

## **POSTDOCTORAL SCIENTIST WITH EXPERTISE IN PLANT MOLECULAR BIOLOGY**

The WHEATENHANCE project will bring together Irish and UK industrial and agency expertise in order to improve the yield and disease resistance of wheat. It will do so by a non-GM-based mutational breeding approach. The target for mutational breeding is the hormone receptor BRASSINOSTEROID INSENSITIVE 1 (BRI1). We want to use a technique known as TILLING (Targeting induced Local Lesions in Genomes) to screen for chemically-induced *BRI1* mutations in cereal germplasm. Thereafter, we will determine the effect of the *BRI1* mutation on the yield and broad-spectrum field performance of both wheat and barley. Based on this research we will have ensured there is no detrimental trade-off in breeding for brassinosteroid resistance, we will have determined the yield and disease control potential of such an approach, and we will have provided breeders with the basis of material for introgressing such a trait into their breeding lines. Preference will be given to candidates with experience in more than two of the following: cereal propagation, PCR design, TILLING and kinase analysis.

This is a research-focused role, where you will conduct a specified programme of research supported by research training and development under the supervision and direction of a Principal Investigator. The primary purpose of the role is to further develop your research skills and competences, including the processes of publication in peer-reviewed academic publications, the development of funding proposals, the mentorship of graduate students along with the opportunity to develop your skills in research led teaching.

**In addition to the Principal Duties and Responsibilities listed below, the successful candidate will also carry out the following duties specific to this project:**

- **Compile research reports for the funding body on a bi-annual basis.**
- Conduct a specified programme of research and scholarship under the supervision and direction of your Principal Investigator.
- Engage in appropriate training and professional development opportunities as required by your Principal Investigator, your School or Institute, or the University.
- Engage in the dissemination of the results of the research in which you are engaged as directed by and with the support of and under the supervision of your Principal Investigator.
- Engage in the wider research and scholarly activities of your research group, School and Institute.
- Mentor and assist, as appropriate and as directed, the research graduate students in your group, School and Institute.
- Carry out administrative work associated with your programme of research.
- 

The person will be based in UCD Dublin within the UCD Earth Institute and School of Biology and Environmental Science, but will spend short periods of time in the UK (Rothamsted Research, John Innes Centre and Limagrain).

**Mandatory criteria**

- **PhD in (plant molecular biology) with extensive experience of primer design and PCR analysis**
- A demonstrated commitment to research and publications
- An understanding of the operational requirements for a successful research project
- Excellent Communication Skills (Oral, Written , Presentation etc)
- Excellent Organisational and Administrative skills including a proven ability to work to deadlines

**Desirable criteria**

- **Experience in one or more of the following: cereal genomics, TILLING, kinase analyses**
- Experience in setting own research agenda

The PD1 position is intended for early stage researchers, either just after completion of a PhD or for someone entering a new area for the first time. If you have already completed your PD1 stage in UCD or will soon complete a PD1, or you are an external applicant whose total Postdoctoral experience, inclusive of the duration of the advertised post, would exceed 4 years, you should not apply and should refer to PD2 posts instead.

UCD offers a comprehensive **Research Careers Framework** in line with the Advisory Science Council Report '*Towards a Framework for Researcher Careers*'. This model provides a structured and supportive **Career and Skills Development** system designed to ensure that Post-docs in UCD are able to plan their careers and prepare for future opportunities in academia, industry or the public sector.

Applications and salary: please see UCD Human Resources

([https://hrportal.ucd.ie/pls/corehrrecruit/erq\\_search\\_package.search\\_form?p\\_company=1&p\\_internal\\_external=E](https://hrportal.ucd.ie/pls/corehrrecruit/erq_search_package.search_form?p_company=1&p_internal_external=E)) reference 006048 for details regarding salary and the application procedure: application deadline is 30<sup>th</sup> August 2013.