Royal Devon University Healthcare NHS Foundation Trust

# JOB DESCRIPTION

| JOB DETAILS | |
|---|---|
| **Job Title** | Genetic Technologist |
| **Reports to** | Head of Department |
| **Band** | Band 5 |
| **Department/Directorate** | Genomic Laboratory/Specialist Services |

## JOB PURPOSE

Through the reconfiguration of Genomic Laboratory service provision in England, the NHS will provide Genomic testing through a single national testing network, consolidating and enhancing the existing laboratory provision. This will create a world-class resource for the NHS, underpin the future Genomic Medicine Service and support delivery of the Government's Life Sciences Strategy and broader research and innovation agenda, building upon the NHS contribution to the 100,000 Genomes Project. The South West Genomic Laboratory Hub (SWGLH) is a partnership arrangement between the Royal Devon University Healthcare Foundation Trust and the North Bristol NHS Trust.

The post-holder will be expected to undertake complex technical duties required to support provision of a high quality molecular genetic service to ensure accurate and timely results to users. They will be expected to support research and quality improvement activities, where required, and introduce new developments according to professional standards. They will ensure departmental quality standards are maintained through adherence to standard operating procedures, implementation of quality control programmes and instrumentation maintenance and troubleshooting.

## KEY RESULT AREAS/PRINCIPAL DUTIES AND RESPONSIBILITIES

- Responsible for checking complex data using specialist molecular genetic software programmes, taking appropriate action where necessary including the cascading of further analyses.
- Responsible for time management of multiple tasks by planning, managing and organising own workload, to meet priorities and ensure timely delivery of molecular genetic reports.
- Liaise and co-operate with other members of the analytical team to ensure a timely and efficient service delivery.
- Communication with service users and laboratory staff to ensure accurate and timely reporting of results, maintaining the highest level of patient confidentiality.
- Support the laboratory's quality management system by reviewing and updating standard operating procedures to ensure they reflect working experience.
- Ensure quality of results through the implementation of internal QC systems and act upon the results, identifying and resolving non-compliances, as per departmental procedures.
- Provide analytical advice and information to scientific staff and, where appropriate, users of the service, following laboratory policies and procedures.
- Participate in research and development programs as required.
- Maintain a flexible working approach allowing management and prioritisation of the daily workload.
- Contribute towards the continuing development of genomic laboratory services.
- Support the supervision and training of laboratory staff, work experience students and others as required.
- Support stock control and ordering of reagents and to ensure service continuity.
- Taking an active role in maintaining high quality standards to ensure patient care and safety.
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## KEY WORKING RELATIONSHIPS

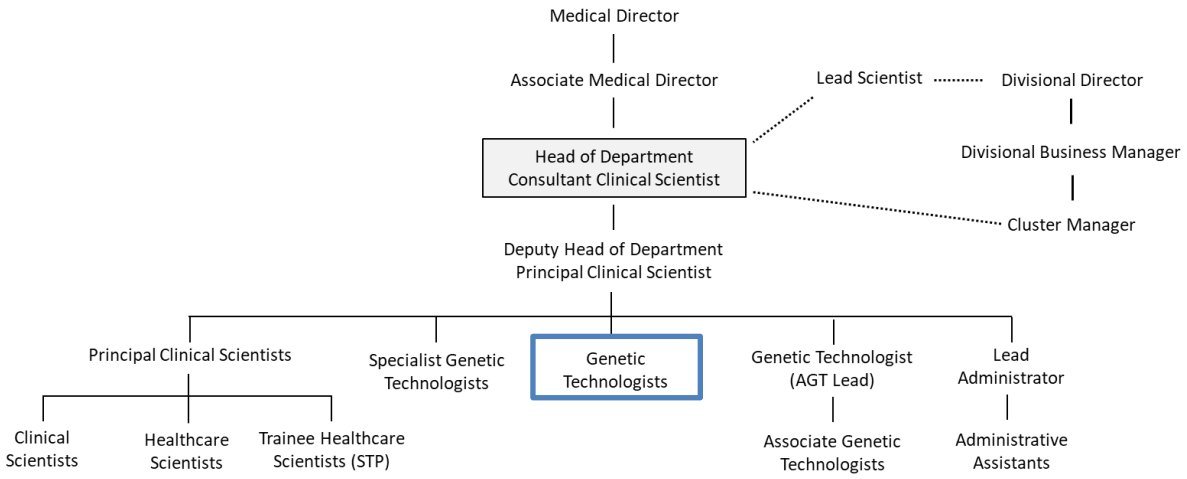
Areas of Responsibility: Post holder will liaise with colleagues within the Department and users of the service both within and outside of the Trust.

The post holder is required to deal effectively with staff of all levels throughout the Trust as and when they encounter on a day-to-day basis. In addition, the post holder will deal with the wider healthcare community, including external organisations. This will include verbal, written and electronic media.

Of particular importance are working relationships with:

| Internal to the Trust | External to the Trust |
|---|---|
| • Clinical Scientists<br>• (Trainee) Healthcare Scientists<br>• Bioinformaticians<br>• Genetic Technologists<br>• Associate Genetic Technologists<br>• Administrative Assistants<br>• Medical Staff<br>• Clerical staff<br>• Other Healthcare professionals<br>• Clinical research team members, Fellows and nurses | • Healthcare Professionals<br>• Visitors and work experience students<br>• Postdoctoral research fellows, PhD students and other trainees or students<br>• Academic staff<br>• Suppliers<br>• Engineers |

## ORGANISATIONAL CHART




The Exeter Genomics Laboratory employs >50 members of staff and receives >10,000 samples per annum. The laboratory is part of the South West Genomic Laboratory Hub which is a partnership between RDUH and North Bristol NHS Trust.

## FREEDOM TO ACT

Work autonomously within defined field of competence following department standard operating procedures and protocols.

Work within laboratory and organisational policies, procedures and standard operating procedures (SOPs).

May be required to take decisions alone and then escalate to line manager, Healthcare Scientists or Clinical Scientists.

## COMMUNICATION/RELATIONSHIP SKILLS

Communicate with service users using tact and empathy to request and receive complex, and occasionally sensitive, information necessary for accurate and timely reporting of results and responding effectively to e-mail and telephone enquiries in a timely manner.

Maintain the highest level of patient confidentiality, considering the sensitive and emotional nature of clinical referrals and comply with section 60 of the Health and Social Care Act 2001.

To recognise the importance of harmonious relationships and maintain an atmosphere conducive to this. Able to remain calm and professional when managing challenging behaviour, using de-escalation strategies and clear communication to maintain a safe, respectful environment.

Constructively manage barriers to effective communication and works cooperatively with team members.

To work within the team and in close liaison with the Specialist Genetic Technologist (Quality) and Quality Manager to participate in preparation of the department for regular UKAS inspections, and ensure achievement of and adherence to the nationally accepted UKAS standards to ensure maintenance of the laboratory accreditation status.

Participate in and actively contribute to Genetic Technologist and laboratory staff team meeting.

Respond effectively to e-mail and telephone enquiries in a confidential and timely manner.

## ANALYTICAL/JUDGEMENTAL SKILLS

Responsible for checking complex data generated by Associate Genetic Technologists.

Use and maintain specialist molecular genetic software programmes (e.g. SoftGenetics Mutation Surveyor and GeneMarker, and Sequence Analysis) for analysing data, and use of bioinformatic tools (e.g. Alamut and internet resources) to collate information to aid interpretation of results.

Responsible for drafting clinical patient reports for genomic analyses.

Responsible for development, validation and implementation of new tests and techniques, working with relevant staff within the laboratory.

Ensuring all technical processes include the appropriate barcode checks and documentation to record the complete audit trail and meet the requirements for UKAS (ISO15189) accreditation.

Supporting the troubleshooting of technical processes in the laboratory.

Participate in internal audit programme to ensure continuous quality improvement of services.

Strive to maintain and improve accuracy, robustness and quality of methodology, automation, lab processes, data analysis and data management pipelines at all times.

To participate in accurate, thorough and effective incident reporting and investigation, and contribute to improvement measures identified in action plans using DATIX web.

## PLANNING/ORGANISATIONAL SKILLS

Provides specialist clinical technical service through analysis of genomic test results.

Monitor own performance and undertake an appropriate proportion of the workload.

Responsible for time management of multiple tasks by planning, managing and organising own workload, to meet priorities and ensure timely delivery of molecular genetic reports.

Support the processing and testing of biological specimens, as appropriate, to ensure service continuity.

Take a flexible approach in supporting colleagues during times of caseload pressures.

## PATIENT/CLIENT CARE

Provide specialist clinical technical service through genomic testing and analysis of test results.

Provide specialist technical advice to scientific staff to support genomic testing and development of services.

To always work within clearly defined accountability framework.

Provide clinical technical competence developed through continual professional development, reflective practice and maintain a skills portfolio relevant to the service specification.

To report any untoward incidents or complaints to the appropriate Technical or Scientific Lead within the appropriate timescales.

To prevent adverse effects on health and wellbeing.

Take an active role in maintaining high quality standards to ensure patient care and safety.

## POLICY/SERVICE DEVELOPMENT

Support the development, implementation and review of Standard Operating Procedures with input to developing new protocols.

Active participation in quality improvement and internal and external Quality Assurance schemes to ensure the highest standards of molecular genetic testing.

To contribute to and work within a safe working environment by adhering to statutory requirements, codes of practice, Health and Safety and COSHH regulations, protocols and policies of the laboratory.

## FINANCIAL/PHYSICAL RESOURCES

Support the efficient use of resources.

Ensure safe and efficient use of stock and equipment.

Ensure equipment is checked appropriately.

Report any equipment defects.

Demonstrate and instruct the use of equipment to ensure safety.

Support stock control and ordering of reagents for laboratory processes to ensure service continuity.

## HUMAN RESOURCES

Training of other technical staff, placement and work experience students, and visitors in molecular genetic testing methodologies and any other relevant subject area.

Demonstrate technical work and data analysis to students and visitors.

Participate in supervision and appraisal process, identifying own areas of development, & undertaking relevant activities to meet objectives set in Personal Development Plan.

Keep a record of own training and development, maintain a portfolio, working to sustain acquired competencies for the post.

Presentations to genomic laboratory diagnostic and research staff at bi-monthly training sessions.

Demonstrate a professional and responsible manner at all times.

To undertake training to develop a range of knowledge and skills in order to deliver high quality technical interventions.

## INFORMATION RESOURCES

Use of pathology and genomics laboratory computer systems for management of workload, data entry and reporting results in order to provide an efficient and accurate service to users. The highest level of accuracy is required to minimise clinical risk (e.g. an incorrect result due to a sample mix-up that results in unnecessary surgery or a missed diagnosis).

Use of specialist molecular genetic software programmes (e.g. SoftGenetics Mutation Surveyor and GeneMarker, and Sequence Analysis) for analysing data, and use of bioinformatic tools (e.g. Alamut and internet resources) to collate information to aid interpretation of results.

Support the validation of software programmes and tools used for the analysis of genomic data.

Draft clinical patient reports for genomic test results.

## RESEARCH AND DEVELOPMENT

Participate in internal audit and quality improvement programmes to ensure continuous quality improvement of services.

Assist with any data collection and process reviews required for audits and quality improvement activities.

Undertake complex data analysis and reporting tasks for research studies when required.

Undertake timely examination audits to establish, and periodically assess, the competence of self and colleagues to perform relevant tasks, as necessary.

Active participation in both internal and external Quality Assurance schemes to ensure the highest standards of molecular genetic testing.

## PHYSICAL SKILLS

Manual dexterity and hand-eye co-ordination with speed and accuracy when using laboratory equipment. Manipulation of tools, tubes, pipettes and complicated apparatus is required. Working rapidly at busy times.

Using IT equipment and working with high levels of accuracy.

Ability to work in an efficient manner to enable timely completion of tasks.

## PHYSICAL EFFORT

Sitting or standing in a restricted position for frequent periods.

Occasional repetitive movements processing samples.

Occasional bending and lifting of supplies and use of trolleys.

Using IT equipment on a daily basis whilst seated in a restricted position.

Occasionally expected to travel offsite to regional and national meetings.

## MENTAL EFFORT

Required to concentrate for long periods at technically demanding procedures.

Frequent interruptions to work patterns, with requirement to shift focus quickly in response to frequent urgent incoming requests from internal and external colleagues.

Frequent need to complete work to tight timescales.

## EMOTIONAL EFFORT

Ability to cope with distressing clinical information provided with patient referrals occasionally.

Ability to cope and deal with areas of conflict, rarely.

## WORKING CONDITIONS

Frequent daily use of Visual Display Unit (VDU).

Frequent contact with laboratory specimens e.g. blood, saliva, urine and tissue.

## OTHER RESPONSIBILITIES

Take part in regular performance appraisal.

Undertake any training required in order to maintain competency including mandatory training, e.g. Manual Handling

Contribute to and work within a safe working environment

You are expected to comply with Trust Infection Control Policies and conduct him/herself at all times in such a manner as to minimise the risk of healthcare associated infection

As an employee of the Trust, it is a contractual duty that you abide by any relevant code of professional conduct and/or practice applicable to you. A breach of this requirement may result in action being taken against you (in accordance with the Trust's disciplinary policy) up to and including dismissal.

You must also take responsibility for your workplace health and wellbeing:

- When required, gain support from Occupational Health, Human Resources or other sources.
- Familiarise yourself with the health and wellbeing support available from policies and/or Occupational Health.
- Follow the Trust's health and wellbeing vision of healthy body, healthy mind, healthy you.
- Undertake a Display Screen Equipment assessment (DES) if appropriate to role.

## GENERAL

This is a description of the job as it is now. We periodically examine employees' job descriptions and update them to ensure that they reflect the job as it is then being performed, or to incorporate any changes being proposed. This procedure is conducted by the manager in consultation with the jobholder. You will, therefore, be expected to participate fully in such discussions. We aim to reach agreement on reasonable changes, but if agreement is not possible, we reserve the right to insist on changes to your job description after consultation with you.

Everyone within the Trust has a responsibility for, and is committed to, safeguarding and promoting the welfare of vulnerable adults, children and young people and for ensuring that they are protected from harm, ensuring that the Trusts Child Protection and Safeguarding Adult policies and procedures are promoted and adhered to by all members of staff.

At the Royal Devon, we are committed to reducing our carbon emissions and minimising the impact of healthcare on the environment, as outlined in our Green Plan available on our website. We actively promote sustainable practices and encourage colleagues to explore and implement greener ways of working within their roles.

# PERSON SPECIFICATION

| **Job Title** | Genetic Technologist |
|---|---|

| Requirements | Essential | Desirable |
|---|---|---|
| **QUALIFICATION/ SPECIAL TRAINING** | | |
| BSc (Hons) in Genetics or a Biological Discipline with a significant genetics component (first or second class), or equivalent. | ✓ | |
| Registration with relevant professional body | | ✓ |
| Higher degree (MSc, MPhil or PhD) in Genomics | | ✓ |
| **KNOWLEDGE/SKILLS** | | |
| Knowledge of theoretical and practical aspects of human clinical molecular genetic diagnostic tests for rare disorders. | ✓ | |
| Advanced practical molecular genetics skills as applied to diagnosing human molecular genetic disorders, including proven experience of the design, optimisation and troubleshooting of PCR, real-time PCR, MLPA assays, Sanger sequencing and next generation sequencing. | ✓ | |
| Ability to analyse and interpret complex scientific data | ✓ | |
| Ability to plan and organise own workload by multi-tasking of complex procedures and ensuring prioritisation of urgent samples. | ✓ | |
| Knowledge of Health and Safety, quality management and ISO15189 requirements in a laboratory environment. | ✓ | |
| Excellent verbal and written communication skills. | ✓ | |
| Excellent organisational skills. | ✓ | |
| Comprehensive PC skills | ✓ | |
| Experience with laboratory information management systems. | ✓ | |
| Understanding of patient confidentiality issues. | ✓ | |
| Able to present data effectively at departmental meetings. | ✓ | |
| **EXPERIENCE** | | |
| Proven experience of working in a diagnostic genomics laboratory. | ✓ | |
| Experience of drafting clinical diagnostic reports | | ✓ |
| Experience of dealing with telephone enquiries in a courteous and informed manner. | ✓ | |
| Experience of laboratory supervisory work. | | ✓ |
| **PERSONAL ATTRIBUTES** | | |
| Collaborative and effective contributor to team working. | ✓ | |
| Self-motivated with a proactive approach to work. | ✓ | |
| Able to communicate effectively both verbally, by e-mail and by appropriate documentation. | ✓ | |
| Meticulous attention to detail. | ✓ | |
| Excellent interpersonal skills. | ✓ | |
| Ability to promote and good communication and working liaisons with staff at all levels. | | |
| Able to concentrate for long periods of time and work under pressure. | ✓ | |
| Able to remain calm, professional, able to concentrate at all times and work under pressure. | ✓ | |
| Enthusiastic, motivated and committed to developing a service. | ✓ | |
| Ability to work on own initiative and as part of a wider team. | ✓ | |
| Adhere to confidentiality and data protection requirements. | ✓ | |
| A proactive approach to change. | ✓ | |
| **OTHER REQUIREMENTS** | | |
| The post holder must demonstrate a positive commitment to uphold diversity and equality policies approved by the Trust. | ✓ | |
| Flexibility in approach towards working hours. | ✓ | |
| Ability to travel to other locations as required. | ✓ | |

| WORKING CONDITIONS/HAZARDS | | FREQUENCY (Rare/ Occasional/ Moderate/ Frequent) R | O | M | F |
|---|---|---|---|---|---|
| | | | | | |
| **Hazards/ Risks requiring Immunisation Screening** | | | | | |
| Laboratory specimens | Y | | | | X |
| Contact with patients | N | | | | |
| Exposure Prone Procedures | N | | | | |
| Blood/body fluids | N | | | | |
| | | | | | |
| **Hazard/Risks requiring Respiratory Health Surveillance** | | | | | |
| Solvents (e.g. toluene, xylene, white spirit, acetone, formaldehyde and ethyl acetate) | N | | | | |
| Respiratory sensitisers (e.g isocyanates) | N | | | | |
| Chlorine based cleaning solutions (e.g. Chlorclean, Actichlor, Tristel) | N | | | | |
| Animals | N | | | | |
| Cytotoxic drugs | N | | | | |
| | | | | | |
| **Risks requiring Other Health Surveillance** | | | | | |
| Radiation (>6mSv) | N | | | | |
| Laser (Class 3R, 3B, 4) | N | | | | |
| Dusty environment (>4mg/m3) | N | | | | |
| Noise (over 80dBA) | N | | | | |
| Hand held vibration tools (=>2.5 m/s2) | N | | | | |
| | | | | | |
| **Other General Hazards/ Risks** | | | | | |
| VDU use ( > 1 hour daily) | Y | | | | X |
| Heavy manual handling (>10kg) | N | | | | |
| Driving | N | | | | |
| Food handling | N | | | | |
| Night working | N | | | | |
| Electrical work | N | | | | |
| Physical Effort | N | | | | |
| Mental Effort | Y | | | | X |
| Emotional Effort | Y | X | | | |
| Working in isolation | N | | | | |
| Challenging behaviour | Y | X | | | |