

chemical to encourage better root growth has the potential to transform plantation forestry as well as the production of garden, ornamental and endangered plants.

Gethin Thomas, Ran Duan and Matthew Brown of the UQ Diamantina Institute developed a diagnostic for *Ankylosing spondylitis*, a severe form of arthritis, to enable early detection and preventative treatment.

Muhsen Aljada of the Australian Institute for Bioengineering and Nanotechnology (AIBN) produced a futuristic technology for use in flat screen television displays, which will allow transparent and flexible screens to be produced with low power consumption and manufacturing costs

Andrew Clulow, Paul Burn and Justin Cooper-White created a sensing chip technology which can accurately detect explosives from the odours they release.

In the student categories, David Thomson through AIBN developed a concept technology for understanding single molecule protein interactions, which is a potentially valuable tool for identifying new therapeutic drugs.

Simon Tannock of the Faculty of Engineering, Architecture and Information Technology produced a device for converting renewable energy sources (wind, waves, rivers) into clean, green electricity in homes or full-scale power plants. Gregory Evans of Health Sciences created a psychology program incorporating best evidence-based techniques to promote and increase happiness.

www.uniquest.com.au ■

WAVE POWER ABAY

New technology to harness energy from ocean waves is heading for Moreton Bay, with the Department of Natural Resources, Mines and Energy investing \$160,000 to help bring wave power to life.

Mines and Energy Minister Stephen Robertson launched Advanced Wave Power's Nautilus prototype which is expected to use the small waves in Moreton Bay to generate up to 100 kilowatts of electricity every hour. The project team for Advanced Wave Power Pty Ltd has been building and testing laboratory prototypes at the University of Queensland's wave labs for several years and now plans an on-site prototype.



Left: AIS's water purification products in action. Right: AIS director Elena Gosse.

Advanced Wave Power's technology is a variation upon existing oscillating water column technology and uses an array of linked columns, rather than a single column, to ensure constant flow for a turbine. Advanced Wave Power's commercial versions would be aimed at small scale generation in Queensland, predicted to be able to support 30 to 40 homes at a time.

AIS WINS STEVIE

Australian Innovative Systems (AIS) took out an International Stevie Award for Most Innovative Company of 2009 in Asia, which includes the Indian subcontinent, Australia and New Zealand.

The International Business Awards are regarded as the 'Oscars' of business. Established in 1974, AIS is a Queensland manufacturing company specialising in the disinfection of water via electrolysis. A strong focus on design innovation and quality has seen AIS win a string of prestigious awards and being selected for the Australian Technology Showcase 2009, a State and Federal Government initiative to promote Australian innovation globally.

AIS's two signature products – Autochlor for salt water chlorination and Ecoline for fresh water chlorination – are currently exported to more than 53 countries worldwide.

"This new technology takes us well beyond the swimming pool and has application potential for drinking water, reverse osmosis, food processing plants, cooling towers, agricultural lagoons, irrigation water, recycled water, grey water, sewerage and waste water," Ms Gosse said.

www.stevieawards.com.
www.aiswater.com.au ■

DRAGLINE WORLD FIRST

Queensland-based MineWare Pty Ltd's new remote dragline management tool is a global leader in

dragline technology innovation, offering compelling new efficiencies to mine operators.

MineWare released its first remote management tool in 2009 following the successful beta release of its *m-ROC solution* at a Central Queensland coal mine.

Supporting MineWare's Dragline Monitor System, *Pegasys*, *m-ROC* – the MineWare Remote Operations Centre – is a powerful software tool with a rich blend of features that benefit dragline production, technical services and maintenance.

MineWare chief executive officer Andrew Jessett said *m-ROC* enhances dragline production by providing clients with greater visibility of their dragline's operations through the *m-ROC Remote Viewer*. This enables MineWare's dragline monitor system, *Pegasys*, to be viewed anywhere, anytime, providing invaluable data and information in real time.

www.mineware.com.au ■



Andrew Jessett.

RESEARCH 'PEARLERS'

University of Queensland (UQ) research ranging from better pearls to better plastics was given a \$3.5million boost in 2009 through the latest round of Australian Research Council (ARC) Linkage Projects funding. Acting deputy vice-chancellor for research, Max Lu said these projects reflected UQ researchers' strong track records in collaborating with businesses, community organisations and government agencies across a broad spectrum of disciplines.

Bernie Degnan, from the School of Biological Sciences is improving the quality of Australian South Sea pearls. Professor Degnan said, "By adding genomics to the existing Australian pearl industry armoury we will help not only to maintain the premier position of the Australian South Sea Pearl in the market, but also to move it further ahead."

Paul Lant, from UQ's School of Engineering, is developing the next generation of bioplastics from organic waste in an environmentally sustainable way.

"Our aim is to replace current plastic production, which relies on fossil fuels,