**Job Description**

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| 1. **JOB IDENTIFICATION**

**SC06-2016-LAB-B5aN** | Job Title | **Healthcare Science Practitioner** |
| Department(s)/Location | **HMFUS/Ninewells** |
| Number of Job Holders | **1** |
| 1. **JOB PURPOSE**

Healthcare Science Practitioners within the Hydatidiform Mole Follow-Up Service (HMFUS) Scotland are responsible for undertaking testing procedures related to the diagnosis and follow-up of women in Scotland suspected, or diagnosed with molar pregnancy or gestational trophoblastic diseases (GTD). They will utilise broad theoretical and practical knowledge to perform laboratory procedures, interpreting data and compiling reports for authorisation. They will contribute to the production and manufacture of CE-marked diagnostic devices used in the service and which are provided to the rest of the UK Hydatidiform Mole Service. The post-holder will work closely with a Senior Healthcare Science Practitioner, providing support to the Clinical Scientist to ensure that the technical and production workload of the Service is undertaken in a timely and efficient manner. They will participate in validating new procedures and equipment and provide technical and scientific advice as required. It is anticipated the post will require supervisory skills to direct the activities of more junior staff, where available.  |
| 1. **ORGANISATIONAL POSITION**

Organisational summary of the Hydatidiform Mole Follow-Up Service (HMFUS) Laboratory **Organisational chart.jpg** |
| 1. **SCOPE AND RANGE**
* Provides technical and scientific expertise across a range of gestational trophoblastic disease (GTD) disorders.
* Uses a broad range of theoretical, practical and technical knowledge that is often specialised.
* Applies theoretical and practical knowledge and experience to solve often complex problems.
* Plans and manages their own workload in response to the demands of the Service.
* Plans and undertakes a range of routine and complex tests using standard operating procedures.
* Analyses and records complex test results (flow cytometry, radioimmuno assays) and makes decisions about the quality of results.
* Manages and uses highly complex laboratory equipment and reagents and may be responsible for training others.
* Plans and undertakes manufacture of CE-marked diagnostic devices.
* Suggests, develops and implements new procedures and equipment in collaboration with more senior technical colleagues.
* Regularly assists in research and development projects.
* Plans and undertakes troubleshooting and process optimisation in collaboration with more senior technical colleagues.
* Reports routine diagnostic results specific to GTD disorders.
* Checks quality and manufacturing processes are within product control procedures.
* May check and authorise a defined subset of results when deemed competent.
* Complies with and helps implement regulatory guidance, policies and standards within the Service.
* May provide basic supervision and support to more junior members of the team.
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| 1. **MAIN DUTIES/RESPONSIBILITIES**

The main duties of the post-holder are: * Ensure that the laboratory testing workload is delivered to meet reporting times for patient results.
* Plan their own workload and may help supervise the work of more junior staff.
* Work in close collaboration with the Senior Healthcare Practitioner and Clinical Scientist.
* Communicate and collaborate with the Clinical and Assistant Clinical Coordinators to ensure that patients are enrolled for appropriate follow-up and/or chemotherapy.
* Participate in rotas and work allocation to ensure that there is sufficient Technical staff for the Service.
* Maintain computerised records of analyses undertaken and the results of investigations using the laboratory database.
* Access appropriate software and databases to facilitate data analysis.
* Work safely with toxic substances hazardous to health (including radioactivity) and help promote safe working practices within the Service.
* Maintain an accurate record of all work undertaken and preserve the confidentiality of the patient and any associated clinical information.
* Compile results for patient reports for a range of GTD related disorders.
* Check and report results for routine follow-up samples once deemed competent.
* Undertake rotation into all areas of Service as required.
* Maintain service and oversee the use of highly specialised and expensive laboratory equipment used in diagnostic testing.
* Provide detailed technical advice on the correct and appropriate use of laboratory equipment.
* Liaise with representatives from suppliers of laboratory equipment and reagents.
* Plan and undertake troubleshooting to rectify technical problems with equipment or processes in collaboration with the Senior laboratory staff.
* Regularly assist in research and development activities.
* Provide scientific and technical advice to other healthcare science colleagues.
* Collaborate with members of the UK-wide Hydatidiform Mole Follow-Up Service.
* Participate in ongoing work with industrial and academic institutions.
* Participate in audit and QC activity in collaboration with the Quality Manager.
* Write and review Standard Operating Procedures as directed by the Quality Manager.
* Take part in Continuing Professional Development activities (e.g. attending directorate seminars, journal clubs, attending local/national meetings and conferences, periodic literature reviews and hospital training sessions) to acquire new knowledge and skills for service and personal development.
* Follow Health and Safety and COSHH regulations, protocols and policies of the laboratory.
* Undertake further training as directed by the Clinical Scientist that meets the requirements of the Service.

**Induction Standards & Code of Conduct**Your performance must comply with the national “Mandatory Induction Standards for Healthcare Support Workers 2009” and with the Code of Conduct for Healthcare Support Workers. |
| 1. **COMMUNICATIONS AND RELATIONSHIPS**

**Internal Communications**In the course of their job, the post-holder will:* Communicate and liaise with other technical and scientific colleagues within HMFUS and other laboratory disciplines eg Pathology, Blood Sciences, Immunology, Nuclear Medicine and Genetics.
* Communicate with clinicians and other healthcare professionals concerning sample details and technical requirements. There may be barriers to understanding where the healthcare professional does not comprehend detailed technical issues.
* Provide detailed technical advice to colleagues in other laboratory disciplines.
* Liaise with the Quality Manager in all issues relating to quality, audit and accreditation.
* Undertake appropriate training of laboratory colleagues.
* Present complex data and information at internal and external meetings as part of continuing professional development (CPD).
* Participate in regular Personal Development Review, including identification of own development needs and record own CPD activity.

**External Communications**In the course of their job, the post-holder may:* Communicate with colleagues from laboratories out-with NHS Tayside regarding detailed technical issues.
* Communicate with colleagues from the UK Hydatidiform Mole Service.
* Meet with company representatives to discuss technical issues associated with laboratory reagents and equipment.
* Deal with enquiries from users in a range of technical issues.
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| 1. **KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE**

 **JOB****Essential*** Honours degree in an appropriate biological science (for example having covered biology, genetics, cell biology, molecular biology or biochemistry as components of the degree).
* Ability to perform and record all work within the laboratory in a careful and meticulous manner.
* Ability to work both as an effective team member and on own to deliver an effective diagnostic service.
* Must adhere to all laboratory Standard Operating procedures.
* Must adhere to all laboratory Health and Safety and COSHH regulations including the use of personal protective equipment.
* Must maintain patient confidentiality at all times outside the workplace
* Good IT skills.

**Desirable*** Knowledge of standard analytic techniques used in radio-immunoassay (RIA), ELISA, flow cytometry, genetics and pathology.
* Experience of supervising.
* Experience of protein purification and assay development
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| 1. **SYSTEMS AND EQUIPMENT**
* A Personal Computer is used to access NHS Tayside IT systems, email and the LIMS. Access to specific analysis and Quality Management software will also be via a PC.
* Standard laboratory equipment including manual and automatic pipettes, multi-channel pipettes, heated blocks, incubators, laboratory balances and a water purification system.
* Fluorescent activated cell sorter (FACS) platforms and software.
* Complex instruments for laser-microdissection of FFPE (formalin fixed paraffin embedded) samples.
* FPLC platforms and software for protein purification.
* SDS-PAGE and Western Blotting equipment.
* Gamma scintillation counter and software.
* Microtome equipment and slides for processing FFPE samples.
* Robotic workstations for medium-throughput processing of multi-well ELISA plates
* Biological safety cabinets for the safe handling of radioactive material.
* Fume cabinets for containment of potentially hazardous chemicals.
* Laboratory centrifuges used in the preparation and testing of patient samples.
* Photocopiers and scanners to duplicate documentation.
* Telephone for communication both internally and externally

**Responsibility for Records Management**All records created in the course of the business of NHS Tayside are corporate records and are public records under the terms of the Public Records (Scotland) Act 2011. This includes email messages and other electronic records. It is your responsibility to ensure that you keep appropriate records of your work in NHS Tayside and manage those records in keeping with the NHS Tayside Records Management Policy and with any guidance produced by NHS Tayside specific to your employment. |
| 1. **PHYSICAL DEMANDS OF THE JOB**
* The job demands a high degree of manual dexterity in order to process patient samples or manipulate small reagent tubes and vials.
* Safe and accurate handling of radioactive material and disposal of radioactive waste.
* A high degree of manual dexterity is required for laser micro-dissection of FFPE samples.
* Accurate keyboard skills are required to enter test results onto the laboratory database. This can often involve sitting for prolonged periods of time at a PC using interpretation software.
* During the manufacture of radioactive products the post-holder may be required to work within a fume cabinet using PPE including mask and gown.
* During the processing of FFPE samples for ploidy analysis, the post-holder may require prolonged periods cutting FFPE blocks using a microtome.
* The postholder will frequently spend periods of time standing at the laboratory bench when setting up reactions and processing samples.
* Manual handling is often required as part of the job particularly when maintaining equipment and transporting radioactive waste for disposal, or collection of radio-isotope from other departments.
* Daily handling of biological and radioactive material with appropriate use of personal protective equipment
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| 1. **DECISIONS AND JUDGEMENTS**
* The Healthcare Science Practitioner and Senior Healthcare Science Practitioner will plan and prioritise their daily workload based on clinical priority, deciding when to seek advice from the Clinical Scientist.
* Decide whether acceptable quality standards required by the diagnostic laboratory are met and when to consult a more senior colleague.
* Undertake routine biochemical and genetic testing as part of a laboratory team
* Participate in the manufacture of CE-marked radio-iodinated product for distribution to the UK Hydatidiform Mole Service
* Decide whether the results of tests are of an acceptable quality for reporting and when to request a repeat test.
* Decide when the manufacture of CE-marked products are of an acceptable quality for distribution.
* The post holder will formulate plans to investigate and rectify any problems with technical procedures or items of equipment and know when to consult a more senior colleague.
* Understand the limits of their own responsibility and when to consult a more senior colleague.
* Undertake the routine maintenance and calibration of major items of equipment in the laboratory in order to comply with accreditation standards. The post-holder may have to liaise with service engineers and company representatives in order to deal with any problems encountered. Any new items of equipment are purchased in discussion with the Clinical Scientist, Consultant Clinical Scientist, and Clinical Director.
* Undertake negotiations with company representatives to secure the best prices for laboratory reagents, consumables and equipment.
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| 1. **MOST CHALLENGING/DIFFICULT PARTS OF THE JOB**
* The post-holder is responsible for diagnostic and routine follow-up workload and must therefore work to very demanding time-scales to deal with referred samples.
* Production of CE-marked radioactive product is performed according to a pre-determined schedule and the post-holder must therefore work to time-scale to ensure customers receive the product in a timely manner.
* Accuracy and care are of paramount importance and thus the post-holder is always aware that a simple error could have huge clinical implications, for example the wrong diagnosis of molar pregnancy may lead to the wrong follow-up schedule, or inaccurate RIA results could lead to unnecessary chemotherapy.
* A diagnosis of molar pregnancy may provide distressing results to patients and their families. These results must be handled sensitively and with the utmost regard for patient confidentiality.
* Despite a continually increasing practical workload, the post-holder must also increase their scientific and technical knowledge in order to participate in the development of the service and provide the most up-to-date information for other healthcare professionals. When time is short, this can prove very difficult, but is vital not only for the service but also for the continued professional development of the post-holder.
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| 1. **JOB DESCRIPTION AGREEMENT**

A separate job description will need to be signed off by each postholder to whom the job description applies. |
| **Job Holder’s Signature:** | **Date:** |
| **Head of Department’s Signature:** | **Date:** |