

ANU-CSC (Australia National University and China Scholarship Council) joint PhD student

One or two PhD positions on molecular plant pathology with a focus on *Fusarium oxysporum*-tomato interaction are available in the group of Prof. David Jones at Australian National University. The candidates are required to apply for the CSC-Sponsored stipend and details see (<http://www.anu.edu.au/students/scholarships-support/anu-csc-scholarship>). The application deadline to ANU is **1st December 2016**. The PhD students will enroll into Graduate Research in Plant Sciences at Research School of Biology (<http://biology.anu.edu.au/education/degree-programs/graduate-research-plant>) that offers diverse training and research opportunities.

Requirements: Completed studies in Molecular plant pathology or Biology or Biochemistry (Master or equivalent Diploma). English language requirements: **IELTS: 6.5** with a minimum of **6** in each component or **TOEFL** paper-based: **570** with TWE: **4.5** or TOEFL-internet based test: **80** with **20** in reading and writing and **18** in speaking

Project description: The soil-borne vascular-wilt fungus *Fusarium oxysporum* is ranked fifth among the top ten most notorious fungal pathogens of crop plants because it combines the ability to cause severe yield losses with a wide host range, affecting diverse crops such as tomato, cotton, legumes, melons and banana (plantain). The interaction between tomato and *Fusarium oxysporum* f. sp. *lycopersici* (*Fol*) is serving as a powerful model system in which to study the molecular basis of resistance and susceptibility in plants against vascular-wilt. This project will discover how the tomato plant delivers effective resistance against *Fol* infection and how *Fol* manipulates tomato plants to cause infection in order to increase our understanding of the molecular mechanisms underlying *Fol* resistance and disease.

Work experience: Candidates should have a strong experimental background in molecular plant pathology or biology. Experience in RNA-sequencing is advantageous but not essential. Priority is given to the candidate who is familiar with basic bioinformatics or programming language, such as R or python.

Contact:

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Expected date to commence: 1-July-2017

Expected date to complete: 1-July-2020