JOB DESCRIPTION & PERSON SPECIFICATION

1. Job title: Techician- Molecular Microbiology **Centre:** CCR 30 **Group:** Technical
Location: HQ

Reports to (Job title)**:** **Line Manages** (Job titles)**:**

2. Main purpose of role:

NIAB is the UK's fastest growing crop science organisation, with rapidly expanding research capabilities in plant genetics, agronomy, farming systems and data science, the largest national field trials capability, and strong research links with industry, Government and academia. With headquarters in Cambridge, and regional offices across the country, employing around 400 people across the UK, NIAB provides scientific research, technical services and practical advice to improve the yield, efficiency and resilience of crop production across the arable, forage and horticulture sectors.

We are looking for a Laboratory Technician to work within the Pathology Department assisting with a BBSRC research project within the Cambridge Crop Research Unit laboratories at NIAB.

The job will require a varied skill set and be split between field/glass work and the laboratory. Molecular work will include DNA extractions, PCR, qPCR, various cloning techniques and DNA sequencing library preparations. Microbiology work will involve isolation, identification and subculture of microorganisms. In the field, assistance will be required for plant phenotyping, pathology experiments and sampling of microorganisms from commercial orchards.

The candidate must have a BSc in science or equivalent qualification. The successful applicant must be prepared to work flexibly to meet seasonal workloads with occasional weekend work (and occasional unsocial hours), have an interest in molecular biology and a full driving licence as field visits may be required.

Key areas of the job

1. General microbiological work including culture of microorganisms, preparation of growth media and dilution plating
2. Performing DNA/RNA extractions, PCR, qPCR and sequencing library preparation
3. Completing all stages of bacterial transformations to generate bacterial mutants
4. Pathogenicity testing of bacterial strains on different plant tissues, including inoculations and re-isolations,disease scoring
5. Regular data input
6. Phenotyping of plant traits

NIAB is committed to equal opportunity and gender balance and is also recognised by the commitment to work with international partners as evidenced by the number of Newton and GCRF current projects on global staple crops.

3. Financial authority/responsibility (e.g. delegated budget, authorisation level, approx value of contracts etc**):**

4. Key relationships (external and internal)**:**

Tasks/responsibilities (in order of priority)	Approx % of time
General microbiology and culturing	20
DNA extraction, PCR, library preparation	20
Completing all stages of bacterial transformations to generate bacterial mutants	20
Pathogenicity testing of bacterial strains on different plant tissues, including inoculations and re-isolations,disease scoring	20
Regular data input	10
Phenotyping of plant traits and visiting sample sites	10

6. Working conditions :

Role will include working in the office, lab and field. Flexible, agile working is required. Travelling where necessary to represent NIAB nationally and internationally is of great importance as is the requirement to work to short deadlines and with variable workloads.

7. PERSON SPECIFICATION

Education/Qualifications:

Essential:	Desirable:
A levels and degree in a science subject	

Experience:

Essential:	Desirable:
• Experience of Windows and Microsoft Office • Experience in a laboratory environment • UK/EU driving licence	• A keen interest in molecular biology and knowledge of molecular techniques used in the laboratory. • Molecular biology and bacteriology experience

Specialist Training:

Essential:	Desirable:
• An interest in science and developing skills in molecular biology • Use of Microsoft Excel	

Personal Qualities (skills, behaviours and competencies)

Essential:	Desirable:
• Good communication skills (excellent spoken English) and good written English. • Teamwork • Ability to work independently and follow standard operating procedure. • Determination and ability to focus on repetitive tasks	

Date of description: July 2020 **Compiled by:** Richard Harrison