

## JOB DESCRIPTION

Job Title:	Postdoctoral Research Assistant Molecular Seed Biology			
Department / Unit:	Biological Sciences, Prof Leubner's Seed Biology and Technology Group			
Job type	Full time, Fixed Term			
Staff Group	Research			
Grade:	RHUL <sub>7</sub>			
Accountable to:	Prof Gerhard Leubner			
Accountable for:	N/A			

#### Purpose of the Post

The purpose of the post is to conduct experimental research as Molecular Seed Biologist to deliver the project "MimicWeed - Morphological, hormonal and genomic mechanisms of seed dormancy, germination and seedling vigour in weedy crop grass mimics" (BBSRC-IPA project APP33678). The post holder is expected to produce independent, original contributions in as part of Royal Holloways Seed Biology and Technology team and in interaction with the collaboration partners.

### **Key Tasks**

- To conduct research, plan and carry out experiments so that the overall research
  objectives of the MimicWeed projet are met in close discussion, interaction and
  collaboration with the other researchers of Royal Holloways Seed Biology and
  Technology team, and the MimicWeed collaborators at Rothamsted Research,
  Syngenta (UK and USA) and the Laboratory of Growth Regulators (Olomouc, CZ).
- The main task for this post is to conduct the physiological, biophysical, and
  molecular experiments (bench work) as described in the project workplan, with a
  special focus on the seed screening assays for ABA and temperature responses, and
  the transcriptome experiments into secondary dormancy (including in silico
  analysis). For several of the experiments team work, discussion across disciplines
  and interaction with the project partners is required and expected.
- To maintain a permanent record of experimental data, to analyse and archive data generated from experiments on the groups network-disk and in the lab book for sharing them with the project team, all according to good laboratory practice and BBSRC guidelines.
- To contribute to organising project meetings to act as the project's data manager.
- To contribute to organisation, cleanness, and safety of the lab as appropriate and required by Fire and Health & Safety Regulations.

- To foster active collaborations with other groups where required, especially with Syngenta, Rothamsted Research and the hormone analytics group in Olomouc, CZ.
- The post-holder will contribute to, and promote, industrial interactions.
- To present research at national and international conferences and workshops, and to prepare and write project manuscripts for publication in recognised international journals.
- Limited supervision by PI and independent work are required, as well as liasing with the coinvestigators (Dr Tina Steinbrecher, Dr Cristina Garcia) and the project technician.
- To co-supervise of UG, PGR, and PhD students conducting project and/or related seed bench work in the laboratory. This refers to the techniques of the post holder's expertise.
- Any other duties or tasks as reasonable requested by the direct line manager or project manager or Co-I or PI or Head of Department that are commensurate with the grade.

The duties listed above are not exhaustive and may vary from time to time as dictated by the changing needs of the Seed Biology and Technology Group, Department, School and College. As the needs of the post evolve, the job profile, duties and location of the role may be adjusted accordingly to include other tasks as may reasonably be required.

#### Other Duties

The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the University. The post holder will be expected to undertake other duties as appropriate and as requested by their manager.

The post holder may be required to work at any of the locations at which the business of Royal Holloway is conducted.

## Internal and external relationships

The following list is not exhaustive, but the post holder will be required to liaise with:

# **PERSON SPECIFICATION**

Details on the qualifications, experience, skills, knowledge, and abilities that are needed to fulfil this role are set out below.

Job Title: Department:

	Essential	Desirable	<b>Tested by</b> Application
			Form/Interview/Test
Knowledge, Education, Qualifications and Training			
BSc/MSc or equivalent in Biological Sciences or equivalent	Х		Application form- Interview
PhD in relevant subject area (or near completion of - it is expected that the appointee will have their PhD awarded within 4 months of the start date).	Х		Application form- Interview
Several years training and experience in molecular seed/plant experimental research (bench work)	X		Application form- Interview
Expert in plant seed germination and dormancy research		Х	Application form- Interview
Skills and Abilities			
Good team interaction, communication, collaboration skills	Х		Application form- Interview
Ability to work independently and self-organised in bench work as well as a team member in a group and project consortium	×		Application form- Interview
Willingness to participate in lab-self-organisation / lab jobs	Х		Application form- Interview
Ability and willingness to collaborating with a company	X		Application form- Interview
Experience in supervision of students and technicians		Х	Application form- Interview
Interest in participating in outreach and impact activities		Х	Application form- Interview
Good written and oral English language skills	Х		Application form- Interview
Excellent oral presentations, e.g. at conferences		Х	Application form- Interview
Goal-oriented work style towards publications		Х	Application form- Interview
			c. view

Experience			
Evidence of good quality publication record in publications adequate to the career stage.		Х	Application form- Interview
Experience in plant molecular biology techniques (bench work)	Χ		Application form- Interview
Bench work with RNA and RT-qPCR from seeds/plants	Χ		Application form- Interview
Plant transcriptome (RNASeq) and sequencing experience	X		Application form- Interview
Quantitative experimental seed/plant stress physiology		Х	Application form- Interview
Experience with seed imaging (MSI, X-ray, microscopy)		Х	Application form- Interview
Experience with imaging and biophysical seed/plant analyses		Х	Application form- Interview
Experience in molecular work with non-model plants		Х	Application form- Interview
Experience with biophysical (biomechanics, permeability) assays		Х	Application form- Interview
Additional techniques useful for the project		Х	Application form- Interview
Other requirements			
Demonstrable commitment to the principles of equality, diversity, and inclusion (grade 6+).	Х		Application form- Interview
Ability to undertake the duties associated with the role which is not eligible for hybrid working	Х		Application form- Interview
If required perform experiments and duties out- of-hours to meet research deliverables and conduct	Х		Application form- Interview