scientific and theoretical knowledge and expertise.
* State Registration with the Health and Care Professions Council (HCPC) in an appropriate discipline or equivalent is desirable.
* Broad range of specialist scientific and clinical genetics knowledge, or other relevant experience/ training.
* Considerable experience and a proven track record in genetics research.
* Considerable and a broad range of experience in a diagnostic genetics laboratory is desirable.
* Considerable and a broad range of experience in specialised genetics diagnostic and research techniques (PCR, Q-PCR, RT-PCR, sequencing, NGS, FISH, microarray, karyotyping).
* Considerable experience in highly complex genetics data analysis.
* Experience in supervising or managing scientific laboratory staff.
* Specialist knowledge of genetic diagnostic equipment and software packages.
* Experience of NHS R&D policies and procedures, or equivalent.
* Experience of writing research funding grant applications is desirable.
* Ability to work under pressure.
* Ability to work as a team member.
* Enthusiastic, motivated and capable of prolonged concentration and attention to detail.
* Advanced IT skills including expertise in Microsoft Office to manipulate information/ data and produce reports and statistical analysis.
* Demonstrate continuous professional development
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