JOB DESCRIPTION & PERSON SPECIFICATION

1. Job title: **Research PDRA** **Centre:** G&B **Job Group:** Specialist
Location: HQ

Reports to (Job title)**:** Eric Ober **Line Manages** (Job titles)**: none**

2. Main purpose of role: To deliver on research objectives of the IWYP Root project, which involves phenotyping root system architectural traits in spring and winter wheat at the seedling level and in field trials. Emphasis is on QTL discovery/validation, genetic marker development and generation of novel germplasm through backcrossing to elite lines.

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

Authority to spend on consumables for project.

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

Work together with other members of Genetics and Breeding Department on related topics, and across NIAB. Work closely with PhD student Emily Marr in our group. Collaborate and interact with external project partners.

Tasks/responsibilities (in order of priority)	Approx % of time
Perform glasshouse experiments-screening seedling root traits in genetic populations	25
Perform field experiments-measuring root traits in panel of wheat lines; making crosses	25
Organise and analyse data, and map QTLs	30
Contribute to writing project reports and papers	10
Contribute to project meetings and relevant scientific conferences	5
Contribute to writing follow-on grant proposals	5

6. Working conditions : Greenhouse, lab, and field work is required. Field trials entail physical work, sometimes under challenging weather conditions. Some after-hours work may be required on occasion. Work will involve international travel.

7. PERSON SPECIFICATION

Education/Qualifications:

Essential:	Desirable:
PhD in plant sciences, plant breeding or agronomy; full driving licence	

Experience:

Essential:	Desirable:
Experience with QTL mapping; standard molecular biology laboratory methods (DNA extraction, PCR, etc)	Hands-on experience working with root measurements; field trials and glasshouse experimentation; knowledge of husbandry, growth and development of wheat crops;

Specialist Training:

Essential:	Desirable:
Intermediate statistical methods	Quantitative genetics, bioinformatics, advanced statistical methods; R scripting; plant breeding and breeding techniques

Personal Qualities (skills, behaviours and competencies)

Essential:	Desirable:
Willingness to work outdoors in field trials and getting dirty; ability to supervise students, technicians; ability to work independently; can take initiative; can develop own ideas; team player; motivated; good communicator (written and oral); hard working; shows attention to detail; willingness to travel	

Date of description: 25/1/19	**Compiled by: Eric Ober**