Professor Joe Shapter
Tertiary Science Educator of the Year award winner

Student Joel Gottrell (left)
Australian finalist in MAGIC 2010

Ms Karen Burke Da Silva
Australian Learning and Teaching Council grant recipient

Professor Konrad Pesudovs (right)
Foundation Chair, Optometry and Vision Science

Flinders University
Victoria Square
182 Victoria Square, Adelaide
Teaching and Learning
Meeting student and employer needs

Flinders University’s reputation for excellent teaching, coupled with effective external marketing and recruitment, again yielded pleasing results in 2010 with a continuation of the five year trend in student enrolment. **Enrolments were up 6.1 percent compared with the previous year** with growth experienced across nearly all student categories.

Higher Degree Research student numbers were up by 3.3 percent on the previous year as well as increases in on-shore and off-shore international students. One feature of this ongoing improvement is the University’s ability to **successfully evolve our course offerings to meet the increasingly discerning demands of employment markets.**

To this end Flinders offered, for the first time in South Australia, a new five year **Optometry** course in which all places offered were filled in 2010. By adopting elements of Flinders’ innovative medical training which sees students based in regional centres, the need for skilled optometry professionals in remote areas and Indigenous communities will also be addressed.

In a further development of Flinders’ highly regarded medical training program, Year 12 students were provided a new direct pathway to the Bachelor of Medicine/Bachelor of Surgery – and 25 students were selected to take up that opportunity.

Two new engineering courses, **Naval Architecture** and **Maritime Electronics**, will put Flinders’ graduates at the heart of one of South Australia’s most promising manufacturing industries, ship and submarine construction.

The Bachelor of Science was extensively restructured to highlight its specialisations, including animal behaviour which draws on the insights of science and psychology.

Two health sciences courses, involving **Physiotherapy** and **Occupational Therapy**, were especially designed to produce graduates with a strong grasp of professional practice in clinical and remote settings at the postgraduate level.

Flinders city presence in Adelaide’s Victoria Square welcomed its first students in 2010. Full student capacity was reached with all places in Public Policy, Health Services Management, the Master of Accounting and the Master of Business Administration as well as undergraduate Spanish and Law courses being filled. The facilities also proved to be an ideal location from which to engage with Adelaide’s CBD based organisations, companies and agencies through the provision of information about Flinders, advice for current and prospective students, and the hosting of a number of popular events, including public lectures, debates and high level corporate boardroom lunches.

A major priority encompassing the entire suite of Flinders courses in 2010 was the **Course and Curriculum Restructure and Renewal (C2R2)** project. The C2R2 project incorporated significant curriculum improvements while also pursuing delivery efficiencies. Flinders courses are now aligned with the structure adopted by most Australian universities and students will derive considerable benefits from these enhancements.

Flinders’ students and educators continued to achieve and to inspire achievement. Postgraduate students **Emily Johnson** and **Lauren Mazzarolo** became the first in the world to attain a Graduate Certificate in Education with an International Baccalaureate Organisation (IBO) specialisation. Undergraduate engineering student, **Joel Cottrell**, was chosen to be part of the Australian finalist team in **MAGIC 2010**, a joint initiative of Australia’s Defence Science and Technology Organisation and the US Department of Defence to develop battlefield robots.

**Professor Joe Shapter** from the Flinders University School of Chemical and Physical Sciences received the **Tertiary Science Educator of the Year** award at the South Australian Science Excellence Awards.

**Ms Karen Burke Da Silva** from the School of Biological Sciences was awarded a substantial grant from the **Australian Learning and Teaching Council** and will head up a multi-university project aimed at secondary and tertiary level biology curricula.
Professor Kerryn Williams  
Research Fellow,  
National Health and Medical Research Council

Professor Doug McEvoy  
National Health and Medical Research Council grant recipient

Professor Doug McEvoy  
National Health and Medical Research Council grant recipient

Dr Rachel Popelka-Filcoff  
Australian Institute of Nuclear Science and Engineering, Research fellow  
Flinders University

Flinders University research on display at the inaugural Research Innovation Showcase
From tackling challenging medical conditions to designing sustainable energy systems with components too small to be seen, Flinders’ research is focussed on achieving tangible outcomes.

The breadth and diversity of the research underway on campus was evident during the inaugural Research Innovation Showcase which attracted more than 150 government and business representatives and fellow researchers to Bedford Park. Twenty of Flinders’ top researchers described their capabilities and projects in a series of presentations complemented by displays promoting the University’s involvement in groundwater, medical devices, marine science, biofuels, eye and vision, nutrition, clinical change and cancer prevention, psychology and molecular technologies.

Some of the exciting developments in 2010 included:

Research Fellow Dr Kathryn Burdon and her team received National Health and Medical Research Council (NHMRC) funding to undertake a large genome-wide study of diabetic eye disease. Nearly half of all diabetes patients will develop eye disease related to their diabetes and many will go blind from the disease, despite current treatments. Dr Burdon’s team recruited around 2000 patients from SA, NSW and VIC and identified several genes of interest, potentially contributing to this devastating complication of diabetes. Dr Burdon’s group also identified a new gene linked to primary congenital glaucoma, a condition that is present from birth with most patients remaining severely visually impaired.

Shark ecologist, Dr Charlie Huveneers, assessed the efficiency of the Shark Shield protection device with nearly 200 trials involving static baits and dynamic decoys and great white sharks during field trips to South Africa and South Australia. Dr Huveneers also continued to monitor the movement and behaviour of sharks in the Gulf of St Vincent. Twenty bronze and dusky whaler sharks tagged in 2009-10 are being monitored by an array of 27 acoustic receivers deployed along Adelaide’s metropolitan beaches, with an additional 20 receivers to be deployed in 2011. In another project, 13 sharks have been tagged providing a total of 39 days of monitored movements around Neptune Islands near Port Lincoln as Dr Huveneers studies the impact of berleying by the tourism industry associated with cage-diving.

Flinders Centre for Science Education in the 21st Century (Science 21), led by Professor Martin Westwell, increased support to teachers in improving science and mathematics education in South Australia and beyond with evidence based research. Through forging stronger relationships with employers, particularly defence and resources related industries, Science 21 has played a role in developing links between school-science and workplace-skills. The Centre’s school-to-work innovation project identified ways in which senior secondary science and mathematics can be made more meaningful to students in different communities across South Australia. The outcome was a sizable increase in the uptake in these subjects and in students’ aspirations to continue study or work in a job related to science, technology, engineering or mathematics. Additionally, a one off grant provided to only two universities in Australia by the Australian Space Education Program was won to incorporate space science into the new SACE research projects.

Several Flinders researchers received richly deserved recognition in 2010, including Professor Keryn Williams who was awarded a five year NHMRC Fellowship that will allow her to explore the application of gene therapy and other methods to improve outcomes in the treatment of a range of eye diseases. Dr Neil Jones received a Translating Research into Practice (TRIP) Fellowship from the NHMRC for his research into the cost and efficiency benefits of radiologists as emergency department staff members.

The Australian Institute of Nuclear Science and Engineering (AINE), which awards two Research Fellowships each year, awarded both to Flinders early career researchers – Dr Rachel Popelka-Filcoff and Dr Roman Drnov. Dr Popelka-Filcoff’s research involves source identification of Aboriginal Australian ochre pigments and Dr Drnov, a physicist, is researching ways to detect environmental toxins and disease biomarkers.

On the funding front, the NHMRC announced $8.4 million of funding for Flinders projects with a further $3.3 million received from the Australian Research Council. The University continues to attract significant research income through collaborations with local, State and Federal Government, in particular in the area of Health and specifically Nutrition, Health and Ageing and Psychiatry.

Leading the 2010 ARC grant successes was biologist Professor Mike Bull, who has secured ARC Discovery grant funding for every year since 1977. Professor Bull has been instrumental in mentoring young researchers, drawing on 35 years of experience to provide early career researchers with invaluable insights into preparing grant applications. Such commitment exemplifies the research culture to which Flinders aspires.
Community Engagement
In step with the community

Flinders University’s teaching and research is enhanced through partnerships that engage the University with a wide range of community organisations, alumni, business and industry and the general public.

A key feature of each of these relationships is a focus on mutual benefit, tapping the skills and resources at the University to advance a community organisation’s aspirations which, in turn, enhances the profile of Flinders.

The University’s community engagement is a cornerstone of Inspiring Flinders Future, the 2010-14 Strategic Plan, and strong community support is critical to Flinders achieving its aspirations. The University took several initiatives in 2010 to support this objective including a restructuring of senior executive responsibilities. The position of Deputy Vice-Chancellor (International) was re-titled Deputy Vice-Chancellor (International & Communities) and took line responsibility for many key community engagements.

The University’s growing engagement in the Northern Territory is summarised elsewhere in this Report. In Flinders ‘home community’ of the southern suburbs of Adelaide, the University’s Southern Knowledge Transfer Partnership coordinates and promotes education collaborations and sponsorships with local businesses, local government and community groups. Projects in 2010 included:

Panthers, Be Your Best, a program with the South Adelaide Football Club that encourages a positive approach to life, healthy diet and exercise in primary school and provided Flinders students an opportunity to design an educational program around increasing confidence and the ability to achieve goals.

Going to University, a longitudinal study of secondary students’ aspirations toward tertiary education, is one of seven ongoing projects involving over 500 school students from southern schools as part of the Inspire Peer Mentoring Program with Flinders Careers and Employers Liaison Centre.

The Mathematics and Science Academy at Flinders, a pilot program with seven local high schools aims to improve Year 12 results and aspirations and to provide professional development opportunities for teachers.

As part of Fleurieu Art Prize sponsorship, the University participated in a series of seminars and field trips encouraged to create a better awareness of environmental issues.

The University’s new Victoria Square facility has provided a central location from which several successful community engagement events have been hosted. The first of these was the Future of the Not for Profit Community Sector Service Forum, a result of a Memorandum of Understanding between Flinders and Anglicare which aims to foster cooperation and collaboration for the benefit of clients and staff of both organisations and the wider South Australian community. Another of these was the inaugural Dean Jaensch lecture which attracted a capacity audience and was hosted “Q&A” style by Mr Tony Jones of the ABC.

Professor John Halsey took up the Sidney Myer Chair of Rural Education and Communities. The Chair’s mission, supported by the Sidney Myer Fund, is to provide a program of research and teaching which engenders productive rural communities with access to high quality education, and to ensure that government and other policy makers understand issues central to rural Australian life.

Flinders Centre for Gambling Research was opened in response to the wider community’s need to address health, social and economic problems arising from problem gambling. The Centre’s multidisciplinary research aims to create an informed basis for future policy developments and industry standards as well as preventative measures at the population and public health level.
Internationally 2010 has been a difficult year for Australian universities. A high Australian dollar, concerns regarding quality and student safety (particularly following the regrettable events concerning Indian students in Melbourne), changes to migration and visa rules and intense competition from other countries have ended years of steady increase in international enrolments in Australian universities. Looking forward some analysts predict significant decreases in international enrolments in future years. In this context it is pleasing to report that in 2010, our on-shore international enrolments grew by 4.7 percent with forward predictions looking relatively robust.

It is now ten years since Flinders began its teaching program at Nankai University in China, during which over 1500 students have graduated with postgraduate qualifications in hospital administration and international relations. These Flinders courses were endorsed by China’s Ministry of Education as quality benchmarks, placing them in the top ten of over 600 overseas based programs offered in China.

Flinders’ relationships with China continue to strengthen in research as well as education. In June a Flinders delegation of 17 academic staff led by the Deputy Vice-Chancellor (Research) and Deputy Vice-Chancellor (International & Communities) visited Changsha to progress a formal research collaboration with China South University (CSU) and Hunan University. A reciprocal visit by CSU and Hunan staff is planned for early 2011.

In November we co-hosted with Nankai University the second Flinders-Nankai research symposium, exploring issues surrounding China’s fast economic growth and future implications for China-Australia relations. This symposium, initiated in 2009, has already grown in stature and influence, attracting Chinese scholars and local government officials. The 2010 symposium was opened by the Australian Ambassador, Dr Geoff Raby.

A number of Flinders students received international recognition in 2010:

Law and International Relations student Jakob Braunnack-Mayer will attend East China Normal University in 2011 as an exchange student after winning a $40,000 Endeavour Scholarship as part of the Prime Minister’s Australia Asia Undergraduate Award. The scholarship also includes a confirmed internship with Shanghai-based law firm Watson and Band.

Phillipa Ward, who also studies Law and International Relations, won the Henry Fong Award presented to a high achieving student from among the ten members of the International Network of Universities (INU). The prize enables Phillipa to study for six months at Malmo University in Sweden and to expand her focus on global citizenship.

Of nine nation-wide Prime Minister’s Pacific Asia Awards presented in 2010, three were given to Flinders postgraduate students from Papua New Guinea. These awards are granted to exceptional students from the Pacific to fund work placements and professional development which will benefit their home communities. At Flinders University these students will enrol in Nursing, Creative Arts and Education.

Sutan Berkadia, a Master of Education student from Indonesia, was one of four awardees of the Alison Sudrhat Award granted annually by the Australian Leadership Award Scholarship (ALAS) scheme. This is the first time that a Flinders student has gained this national award and Sutan has chosen to return to Flinders to undertake a PhD in Education after a positive experience achieving his Masters.

The year under review also saw an expansion of Flinders International alumni. Flinders Alumni Association President Mr Stephen Hains accompanied the Vice-Chancellor to the opening of Flinders’ fourth international alumni network, hosted by the Australian Ambassador to Japan, Mr Murray McLean, at the Australian Embassy in Tokyo in July. Also present at the launch were some of Flinders’ earliest Japanese alumni, including Dr Mamoru Mohri, Japan’s first astronaut, who was elected Honorary Patron of the network. In Europe, a Distinguished Alumni Award was presented to Professor Yaping Shao, a meteorologist based at the University of Cologne, and round-table talks were held with Flinders alumni representatives in the United Kingdom to discuss future engagement strategies. International alumni continue to act as valued ambassadors for the University in their respective fields.
First class staff are one of the best assets of any organisation. Flinders is no exception and it was rewarding to see the talent and commitment of a number of key staff recognised with national and international accolades in 2010.

While such recognition of existing staff is welcome, the University also has an eye to the renewal required to nourish and refresh the ranks of the University’s teachers and researchers.

In the year under review, Flinders made significant investments in the future with 13 professorial appointments. These included Professor Andrew Millington, an internationally known geographer from Texas A&M University, who was appointed Dean of the new School of the Environment and brought with him an outstanding track record in environmental programs.

Professor Susan Breau joined Flinders Law School as a Professor of International Law and will contribute to a new research cluster focused on war crime, treaty negotiations and humanitarian law. Professor Breau, who joined Flinders from the University of Surrey, has served as an adviser to the European Community on Turkey’s human rights record.

Professor Sarah Strasser rejoined Flinders after a year working for the Northern Ontario School of Medicine in Canada and has taken up the role of Associate Dean, Flinders NT. Professor Strasser will draw together Flinders’ diverse medical training and research activities in the Northern Territory into a coherent presence in this important area of the University’s regional activities.

The University celebrated the success of a number of academic and research staff.

Professor Karen Reynolds was named as Australia’s Professional Engineer of the Year for her exceptional record of achievement in biomedical engineering education, research, innovation and commercialisation.

Hydrogeologist, and Director of the National Centre for Groundwater Research and Training, Professor Craig Simmons, was acknowledged for his outstanding achievements with the Anton Hales Medal for research in the earth sciences. Professor Simmons is a world leader in computer modelling and laboratory experimentation who has significantly improved the understanding of groundwater, a vital but largely unexplored area of water science.

Professor Michael Kidd AM, Executive Dean of the Faculty of Health Sciences was elected to lead the World Organisation of Family Doctors (WONCA) – where he will act as adviser to the United Nations’ World Health Organisation – from 2013.

The Australian Institute of Policy and Science named two Flinders scientists, Dr Charlie Huveneers and Dr Damien Keating, as 2010 Young Tall Poppies of Science for South Australia. The theme of Dr Huveneers research is the role played by large predatory sharks in marine ecosystem. Dr Keating’s investigation into cell communication has led to important discoveries about the control of cell communication for genes related to diabetes, Alzheimer’s disease, Down syndrome and Huntington’s disease.

Flinders students also enjoyed significant success in 2010. Tariq Laattoe, studying a PhD in groundwater hydrology, won the Australian Water Association’s Hodgson Medal for his contribution to the South Australian water industry and will compete in the national Ozwater competition in 2011.

In response to his significant contribution to Indigenous health education and research, the degree of Doctor of the University was conferred on Mr Greg Poche AO during the December graduations. Mr Poche’s philanthropy has established two Poche Centres for Indigenous Health in South Australia and the Northern Territory.

In 2010 Flinders farewelled two long-serving executive staff with the retirement of Ms Barbara Fergusson from the role of Executive Director of Administration and Professor Faith Trent AM from her position as Executive Dean, Faculty of Education, Humanities, Law and Theology. Both served Flinders with distinction and the University wishes them a long and happy retirement.