Australian Government
Australian Research Council

Future Fellowships

South Australia

Some of the best and brightest SA researchers may develop ways to teach computers to 'see', create new contactless and high-speed sensors for medical screening of DNA, and better understand the impact of disturbed sleep on our health.

This varied research and more is being supported by a $10.4 million investment in 14 new SA research projects under the ARC *Future Fellowships* scheme**.** The funding is part of over $151.5 million being awarded to Australian universities for 209 new Future Fellowships, starting July 2012.

Some examples of the SA projects are provided below.

To view summaries of all funded projects and more information on the *Future Fellowships* funding scheme, visit the outcomes page of the ARC website.

Dr Chunhua Shen

Continuously learning to see (FT120100969)

The ultimate goal of computer vision is to make a machine able to understand the world through analysis of images or videos. The new machine learning techniques developed in this project will enable previously impossible methods of computer vision and help strengthen Australia's competitiveness in this important area.

$644,671
The University of Adelaide
Media contact: (08) 8313 0814

Associate Professor Peter Catcheside

Breathing disturbances and reflexes in sleep and effects on sleep and daytime function (FT120100510)

This project will investigate protective reflexes in sleep and the impact of breathing disturbances and frequent arousal on markers of brain functioning and health. This will also significantly advance the understanding of key mechanisms promoting unstable breathing in sleep and ill health and functioning from disturbed sleep.

$821,831
The Flinders University of South Australia
Media contact: (08) 8201 2965

Professor Derek Abbott

Advanced biosensing in the terahertz (THz) sub-wavelength regime (FT120100351)

This project will build on Australian excellence in photonics, exploiting the advanced use of T-rays for sensing of biological substances such as proteins and DNA. For the first time, this will enable contactless automated sensing for high-speed medical screening of diseases, a critical step toward the ultimate vision of customised medicine.

$931,168
The University of Adelaide
Media contact: (08) 8313 0814