

Summary of Discovery Projects Proposals for Funding to Commence in 2010

Australian Capital Territory

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

DP1097256 Dr LG Barrett

Approved Project Title **The evolution and maintenance of specificity, mutualism and diversity in plant-soil microbe interactions**

2010 : \$ 80,182

2011 : \$ 80,182

2012 : \$ 80,182

Primary RFCD 2707 ECOLOGY AND EVOLUTION

APD Dr LG Barrett

Administering Organisation Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Project Summary

This research will significantly advance knowledge regarding the evolution of mutualisms between plant and soil microbes. Results will provide valuable data on the importance of below-ground microbial community structure to growth and productivity of an ecologically important component of the Australian flora (*Acacia* spp.), and contribute to the development of best ecosystem restoration practices. Furthermore, it will see the continued development of the *Acacia*-rhizobia system as a world-class model for exploring interactions between perennial legumes and microbial symbionts. The research also investigates the adaptability and potential for rapid evolution of critical elements of the soil microflora to environmental change.