

JOB DESCRIPTION & PERSON SPECIFICATION

1. Job title: iCASE PhD student	Centre: GB&E	Grade: n/a	Location: Bingham
Reports to: Dr Alison Bentley/Dr Keith Gardner		Line Manages (Job titles): n/a	

2. Main purpose of role:
 A PhD studentship has been funded through the University of Cambridge Doctoral Training Programme entitled “**Improving the milling and nutritional quality of UK wheat**”. This is an iCASE studentship in collaboration with the breeding company DSV United Kingdom Ltd. The project will investigate emerging genomics tools and techniques for their potential to target trait selection directly to quality and nutritional traits in wheat breeding. This will include field and lab-based wheat phenotyping (mostly at the DSV breeding station), quantitative genetics and genetic marker development. The partnership with DSV UK Ltd., an emerging wheat breeding company with a quality-driven market portfolio, will ensure relevance to breeding and will provide the student with state-of-the-art training opportunities, including at least two field seasons within a commercial breeding operation.

3. Financial authority/responsibility (e.g. delegated budget, authorisation level, approx value of contracts etc):
 Not applicable

4. Key relationships (external and internal):
 Internal: Dr Alison Bentley (co-supervisor), Dr Keith Gardner (co-supervisor), Dr James Cockram (advisor)
 External: Dr Matt Kerton (DSV UK Ltd primary supervisor), University of Cambridge DTP administration.

Tasks/responsibilities (in order of priority)	Approx % of time
Data analysis and interpretation	30
Field phenotyping	30
Quality lab-based phenotyping	25
Molecular biology	10
Outreach, dissemination, publications	5

6. Working conditions :

The students work will encompass a range of disciplines including field, glasshouse and laboratory working. Analysis will be desk-based outside of the peak field growing season. The student will spend at least 3 months (to a maximum of 18 months) at DSV UK Ltd. (Banbury) and will experience all elements of commercial wheat breeding including work in DSV's state-of-the-art quality testing laboratory.

7. PERSON SPECIFICATION**Education/Qualifications:**

Essential:	Desirable:
BSc in Biological Science	BSc in Plant Science MSc in Biological Science

Experience:

Essential:	Desirable:
Interest in plant science and crop breeding Knowledge of quantitative genetics Knowledge of molecular biology Willingness to work in a range of conditions, including field working	Experience working with cereal crops, particularly wheat Bioinformatics knowledge/willingness to learn

Specialist Training:

Essential:	Desirable:
Full driving licence	Knowledge of statistical analysis software packages

Personal Qualities (skills, behaviours and competencies)

Essential:	Desirable:
Interest in commercial crop breeding Ability to work independently Ability to work in a team Attention to detail Good record keeping Flexibility at peak times	Written communication skills

Date of description: 7th November 2017

Compiled by: Alison Bentley