

## South Australia

### The Flinders University of South Australia

**LP0775094** Prof MJ Lawson; Prof PT Slee; A/Prof LD Owens; Dr PK O'Toole; Dr KD Gregory; Dr H Askeell-Williams

**Approved Project Title** **Building the capabilities of school communities to improve their wellbeing**

**2007 :** \$ 68,000

**2008 :** \$ 65,000

**2009 :** \$ 65,000

**Primary RFCD** 3301 EDUCATION STUDIES

APA(I) Award(s): 1

#### **Collaborating/Partner Organisation(s)**

Department of Education and Children's Services

Blackwood High School

Aberfoyle Park High School

Christies Beach High School & Southern Vocational College

Flagstaff Hill School

Wallara District Office

**Administering Organisation** The Flinders University of South Australia

#### **Project Summary**

Wellbeing remains an issue for all education systems and for the nation. One indicator of this is that, on average, one in six Australian students experience affronts to their wellbeing through bullying or harassment at least once a week. Teacher wellbeing is also an issue of national importance as education systems face issues of teacher retention. This project will provide a model that can be used by other schools and educational systems for development of interventions that address wellbeing issues of social competence, learning and leadership for key groups in school communities.

**LP0775369** A/Prof KJ Reynolds; Prof H Owen; Mr P Williamson

**Approved Project Title** **ISim - a realistic intubation simulator using Virtual Reality technology**

**2007 :** \$ 70,000

**2008 :** \$ 65,000

**2009 :** \$ 60,000

**Primary RFCD** 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

APA(I) Award(s): 1

#### **Collaborating/Partner Organisation(s)**

Medical Realities Pty Ltd

**Administering Organisation** The Flinders University of South Australia

#### **Project Summary**

Simulation training has been adopted widely in aerospace, nuclear power and the military, but simulation in medicine has a relatively short history. This research will drive Australia to the forefront of the medical simulation industry. Effective management and treatment of patients is a priority in health care. Medical resources are required to ensure that staff are trained efficiently and effectively on critical medical procedures. The high growth of claims for medical accidents and the accompanying rise in medical insurance adds to the impetus for major hospitals to demonstrate they are using advanced methods for training. The community will benefit from better-trained medical staff, and a better standard of healthcare.

## Summary of Linkage Projects Proposals for Funding to Commence in 2007

**LP0775464** Dr NH Voelcker; A/Prof JG Shapter; A/Prof KJ Reynolds; Mr C Nicholls

**Approved Project Title** **Development of an implantable device to monitor lactate levels in blood: Monitoring the Performance of Australian athletes using Biosensor Technology**

**2007 :** \$ 90,000

**2008 :** \$ 85,000

**2009 :** \$ 80,000

**Primary RFCD** 2504 ANALYTICAL CHEMISTRY

### **Collaborating/Partner Organisation(s)**

Citech Holdings Pty Ltd

**Administering Organisation** The Flinders University of South Australia

### **Project Summary**

Sport is a critical area for social and economic investments. Novel medical monitoring systems using implantable biosensors will ensure optimal training programs for Australian athletes and maintain international competitiveness. Here we are developing a biosensor for real-time monitoring of lactate levels in athletes using frontier porous semiconductor technology and smart telemetry protocols to transfer the readings to a remote base unit. These highly innovative devices and the materials that they are made from have enormous commercial potential in biomedical engineering. There is a strong potential for Australia to have an important stake in this area by combining expertise in engineering, chemistry and nanostructured materials.