



**Professor J. M. Farrant**  
**Chair of Molecular Physiology**  
**Department of Molecular and Cell Biology**

Private Bag  
Rondebosch  
7701  
Tel: (021) 650-4496  
Fax: (021) 689-7573  
E. Mail: [jill.farrant@uct.ac.za](mailto:jill.farrant@uct.ac.za)

**PLANT STRESS GROUP – POSTDOCTORAL RESEARCH FELLOWSHIP**

**Purpose:**

The Plant Stress Group, under the leadership of Prof Jill Farrant aims to gain a comprehensive understanding of the mechanisms of desiccation tolerance in resurrection plants in order to ultimately apply this knowledge towards the production of drought tolerant crops. A multidisciplinary approach is utilized in which disciplines of molecular biology (for understanding of genes, proteins and metabolites associated with water loss, and their regulation) biochemistry/cell biology (for functional analysis of how protection is afforded and where it is located) and physiology/ecophysiology (to inform and contextualize responses). Key genes and processes identified are tested in the short term for efficacy in inducing drought tolerance in desiccation sensitive species (*Arabidopsis* and *Teff*). A key aspect of this research will be to interrogate some or all of the genomes of the 4 resurrection plants that have been sequenced or are in the process of being sequenced by the group, with the aim of characterizing key molecular responses associated with desiccation and recovery therefrom.

Applications are invited for the fellowship from suitably qualified individuals.

The successful applicant will be working with Prof Farrant in the Department of Molecular and Cell Biology and will be required to conduct research on molecular and physiological aspects of desiccation tolerance.

**Conditions:**

- Applicants must have completed their doctoral degrees within the last 5 years may not previously have held a permanent professional or academic post.
- No benefits or allowances are included in the Fellowship.
- As part of his/her professional development, the successful candidate may be required to participate in a limited capacity in departmental activities, such as teaching and student supervision.
- The successful applicant will be required to comply with the university's approved policies, procedures, and practises for the postdoctoral sector.

**Value and tenure:**

The value of the fellowship is R 200,000 tenable for 1 year, with options for extension for a further 1-3 years.

**Academic criteria:**

Applicants should have qualified with a doctoral degree covering aspects of plant molecular biology involving understanding of gene regulation, transcriptomics, proteomics and preference will be given to candidates who have a good working knowledge of bioinformatics and plant physiology. Knowledge of resurrection plant and seed biology will be a strong recommendation.

The successful applicant will be required to register as a Postdoctoral fellow at the University of Cape Town in January 2021.

**Application requirements:**

Applicants should submit a short description of their research interests, a CV including a publication list, copies of their academic transcripts, and email addresses of at least two references with whom the applicant has worked alongside, was taught by, or was supervised by.

**Selection process:**

Only eligible and complete applications will be considered by Prof. Jill Farrant.

**Closing date:**

Applications must be submitted by no later than **15 August, 2020**.



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Contact details for submission of applications and for enquiries please contact Keren Cooper at [keren.cooper@uct.ac.za](mailto:keren.cooper@uct.ac.za)

The University of Cape Town reserves the right to disqualify ineligible, incomplete and/or inappropriate applications. The University of Cape Town also reserves the right to change the conditions of the award or to make no awards at all.