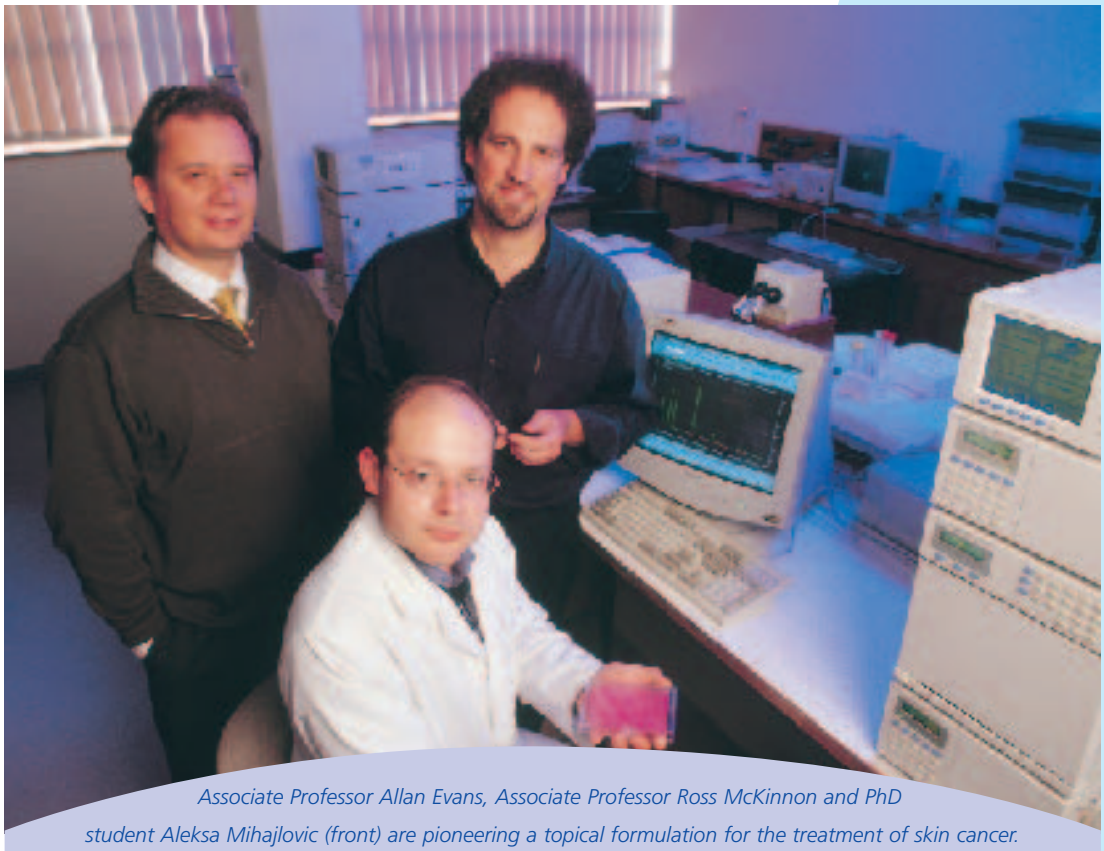
The Difference

A UniSA newsletter for donors and friends who make all the difference

Spring 2002

UniSA skin cancer breakthrough may save lives and millions of dollars



Associate Professor Allan Evans, Associate Professor Ross McKinnon and PhD student Aleksa Mihajlovic (front) are pioneering a topical formulation for the treatment of skin cancer.

Australia, with its warm sunny climate, has the highest rates of sun-related skin and lip cancers in the world. It comes as no surprise then that direct health costs associated with skin cancer remain our most expensive cancer-related health cost, estimated to exceed $300 million annually.

In South Australia alone more than 23,000 people are diagnosed with sun-related cancers each year. Melanoma is responsible for three-quarters of the deaths from skin cancer – and is one of the most common forms of cancer in the 15-44 year age group. People younger than 50 represent almost 40 per cent of the diagnosis in the State.

Currently surgical procedures are used to treat about 95 per cent of skin cancers in Australia, but this may soon change thanks to groundbreaking research at UniSA's Centre for Pharmaceutical Research (CPR).

Researchers have discovered a treatment with the potential to prevent skin cancers developing in people susceptible to the disease.

One of the reasons cancer cells behave as they do is because they lose the ability to stop growing, according to Professor Evans, who is working with researchers Associate Professor Ross McKinnon and a student, Shwu Fen Loh, from UniSA's School of Pharmaceutical, Molecular and Biomedical Sciences.

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Recognising that research makes a difference to lives, the University has focused its Annual Appeal 'Research for Life' on raising funds to assist with UniSA research.

University of South Australia

In this issue

From the Vice Chancellor

Researchers at the University of South Australia solve real-world problems. UniSA's distinctive research profile is based on our strengths in bringing together multidisciplinary teams to work on applied projects.

Since its inception, UniSA has emphasised research selectivity and concentration through the development of Research Institutes and Centres with national and international expertise. Designation as a Research Institute or Centre occurs only when the research grouping meets a range of performance criteria. Maintenance of the title is also dependent on performance.

Research achievements

UniSA's distinctive profile has recently been improved by several significant local, national and international achievements, including:

- the University met its original 2005 target for involvement in cooperative research centres (CRC) four years ahead of schedule. Seven centres are now in place and several additional centres are currently under negotiation. In 2001, UniSA gained key partnering roles in the new CRC for Railway Engineering and Technologies and the CRC for Water Quality and Treatment
- a survey of external research and consultancy clients in 2001 resulted in 99% of respondents saying they would recommend the University's research and consultancy services to other potential users
- UniSA's reputation for innovative research was marked by our Institute for Telecommunications Research's leading role in the $10m mNet project to transform Adelaide's North Terrace precinct into a showcase for advanced wireless and mobile internet technology
- following an announcement in June 2001, UniSA is close to finalising a partnership in the Australian Synchrotron facility. Worth $5m over five years for the University, this collaborative project with the Canadian Light Source and several universities in Canada is to develop synchrotron instrumentation for use in the minerals industry
- in partnership with the CRC for Sensor Signal and Information Processing, UniSA opened the Wedgetail Training and Research Development Centre in June 2001. The Centre is funded by Northrop Grumman and Boeing to develop courses in radar systems and signal processing.

A review of research policy in 2001 reaffirmed the continuing importance of the University's existing strategies and added a third - collaborative research activities.

Research education achievements

Research education is an important aspect of the University's research effort. Students are encouraged to work within Research Institutes and Centres to expose them to leading researchers and multidisciplinary projects. In 2001:

- UniSA appointed a Dean: Graduate Studies, Professor Julianne Cheek, in recognition of the increasing diversity of activities and the increased importance of research education within the University. The Dean will coordinate University activities to ensure high quality research education and timely completions
- the President's Scholarship Scheme was launched, inspired by the history and achievements of Australia's Colombo Plan. The scheme provides tuition and living allowance scholarships to high quality research students from international universities with whom the University has links.

The future

The impact on research of the current national review into higher education is unknown. However, the review has ignited a debate about how many universities in Australia should be funded to conduct research.

Our vision is that by 2005 UniSA will be acknowledged as an Australian leader for innovative research conducted in partnership with industry and the professions. Commercialisation of our intellectual property will result in an increase in income and we will continue to improve research education. The University will continue to foster a research-rich environment and more research will be conducted through Research Institutes and collaborative ventures with international partners.

My very best wishes to all of our supporters and members of the UniSA community for the remainder of 2002. I have no doubt you will continue to help make it a year of achievements and successes, particularly in the areas of research and research education.

Professor Denise Bradley AO
Vice Chancellor and President

Mutual Community supports our graduates' expanding horizons

UniSA's new seminar series, Expanding Horizons, offers graduates the opportunity to approach their careers powered up by inside information and additional inspiration.

Expanding their Horizons – from left to right Katrina Webb, Rachael Sporn, Leonie Clyne and Gerda Jezuchowski.

Sponsored by Mutual Community, the free seminars are all about providing a little extra for the University's graduate community, according to UniSA alumni coordinator, Troy Shiels.

More than 200 University graduates attended the first seminar, What Next, held earlier this year.

Champion basketballer and dual Olympic medallist, Rachael Sporn, spoke about the psychology of success and NWS9 news reporter, Gerda Jezuchowski, talked about the importance of networking in building careers. Both speakers are UniSA graduates.

The seminar also included a presentation of dressing for success by Leonie Clyne, founder of the award winning corporate clothing company Angus Clyne, and co-sponsor of the seminar series.

The next free seminar is planned for September and will focus on financial issues including managing HECS debt and personal financial and investment planning.

The seminar series is designed to provide valuable information to UniSA's young graduates, often from our older graduates, who are already making and impact in their chosen professions. It is envisaged to develop a sense of mentorship as a hallmark of our graduate community and this series will provide opportunities for that kind of interaction.

The program will look at everything from what personal attributes will help graduates to move ahead in their careers, to financial planning, investments and debt management and life planning, career transitions and other issues that people working in the 21st century will have to deal with.

The first seminar was fully booked, and according to the organisers, what this indicates is that UniSA has a strong and active graduate community, keen to maintain links within the University community and keen to share expertise and experience. For students now enrolled in a degree program at UniSA, it must be nice to know that their engagement in the learning community that is the University doesn't have to end when they have their degrees.

We say a big 'thank you' to Mutual Community, the sponsor of this series and Agus Clyne. Without their sponsorship this series would not have been possible.

from page 1: A skin cancer treatment breakthrough

"Funded initially by the school, the aim of our research was to develop a topical formulation that could be applied directly to the skin to prevent new skin cancers developing, especially in those people who have a history of skin cancers," Prof Evans said.

"This is the first time in which a topical therapy of this type has been shown to prevent the generation of skin cancers as a result of UV light exposure. Our study demonstrated clearly that the drug is effective in delaying the development of large tumours and this result is very promising in terms of its potential usefulness for humans.

"The good thing about this particular drug is that it has been used for many years in other forms of medicine, so it is recognised as being safe for long-term use, as opposed to a new drug, which has to undergo extensive clinical testing before it can be used by humans.

"We have filed a provisional patent, and are looking at forming a spin-off company or venture, with the backing of a US pharmaceutical company. We are also keen to conduct our clinical testing on patients with a history of skin cancers here in Australia.

"We anticipate starting human trials in the next 12 – 24 months and, all going well, would expect to have our product on the market in three to five years," Prof Evans said.

"Until now nobody has developed a medication that would be suitable for people who have a predisposition to skin cancer. We believe we can provide these people with a therapeutical option that they currently don't have.

"Skin cancers can develop many years after we have exposed our unprotected bodies to the harmful effects of solar radiation. If our treatment could be used to stop or slow down the development of these skin cancers, it could reduce the need for surgery and potentially reduce the development of serious and perhaps life threatening forms of skin cancers. This will mean huge savings in the costs of health care and real benefits for our community."

Recognising that research makes a difference to lives, the University has focused its Annual Appeal on raising funds to support research.

Davy Scholarship winner Sheena D'Angelo.

Mature age student wins Davy Scholarship

Sheena D'Angelo has a genuine concern for the well being of others, regardless of race, age, sex or social status and she looks forward to the day when she can put her learning into practice.

She is also this year's winner of the Davy Scholarship and is in her last year of a Bachelor's degree in Social Science. Sheena has broad areas of interest and would like to be a member of a proactive team in South Australia that works for the good of Aboriginal people. She is a member of the Western Kokatha women's Committee in Ceduna and in regular contact with Kupa Pita Kunghatjuta in Coober Pedy.

The scholarship was established with a bequest from Irene and David Davy for the advancement of Aboriginal education. It is open to Australian Aboriginal and Torres Strait Islander students at the University of South Australia. To be eligible, students must be enrolled in the final or honours year of an undergraduate course. The scholarship is awarded on merit.

Previous scholarship winners include Ms Faye Strachan and Mr Howard Sumner.

Irene and David Davy's story

Irene and David Davy planned for the future. Practical, hard working and determined to make the most of their opportunities, they both came from large families and lived and worked in an era where adventure and endeavour were part of everyday life. They were also great believers in the power of education.

Irene Clarke Davy from the *Gundjtmarra language group* was born, along with her twin brother Reg, on 31 December 1929 at Dimboola. Their parents, John Murray Clarke from Framningham and Emma Edna Harradine, were married on 13 March 1916.

For most of her working life, Irene was involved with health and caring. She was a nursing aid but also earned a reputation as an excellent cook, which she turned to good use working several stints as a short order cook.

Irene's husband, **David Robert Davy**, was born 13 June 1934. He too came from a large family. His parents, Thomas Peter Davy from Davington (now Semaphore Park) and Grace Lee Crack had eight children, David being the second youngest.

At just 15 years old he left Adelaide on the Swedish-Finnish Sailing ship, the Viking, and became a Cape Horner as part of his first major voyage. He spent his working life at sea, firstly on sailing ships, then around the gulfs of South Australia and later sailing merchant ships in Asia.

With no children of their own, the couple took a special interest in their many nieces and nephews, always providing encouragement and support. Their roles as aunt and uncle were to make an important impact on the children of both families.

David's niece Margaret, studied medicine at a time when few women studied and even fewer came from working class families. Irene and David were very proud of her achievements, providing unstinting support.
Irene's niece, Judy (Moffatt) became the first Aboriginal accepted into the nurses' training program at Lyell McEwin Hospital. Later, two other sisters, Judy and Sharon trained at Lyell McEwin Hospital. All these cousins have succeeded in their chosen professions and have become role models for others.

Today, through the development of the **Irene and David Davy Scholarship**, members of the Davy family aim to continue the couple's legacy. Through this support, the Scholarship will help to develop successful role models for this generation of young Australians. Irene and David understood hard work and determination. It was clear to them that education was a linchpin in providing young people with the key to confidence, personal development and self-esteem. They also understood that support and encouragement, combined with access to education, could light the way, especially for people who were disadvantaged.

Irene and David Davy's niece, Dr Margaret Davy AO (second from right), pictured from left Professor Paul Hughes, Sheena D'Angelo and Chancellor David Klingberg.

Their nieces attest to the emotional support the Davys provided and the impact it has made on their lives. Through this scholarship they believe a little of the strength of having Irene and David "on your side" will be shared with other young achievers.

Transition grants make a difference

At a function held in the Hetzel Room, City West campus, on Thursday, 2 May 2002, Transition Grants were presented to 19 current students by the Vice Chancellor and Mr Eric Granger, State Manager of Mutual Community.

These grants were made available through the generosity of donors who contributed to the Scholarships fundraising campaign conducted by the Development Office in 2000.

Mutual Community made an especially generous donation of with the stipulation that the money be used for transition grants for students commencing study in the Health and Biomedical area. Four Mutual Community Grants of $2,500 were awarded this year.

The grants are divided into different categories:

Ten Metropolitan Grants of $1,000 for students living in the Metro area

Five Rural Grants of $1,500 for students living outside the Metro area

Vice Chancellor Denise Bradley and transition grant recipient Van Chhunn Fuoy.

Grant recipient Melanie Macrow with her children and partner Scott Smelter.

Melanie Macrow is a part-time student in her first year studying for a double degree in Business Management and Arts (International Studies) who was recently awarded a UniSA Transition Grant worth $1,000. Transition Grants are awarded every year to people who have experienced some sort of educational disadvantage and are beginning an undergraduate degree at UniSA.

Melanie, 21, has two young children and her partner is also a student, so finding out she had been successful in her application was a load off her mind.

"To have my books and amenity fees paid for the next couple of years is a wonderful relief," she said.

"For those students not sure about making the effort, I'd say absolutely do it! I wasn't sure if I'd even be considered because I was only going to study part-time, but by taking a little bit of time to fill in the application and get a friend to do their bit, I received $1,000."

Winners are grinners – Smiles all around from the winners of the transition grants.

Not only... but also...

A long - awaited dream has become a reality for many of UniSA's vision-impaired students, thanks to the success of UniSA's 2001 Library Appeal. The appeal raised more than $30,000 for ZoomText software and new equipment for students who need assistance with their studies because of vision impairment.

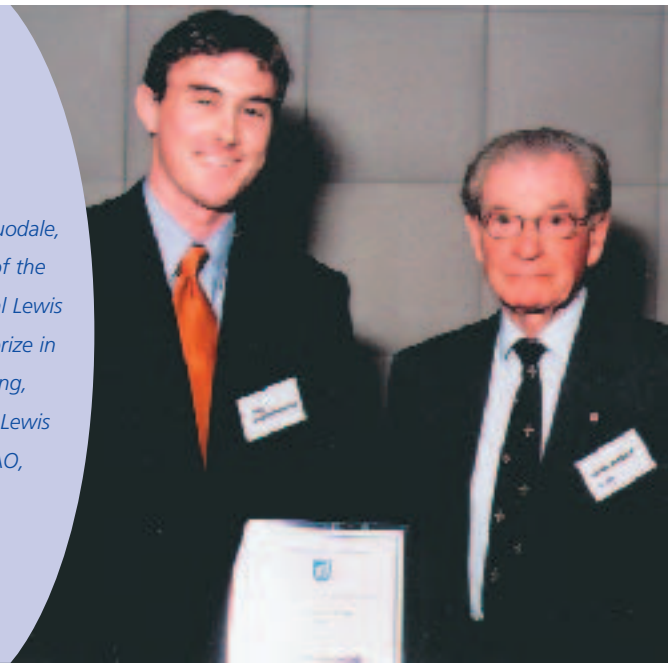
ZoomText helps students to read electronic information available via computer screens. The major boon came from the additional funds raised, also making it possible to purchase much needed closed circuit television systems (CCTV), which helps with reading material which was available only in print.

The CCTV system is a device, or collection of devices, that enables a person with impaired vision to read printed material using a camera and screen. The CCTV films printed text and magnifies it onto a television screen. This enlarged print can then be scrolled across the screen. All the uncomfortable aspects of conventional optical lenses are eliminated and, with practice and perseverance, reading speeds up to 120 words per minute can be achieved even for severely impaired people using maximum magnifications. Studies have shown that it is necessary to read approximately 80 to 90 words a minute in order to gain comprehension or 'meaning' from printed text. There is evidence that CCTV can influence educational outcomes.

CCTV - Magnification equipment being used at Magill Campus library.

The Library at Magill was fitted with a CCTV in February. It is one of several special-needs workstations established in conjunction with the disability coordinator and ITSU (Information Technology Services Unit). Voice activated software and a laptop with a special keyboard can be used by students at a library carrel and full access to the University network is available. This facility will be duplicated at the Mawson Lakes Campus library in the very near future.

A huge 'thank you' to our friends and donors who made this possible.



Neil McCorquodale, winner of the inaugural Lewis Barrett prize in accounting, with Mr Lewis Barrett AO, OBE.

Inaugural Lewis Barrett Prize awarded

Congratulations to the inaugural winner of the Lewis Barrett prize, Neil McCorquodale who was awarded this prize as the graduand with the best academic performance in the Bachelor of Commerce Professional Stream course of Auditing Theory and Practice and Taxation Law 1.

The prize was awarded to Neil by Mr Lewis Barrett, AO, OBE, at the Commerce Prizes and Awards Luncheon held at the Hyatt Regency on 15 May.

The function was attended by students, graduands, staff of the School, and representatives from the professional bodies CPA and ICAA and leading accounting firms Arthur Andersen, KPMG, PWC, Deloitte, Ernst & Young, Edwards Marshall.

Did you know?

Featuring research at UniSA

Looking at some of the work of the various research centres at UniSA.

Window of opportunity

Wouldn't it be great to have windows that stay clean, anti-glare car mirrors and safer X-ray shields? All of this could soon be made possible by shining 'light' on specially coated surfaces. Researchers at UniSA's Ian Wark Research Institute have developed this elegant patented technique, which has the prospect of strong commercialisation. The research has applications that could eliminate the need to clean windows in high rise buildings and reduce the glare on windows and mirrors from car lights on wet nights. A variation of this technology will also enable patients to safely undergo X-rays without needing heavy lead shields to protect them from radiation.

Implants for a lifetime

If you've been unlucky enough to have a hip implant before the age of 40, you face the possibility of needing two more replacement operations in your lifetime. The good news is that implant treatments being developed at the Ian Wark Research Institute in partnership with TGR Biosciences Pty Ltd use an innovative process that should enable much faster healing and increased implant lifetime. Implants are specially treated to strengthen the bond between the bone and the implant.

Sci-fi communications

Adelaide's North Terrace precinct is being transformed into a showcase for the most advanced Star Trek style telecommunications in the world today. As a tourist you will soon be able to access mobile communications units that provide visual directions, cultural, historical, entertainment and shopping information as you walk along the boulevard. The telecommunications consortium, m.Net Corporation, has UniSA's Institute for Telecommunications Research taking a leading role in developing wireless and mobile Internet technology for this state of the art communications test bed.

Driving to protect our environment

How can we determine the greenhouse gas emissions of vehicles travelling on a road before construction begins or changes are made to the speed limit? Using intelligent transport systems, UniSA researchers are developing vehicle fleet emissions models that will help traffic planners assess the environmental impact of any new traffic management proposals. This must be determined before any transport policy can be introduced. (Contact Rocco Zito, Transport Systems Centre on 8302 1863)

Satellite modem answers the call

Imagine being able to set up a communications network in three states without using the telephone. You could have high-speed access to communications technology at very affordable

rates. How can this be? The answer lies in using a satellite modem incorporating leading edge technology. The modem uses highly complex mathematical 'turbo codes' discovered by French scientists and further developed by the Institute for Telecommunications Research to achieve world's best practice. Information can be transmitted efficiently and accurately using much less space on a satellite, reducing costs dramatically.

Back onto a winner

Does your backpack leave you feeling a bit weighed down? Physiopak is the backpack designed by physiotherapists to reduce the risk of lower back pain in school children caused by carrying heavy backpacks. Its designers, from the Centre for Allied Health Research, have just won the Australian Health Industry Inc Research and Development Award for the most outstanding advancement in research within the health industry during 2001. Physiopak was developed in partnership with Spartan School Supplies Pty Ltd.

Reading into children's literacy

How do children develop their literacy skills after early years of schooling? The answer lies in reading for pleasure, writing frequently for different purposes, talking to learn, resource-based learning and collaborative problem solving offered in middle primary schooling. These are crucial to learning skills, UniSA and Department of Education, Training and Employment researchers have found. Recognising the literate practices that children bring to school, and looking for opportunities to translate new literacies into different settings are key factors that contribute to children's literacy success.

Reliable Internet delivery

Does your Internet service provider give you a guarantee that your Internet service will work efficiently and reliably? And are you able to access the Internet on your laptop in the Simpson Desert? While you are waiting for the Internet to load an image onto your computer, UniSA researchers are looking at how to do it quickly using satellites that provide good quality, reliable Internet service delivery, wherever you are.

Naturally dangerous

Does your soft drink contain the popular herb St John's Wort? UniSA researchers are discovering that not all that is natural is good for us. Research has shown that this herb can interact in a dangerous way when taken with a range of prescription medicines. The Centre for Pharmaceutical Research is investigating the dangers of mixing herbal remedies with prescription drugs to find answers to unexplained drug toxicity.

Seminar Feature

Successful Ageing in Australia

Forget growing old gracefully learn how to grow old with a smile on your face and a skip in your step.

Be a part of UniSA's free **Successful Ageing Seminar** program.

The seminars promise access to the latest information and research on a range of health and lifestyle issues.

Register now for the forthcoming series of free seminars.

Next seminar 27 September 2002 at City West Campus.

Contact: Desiree Utting, University of South Australia
Phone: (08) 8302 0964
Fax: (08) 8302 0970
Email: desiree.utting@unisa.edu.au

Spring Issue of TheDifference

Editor: Desiree Utting:
Ph (08) 8302 0964

The*Difference* is produced by the Development Office of the University of South Australia to recognize our donors and keep them informed of current events.

Research for Life

The University of South Australia is recognised as a national leader in collaborative research with industry, business and the community. We have a reputation for solving real-world problems and will continue to find solutions for challenges faced by everybody – locally, nationally and internationally.

With two research institutes and 19 research centres, UniSA has the balance and resources to find solutions for a wide range of today's health and life problems. Research at the Ian Wark Research Institute has led to the exciting discovery of a special compound that could alter the course of gene therapy by improving access to diseased cells. This breakthrough could lead to cures for diseases such as cancer and cystic fibrosis.

With your help we will continue to develop quality research outcomes, such as:

- implants that last a lifetime
- midwifery and post-natal care for mother and child
- evaluating treatments for sleep disorders
- rural and remote health
- revitalising degraded environments

For further information, please contact Yvonne Clark:

Telephone 61 8 8302 0972
Fax 61 8 8302 0970
Email yvonne.clark@unisa.edu.au

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An invitation to take part in Research for Life

This year the focus of our Annual Appeal is on research - practical research - which is important to daily life; research that will help people to overcome major challenges through every stage of life: from birth, through childhood and adulthood, to successful ageing.

Three exciting streams of gift opportunities are available for donors:

Cures for the future

- **discovering hope**

Research at UniSA has the potential to make a huge impact on the future of health outcomes, both here and overseas. Current projects at the University's Ian Wark Research Centre include an investigation into compounds that could alter the course of gene therapy by improving access to diseased cells. This breakthrough has the potential to lead to cures for diseases such as cancer and cystic fibrosis.

Equipping imaginations

- **resources for research**

Environments that foster innovative and enterprising research are essential if we are to continue to offer our research students and staff leading edge information and knowledge. We need resources that inspire action and collaborations with industry that are both exciting and practical. Equipping world class libraries and laboratories will nourish UniSA's culture of innovation and creativity.

Research scholarships

- **funding talent**

Perhaps the most important factor in creating a clever country within an increasingly competitive global economy is the funding of individuals with talent.
With your help, Research scholarships will unite talented students and inspirational educators and give them the resources they need to turn today's ideas into tomorrow's solutions.

University of South Australia