

Candidate Information

Position:	Technician
School/Department:	Wellcome-Wolfson Inst for Experimental Medicine
Reference:	21/109225
Closing Date:	Monday 11 October 2021
Salary:	£21,686 - £24,174 pro rata per annum
Anticipated Interview Date:	Monday 25 October 2021
Duration:	6 months Fixed Term Contract

JOB PURPOSE:

To provide laboratory support for the COVID-19 Genomics UK (COG-UK) consortium team within QUB. The COG-UK consortium has been created to deliver large-scale and rapid whole-genome SARS-CoV-2 virus sequencing to local NHS centres and the UK government. QUB is one of twelve academic partners providing sequencing and analysis capacity to the consortium, which also comprises NHS organisations, the four Public Health Agencies of the UK and the Wellcome Sanger Institute.

The role will involve practical laboratory work amplifying SARS-CoV-2 genomes and preparation of libraries for next generation sequencing. This will involve working closely with the QUB Genomics CTU who will provide access to the required technology platforms including an Echo liquid handler and Illumina and Oxford nanopore sequencers. In addition to gaining experience with cutting-edge molecular genetic techniques there will be the opportunity to assist with innovation and development of more effective protocols.

MAJOR DUTIES:

1. Amplification of SARS-CoV-2 genomes and preparation of libraries for next generation sequencing. This will primarily involve a miniaturised NexteraXT Illumina protocol implemented on the Echo liquid handler, but also protocols developed by the ARTIC consortium for sequencing on the Oxford Nanopore minION or GridION systems.
2. When required, contribute to the development and validation of new or improved methods/techniques and instrumentation to perform whole genome sequencing of SARS-CoV-2 based on technical knowledge and experience. Keep up-to-date with relevant scientific and technical developments.
3. Complete all training required to work embedded within the Genomics CTU, including competence with robotic systems, the Echo liquid handler and Illumina MiSeq and Oxford nanopore GridION sequencers.
4. Support the PI in day-to-day operation of the COG team and assist in the preparation of project progress reports to external bodies.
5. Liaise with Randox Laboratories, the Belfast Health and Social Care Trust (BHSCT) and Public Health Agency (PHA) regarding delivery of samples and dissemination of sequencing results.
6. To observe and comply with all University policies and regulations, including Health and Safety, procedures. Perform risk assessments of research activities and development of SOPs.
7. Maintain quality control throughout pipelines, supported by meticulous records. Assist with stock management.
8. Present regular progress reports on samples processed to members of the group. Prepare information, as required by supervisor, to be used in reports for use by the local public health agency and in material for publication in national and international journals and presentations at international conference.
9. Participate in local research-related activities such as journal clubs, training sessions, seminar series etc.
10. Additional research and/or laboratory related duties including outreach activities, within the general range of the post and competence of post holder.

Planning and Organising:

1. Plan own day-to-day activity within framework of the agreed programme as well as communal activities (e.g. meetings) where appropriate.

2. Carry out, with minimal supervision, a range of tasks largely according to established procedures.
3. Ensure reagents, consumables and equipment are available for experiments.
4. Coordinate and liaise with other members of the COG-UK group regarding work progress and data management.

Resource Management Responsibilities:

1. Take delegated responsibility for the maintenance and repair of scientific equipment within a delegated budget.
2. Carry out training for users of established protocols.

Internal and External Relationships:

1. Liaise on a regular basis with supervisor, colleagues, staff in the Genomics CTU and partners in the COG consortium.
2. Communicate appropriately and effectively with lab colleagues topics such as effectiveness of current pipelines and research findings/results within the group and field.
3. Attendance and involvement at seminars and research meetings.
4. Contribute to the School/Centre outreach programme.

ESSENTIAL CRITERIA:

1. Academic and or vocational qualifications i.e. OND/ONC and/or NVQ level 3 or equivalent in biology, medical laboratory sciences or related subject.
2. 2 years relevant work experience including both hands-on laboratory experience of, and time spent studying molecular biology, such as nucleic acid extraction, RT-PCR, DNA sequencing.
3. Demonstrable experience in carrying out practical laboratory tasks to a consistently high standard.
4. Proficient and confident in the use of IT.
5. Excellent record keeping with attention to detail and proven ability to provide reports on project progress.
6. Competent in the use and care of a range of laboratory equipment and processes.
7. Knowledge of relevant Health and Safety issues and COSHH regulations.
8. Well-developed analytical and problem solving capability.
9. Good interpersonal and communication (verbal and written) skills.
10. Ability to work from own initiative.
11. Excellent team working skills in multiple internal and external team settings.
12. Occasional work outside normal hours as required.

DESIRABLE CRITERIA:

1. Experience of preparation of libraries for next generation sequencing (NGS).
2. Experience in a Core Technology/Service laboratory.
3. Experience in good laboratory practice environment.
4. Well-developed understanding of Good Laboratory Practice.
5. Bioinformatics skills for evaluation of NGS data.