MARINE ORGANISMS PROVIDE BIOCHEMICAL TOOLS

Four years ago Japanese researchers, investigating the cause of widespread seafood poisoning, purified a substance known as okadaic acid. This substance was subsequently identified as a specific inhibitor of a class of cell regulatory enzymes called protein phosphatases. Okadaic acid, found in scallops, muscles and sponges, is able to cross cell membranes, thereby providing a powerful tool for the study of phosphatase activity within cells.

Dr Sim, who undertook his PhD at the ANU, came to Newcastle in 1989 after having conducted post-doctoral work in Dundee, Scotland. While at the University of Dundee, Dr Sim was involved in the first major characterisation of okadaic acid as a biological tool to investigate protein phosphatases. Upon returning to Australia, he reasoned that as this toxin was isolated from the marine environment, other, more specific inhibitors must exist. While okadaic acid is a very useful biological tool, Dr Sim says that there are a number of different types of protein phosphatases which cannot be readily distinguished by this inhibitor.

In 1991 and 1992, Dr Sim's group received ARC Small Grants to search for suitable marine species from Australian waters. The Newcastle group, in collaboration with Dr Rob Capon, a marine chemist from the University of Melbourne, have begun a search of Australia's unique marine life, particularly from Bass Strait, for new inhibitors specific for each type of protein phosphatase. A taxonomic survey of Bass Strait several years ago, indicated that this body of water contains a particularly diverse source of marine life. Some 200 to 300 different species of sponges, not previously classified, were discovered during the survey.

"We are now at the stage of fractionating substances from 20 to 30 different sponges (some of which can be the size of a car) and by the end of the year hope to have a few purified compounds for characterisation," Dr Sim explained.

In order to isolate the substances, a highly sensitive but rapid screening test had to be developed. Once purified, the active compounds are expected to provide important new tools for studying protein phosphatases in all tissues. "If we isolate an inhibitor that proves to be specific for an individual class of phosphatases, then the whole field will be blown open," Dr Sim stated. "We know that phosphatases are highly regulated and possess considerable and unique potential for regulation, however the precise roles for protein dephosphorylation in the nervous system are not known," he added.

Two years ago, the Newcastle group, for the first time, identified the major protein phosphatases in the nerve terminal and showed that a regulatory cascade involving a number of protein phosphatases exists. This cascade can potentially modulate cell processes in response to hormone and neurotransmitter action. Using okadaic acid, the group has also shown that protein phosphatases are important in the control of neurotransmitter release.

Dr Sim says that his work during the next three years will involve research into the different classes of phosphatases, find out how they are regulated and isolate probes to study them. Understanding phosphatases will, ultimately lead to a greater understanding of the nervous system and the many responses to innervation, including key functions of development, learning and memory.

An interesting extension of the project, has been the discovery that certain freshwater blue-green algae, which often contaminate waterways, contain a substance similar in action to okadaic acid. Microcystin, a toxic substance isolated from blue-green algae, results in gastrointestinal and liver problems when ingested. This toxin, like okadaic acid, inhibits phosphatase activity.

Dr Sim explained that they are now readily able to test for the microcystin toxin and as such have provided the Hunter Water Corporation with a new tool for testing blue-green algae contamination.

While much is known about protein kinases (which add phosphate to proteins in a process known as protein phosphorylation), little is known about the protein phosphatases (which remove phosphate from proteins, known as protein dephosphorylation) in the nervous system. Dr Sim, from the Neuroscience Group, Faculty of Medicine, in collaboration with Associate Professors John Rostas and Peter Dunkley, is conducting research into the nature and regulation of protein phosphatases in the brain in an effort to define their specific neuronal function.
REVIEWING TEACHER EDUCATION

The University of Newcastle is leading the way in teacher education. A collaborative model, developed in 1986 between the University, the Department of School Education, teacher unions and schools was designed to provide extended and course integrated teaching experience for final years student teachers and at the same time, provide low cost release time for teachers to be involved in staff development. The University model preceded the advocacy of internships by such groups as the Australian Education Council, the Schools Council and the NSW Ministry in the early 1990’s.

With the review of the University’s teacher education program in 1989, the internship component of the collaborative model was introduced to fourth year students. According to Mr Trevor Fullerton from the Department of Pedagogical Studies, the internship program will be fully operational in 1993. The program, which is currently being piloted among early childhood, primary and secondary student teachers, is based on research indicating that school-based education, with the appropriate infrastructure, is the most useful form of teacher education, whether it be preservice, induction or inservice.

“Interns are, for the first time, acting as fully functioning teachers.”

Although this has been acknowledged in national and international reports on teacher education, it is seldom practised, and when it is practised, it is usually regarded as inadequate,” Mr Fullerton said.

The conceptual framework for the collaborative arrangement was derived from the Research in Teacher Education (RITE) Program developed at the Research and Development Centre for Teacher Education at the University of Texas, Austin, under the direction of Professor Gary Griffin. The study indicated that for a teacher education program to be effective it had to be embedded in a school context and be context-sensitive, purposeful and articulated, participatory and collaborative, knowledge based, ongoing, developmental, analytical and reflective.

Fourth year teacher education students spend a ten-week term in a classroom. Unlike short term practical teaching, the internship offers students a more realistic teaching experience. Mr Fullerton explained that the first four weeks of the internship forms an induction period, in which the student teachers receive supervision and support from classroom teachers. Mr Fullerton says that the co-operating classroom teacher is the most critical person in the developmental growth of the student teacher. As such, qualified teachers undergo training programs prior to accepting a student teacher into their classroom.

Student teachers have to pass the minimal standards of teaching competence within the first four weeks of the internship in order to qualify for the final weeks of the ten week school-based teacher training period. It is in the final weeks that students take over the full responsibilities of teaching. They plan work, write programs, meet with parents, conduct tests and evaluations, write reports and even conduct staff meetings. According to Mr Fullerton, interns are, for the first time, acting as fully functioning teachers.

“The program enables students to return to the University setting one day a week so they can discuss any concerns they may have,” Mr Fullerton said. “We also hold workshops at which interns present something that they feel the rest of the interns may benefit from,” he added.

The response from Newcastle and Hunter area schools has been very favourable. Schools participating in the program benefit from the release of a teacher for a minimum six week period to participate in personal, school, or university based professional development and other teacher education programs. In this way, the program is all embracing, affecting students, teachers, schools and school children.

A report of the Joint Review of Teacher Education, Improving Teacher Education, points out that teacher education is a continuum of professional development, in which preservice training is only the beginning of a career of self-motivated professional development. The availability of intern, leaves teachers free to further educate themselves so that they too, are able to work on their own professional development.

Mr Fullerton and his team in the Department of Pedagogical Studies, prepared a document entitled Knowledge Base for the Essential Skills in Teaching Competence, which represents the first translation in Australia of research on effective teaching into a knowledge base for the measurement and development of teacher performance.

“Unfortunately, the context of teacher education programs is so unstable and individualistic that these programs actually cultivate this personalistic attitude. As a consequence, teachers see learning to teach and legitimisation for teaching vesting on personal experience,” he added.

In his foreword, MrFullerton writes: “We are now only beginning to see that teaching, like political and economic behaviour, is a natural phenomenon to be studied in its own right. Although the accumulation of professional knowledge of teaching behaviours based upon research is a relatively recent phenomenon, the knowledge is growing in leaps and bounds. It is important that we take the opportunity to develop a firm core of professional knowledge with a language to describe it and the way it can be used. Teaching has for too long been a normative enterprise. These modest documents, hopefully, will assist to make it a state of the art enterprise”.

MUSIC APPRECIATION GROUP

Presents

“Music Inspired by Poetry”

Ranging from medieval times through the Romantic Age to Modern Times.

September 24, 10.30am - 12.30pm
Newcastle Conservatorium Rm 118
Please telephone John Allen on 497421 for further information.
THE REALITY OF CONFINEMENT

Architecture involves more than just sitting at a drawing board and creating a design. It incorporates all aspects of development from the initial concept through to development strategies, client identification, site selection and analysis, technical, business and economic feasibility, project management and finally, design.

Mr Phillip Rossington, an architecture graduate of this University and research assistant and design tutor in the Faculty of Architecture considered all of these aspects in designing a theoretical medium security prison at Hexham for his final year thesis last year. For his efforts, Phillip was awarded The Royal Australian Institute of Architects NSW Chapter Medal for Design Excellence and $1500, and was one of two Newcastle students shortlisted for the award (only five entries from around the state were shortlisted). Judging is based on demonstration of a sound knowledge of principles, analysis of the problem, depth of resolution, extent of scholarship, meeting the objectives of the design brief and presentation.

Final year architecture students are required to work independently on a project of their choice, which initially involves finding a client and developing a brief. Phillip says that his decision to select a prison project evolved from several concerns. "These concerns revolve around an interest in the gained meanings of "architectural types" in society and the effects these meanings have on human behaviour. French culture advocates that a nation of great architecture will produce a nation of great people," he said.

Phillip admits that he had little knowledge of prison history when embarking on his project. He says that the harsh images of prisons evoke feelings of fear and that the perception of the prison system needs redefining. "The responsibility for this redefinition must lie partly with the architectural profession which helped create the harsh image of the existing prison buildings," Phillip said, adding that if architecture does have a direct impact on our state of mind and behaviour then more architects should have approached the problem of prison design with the aim of architecture assisting rehabilitation.

With this in mind, Phillip designed his prison using a sensitive approach to rehabilitation, rather than punishment. The circular perimeter wall of the prison results in a design which is both unthreatening and striking. Phillip states, however, that he had to overcome many barriers when designing the prison, the first of which was coming to terms with the reality of confinement. Phillip worked closely with staff at the Department of Corrective Services and the Department of Public Works in developing his concept.

"The conflicts and compromises that arise in prison architecture are enormous. This results in a prolonged, arduous design process," Phillip said. In his thesis Phillip writes: The design has attempted to address social needs together with the physical requirements. An architecture has been sought which is more than an individual architect's statement on current affairs or personal taste, more than some abstract theorist's ideals. It is a design attitude that starts from the people it serves. Phillip strongly believes that a prison should be seen as a place where people are rehabilitated rather than imprisoned.

The University's Faculty of Architecture recently received a 5-year accreditation from the Institute of Architects. According to Phillip, the problem-based style of teaching developed in 1985 has been extremely successful in producing graduates who are able to enter an office environment without further training. "As soon as you begin the course in 1st Year, it is run like an architect's practice," Phillip said, adding that the design element of the course is improving all the time.

Of further credit to the Faculty was the receipt of a merit award in the public buildings category for the design of the Faculty of Architecture's "red building". Designed by visiting British architect, Mr Michael Wilford, with assistance from University architecture students, the distinctive red building comprises two pavilions and a central canopy covered in Laughe steel cladding. According to designers, steel was chosen as part of the design because of its strong association with Newcastle. The documentation drawings were carried out by Newcastle firm, Suters Architects Snell.

UNIVERSITY ENGINEERING AND PHYSICAL SCIENCES RATE WELL NATIONALLY

A report released by the Department of Employment, Education and Training has indicated that the University of Newcastle is performing very well in Research in Engineering and Physical Sciences.

The University of Newcastle currently ranks 12th out of the 37 Higher Education Institutions who receive competitive grants from the Australian Research Council. In some areas, however, the University's placing is much higher.

In Physical Sciences, which includes Mathematics, The University of Newcastle is ranked 6th with 6.7% of the funds, behind the Universities of Melbourne, NSW, Adelaide, Western Australia and Sydney. In Engineering and Applied Sciences, the University is ranked 7th, with 4.9% of available funds. In areas such as Social Science, the University is ranked 12th and in Earth Sciences, 15th.

In 1992 the University will receive a total of $2,191M from the Australian Research Council. This is one major component of research funding. An additional amount, in excess of $2.0M, is provided by the NH&MRC for medical research in the University.

These research funds, which are won against competitors from all other Universities in Australia, are crucial to the research effort of the University. They are supplemented by further funding from external sources such as Government departments and industry. For example, in 1992 over 50 postgraduate research students are funded from grants and contracts other than the normal operating grant to the University.
TEACHING GRANTS SCHEME
AWARDS FOR EXCELLENCE IN TEACHING

The Teaching Committee has been allocated $150,000 by DEET from the 1992 National Priority (Reserve) Fund for the implementation of the Teaching Grants Scheme and Awards for Excellence in Teaching. Application and nomination forms together with detailed guidelines are available from the Secretary to the Teaching Committee, Ms J Curran (x5301); further enquiries should be directed either to the Secretary or to Dr John Drinan, Chairperson of the Committee.

Teaching Grants Scheme

The following applicants were successful in the first round of awards made under the Teaching Grants Scheme, for which submissions closed on 31 May, 1992.

Dr H J Banerjee - Architecture - $2,000
Computer graphics based education system to support a self-paced mode of learning.

Mr R F Berghout - Mathematics - $2,000
The effective use of computers and computer algebra for teaching undergraduate Mathematics.

Mr M Conn - Modern Languages - $4,000
Development of computer materials for enhancing initial linguistic skills-acquisition in French.

Dr J A Cowley - Educational Studies/Special Education - $3,000
Teaching and learning strategies in graduate distance education.

Ms J Lee - Economics - $2,000
Teaching practices in first year Economics in Australian universities.

Mr R Lewis - Curriculum Studies - $3,000
A regression computer managed instruction model for Economics and Business Studies Education.

Mrs A McCormack - Curriculum Studies - $1,500
Dance studies in Education.

Dr S C Provost - Psychology - $7,000
Evaluation of computer-based self instructional methods for the teaching of methodology and statistics in Psychology.

Dr K Russell - Design - $6,000
2D-3D real and virtual solids in modelling.

Mr R J Sharkey - Community and Mental Health Nursing - $5,500
Implementation of problem-based learning subjects to large numbers of students in a mixed curriculum.

ENHANCING THE STATUS OF WOMEN

Submissions are now being called for Grant Applications under the National Agenda for Women Grants Program (NAWGP).

The NAWGP aims to enhance the status of women in Australia by providing:

i) Project Grants for activities which reflect the priorities of the National Agenda for Women, and which can be completed within twelve months; and

ii) Operational Grants to assist national women's organisations with administrative costs and activities that reflect the priorities of the National Agenda for Women.

Priority areas of the National Agenda for Women include education and training; women in the paid workforce; women at home; child care; income security; violence against women and children; the dignity of women; women’s health; concerns of special groups of women, including Aboriginal women, women from non-English speaking backgrounds and women with disabilities.

Project funds may be spent on items and activities including, employment of project personnel; expenses for publicity and seminars; printing; travel within Australia; leasing and hiring of equipment.

Applications must not exceed $25,000.

Further information and application forms are available from the Office for Research, Level 2, Chancellery, telephone 21 5305. Applications must be lodged with the Office for Research by 18 September 1992.

STAFF DEVELOPMENT
PROJECT RECEIVES $223,900 FOR 1993

The University has been successful in obtaining funding for a project entitled: "Enhancement of the Research Skill Base", submitted recently to the Office of the Staff Development Fund Committee.

This project targets the development of research skills in staff who, as a result of amalgamation, are now disadvantaged in their development because of lack of research emphasis or opportunity in the former HIHE or Conservatorium.

The aims of the project are:

• to provide staff with the basic skills associated with the successful development of a research project;

• to encourage co-operation and collaboration between staff who are skilled and experienced in research and those who are not;

• to develop a systematic approach to the provision of seminars, workshops and short skills focussed on the various skills essential to the conduct of research and invaluable in the development of scholarship;

• to facilitate and accelerate the completion of research higher degree candidature.

The total funding was $223,900 for one year, with $59,700 associated with the research higher degree component and $164,200 associated with the research skills component.

The program will involve selection of specific areas of research to be targeted; discussion groups within those areas to decide on projects; identification of an experienced researcher with appropriate skills and experience who might agree to act as mentor; development and establishment of a regular seminar series to allow the project teams to report to their peers.

The overall aim is to develop the skills of the participants and the project itself to the point within two years where the project may be reported in reputable journals in the field.

This is an exciting project which offers valuable experience to staff at this University. Further information may be obtained from Professor R.J. MacDonald, Dean for Research. The initial identification process is likely to begin in late October or November of this year.
DOCTOR WHO?

Yiding Hu from the space plasmas waves group of the Physics Department, was recently awarded his PhD and has already been given the title of “Doctor Who”. He was supervised by Associate Professor Brian Fraser, and his thesis dealt with the generation and propagation mechanisms of electromagnetic ion cyclotron waves in the earth’s magnetosphere.

The waves studied have frequencies between 0.2 and 5 Hz and have been recorded by satellites and on the ground as pulsations of the earth’s magnetic field. These waves provide information on the kinetic characteristics of cold heavy ions in space plasmas. His weather,” recorded by satellites and on the ground both linear and non-linear wave-particle interactions, and gave an advanced understanding for some new features of the waves observed by satellites. As a theoretician who is concerned with basic concepts in general physics, Yiding has also contributed to the classification of convective and absolute instabilities in physical kinetics.

Ion cyclotron waves have been studied at the University of Newcastle since the 1960’s, and Professor Fraser is a pioneer in this field. He has successfully supervised 10 PhD candidates involved in mainly experimental projects, and Yiding is the first student to undertake a completely theoretical study.

During his studies towards his Doctorate, Yiding presented papers at national and international conferences. He has already published 14 papers in refereed journals. Prior to completing his thesis, he was offered research fellowships by the University of Leicester and by the Queen Mary and Westfield College of the Uni-versity of London, UK.

He recently took up a post-doctoral position with the Physics Department of the University of Newcastle and is currently gaining experience in both experimental and theoretical studies of ULF/ ELF waves from NASA spacecraft.

A/Professor Brian Fraser
(l) with
Dr Yiding Hu

PRESENTATION OF WILLIAM FLETCHER GRANTS

The perennial problem of finances, or rather lack of them, has been eased somewhat for three students in art courses at the University.

Juanita Hall and Sonya Naumov, studying Plant and Wildlife Illustration in the Graduate Diploma in Art, and Graham Wilson majoring in Printmaking in the Bachelor of Arts (Visual Arts) degree, have been presented with grants from the William Fletcher Trust, a fund set up to assist talented art students. The grants were presented in a small ceremony in the Vice-Chancellor’s Suite recently.

Established in 1985, the Trust celebrates the life and commemorates the work of William Fletcher, a printmaker and painter who specialised in representing Australian flora. His legacy continues to help students experiencing financial difficulties which may prevent them from continuing or resuming their studies.

Chairman of the Trust, Mr Ken Tribe, said the selection process is a tough one with many artists vying for grants to help them with their studies. He said a strict selection process using the criteria of talent and financial need is used.

“By providing these funds, the Trust is able to recognise the talent and quality of achievement of art students,” Mr Tribe said.

“We set out to help students whose work emphasises painting, drawing or print-making, much in the Fletcher tradition. And an exciting development for the Trust is that we have been able to help students from the Plant and Wildlife Illustration specialisation, the only course of its type in Australia,” he said.

The students expressed their appreciation of the grants, Juanita and Sonya each receiving $400 while Graham received $800.

(back row l to r) Professor Keith Morgan, Mr Ken Tribe, Ms Chris Sanders
(front row l to r) Mr Graham Wilson, Ms Sonya Naumov, Ms Juanita Hall

REDUCING CANCER RISK IN RURAL TOWNS

The Hunter Centre for Health Advancement has announced details of a project designed to reduce the incidence of cancer risks in rural towns. The project, which involves the collaboration of the NSW Cancer Council, is one of the largest of its type ever attempted anywhere in the world and has, according to Centre Director, Professor Rob Sanson-Fisher, been made possible by a funding grant from the National Health and Medical Research Council.

The Cancer Action in Rural Towns (CART) project will focus on rural towns of NSW and will work with community members to increase preventive and screening behaviour for cervical, breast, lung and skin cancer. Professor Sanson-Fisher said that this approach has been used on several occasions previously, but CART is unique in its size and range.

To address the significant design and logistical challenges a project of this size presents, the Hunter Centre for Health Advancement recently held a workshop in Newcastle, which was attended by some of
A VISION FOR THE FUTURE

Twelve representatives from The University of Newcastle attended the recent World Congress of the International Association for the Study of Mental Deficiency, held in Broadbeach, Queensland. The Congress, which is held every four years, attracts people from all backgrounds including medicine, genetics, intellectual disability nursing, education, psychology, law and paramedical areas.

According to Dr Bob Conway, from the University’s Special Education Centre and President of the Australian Association for the Study of Intellectual Disability, it is unusual for a conference to draw people from such diverse backgrounds. “The conference attracts people interested in every aspect of the life cycle, so you have people looking at early intervention, school programs, residential programs, employment programs and issues of aging pertinent to people with intellectual disabilities,” Dr Conway explained.

Representatives from the University included Mr Ian Dempsey, Dr Bob Conway and Dr Phil Foreman from the Special Education Centre; Mr Andrew Bertram and Robert Kucera from the Department of Community and Mental Health and Professor Graham Vimpani from the Faculty of Medicine.

The theme of the Congress Sharing a Vision for the Future, inspired presentations on topics such as Integration and Community Living; Cognition and Learning; Education and Training; Down Syndrome, and Government Policy.

Dr Conway pointed out that educational studies are largely concerned with improving educational standards and better integrating children with intellectual disabilities into regular programs. He says that new research is focusing on the effectiveness of moving people from large institutions (like Stockton used to be) into small group homes. “Studies are being conducted to examine whether small group homes are not, in fact, a lot of mini institutions, or whether they are truly homes for people with disabilities,” Dr Conway said, adding that there is a great deal of controversy surrounding this issue at present.

Dr Conway mentioned that a further important development to have come out of the recent Congress was that the international body is changing its name from the Association for the Scientific Study of Mental Deficiency to the Association for the Scientific Study of Intellectual Disability, a change the Australian Association has been lobbying for for many years.

“We no longer talk about people with mental deficiency or about mentally retarded people,” Dr Conway said. “We now talk about people first and intellectual disability second,” he added. This change is a significant step forward in helping to change societal attitudes towards people with intellectual disabilities.

The Australian Association for the Study of Intellectual Disability Annual Conference, hosted by the NSW Branch, is to be held in the Hunter Building of the University next year. Dr Conway, who is the Chairperson of the local organising committee, says that Australian researchers have a great deal to offer to the international understanding of intellectual disabilities. “What we do in Australia is leading in many ways,” he indicated.

ACADEMIC ELECTED TO INTERNATIONAL ORGANISATION

The Asia Pacific Institute for Broadcasting Development (AIBD) has elected Frank Morgan, Head of the Department of Communication and Media Arts, to be its Honorary Representative for Australia. Set up by the United Nations 20 years ago, the AIBD assists the development of radio and television broadcasting in the Asia-Pacific region. Its 23 member countries stretch from Iran and Iraq in the west to Korea in the north-east and Samoa in the Pacific, and include China and India. It thus contributes to the quality of radio and television available to more than half the human race.

Australia is not a member but has supported the AIBD since its inception. Mr Morgan has been a consultant to the AIBD and its member governments for more than 10 years, and in 1988/89 led an international team which reviewed its whole operation and proposed a plan for its future. In January and February this year, he led a workshop in Kuala Lumpur for the Heads of Broadcasting Training in AIBD member countries. His election to this Honorary position is recognition of his service to the AIBD and to broadcasting in the region.

MARINE ORGANISMS

Continued from p1

“Previously, the only way to test for contamination was to inject the substance into a mouse and watch what happened,” Dr Sim said. The group regularly test three to four water samples a fortnight, from the Hunter Water Corporation and the NSW Department of Water Resources.

“This is the only place in Australia where routine monitoring occurs at this level,” Dr Sim commented. In an effort to make the testing procedure more user friendly, the group, with the assistance of grants from the Hunter Water Corporation and the Urban Water Resources Association, are developing a standard biological assay for rapid monitoring of blue-green algae contamination in Australian waterways.
WORDS WITHIN WORDS

Richard Tipping, from the Department of Communication and Media Arts describes himself as a "word monger". Language, he says, is his medium, just as colour or music is the medium for other artists. Richard, who graduated from Flinders University with a degree in Drama and Film, has worked as a freelance writer, scriptwriter and film maker. He has twelve years professional experience in cinema and video, having worked with the South Australian Film Corporation and directed his own documentaries.

Richard, who now lectures screen writing and video production in his Department and for the Department of Fine Arts, has been exhibiting sculpture, prints and visual art of various types since the 1970's and has published three books of poetry.

"I look for words within words," Richard said, adding that a Russian babushka doll may serve as an appropriate analogy. Here, dolls are hidden within dolls, just as words may be hidden within words. "Unlike a babushka doll however, I am looking at things that are qualitatively different being hidden inside, so it's a question of appearance and ambiguity; paradoxes discovered nesting within language," he explained.

Richard's latest poem, which cleverly illustrates the existence of "words within words" will be on display at the Australian National Gallery in the form of a neon sign. The one-word poem, entitled SMOTHERED, reads: another mothered the other mothered here here her red moth, with each letter being activated by a complicated switching system, turning on and off to produce the words of the poem in sequence. Richard, who was commissioned by the Gallery to make the sign for an exhibition called "The Trial", which opens this month and aims to prove that domestic life isn't always what it seems, says that he developed the concept 10 years ago, but did not have the funds to "make it happen".

He says that although neon is quite an old technology, it has made a resurgence, having particular qualities which cannot be imitated with light emitting diode (LED) technology. The neon had to be hand-bent, an exercise requiring a great deal of skill, and consists of ruby red glass on shiny black reflective acrylic. Opalescent Signs, a Newcastle company was commissioned for the project. "It was terrific to be able to find a company in Newcastle to work with me," Richard said, adding that he was able to deal with the staff at Opalescent Signs on a very personal basis.

As the National Gallery's quality stipulations are extremely high, the work had to be first class. It will form part of the Gallery's permanent collection and as such has to be archival quality. In an effort to ensure its safe arrival, Richard transported the piece to Canberra himself - in the back of his Kingswood!

"I am thrilled to be able to finally make a neon," Richard said. "In fact this project has sparked me on and I have since designed another three neon signs." Richard says that these will have to be commissioned prior to his making them, as they are too expensive to have "hanging on the wall" in the hope that someone will buy them.

Richard, who likes working with what he calls the "accidental audience", says that he hopes to work with architects, as he is interested in displaying art in public space. He is one of only 12 Australian artists to be invited to exhibit in Australia's biggest visual art event, the Sydney Biennale. Richard's contribution, entitled Roadworks, will comprise three 18m by 1m banners (to be displayed in sequence across the Cahill Expressway), a bumper sticker and an altered road sign (see photo).

Final typographic design for the neon and banners was accomplished with the help of Allan Morse, Senior Lecturer in the Department of Design.

While it would appear that Richard works with a multitude of media, he assures us that his work is united by a single concern. "All of my work is about poetry; about language and symbol," he explained.

WARREN BRIAN MOORS PhD

The degree of Doctor of Philosophy was recently approved for Warren Moors, who came to the University of Newcastle in February, 1990 to study under the supervision of Professor John Giles in the Department of Mathematics. His thesis Continuity conditions defined by indices of non-compactness and applications to differentiability theory explores a variety of conditions on set valued mappings which imply singlevaluedness. This provides an important technique for the study of the differentiability of convex functions on Banach spaces. He defined these continuity conditions from the consideration of a problem in the geometry of Banach spaces and of course his work has application there.

Warren Moors came as a first class Master of Science graduate in Mathematics from the University of Auckland. In the year before coming to Newcastle he had been an assistant lecturer and at the same time had been studying a postgraduate course in relativity and cosmology.

Warren was a tutor in the Department of Mathematics and produced five papers covering the work of his thesis which are to appear in the Journal of Mathematical Analysis and Applications, the Bulletin of the Australian Mathematical Society and other research journals. Some of the ideas of these papers have been taken up by distinguished mathematicians of international reputation.

Warren is now an assistant lecturer again at the University of Auckland hoping to go to a postdoctoral position in North America. He has prepared two more papers this year, developing further his thesis research.
THE GREAT AUSTRALIAN DREAM?

The Hunter Caravan Project is a story about families who struggle daily in cramped living conditions coping with lack of privacy and often poverty. It is also a story about committed project workers who struggle to empower such families and to advocate for them at various levels in order to bring about long term change.

According to 1986 Census figures, 300,000 families around Australia are living in caravan parks. The "Australian Dream" of home-ownership, remains, for many low income families exactly that - a dream. Former Hunter Caravan Project Director, Wendy Schiller, points out that long waiting lists for government housing, scarcity of low-rental private accommodation, economic uncertainty and worsening unemployment mean that many families become itinerant, moving around the country in search of work, and moving to small, rented caravan parks to meet their accommodation needs.

A study conducted by the Lady Gowrie Centre in the early 80's, indicated that many people in the Hunter Valley were living in caravan parks on a permanent basis. A mining boom perpetuated the many problems faced by the "park people" as the caravan parks were, at that time, "bursting at the seams".

Ms Schiller, aware of some of the problems faced by these people, forwarded a proposal to the Bernard van Leer Foundation, an international non-profit organisation based in The Hague, Holland, to conduct a study which would enable Project staff to identify the needs of caravan families; disseminate those needs across the community; develop strategies to empower caravan families to take control of their own lives and to establish a process of facilitating long term change in caravan park that time she had no idea about how to deal with the situation, or what problems the team would encounter.

The Foundation provided $310,000 for an initial period of three years (Phase 1 1986-1989), $548,000 for Phase II of the project (1988-1991) and a further $381,000 for a National Advocacy and Dissemination Program to be completed in 1994.

Established at the Hunter Institute (now the University of Newcastle) in 1986, the Hunter Caravan Project was a first for Australia and has, according to Di James, Project Director, received enormous support from the now Minister for School Education, Virginia Chadwick. Apart from the van Leer Foundation funding, additional funding for specific programs has been received from State Departments of School Education, Sport, Recreation and Racing, and Federal Departments of Health, Housing and Community Services, and Arts, Sport, The Environment and Territories.

Of the 44 caravan parks existing within Newcastle and the Hunter Valley, many have a high number of permanent residents (exact numbers will be available upon release of 1991 Census figures). According to Ms James, many of these parks and mobile home villages are physically and socially isolated from their local community, often on the edge of the suburban fringe areas.

"Bringing up children in parks and villages presents different and specific problems for young families," she said. "Lack of transport often prevents adequate access to community services, child-care, employment, education, recreation and proximity of neighbours, areas where parents can do their homework quietly. The limited living conditions in a caravan, the close sharing of amenities and living space, and the lack of suitable safe playing areas and to "Supervise the children creates stressful living conditions," Ms Schiller added.

The Hunter Caravan Project, in an effort to alleviate some of these problems, has established and based self-help programs in response to needs. Programs include, playgroups, vacation activity days, a "swim gym", interpark visits, parenting courses and home visits. The resources provided by the Project for park communities include an activity van, gross motor equipment, a toy and activity library, and adult and child audio visual and book libraries.

The many facets of the project would not be possible without the care, concern and dedication of Hunter Caravan Project staff (12 full-time, 2 part-time) and the 130 or so dedicated volunteers around Newcastle and the Hunter Valley. All of these people work tirelessly with the whole caravan park community in an effort to make available to them the resources and friendship that so many of us take for granted.
HISTORY AND FUTURE OF THE HUNTER CARAVAN PROJECT

In its preface, Dr Les Eastcott, Pro Vice-Chancellor of the University writes:

So successful has their tow created a model recognised both nationally and internationally. It is a model which, when applied, empowers wellers to enhance the quality of, and take more control of, their own lives. It is a model which addresses the self-ta encourages their active participation not only within the context of their own manufactured home community, but also in other communities. In its preface, Dr Les Eastcott, Pro Vice-Chancellor of the University writes: So successful has their tow created a model recognised both nationally and internationally. It is a model which, when applied, empowers wellers to enhance the quality of, and take more control of, their own lives. It is a model which addresses the self-ta encourages their active participation not only within the context of their own manufactured home community, but also in other communities.
THE KOREAN CONNECTION

The Department of Curriculum Studies is conducting a comparative study of industrial training in Korea and Australia. Jeung Hoon Eom and Dr Roger Coldwell are studying cultural differences in the use of computer aided learning related to computer aided design in two Technology High Schools in New South Wales and two in Seoul. The Australian high schools are the Rutherford Technology High School and the Batlow Technology High School. The Korean schools are the Seoul Technical High School and the Kyung-ki Technical High School which are both in Seoul.

The research is being conducted in collaboration with the Ministry of Education in Korea. The Korean Industrial Education Commissioner, Ha Young-Sun, has arranged the collaboration in Korea. Eom is currently in Seoul doing exploratory fieldwork in collaboration with Lee Hae-Kyung (Seoul THS) and Shim Yun-Scob (Kyung-ki THS). Negotiations are taking place with the Batlow THS where Bruce Tom is teaching. Like Eom, Bruce recently completed an M.Ind.Ed. program in the Faculty of Education.

The research is concerned with the use of the Autodesk CAD-package, in both countries. Autodesk Australia has offered its co-operation regarding the study which, on the one hand, asks to what extent a CAD package, which was produced in the USA, is effective in use by disparate cultures. On the other hand, it asks what teaching methodologies in Korea and Australia have to learn from one another. A Korean computer company, Goldstar Computers, has expressed an interest in the project.

This is the first of various co-operative projects which are being contemplated between the two countries.

REDUCING CANCER RISK

Continued from p5

the most eminent researchers in the field, including Professor Sylvan Green from the National Cancer Institute, Washington D.C. and Professor Allan Donner, from the University of Western Ontario, Canada, as well as representatives from research centres throughout Australia.

A report outlining the major issues addressed and conclusions reached at the workshop is in preparation and will be circulated to other Australian centres with similar research interests.

CREATING AN IMAGE

A group of final year University Graphic Design students were able to put their skills to the test recently when asked to design a logo for Firstchance, a registered charity which comprises parents and community members who provide support for programs at the University’s Special Education Centre.

Director of the Special Education Centre and Assistant Dean of Education, Dr Phillip Foreman, said he made the suggestion to members of Firstchance to ask University Graphic Design students to create a new logo for the group. “The University has a very good design section,” he said. Ten students prepared designs and the winning design will be used on all future Firstchance letterhead, envelopes, receipts and T-shirts.

Dr Foreman prepared a detailed brief, outlining that the design had to present a reasonably dignified image and not be in the form of a cartoon or mock children’s drawing. The logo, he said, might give an indication of the Centre’s involvement with children and should not attempt to portray disability. Students were required to submit colour visuals (2 colour only), master art for typography, master art logo and illustration, along with a concept briefing statement explaining choices of colours and approaches to the task.

Graphic Design student, Ms Sally Pottinger, said that she conducted research into the needs of children prior to designing a logo. “Firstchance supports programs for children with learning and developmental problem. These children need to grow and to feel warm and happy,” she said. Her logo uses a stylised image of the sun. The colours, orange and blue, contrast each other, thus creating a visually vibrant and cheerful image.

While there can be only one winner, all students said that the Firstchance project provided them with further experience in dealing with clients and in complying to a set brief.

RULES

The following Rules have been approved or amended by Council:

<table>
<thead>
<tr>
<th>RULE</th>
<th>DESCRIPTION</th>
<th>DATE APPROVED</th>
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<tbody>
<tr>
<td>Student Discipline Rules</td>
<td>New Rule</td>
<td>21/8/92</td>
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<tr>
<td>Rules Governing Student Discipline, Evatt House</td>
<td>Alteration to definition of &quot;Student&quot;</td>
<td>21/8/92</td>
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<tr>
<td>Schedule to Postgraduate Degree Rules</td>
<td>Master of Music</td>
<td>21/8/92</td>
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<tr>
<td>Academic Dress Rules</td>
<td>Updated to include Bachelor of Health Science (Occupational Therapy) and Bachelor of Applied Science (Consumer Science)</td>
<td>21/8/92</td>
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<tr>
<td>Schedules to the Rules Governing Academic Awards:</td>
<td>Revised Schedule</td>
<td>21/8/92</td>
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<td>Bachelor of Architecture</td>
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<tr>
<td>Graduate Diploma in Legal Studies</td>
<td>Deletion of specialisation of Electronics and Communications Engineering</td>
<td>21/8/92</td>
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A copy of any Rule may be obtained from the Office of the University Secretary, Level 2, The Chancellery.
FAMILY FITNESS

Fitness certainly runs in the Williams family. Marie Williams, from the Department of Curriculum Studies, entered the recent Newcastle Herald Fun Run (over 5km), placing a credible 2nd in the Women's 40 - 49 year age group. She came 40th out of a total of 500 competitors in the Fun Run and won the Mother and Child division with her son, Todd.

Todd, 15, represents his school, Whitebridge High, in athletics, swimming, cross country, rugby league and basketball. He is a member of Merewether Surf Club and has been competing in surf club events since the age of 12.

Meanwhile his father, Phil Williams, from the Department of Holistic Health, is an active member of Dixon Park Surf Club. Phil recently won the Rescue Tube Race in the Australian All States Masters Surf Life Saving Championship. Phil says that he had not competed in this event prior to the championships, however is looking forward to future competitions.

Phil is currently organising a family ocean swim, The Dixon Park Dip, to be held at Dixon Park on November 29 in conjunction with the club's 60th Birthday celebrations. To his knowledge no similar event has ever been held in an Australian Surf Lifesaving Club and has been competing in surf club events since the age of 12.

A Bushland Campus Walk will be conducted by Kevin McDonald and Glenn Albrecht on Tuesday, September 15. Meet at the Great Hall at 1.00pm.
THE UNIVERSITY OF NEWCASTLE LIBRARIES

present UNCOVER - a current awareness service for journal articles.

The University Libraries are providing access to a database of the current content pages of 12,500 journals covering all academic disciplines.

The content pages are input into the database daily by the Colorado Alliance of Research Libraries (CARL). The database can be searched for a particular journal title and the contents of individual issues viewed. Alternatively a keyword search on a subject of interest will retrieve all articles on a subject in any journal.

The Libraries will offer its usual interlibrary loan service (including Fast-Track) for articles not held at the University Libraries. They have also opened an account to use the UNCOVER document delivery service for articles not available in Australia.

Access to the UNCOVER database is available as a menu option on the LBALL signon to Alleycat. You can also telnet to UNCOVER.CARL.ORG using any machine on the campus network with telnet software.

Access has been purchased on a trial basis for one year with research infrastructure funding allocated by the Research Management Committee. Please use UNCOVER as much as possible so that the value of the database in your research field can be assessed. Comments and queries about the system are welcome. For further information please contact Aurelia Balpe, International Development Programme, Conference Secretariat on (062) 858227.

INTERNATIONAL EDUCATION

The Annual International Development Programme of Australian Universities and Colleges (IDP) National Conference on International Education will be held at the Convention Centre, Canberra, October 27-29, 1992.

The theme of the Conference, *International Education in the 1990's: Lifting the Barriers*, is designed to address the necessity of developing strategies and taking action to lift the barriers to international education in Australia.

For further information please contact Aurelia Balpe, International Development Programme, Conference Secretariat on (062) 858227.

HENRY AWARDS

SURVEY

GENERAL STAFF

Negotiations are continuing between the University and the combined union Single Bargaining Unit regarding the implementation of the new General Staff Award. All members of general staff who have not returned a HEGSS Survey form are encouraged to complete a Survey form and return it to the Staff Office.

Copies of the Survey form are available from Meg McNaughton (X5747) or Merrilyn Earl (X5289) in the Staff Office.

CONVOCATION NEEDS YOU!!

Why Support Convocation?

By becoming a contributing member of Convocation you can support your University. Convocation organises a number of social and educational events throughout the year including: Inaugural Professorial Lectures, the Newcastle Lecture, Graduation Balls, and the Convocation Dinner at which the Newton-John Award and Convocation Medal are presented. This year these events have been extended to include tree plantings, barbecues, book prizes and scholarships, and sponsorship of "The University of Newcastle People and Places" Photographic Competition. We are also in the process of planning the first of many Convocation Contributory Membership Cards. We are currently negotiating with businesses to arrange discounts on goods and other benefits to membership.

As a contributing member of Convocation, you will receive The Bulletin, a fortnightly publication containing information about research and events on campus and human interest stories; UNINEWS a quarterly publication reporting on academic and student pursuits; personal invitations to major Convocation Events; and a Convocation Contributory Membership Card. We are currently negotiating with businesses to arrange discounts on goods and other benefits to membership.

Keep reading Bulletin for more information regarding benefits to Contributory Members of Convocation. In the meantime, if you wish to assist Convocation in a tangible way, please complete the form below and return it, with your contribution, to the Convocation Shop, Hunter Building, The University of Newcastle CALLAGHAN 2308.

Mr Vic Levi

Warden

APPLICATION FOR CONTRIBUTORY MEMBERSHIP

NAME: (Mr Mrs Miss Prof Dr) ................................................ Former name: ............................................................

Address: ........................................................................................................................................................................................................................................

.............................................................................................................................................................................................................................. Postcode: .............................................................

I enclose cheque/ money order/ credit card authorisation for:

1992/3 Annual Subscription $25 [ ] Life Membership $250 [ ]

Mastercard/ Bankcard/ VISA No: ..............................................................................................................................................................

Expiry Date: ................................ Signed: ..............................................................
EEO UNIT

ATTENTION ALL WOMEN STAFF

All female employees, academic and general, are invited to an Affirmative Action consultation meeting on either of the two following dates:

MONDAY 28 SEPTEMBER or TUESDAY 20 OCTOBER at 10.30AM IN ENGINEERING SCIENCE ES309

The purpose of the meeting is to:

· bring you up to date on current Affirmative Action and EEO activities,
· consult you on the 1993 Affirmative Action program,
· give you the opportunity to ask questions and,
· raise issues with Dr Les Eastcott, the Director of Affirmative Action, and members of the EEO Unit.

NB:

The Vice-Chancellor has approved the holding of these meetings in ordinary work hours, as a legitimate work-related activity. Supervisors are requested to release staff to attend one of the 2 sessions.

AARNET

University Staff and postgraduate students are invited to find out how AARNet can facilitate their research at a lunchtime talk in the Library. The AARNet facilities to be discussed include news, electronic mail, access to computers around the world, file transfer and information sources to all disciplines.

The talk will be held between 1.00pm and 2.00pm on Tuesday, September 22, in the Audiovisual Theatre, Auchmuty Library. Please contact Jim Cleary on 215856 or 215851 for further information.

The University Libraries will also be holding two-hour courses in the use of AARNet (VAX/VMS and Unix) for staff and postgraduate students during this semester.

Unit 1 focuses on getting started, electronic mail, mailing lists, conferences, sending files, and accessing the networks. Unit 2 covers remote access to computers, FTP (file transfer protocol) and downloading files to the PC with Kermit.

Expressions of interest are invited for subject based courses in using directory and access tools to locate resources on the networks. Contact Charmian Mitchell (Ext 5852) or Lyn Kelly (6142).

Registration forms and information on times and venues are available from the Reference Desk in the Auchmuty (Ext 5851) and Huxley (Ext 6455) Libraries.

AL'ÉCOUTE

The third year French class of the University is proud to announce the inauguration of a radio program in French, conceived, created and produced by the students under the name Les Grenouillettes d'Acier (Steel Frogs).

The program, entitled La Nouvelle Gaule du Sud, will be broadcast on 2NUR, beginning on Friday, September 25 from 7.30pm and continuing at the same time each Friday for a total of six weeks.

The program is focussed around a series of interviews with French people who have made their homes in Australia, particularly in the Hunter Valley. The interviews will be supplemented with French music, short stories and other diverse material.

The aim of the program is to foster interest in French culture and to make the community aware of the extent to which French culture has been adopted into the lifestyle of the Hunter Valley. It will also provide French students with the opportunity to broaden their knowledge of the French spoken language.

The students would like to thank Mrs Catherine Brewster and Mr Mike Connan (lecturers in French) for their unfailing enthusiasm and guidance, and Mr Trevor John (lecturer in Communications), without whose valuable technical assistance the program may not have come to fruition.

PRODUCTIVITY THROUGH PEOPLE

The University's Centre for Human Ecology and Health Advancement will be conducting a seminar, entitled Productivity through People; Health through Work on October 14, in the Nelson Room of the Shortland Union building. According to organisers, the seminar will open up new possibilities on how organisations manage human resources and will challenge the thinking about what makes people productive at work.

The seminar, which will feature Dr Howard Gwynne, Head of the NSW Government's Occupational Health, Safety and Rehabilitation Services from 1986 to 1990, will give you opportunities to work together to find practical applications relevant to your workplace.

For enquiries and registration forms contact Lyndall Taylor on 21 6561.
FOR SALE

JVC 3-in-1 stereo plus two magnificent 3-way speakers $150; Baby High Chair $25; Pram $30. Please telephone 522462 (AH).

Brother automatic knitting machine including ribbon and stand, wool winder and instruction book, $150 o.n.o. Call Dianne on 294133 (extension 246) or 675590 (AH).

Silver Reed EX300FD daisy-wheel printer/word-processor/typewriter $300. Please telephone 487037.

HOUSE FOR SALE

Gateshead $98,000 Garden setting, well presented home featuring 3 bedrooms, spacious lounge-dining, good kitchen with breakfast bar, covered rear area, BBQ plus garage and carport. Please telephone Karyn on 216328.

FOR RENT

Charming, tree surrounded, fully-furnished four bedroom house to rent for one year, immediately adjacent to Merewether Heights Primary School. Available 1 March 1993 - 23 February 1994 while owner on Sabbatical leave. Rental $220 per week. No indoor pets. Please telephone (049) 294053.

FRIENDS OF THE UNIVERSITY

Last month the Friends of the University held its Second Annual General Meeting at the Central Coast Campus. During the meeting, which was chaired by the retiring president, Professor Clif Ellyett, the new committee was elected.

Committee members are, Anne Butler, President; Clif Ellyett, Vice President; Arthur Redhead, Secretary/Treasurer; Beryl Heward, Publicity Officer and Sheila Gellately, Social Secretary. Other members of the committee include Beryl Collier, Hank Kauleman and Mary Douglas.

The meeting was followed by an inaugural concert on the new Yamaha Grand Piano, a recent acquisition by the friends. Splendid renditions of works by Mozart, Scriabin, Schumann and Rautavaara were performed by Deputy Dean of Music, Robert Constable and lecturers in piano, Colin Spears and Catherine Davis.

NEWCASTLE UNIVERSITY CHOIR AND ORCHESTRA

Present

FROM THE OLD WORLD TO THE NEW

A concert of fine choral works with orchestra to celebrate our fifteenth birthday. Join us!

Handel's Four Coronation Anthems - a rare treat!

Music of Britten and Faure and Copland's Old American Songs

CONDUCTOR: GRAHAM ABBOTT

Soloist: Christopher Allan (Baritone)

Musical Director: Kim Sutherland

GREAT HALL, UNIVERSITY OF NEWCASTLE

SATURDAY OCTOBER 10

8.00pm

Enquiries Please Telephone 632237 or 632774

WATT POSTCARD?

Watt Space, The University of Newcastle students' art gallery is three years old.

Watt Space has asked anyone with connections with the University to submit original postcards for Watt Postcard? These will be judged by Lezlie Tilley, who will award the $200 prize money donated by the University Union. Michael Hedger, Lance Hennessy, Nat Jeffery, Bruce Rowland, Mick de Stoog and John Sutton each selected their favourite postcard which will be printed as Watt Space Postcards 1992. Original postcards will be for sale. Visit Watt Space to view the wealth of tiny images! Contact Pippa Robinson on 296258, 297720 or 293900 for more information.
OFFICE FOR RESEARCH

Further information and relevant application forms are available from the Office for Research - telephone 215305.

This list is also circulated to all Heads of Department on a fortnightly basis.

GRANTING BODY

DITAC Grants for International Collaboration in Biology and Biotechnology
To stimulate co-operative research projects between Australian/ UK/ New Zealand scientists

National Agenda for Women Grants Program
Project Grants for activities which reflect the priorities of the National Agenda for Women

ALS - Motor Neurone Disease Research Institute Grants -in-Aid for Medical or Biological Sciences Research
In fields related to the cause and cure of ALS - Motor Neurone Disease

Australian Pharmacy Research Centre - Seedling Grants for Pharmacy Practice Research
Small grants for research into economic, social, administrative and other aspects of pharmacy

Cancer Council Travel Grants-in-Aid

The Royal Australasian College of Physicians Wellcome Trust Grants for International Collaboration

AMRA »

DITAC Grants for International Collaboration in Biology and Biotechnology

The Royal Society of New South Wales Fellowship Freda Bage and Commemorative Fellowships

The Royal Society of Victoria Medal for Excellence in Science, Technology and Engineering Journalism.

FELLOWSHIPS, CONFERENCES & PRIZES

The Royal Society of New South Wales, The Edgeworth David Medal
is awarded to for distinguished contributions by a young scientist.

The Royal Society of New Wales, The Walter Burritt Prize
Awarded to a worker in pure or applied science who's work is deemed of the highest scientific merit.

Fulbright Awards 1993 For study, research, lecturing in the USA

Australian Federation of University Women Queensland Fellowship Freda Bage and Commemorative Fellowships


Awards for Print and Broadcast media, including work by a communicator who is not a professional journalist or media photographer.

Royal Society of Victoria Medal for Scientific Research Awarded for Australian-related research in the Physical Sciences


SCHOLARSHIPS

Information on the following scholarships may be found posted on the Scholarships noticeboard in the concourse of the Hunter Building or is available from the Scholarships Office, Hunter Building (Tel. 216544).

THE UNIVERSITY OF NEWCASTLE POSTGRADUATE SCHOLARSHIPS (UNRNS) 1993 Open to Australian and overseas students undertaking a full-time Masters degree or Doctoral degree by research at the University of Newcastle.

AUSTRALIAN POSTGRADUATE RESEARCH AWARDS (APRA)
Scholarships available to Australian citizens and permanent residents undertaking a full-time (and in exceptional circumstances, part-time) Masters degree or Doctoral degree by research.

OVERSEAS POSTGRADUATE RESEARCH SCHOLARSHIPS (OPRS)
Open to overseas applicants from all countries commencing study in 1993.

AUSTRALIAN POSTGRADUATE COURSEWORK AWARDS (APCA) Awards for Australian citizens planning to enrol in an approved Masters by coursework program at an approved institution in 1993.

DAIRY RESEARCH AND DEVELOPMENT CORPORATION SCHOLARSHIPS
Postgraduate study at any Australian institution conducting research in areas of interest to the dairy industry.

THE HUMPHREY J. WHIPPSKOVSKY SCHOLARSHIP FOR THE COMPOSITION OF MUSIC 1992
An annual prize for a Commonwealth-wide competition for the composition of music.

SUGAR RESEARCH AND DEVELOPMENT CORPORATION (SRDC) POSTGRADUATE SCHOLARSHIPS 1993
A postgraduate research scholarship for studies relevant to the sugar industry.

NATIONAL HEART FOUNDATION OF AUSTRALIA VACATION SCHOLARSHIPS 1992/93
Open to undergraduates wishing to participate in research projects which are broadly related to cardiovascular function and disease during the 1992/93 summer vacation.

AUSTRALIAN KIDNEY FOUNDATION SUMMER VACATION SCHOLARSHIPS
An opportunity for undergraduates of Medicine or Biological Sciences to participate in research projects related to aspects of function or disease of the kidney and urinary tract.

ARTHROPSIS FOUNDATION OF NEW SOUTH WALES — ALISON WATSON MEMORIAL EDUCATION AWARD
This award is for a young person whose study has been interrupted by arthritis. Its aim is to give the student opportunity to continue with their chosen course of study and to display his or her full potential.

WOOL RESEARCH AND DEVELOPMENT CORPORATION (WRDC) POSTGRADUATE SCHOLARSHIP AWARDS IN ON-FARM RESEARCH (1993) Postgraduate awards for a stimulating research career interest of the wool industry.

A Commonwealth AIDS Research Grants (CARG) Program for research relating to HIV infection and its prevention.

1993 LIONEL MURPHY POSTGRADUATE SCHOLARSHIPS Scholarships for Australian citizens intending to pursue a postgraduate degree in Science, Law or Legal Studies, or other appropriate discipline — in Australia or overseas.

CAMBRIDGE BURSARIES AND RESEARCH STUDENTSHIPS Postgraduate awards to Peterhouse College.

BRITISH COUNCIL POSTGRADUATE BURSARIES Awards enabling Australian students enrolled in full-time postgraduate degree courses to study for one academic term (3 months) at a British university.

THE COMMONWEALTH SCHOLARSHIP AND FELLOWSHIP PLAN
Awards to men and women from all Commonwealth countries for postgraduate study overseas.
LUNCH WITH A WRITER

The Friends of the University and the Newcastle Herald invite all interested people to "Lunch with a Writer", on Friday, September 18 at 12.15pm.

Local author, Kate Walker, will attend the luncheon. Kate began her career by making up stories for her daughter whilst travelling around Australia in 1976.

In the ensuing 16 years, Kate has published 11 books for children and teenagers. Her latest book, "Peter", is her third title to be Honour Listed in the Australian Children's Book of the Year Awards. Kate has also published non-fiction teaching aids such as "Teaching Story Writing the Low Stress Way", a manual for Primary and High School teachers.

The luncheon will take place at Alana's Function Room, 1 Crown St, Newcastle. Tickets available at Hunter St Books. Please telephone Deidre Miles on 673547 for further information.

COUNCIL

THE FOLLOWING PEOPLE HAVE BEEN ELECTED TO THE UNIVERSITY COUNCIL

Ms M M Williams (Student)
Ms A A McDonald (Non-Academic Staff)
Associate Professor W G Warren (Academic Staff)
Associate Professor J M Graham (Academic Staff)

GIVE BLOOD

The final visit of the Royal Newcastle Hospital and District Blood Transfusion Service Mobile Blood Donor Unit will take place on Thursday 29 October 1992. The mobile unit will be located between the Auchmuty Library and the Shortland Union Building.

THE BULLETIN

Published on a fortnightly basis, the Bulletin disseminates campus news to staff and students of the University, to graduates, community leaders and members of the media. Copies are also circulated to students of the University Conservatorium of Music and the Central Coast Campus.

Letters to the Editor (no longer than 300 words and signed); reports on outstanding and unusual research; news and human-interest stories and advertisements are welcome. Please contact either Sonja Duncan or Rosemary Koohan at the University Information and Public Relations Unit on 21 6440 or 21 6463.

The Bulletin is printed on Environmentally Friendly paper.