Superconductor wire project awarded $500,000

The Minister for Industry, Science and Tourism, Mr Moore, has announced that the Federal Government, through the Industry Research and Development Board (IR&D Board), has awarded a $500,000 Competitive Grant to a project which is developing a high-temperature superconductor wire.

Sydney industrial company Metal Manufactures Ltd will collaborate in the project with two major researchers, the University of Wollongong, through the Centre for Superconducting and Electronic Materials, and CSIRO Applied Physics.

'High-temperature superconducting wires will put Australia at the cutting edge of developing commercial products,' Mr Moore said.

'This technology has potential for many different uses.'

He said the technology can be used in existing power equipment applications such as motors, generators, cables, and transformers.

It can be the enabling technology for new applications like magnetic resonance imaging in the medical industry. It can also be used for energy storage, either on a small scale for industry or a much larger scale for the supply industry.

'Forecasts indicate superconducting products will generate a global business of around $150 billion in about 20 years,' Mr Moore said.

Metal Manufactures' partners in the consortium, the University of Wollongong and CSIRO Applied Physics, are recognised world leaders in materials processing and high-temperature superconductors including their fabrication.

The project will transfer technology from the laboratory to an industrial development plant, scale up the production process and introduce the necessary control for long-length manufacture of superconductors tape.

This is a material that, unlike conventional conductors, offers no resistance to the flow of electricity and therefore eliminates the generation of waste heat in electric power equipment such as cables, generators and motors.
People who speak out in the public interest often encounter reprisals. A typical whistleblower is an employee who draws attention to corruption or dangers to the public. But instead of the problem being dealt with, the messenger is attacked. This can involve ostracism, reprisals, transfers, referral to psychiatrists, demotions and dismissal. Others can come under attack too, such as researchers and teachers who challenge orthodoxy. So says senior lecturer in the Department of Science and Technology Studies, Dr Brian Martin, who has been studying these issues since the late 1970s. This year he became national president of Whistleblowers Australia, an organisation set up a few years ago to help whistleblowers help themselves. Many whistleblowers first raise their concerns through formal channels. They report the problem to their boss, to the head of the organisation, to a grievance procedure, to an ombudsman, to a member of parliament and so forth. This is almost always a disillusioning process, since these channels almost never work. It is especially disillusioning for those many whistleblowers who always believed that the system works. Instead, they find themselves under attack. What does help? Talking to other whistleblowers, and getting media coverage. Dr Martin said: 'It is tremendously valuable for whistleblowers to meet others who have been through similar experiences. Instead of blaming themselves, they can see that there's a pattern behind what has happened. They can also pick up useful ideas about how best to proceed.'

One of the most touted remedies for attacks on whistleblowers is whistleblower legislation, but Dr Martin is sceptical of its value. 'Most whistleblower legislation is so filled with conditions and so weakly enforced that it gives only an illusion of protection,' he said. 'Far more important are measures to enhance free speech, particularly reform of defamation law, repeal of laws and policies prohibiting free speech by employees, and widening the scope of freedom of information.'

Dr Martin has written numerous articles about suppression of dissent. He was lead editor of the book Intellectual Suppression, published a decade ago. He helped set up the Network for Intellectual Dissent in Australia, which is basically a list of people willing to support dissidents. He was a co-organiser of the first national conference on intellectual suppression, held in Canberra in 1993. This year Whistleblowers Australia is organising a conference on 'Beyond whistleblowing: toward a culture of dissent', to be held in Melbourne on 29-30 June. 'Studying suppression of dissent is fascinating. I've investigated cases dealing with forestry, pesticides, the rail system, plagiarism, fluoridation, nuclear power and the origin of AIDS, among many others,' he said. 'Most scholars don't realise how important attacks on dissenting ideas are in the development of their disciplines. Unfortunately, there aren't all that many academics studying suppression of dissent. Academics are relatively free to speak out, but all too often they are worried about tenure, promotion, research grants or what their peers will think if they get involved in anything that rocks the boat. 'In my view, the best way to maintain academic freedom is to exercise it.'

Dr Martin recently set up a web page on intellectual dissent and whistleblowing, at http://www.uow.edu.au/arts/sts/bmartin/dissent/.
Participants were welcomed by Vivien Twyford (back) and Managing Director of ITC Jim Langridge, (left) at a function in the Union Bistro.

Indian Railways seeks training in Wollongong

Illawarra Technology Corporation Ltd, in conjunction with Twyford Communications, ran a three-month Australian Agency for International Development (AusAID) course on Human Resource Management for 15 participants from India after successfully winning the tender over several other institutions.

Most of the participants were from middle to senior management in the Indian Railways, and for some it was their first trip out of India.

Several site visits were included in the course and a period with NSW and Queensland Railways.

The AusAID advises the Australian Government on international development issues.

It also plans and delivers Australia’s official development cooperation program.

In doing so, AusAID works in close partnership with the Australian community and with partner governments and international agencies.

The objective of Australian development cooperation is to promote sustainable economic and social advancement in developing countries in response to Australia’s humanitarian concerns as well as Australia’s foreign policy and commercial interests.

The course will be managed by ITC and facilitated by Vivien Twyford Communications.

After-school care for kids

Did you know that Kids Uni’s after-school service has a bus that collects children from Lindsay Park, Mt St Thomas, St Therese and Keiraville schools?

As well children from St Brigids and Gwynville schools are transported to Madoline St where they are collected by a staff member and walked back to the centre.

A staff member supervises the children while on the bus.

Kids Uni has limited vacancies for this service. If you are interested phone 213 072 for more information.
University welcomes two new Fellows

During the final week of graduation, Fellowships to the University were awarded in recognition of outstanding contributions to the region and to the University to Mr Paul Jeans and Dr Ronald Broadfoot.

Paul Edward Jeans has had a long and distinguished association with the steel industry. He joined BHP in 1959 as an Engineering Trainee.

In 1970, Mr Jeans began his involvement with the Illawarra region when he was appointed Project Supervising Engineer at Port Kembla. In this position he monitored and coordinated the major expansion of the steelworks.

In 1980, Mr Jeans became manager of all activities carried out by BHP Engineering from the offices in NSW and Queensland.

His portfolio widened in 1984 when he was promoted as firstly Executive Manager Operations and then General Manager of BHP Engineering, overseeing a staff of more than 1000 and with 10 Australian offices and five internationally.

After a year as Chief Executive Officer of BHP Aerospace and Electronics, Mr Jeans became Group General Manager of BHP Steel-Wire Products Division in 1989 and in 1991 Group General Manager of BHP Steel - Rod and Bar Products Division.

This division employs more than 5000 people and has operations in Newcastle, Geelong, Brisbane, Sydney and Western Australia.

In 1993, Mr Jeans was appointed Group General Manager of BHP Steel - Slab and Plate Products Division at Port Kembla.

During his three years in Wollongong, he made a major contribution to the region and to this University.

He built upon the success of his predecessors in ensuring that the Port Kembla works, so vital to the region, operated with advanced, contemporary efficiency.

His outstanding management was combined with a personal warmth that won the confidence and friendship of community leaders who still remembered the dark days of the 1980s.

Despite his heavy professional responsibilities, Mr Jeans still found time to serve the community and this University.

During his time in Wollongong, he was a committed and effective chair of the Salvation Army Advisory Committee and patron of the Boy Scouts.

The University was fortunate to have Mr Jeans serve as a member of the University Council and its Ceremonial and Honorary Awards Committee for nearly three years.

He was a Council representative on the central budgetary committee – the Planning and Development Committee – and lent his expertise in several other key areas on campus, notably the Illawarra Technology Corporation where his knowledge and keen judgment have been so valuable.

Mr Jeans also played a major role in the establishment of the BHP/University of Wollongong Institute of Steel Processing and Products.

The institute has attracted the attention of the international steel industry and is destined to be one of the world’s leading steel institutes.

Mr Jeans’ status as one of Australia’s most senior and successful managers was confirmed this year by his appointment as Executive General Manager and Chief Executive Officer of BHP Service Companies Group.

He has served Australia’s largest and best-known company with great skill, integrity and loyalty: these are qualities which he brings to all his pursuits, including his association with this University and this region.
New Fellow a teaching leader

New Fellow Dr Ronald James Broadfoot is recognised as a community and professional leader, with a capacity to guide people through change and open their minds to new ideas.

Dr Broadfoot’s distinguished teaching and administrative career in the state’s secondary school sector began in the late 1960s.

By 1985, he was an Inspector of Schools and, in 1990, a Cluster Director of Schools in the south coast region.

In that year also, Dr Broadfoot founded the Illawarra Science Teachers’ Association and the Illawarra Science Head Teachers’ Association – both important for the development of teachers through contact with the academic disciplines and through the hands-on experience at the University’s Science Centre.

Dr Broadfoot facilitated the introduction of professional development courses for teachers, conducted by the Departments of Physics, Chemistry and Biology at this University, and he devised the ‘teacher-in-residence’ project at the Science Centre.

The project has produced new teaching and learning materials and encouraged the use of the Science Centre by schools.

Dr Broadfoot’s powers of motivation directly benefited students as well. In 1991, he helped to initiate the Talented Students’ Days for Year 10 and 11 students at this University and these have since attracted more than 250 students each year.

He was also involved in the Science Challenge Competition and the Year 11 Enrichment Day conducted at the University for talented students.

The University’s science community has long valued Dr Broadfoot’s knowledge as a professional science educator with a deep and thorough understanding of the teaching of science within the secondary schools.

He is a foundation and continuing member of the Management Committee of the Science Centre, giving generously of his time despite a busy schedule.

He has also been a member of the University’s Faculty of Science Visiting Committee since 1992.
State Rail well represented at graduation

On Wednesday 15 May before the morning Graduation Ceremony the Faculty of Engineering held a breakfast for 15 graduating students of the first Graduate Diploma in Systems Engineering.

These were senior State Rail Authority engineers who have undertaken the program at the University Centre under a contract with State Rail.

Also at the breakfast were the second group of State Rail students who had completed the Graduate Diploma in Maintenance Management.

General Manager, Technical Services, Railway Services Group, Mr Steve Maxwell, attended from the SRA.

During his speech, Mr Maxwell commented on the cooperation they had received from the University in designing and running this course for State Rail.

The Dean of Engineering, Professor Brendon Parker, welcomed the graduands and their families.

State Rail graduands before the ceremony with Stephen Maxwell (front left) and coordinator from the Faculty, Richard Dwight.

Proud parents. Academic Registrar, Peter Wood, and Sue Wood congratulated their daughter, Megan, after she graduated Bachelor of Nursing.

Three generations with many links to the University. Robyn Foster from the department of English with her daughter Leanne Cowan. Helping them to celebrate was grandfather Evan Foster, who led the graduation procession from 1973-1984 when he retired as Deputy Assistant Supervisor, Patrol.
Students reveal the past on Cyprus

On the site: Dianna Wood-Conroy; Robyn Outram, who has just completed her Master of Creative Arts in Sculpture; and Anna Sophocles, a third year painting student whose family originally came from Paphos. Photo by Simon Cashman, excavation photographer.

Dianna Wood-Conroy from the Faculty of Creative Arts and her team of students returned last month from the excavation site of the Hellenistic theatre in the ancient Greek city of Paphos.

As reported in February, the faculty joined forces with the Department of Archaeology at Sydney University to take a team to Paphos in Cyprus.

Ms Wood-Conroy trained and supervised the students involved in drawing the pieces found during the excavations.

Ms Wood-Conroy was Artist-in-Residence during the six weeks they were at Paphos and also had the role of organising food for 43 people.

Many interesting finds were unearthed - some lovely glass, many coins and a little bronze figure of Athena. Ms Wood-Conroy hopes to put together an exhibition about the experience to be shown in Australia and Cyprus.

Don't miss this!
You are invited to a Ugandan Musical Performance by students from Creative Arts with Catherine Mugenyi (a postgraduate student undertaking her Master of Education) on Tuesday 4 June from 12.30-1.15pm in the Foyer of Building 67 (McKinnon Building).

Have you ever dreamt of your own vineyard?

A weekend workshop on 3-4 August is being offered at the University of Wollongong Berry Campus for would-be vineyardists.

An international figure in the wine industry, Dr Richard Smart, is presenting two full days on information on how to develop your own small private vineyard.

He will explain the different types of grapes vines to plant, the overall cost, what to do to maximise your harvest and practical skills such as weeding, pruning and controlling pests.

Fee is $330 which includes two lunches and a three-course dinner on Saturday night plus wine tastings and bus transport to local vineyards.

You will need to book by 14 June. Phone Graham Park Campus (044) 641 988. For those wishing to just attend the dinner the cost is $40.
**General**

Meeting dates for the Human Research Ethics Committee and the Animal Ethics Committee for this year are:
- Animal Ethics Committee: 21 August, 20 November. Agenda items are due two weeks before meetings. Enquiries are by email or on ext. 4457 on Tuesday, Wednesday or Thursday.

The Campus Alumni Bookshop is open on the second and fourth weekends of each month (Saturday and Sunday 1-5pm). Come and browse through a wide selection of preloved textbooks and fiction. Location: Campus East, Cowper Street, Fairy Meadow (opposite Science Centre). All proceeds directed towards Campus projects. Donations of material are invited. Enquiries to Alumni Office, phone 213 249 or 291 951.

**What’s On**

Centre one-day symposium, Metals in Biology and Medicine, University Bistro 9.30am. Inquiries: Associate Professor Stephen Pyne, phone (042) 213 511 or e-mail s.pyne@buow.uow.edu.au, or Dr Geoff Wickham, phone (042) 214 418, or Dr Stephen Ralph, phone (042) 214 286. Department of Chemistry, University of Wollongong, NSW 2522. Fax (042) 214 287.

**Creative Arts**

Creative Arts productions ‘96
Each year students and staff in the Faculty of Creative Arts produce a diverse range of performances. They are presented in numerous venues across the campus depending on the nature of the performance. Following is the provisional timetable for this year. Watch *Campus News* for confirmation and more details.

**Art of Lunch**

Every Thursday during session, from 12.35-1.25pm.

- 30 May: Union Hall Foyer – Elektra String Quartet present a program of contemporary works.
- 6 June: Union Hall Foyer – 3rd year Honours Music Performance students present works under study. Will include instrumental and vocal performances. Venues are the Hope Theatre, Union Hall Foyer and Faculty of Creative Arts Music Auditorium. Brochures and information are available from Marilyn Meier, ext. 3990, and Jenny Fullerton, ext. 3996.

**University Social Club**

Become a member and enjoy a variety of social events. A chance to meet others across the campus. Contact Jim McKee by email or ext. 3376.

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**CELL AND MOLECULAR SEMINAR SERIES**

*Held on Wednesdays in the Department of Biological Sciences (Building 35), University of Wollongong.*

22 May: **Prof. David Morris** (St George Hospital) – The Integrated Sciences Cell and Molecular Seminar on colon cancer. Host: Dr Mark Wilson. 12.30pm
12 June: **Prof. Georg Weiller** (Research School of Biological Sciences, ANU) – The Promega Cell and Molecular Seminar on DNA sequence changes. Host: Associate Professor Ted Steele. 6pm
31 July: **Dr Glenn King** (University of Sydney) – The Beckman Cell and Molecular Seminar on protein structure analysis. Host: Dr Mark Wilson. 6pm
20 August: **Dr Narish Verma** (Australian National University) – The Amrad Cell and Molecular seminar on shigella vaccine development. Host: Dr Mark Walker. 12.30pm
19 September: **Dr T.J. Higgins** (CSIRO Plant Industry) – The Life Technologies Cell and Molecular Seminar on plant molecular biology. Host: Dr Ren Zhang. 12.30pm
23 October: **Dr Paul Curmi** (University of NSW) – The Biorad Cell and Molecular Seminar on photosynthesis. Host: Associate Professor Ross Lilley. 6pm.
30 October: **Dr Phil Clingen** (Illawarra Regional Hospital) – The Amrad/Pharmacia Cell and Molecular Seminar on clinical oncology. Hosts: Associate Professors Ted Steele and Mark Baker. 12.30pm

For further details contact: Associate Professor Ted Steele, Associate Professor Ross Lilley, Associate Professor Mark Baker, Dr Mark Walker, Ms Wendy Russell, Dr Ren Zhang or Dr Mark Wilson, phone (042) 213 013, fax: (042) 214 135.

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**Report of the Review of The Union**

A general meeting to discuss this report will be held on Tuesday 4 June at 12.30pm in the Union Eatery (Ground Floor, Union Arcade, between Glass House and The Food Hall).