



**Australian Government**

**Department of Defence**  
Defence Science and  
Technology Organisation

# DSTO

## Graduate and Post-Graduate Opportunities

### Human, Social & Health Sciences

DSTO is looking for the best and brightest graduates and postgraduates with excellent academic achievement or experience in the following areas:

- ▶ **Bio-technology**
- ▶ **Physiology**
- ▶ **Biomechanics**
- ▶ **Operations/Simulation**
- ▶ **Behavioural and Social Science**
- ▶ **Food Science**
- ▶ **Environmental Science**
- ▶ **Biological Sciences**

### Current Research Projects

#### In-Vehicle Cognitive Performance

DSTO is studying the effects of motion on cognitive and physical performance using a simulator capable of replicating various kinds of motion, vibration and noise. Investment in these simulation technologies is crucial for better understanding the implications of motion on the performance of ground vehicle crews.

This work will also aid investigations into the role of simulation technologies in training, and help develop new ways of doing business with the advanced vehicle systems being acquired by Defence.

#### Submarine Human Systems Integration

DSTO provides Defence with science and technology advice important to Australia's submarine fleet and also advises on future developments of submarine systems. Part of that advice concerns the impacts of technology change and upgrades upon the Navy personnel who crew the submarines.

A small team of researchers at DSTO study this issue and their work is called Human Systems Integration. This work examines the fit between the people doing the work, the systems they must use and the operations they must perform. Human systems integration involves detailed analysis, measurement of both human and system performance, and provision of design advice on future systems.

#### Maintaining high performance

DSTO's Food Technology Group manages the quality assurance of combat ration foods, develops novel techniques in stabilisation of probiotics and vitamins, and develops prototype food products including freeze-dried yoghurt, pro-biotic enriched energy bars, improved high melting point ration chocolate and freeze-dried fruit products.

Determining the energy and nutritional requirements of ADF personnel is also a key focus. This is achieved by field testing the nutritional adequacy of combat ration packs, developing nutritional assessment techniques suitable for use in field situations, and surveying ADF personnel's nutritional health during training and deployment.

**DSTO**

Science and Technology for a Secure World

[www.dsto.defence.gov.au](http://www.dsto.defence.gov.au)