

JOB DESCRIPTION & PERSON SPECIFICATION

1. Job title: PDRA Researcher in Bioinformatics **Centre:** Genetics & Breeding **Grade:** D **Location:** Cambridge

Reports to (Job title): Senior Scientist, Sarah Dyer **Line Manages** (Job titles): N/A

2. Main purpose of role:

To deliver objectives of the GCRF proposal "Developing a natural variation platform for pest-resistant cassava breeding". The role will involve genome assembly using long and short read data, variant calling, and genome annotation for 100 accessions of cassava wild relatives from CIAT's global cassava collection. The post-holder will also prepare data for submission to public repositories and present the data in a genome browser.

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

4. Key relationships (external and internal):

NIAB Genetics and Breeding staff

CIAT researchers linked to this research

NIAB Faculty

Other scientists in Universities and Institutes globally

Tasks/responsibilities (in order of priority)	Approx % of time
To perform genome assembly integrating long read data with an existing assembly	25%
To perform variant calling for whole genome data for 100 accessions of cassava wild relatives	20%
To assemble unmapped reads and perform variant calling on novel contigs	20%
To perform genome annotation on the new assemblies, with a focus on R-genes	20%
To contribute to scientific publications	10%
To prepare data for submission to public repositories	5%

6. Working conditions : Office

7. PERSON SPECIFICATION

Education/Qualifications:

Essential:

Desirable:

PhD in Computer Science/Bioinformatics/Biology (or similar)	
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Experience:

Essential:	Desirable:
Experience analysing high throughput sequencing data Knowledge of a scripting language such as Python/Perl Experience working with variant calling, assembly or annotation pipelines	A publication record reflecting internationally competitive science.

Specialist Training:

Essential:	Desirable:
Bioinformatics experience	Knowledge of genetics

Personal Qualities (skills, behaviours and competencies)

Essential:	Desirable:
Independence Problem solving Team player Excellent notekeeping	

Date of description: 02.06.17**Compiled by:** S Dyer