Postdoctoral Fellow - Plant Biologist (epigenetics & reproduction)

- **Work in a leading scientific institution with dedicated professionals**
- **Offering outstanding career development and professional support**
- **Join CSIRO - Australia's premier science & technology research organisation.**

The Position:
The Postdoctoral Fellow will join a team with a strong track record studying sexual and asexual (apomictic) seed formation in plants. You will drive and carry out experiments to determine the role of small RNA pathways in mediating the switch between sexual and apomicti c seed formation in Hieracium (hawkweed sp). Use available apomictic mutants, transcriptomes, Hieracium molecular tools in conjunction with relevant Arabidopsis resources in a multidisciplinary approach to establish how an observed change in specific, small RNA classes functionally relates to the cellular events of apomixis initiation and coincident sexual suppression in ovules. Capitalize on collaborative links with two additional laboratories, one providing significant research capability in small RNA pathways and epigenetics, and the other in protein localization, interaction and three-dimensional structural modelling to maximize novel, high quality outcomes and publications.

Specifically you will:

- Develop with mentors an agreed project plan incorporating multidisciplinary approaches to investigate how small RNAs and epigenetic regulators function to control apomixis based on existing differential small and large RNA expression data in apomict and mutant Hieracium transcriptomes.
- Use appropriate tools to localize and developmentally interrogate involvement of small RNAs and relevant proteins in apomictic and sexual Hieracium plants (e.g. in situ, immuno-localizations, reporter protein fusions etc.). Utilize Arabidopsis tools as appropriate.
- Pull down of protein complexes to examine nature of complexes involved and the small RNAs they bind.
- Perform three-dimensional structural computational procedures (Modeller, AutoDock) with relevant proteins to understand their structural and functional relationships, using in silico methods.

Location: Urrbrae, Adelaide, SA
Salary: $78K - $85K plus up to 15.4% superannuation
Tenure: 36 month term
Reference: SA12/02871

To be successful in this position you will need:

- PhD (conferred within the last 3 years) in molecular biology, genetics, biochemistry or a relevant field enabling capacity to undertake described roles.
- Demonstrated track record of scientific innovation, ability to utilize multi-disciplinary approaches to address complex biological questions in plants.
- Demonstrated ability to introduce and/or utilize non-mainstream approaches to address biological questions.
- Candidates with an existing track record of research experience in functional characterization of small RNA pathways and epigenetic regulation in plants are preferred.
- The ability to begin project work at CSIRO before October 1, 2013.

Who we are: The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is one of the largest and most diverse scientific organisations in the world. By igniting the creative spirit of our people, we deliver great science and innovative solutions that benefit industry, society and the environment.

Our Business Unit: CSIRO Plant Industry conducts research to promote profitable and sustainable agrifood, fibre and horticultural industries, develop new plant products and improve natural resource management.

How to Apply: Applications should be lodged on-line via the CSIRO Careers portal at: http://www.csiro.au/careers

Applications Close: 24 February 2013