



THE
AUSTRALIAN
NATIONAL
UNIVERSITY

Annual Report 2000



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17 April 2001

The Hon Dr David Kemp
Minister for Education, Training and Youth Affairs
Parliament House
CANBERRA ACT 2600

Dear Minister

Report of the Council for the period 1 January 2000 to 31 December 2000

We have the honour to transmit the report of the Council of The Australian National University for the period 1 January 2000 to 31 December 2000 furnished in compliance with Section 9 of the *Commonwealth Authorities and Companies Act 1977*.

Emeritus Professor P E Baume
Chancellor

Professor I W Chubb
Vice-Chancellor

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Further information about ANU

Detailed information about the achievements of ANU in 2000, especially research and teaching outcomes, is contained in the annual reports of the University's research schools, faculties, centres and administrative divisions.

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The Council and University Officers

The Council

As at 31 December 2000

Chancellor

The Hon Emeritus Professor P E Baume, AO MD BS (Syd), FRACP, FAFPHM, FRACGP (Hon), HonDLitt (USQ)

Pro-Chancellor

Dr A C Bennett, SC BSc (Hons), PhD (Syd), LLB (UNSW)

Vice-Chancellor

Professor R D Terrell, BEc (Adel), PhD (ANU) (to 31/12/2000)

Director, Institute of Advanced Studies and Chair, Board of the Institute of Advanced Studies

Professor F C Jackson, BA (Hons) BSc (Melb), PhD (La Trobe), FASSA, FAHA, FBA

Chair, Board of The Faculties

Professor R M Pashley, BSc (Hons) DIS (Lough), PhD DIC (Lond)

President, ANU Students' Association

Mr R Egan, BEc (ANU) (1/12/1999 to 30/11/2000)

Mr M Wasilewicz (01/12/2000 to 30/11/2001)

President, Postgraduate and Research Students' Association

Mr O Jepps, BSc (ANU), BA (ANU) (01/04/1999 to 02/05/2000)

Ms R Ennor, BAsianStudies (ANU) MA (Macq) (03/05/2000 to 16/05/2001)

Four persons appointed by the Governor-General (Term — up to four years)

(2 positions vacant)

Mr I F Grigg, AM BA (ANU) (29/08/1989 to 14/08/2000 and 13/12/2000 to 12/12/2004)

Dr M S Keating, AC AO BCom (Hons) (Melb) PhD (ANU), FRAIPA, FASSA (14/08/1996 to 14/08/2000 and 13/12/2000 to 12/12/2004)

One Member of Parliament appointed by the Governor-General on the nomination of the Prime Minister (Term — up to four years)

Senator J W Tierney, BEc DipEd MEd (Syd) PhD (Newcastle) (17/07/1996 to 17/07/2000)

Senator B Mason (25/10/2000 to 24/10/2004)

One Member of Parliament appointed by the Governor-General on the nomination of the Leader of the Opposition (Term — up to four years)

Senator K Carr, BA(Hons) (Melb), DipEd (Melb) MA (Melb) (13/10/1999 to 12/10/2003)

Two persons appointed by the Chief Minister of the ACT (Term — up to four years)

Justice M M Finn, BA LLB (Qld) 20/05/1994 to 31/05/2002)

Mr M Delaney, BA (La Trobe) (14/09/1998 to 14/09/2001)

One person who is either a Dean or the Head of a Research School and is elected, in either case, by the Deans and the Heads of the Research Schools voting together

Professor D J Evans, BSc (Syd), PhD (ANU), FRACI, FAA (30/09/1998 to 29/09/2000)

Professor A Milner, BA (Hons) (Monash), MA PhD (Cornell), FASSA (30/09/2000 to 29/09/2002)

One member of the academic staff of the Institute of Advanced Studies elected by the members of that staff

Professor D W Robinson, MA DPhil (Oxf), FAA (10/12/1997 to 29/09/2000)

Professor J White, BSc (Syd), DPhil (Oxon), CMG, FAA, FRS (30/09/2000 to 29/09/2002)

One member of the academic staff of The Faculties elected by the members of that staff

Dr M Green, BSc (UNSW), PhD (ANU) (30/09/1998 to 29/09/2002)

Two persons elected by Convocation

Ms B M Arndt, BSc (ANU), MPsy (NSW)

Dr D H Solomon, BA LLB (Hons) (ANU) LittD (ANU)

One member of the general staff of the University elected by members of that staff

Mr K J Lonsdale, AssocDipMechEng (DDIAE), BTech (USQ), PGCertCnflctMgt (Macq)

A co-opted member (Term — up to four years)

Mr J F Muir, AO

University Officers

As at 31 December 2000

Chancellor

The Hon Emeritus Professor Peter E Baume, AO MD BS (Syd), FRACP, FAFPHM, FRACGP (Hon), HonDLitt (USQ)

Pro-Chancellor

Dr Annabelle Claire Bennett, SC BSc (Hons), PhD (Syd), LLB (UNSW)

Vice-Chancellor

Professor Richard Deane Terrell, BEc (Adel), PhD (ANU) (to 31/12/2000)

Deputy Vice-Chancellor

Professor John Alan Richards, BE PhD (NSW), FIREE, FIEAust, FIEEE, FTSE, CPEng

Pro Vice-Chancellor (Academic)

Professor Robin Barrington Stanton, BE PhD (NSW)

Pro Vice-Chancellor (Administration)

Mr Christopher William Burgess, BA (Hons) (Tas)

Director, Institute of Advanced Studies and Chair, Board of the Institute of Advanced Studies

Professor Frank Cameron Jackson, BA (Hons) BSc (Melb), PhD (La Trobe), FASSA, FAHA, FBA

Chair, Board of The Faculties

Professor Richard Mark Pashley, BSc (Hons) DIS (Lough), PhD DIC (Lond)

Dean, The Graduate School

Dr John Hooper, BA (Hons) (Syd), DPhil (Oxf)

Dean of Students

Mr Selwyn Harcourt Cornish, BEc (WAust)

Director, Human Resources

Ms Margaret Nona Ford, BSc (Monash), GradDipAdmin (CanberraCAE)

Director, Student Recruitment and International Education

Mr Timothy Beckett, MA (Dub)

Director, Student Administration and Support Services

Dr Patricia Miller, BSc (Hons), PhD (Manc)

Master, University House

Dr Richard Rafe Champion de Crespigny, BA (Melb & ANU), MA Oriental Studies, PhD (ANU), FAHA

Librarian

Mr Colin Robert Steele, MA (Liv), GradDipLib (Lond), ALA, AALIA, KtCrossSpain

Director, Information Technology Services

Dr Robin Erskine, BSc, PhD (Glas)

Director, Facilities and Services

Mr Warwick Raymond Williams, BSc (NSW)

Director, Finance and Business Services

Mr Alan Raymond Bunsell, BAppSc (Canberra CAE), FCPA

Director, Public Affairs Division

Mr James Scott Mahoney, BA (ANU), MPRIA

Director, Planning and Policy Coordination

Mr Robert Hugh Arthur, BA (ANU)

Legal Officer

Mr Stephen Keith Herrick, Barrister & Solicitor

Director, Centre for Continuing Education

Dr William Donovan, BSc (Melb), MEd, PhD (Tas) (until 30 June 2000)

Mr John Dash (from 1 July 2000)

Officers for Ceremonial Occasions

Marshal

Mr Selwyn Harcourt Cornish, BEc (WAust)

Esquire Bedell

Dr Valerie Braithwaite, PhD (Qld)

Dr Brenda Morrison, BA (UBC), PhD (ANU)

Overview of The Australian National University

Mission

The mission of The Australian National University is to be one of the world's great research institutions, distinguished by outstanding teaching, guiding students to the frontiers of knowledge and the best standards of scholarship.

Goals

The goals of the ANU in achieving this mission are to:

- 1 Engage in research, scholarship, teaching and practice at the highest international standards
- 2 Foster critical enquiry and an environment that strengthens Australia's capacity to undertake fundamental research and research of national and international importance
- 3 Provide a challenging and supportive environment, in which staff and students can realise their potential and develop the skills and flexibility to contribute in a rapidly changing world
- 4 Enhance the quality and diversity of the University's student intake
- 5 Provide undergraduate, honours, graduate and postdoctoral education at the highest international standards
- 6 Provide higher education courses which foster excellence and creativity and are responsive to professional and community needs
- 7 Encourage commitment to lifelong learning
- 8 Sustain international links, encouraging collaborations which provide mutual benefit to Australia and partner countries
- 9 Make the resources and expertise of the University accessible to other universities and research institutions — and to Australian Governments, industry and the wider community — in a manner which contributes significantly to national and regional education, culture, welfare and economic development
- 10 Exercise an independent role in research and education related to public policy and other national issues.

Values

The University's guiding values are:

Excellence, Creativity, Integrity, Academic Freedom and Responsibility, Collegiality, Equity, Appreciation of Human Diversity.

Structure and Governance

The University was established in 1946 to pursue research at the highest international standards. As a research university it was to undertake "postgraduate research and

study both generally and in relation to subjects of major importance." Undergraduate courses were introduced with the 1960 amalgamation with the then Canberra University College. In 1992, the University amalgamated with the then Canberra Institute of the Arts. The current structure of the University is shown opposite.

The ANU's research and teaching are funded from three principal sources: Commonwealth Government grants; income generated competitively from public and private sources for research and teaching; and from full-fee paying students. The University's Commonwealth Government operating grant is provided (a) to support the teaching and research responsibilities of The Faculties on the same basis as other Australian universities; (b) as block funding to support the special national and international roles of the Institute of Advanced Studies in research and research training; and (c) for capital works and equipment.

The University is governed by a 22-member Council comprising: ex officio, the Vice-Chancellor, the Chairs of the two academic boards and presidents of the two student associations; four nominees of the Governor-General, one nominee of the Prime Minister, one nominee of the Leader of the Opposition, and two nominees of the Chief Minister of the ACT; a member elected by Heads of Research Schools and Deans of Faculties; a member elected by the academic staff of the Institute of Advanced Studies; a member elected by the academic staff of The Faculties; a member elected by the general staff; two members elected by convocation; and a member appointed by Council.

Under the Council are the two academic boards, the Board of the Institute of Advanced Studies (BIAS) and the Board of The Faculties (BTF), both of which may advise the Council on any matter relating to the academic work of the University. BIAS and BTF consist of representatives from constituent areas, including the Directors of the Research Schools and the Deans of the Faculties respectively. There is also cross representation between the boards. The academic boards receive advice respectively from the faculty board and faculty of each research school and centre of the Institute of Advanced Studies, each faculty in The Faculties, and University Centres. The Board of the Institute of the Arts reports to Council through BTF. There is strong student representation on the academic boards and on the Council of the University.

The Vice-Chancellor is the Chief Executive Officer of the University and is responsible for overall University leadership and management of resources. In 2000 the Vice-Chancellor's University Executive included the Deputy Vice-Chancellor, the Pro Vice-Chancellor (Academic), the Pro Vice-Chancellor (Administration), the Chair of the Board of the Institute of Advanced Studies, who is also the Director of the Institute, and the Chair of the Board of The Faculties.

Budget decisions: The University's budget is prepared on a rolling triennial basis, reflecting the way in which the

Commonwealth Government's operating grant is provided to the ANU. The budget is formulated following wide-ranging, annual consultations with the research, teaching and administrative areas of the University prior to its presentation to the Finance Committee and Council for approval. In addition to school, faculty and centre operating grants, funds are allocated to the major equipment program, the Library, for information technology infrastructure, to the Graduate School, for capital works and to the administrative areas which support the academic endeavours of the ANU.

University-wide strategy for the development of information technology is provided through the Information Technology Strategy Committee, which is supported by several broadly based advisory committees which interact with specific service providers. An academically based committee structure ensures effective development of Library holdings and delivery mechanisms to support teaching and research needs. Funds for capital works are distributed in accordance with the University's rolling, 10-year capital management plan. A substantial allocation is made within the University for both centrally and locally administered undergraduate and graduate scholarships. The resources for major research equipment are distributed competitively on a University-wide basis.

The Faculties' budget: The allocation of the recurrent grant to The Faculties occurs through a resource distribution process driven by weighted student numbers and research performance. A planning group advises the Deputy Vice-Chancellor on allocations to individual Faculties and Centres.

Institute of Advanced Studies' budget: Individual Research Schools and Centres in the Institute of Advanced Studies have approved strategic plans and their annual funding allocations support planned on-going research and research training programs. Programs are adjusted to take up research opportunities or close off unproductive directions, within a strategic framework. Additional funds for major equipment and research infrastructure are allocated on a competitive basis through the University's Major Equipment Committee and the Australian Research Council's Research Equipment Infrastructure and Facilities Committee. The IAS may apply to the latter committee for research infrastructure funding in collaboration with other universities.

Administrative budget: Budget allocations to the administrative divisions and other service areas of the University support the key academic goals of the University.

Review of 2000

The year 2000 was highly successful for The Australian National University.

In fulfilling the very special national role mandated by its charter, the University continued to achieve significant research results, deliver quality teaching and to accelerate the development of its information technology environment to support its participation in the increasingly global higher education sector.

The Australian higher education sector remains highly competitive. In the current stringent resource environment, universities have been forced to undergo serious restructuring of both academic and administrative areas in order to maintain their quality and their competitiveness. While reductions in public funding for universities in recent years have contributed to this restructuring, often involving stress for staff and students, ANU is preparing to take advantage of opportunities presented by the Government's research White Paper and the announcement expected in 2001 on policy initiatives to strengthen Australia's capacity to capitalise on innovation.

ANU strongly supported the research White Paper's broad policy directions and, especially, the Government's decision to enable the Institute of Advanced Studies to compete for those categories of Australian Research Council and National Health and Medical Research Council research grants for which it had previously not been able to compete. Senior University and Departmental staff spent considerable time during 2000 negotiating the parameters within which the Institute would be able to compete. An agreement is expected early in 2001.

The Vice Chancellor's Plan for Growth, which was finalised in October, was aimed at harnessing the best ideas and approaches into an agreed strategic plan to invest carefully in growth to expand the University's revenue base and to encourage innovative teaching and research activity. Development of the plan involved 33 workshops with staff in research schools, centres, faculties and administrative divisions.

The University's reputation

The reputation of ANU is determined by its performance and the judgements made by others on its research, teaching and managerial capacity. Another measurement is the willingness of groups and individuals to enter collaborative agreements or partnerships with the University. This year has seen a very large number of these joint agreements.

They include:

- Australian ownership of 21st century biological innovations will be better protected under the new Australian Centre for Intellectual Property in Agriculture. The Centre, at the Faculty of Law and the Research School of Biological Sciences, will be established over the next five years with a \$3 million investment by the Grains Research & Development Corporation (GRDC). Additional funding

of \$400,000 will be provided by the Commonwealth Government in recognition of the relevance of the work of the Centre beyond the grains industry. The Centre will provide education, training and research and development focussing on intellectual property issues as they apply to agriculture and agricultural biotechnology.

- A new way to connect industry and universities attracted \$3.5 million funding over three years. The scheme, titled Uniche, links Orica, Australia's largest chemical company, the ANU Research School of Chemistry and the Department of Chemistry, the School of Chemistry at the University of Melbourne and University of Newcastle's Discipline of Chemistry and Department of Chemical Engineering. The Federal Government has also provided funding through the Science Lectureships initiative. Orica has contributed \$1.7 million and ANU — which is the lead agency for the project — will contribute \$500,000 in staffing, resources and expertise. Uniche will develop a 'sandwich course' for science undergraduate and postgraduate students that will provide students with a close association with the chemical industry. The students will develop a close understanding of industrial management and innovation.

- The ACT Government invested \$250,000 as seed capital in Biotron Limited. The company led by Professor Peter Gage, Professor of Physiology at the John Curtin School of Medical Research, is developing a range of medical products from the basic research carried out at the John Curtin School. The \$250,000 was provided through the Canberra Business Development Fund that aims to build local research into commercial products and medical treatments.

- The Iranian Government has endowed a lectureship in Persian Language and Iranian Studies at the Centre for Arab and Islamic Studies. The donation of \$350,000 was matched by the University

- A national partnership of eight organisations including ANU was formed in June to establish a national facility at ANU which will provide more computing capacity than currently available in the Australian Higher Education sector. The Australian Partnership for Advanced Computing (APAC) will invest \$80 million in advanced computer systems, research, education and technology diffusion. ANU contributed \$6 million in kind (mostly in staff from the existing ANU Supercomputer Facility) and \$3.5 million in funding.

- Australia's first academic position in Turkish Language and Culture was established in August. Established with an initial donation from the Government of Turkey matched by the ANU Endowment for Excellence, the position will help promote a greater understanding and appreciation in Australia of the language, culture, economic and political development of Turkey. The AL Mak-toum Foundation, of the United Arab Emirates has donated \$2.5 million to advance the studies of Arab and

Islamic culture and language at ANU. The \$2.5 million will be matched by a \$2.5 million contribution from the ANU Endowment for Excellence. This will fund construction of a new building for the Centre for Arab and Islamic Studies and establish the Sheikh Hamdan bin Rashid Al-Maktoum Chair in Arab and Islamic Studies in perpetuity. The Centre will support a Visiting Fellow Program and possibly two scholarships on a regular basis.

- The Research School of Astronomy and Astrophysics won a \$4 million contract in December to build Australia's first instrument for the international Gemini Observatory. In Canberra, Mount Stromlo Observatory engineers will build a spectrograph for the Gemini North telescope in Hawaii

The *Blackwell Philosophical Gourmet* report ranked ANU's postgraduate program in analytical philosophy as one of the top four programs in the world. The other three programs were at Princeton, Oxford and New York University.

In February the University hosted a visit of the Japanese Vice-Minister of Finance for International Affairs, Haruhiko Kuroda. The visit included a seminar attended by a range of academics, government officials and a Crawford Club dinner attended by Australia's key policy makers. A group of senior World Bank officials were guests of honour at a dinner later that month hosted by ANU and the Global Foundation.

Asiaweek, regarded as Asia's leading business magazine ranked ANU as the best Australian university and the top performing university in Asia.

The Good Universities Guide (GUG), which ranks Australian Universities, gave ANU the top five-star rating for its prestige, its student demand and its research quantum, graduate outcomes and graduate starting salary. Staff qualifications were also rated at the very top level as ANU has more PhD's on staff than any other Australian university.

In 2000 ANU retained its position as the most often cited university in the international media and the domestic electronic media. In the Australian print media, ANU was ranked third most cited Australian university.

Most media inquiries to ANU academics, and most media coverage of the University, focussed on its research outcomes. The University's Public Affairs Division staff handled 1266 inquiries during the year and the media web site 8405. Overall, about 96 per cent of the coverage of the University's research, teaching and other activities was favourable.

2000 Statistical Highlights

Students

- Postgraduate load represented 24% of the total load.
- 52% of the total number of students were females — 49% of the postgraduates and 53% of undergraduates.
- The majority of students studied full-time (71%).
- More than half (59%) the students came from the ACT/Queanbeyan region while 13% were from overseas. However, at the postgraduate level the proportion of stu-

dents who originated from overseas was much higher at 31%.

- 80% of undergraduate students were under the age of 25 years, while more than 50% of postgraduates were over 30 years old.
- Almost 70% of ANU students paid Higher Education Contribution Scheme (HECS) fees, while a further 20% paid Graduate Tuition Fees (GTF) or International Student Fees (ISF).
- ANU offers a variety of combined degrees and in 2000, combined degrees represented 44% of the total number of bachelor degrees being undertaken.
- The proportion of students in the commencing undergraduate intake who achieved a UAI of 95 or more was 23% (94% achieved 75 or more) reflecting the quality of students.

Staff

- The total number of Full-time Equivalent (FTE) staff at the ANU was 2810, comprising 1069 academic staff and 1741 general staff. This excluded casual or part-time academic teaching staff.
- 48% of FTEs were located in the Institute of Advanced Studies (IAS) and Centres with 27% in the Institute of the Arts (ITA) and The Faculties. The balance was in Central Units, Administration and Trading Areas.
- 72% of all staff were on continuing appointments.
- The majority of both academic and general FTEs (90%) worked full-time.
- Females represented 55% of general staff while 25% of academic staff were females.
- Research only staff represented 57% of the total academic FTEs.
- The Staff-Student Ratio in The Faculties (including ITA) was 14.5.

Academic and student initiatives

ANU academic staff and students led the way into new ideas, new understandings and innovative teaching practices. Many were recognised by national and international awards

- In a clever solution to a national teaching problem, ANU has initiated a Small Enrolment Languages project that will make it easier to deliver language courses to small groups of students at Australian Universities. Over the last few years there has been a growing demand for courses in Asia's major languages, but the location of the students has meant that there has not been enough to make up a viable course at any one university. Responding to this need ANU has structured language teaching exchange which has already been the basis for a course work program on the delivery of Hindi, Sanskrit and Vietnamese to ANU and University of Sydney students. One of the aims of the project (which is funded under the Commonwealth Government's Maintaining Student Choice Scheme) is to produce interactive language exer-

cises in Hindi, Vietnamese, Arabic, Urdu, Thai, Lao, Korean and Russian on the World Wide Web.

- In March, ANU announced that it would name one of its scholarships after the late CSIRO Chief Executive, Dr Malcolm McIntosh. The most meritorious recipient in the physical sciences of a Graduate School Scholarship will be known as the Malcolm McIntosh Scholar. The first will be announced in 2001. Announcing the naming of the scholarship, the Vice Chancellor said it would mark the contribution that Dr McIntosh had made to science — both in Australia and internationally.
- In October Dr Brian Schmidt, of Mount Stromlo Observatory, was announced as the winner of the \$35,000 Malcolm McIntosh Prize for Achievement in the Physical Sciences. The Prize was announced as part of the inaugural Prime Minister's Science Prize.
- Six degree conferring ceremonies were held during the year (in April and September), but one special ceremony stood out in terms of the interest it generated. At that ceremony, in September, the University awarded an honorary Doctor of Laws degree to former South African President Nelson Mandela for his outstanding contribution to society. Mr Mandela was greeted by crowds of well wishers as he arrived at the University and he received several standing ovations during the ceremony, which was attended by Members of Parliament, the diplomatic community, the ACT community and members of the University's staff and students.
- At the April conferring ceremonies, 1059 students graduated. In September 796 graduated in two ceremonies. The graduates included Australia's first indigenous epidemiologists and six female forestry students — 75 per cent of the graduates in a traditionally male dominated field.
- In March, 70 students accepted ANU scholarships in a breakfast ceremony in Canberra. A total of 27 National Undergraduate Scholarships were awarded to high achieving school leavers from around Australia. Ten of these scholarships went to students from schools and colleges in the ACT. Seven Regional scholarships went to students from area including the South Coast, Southern Highlands, Yass/Goulburn, Wollongong, Western Slopes and Plains, South West NSW and Victoria. Six international scholarships were also announced
- Mr Quang Nguyen won the \$60,000 Robert Gordon Menzies Scholarship to Harvard, that is sponsored by the Harvard Club of Australia, the Sir Robert Menzies Memorial Foundation and ANU.
- Professor Allan Snyder, Director of the Centre for the Mind (a joint venture of ANU and the University of Sydney) was named as one of the 13 pre eminent Australian scientists of the 20th Century in May. Professor Snyder holds the Peter Karmel Chair of Science and the Mind, is Professor of Visual Science and Optical Physics and heads the Optical Science Centre in the Research School of Physical Sciences and Engineering.
- The ANU Golden Key Chapter, the smallest in the Asia Pacific Region, became the most honoured chapter in August when it won two more awards. In six years, the Chapter has registered close to 1,500 members who undertake voluntary tutoring programs and are involved in community organisations. Golden Key is an international honour society open to students who place in the top 15 per cent of their course. It encourages them to do voluntary work on campus and in the community.
- Students from the Department of Commerce in the Faculty of Economics and Commerce won both of the inaugural the Dean of Students' Awards. The two awards, each worth \$250 for an undergraduate and a postgraduate student, were given for outstanding contributions to university life, volunteer work and community service. The Undergraduate award went to Eliza Foo Yin Ying, while Theo Psychogios won the Postgraduate award.
- Six ANU students won new \$4,000 scholarships sponsored by the Australian Bureau of Statistics (ABS). The winners were Lucy Rees and Gen Nowak who are combining statistics with biology; Michael O'Neill who was among the first intake into ANU's new combined course of Actuarial Studies and Law; Gi-Han Kwon and Mark Staunton, both doing Actuarial Studies; and Katherine Fewell who is completing a combined course in Economics and Science.
- An ANU-designed Bunyip Beowolf-style supercomputer won the prestigious international Gordon Bell Prize for the best price and performance measured in the dollar cost of the computer against its processing speed. The award was made at the Supercomputing 2000 Conference at Dallas, Texas in November. Designed and programmed by Department of Computer Science in the Faculty of Engineering and Information Technology and the Computer Sciences laboratory in the Research School of Information Sciences and Engineering, Bunyip consists of a cluster of relatively low cost computers connected to perform parallel tasks.
- In August, the Governor General, Sir William Deane, presented the ANU Library with its two-millionth book in both print and virtual form. The two-millionth book is regarded as a substantial milestone in the history of a University and the Library celebrated the occasion with a number of events. The ANU Library is probably one of the first libraries in the world to celebrate the two-millionth "book" with a mixture of print and virtual items. The Library's two-millionth acquisition is an attractive Australian botanical book by Robert Sweet, a 19th Century horticulturist. Entitled *Flora Australasica*; or a selection of handsome or curious plants, natives of New Holland, and the South Sea Islands, the book was published in London by James Ridgway in 1827–28.
- Professor Alex Zelinski of the Research School of Information Science and Engineering won the Business Higher Education Round Table Award for leading the Vision-based human-machine interaction project.
- Professor Brian Anderson, Director of the Research School of Information Sciences and Engineering was

named the recipient of the 2001 IEEE James H Mulligan Jr Education medal for his work in electrical engineering education.

- ANU graduate Alex Cook will examine the changing role of academics in society during his PhD at Cambridge University after winning a Cambridge Australia Trust scholarship.

A new centre for Archaeological Research opened in April. The Centre brings together scientists from the Research School of Pacific and Asian Studies, the Research School of Earth Sciences and the Faculty of Arts. It will create greater cooperation across faculty boundaries and help make facilities more accessible to staff and research students.

Three new centres, both virtual and physical, were established in 2000: the Poverty Research Centre in the Division of Economics, Research School of Pacific and Asian Studies; Medical Genome Centre in the John Curtin School of Medical Research; and the Centre for Restorative Justice in the Research School of Social Sciences.

The Canberra School of Music and the Faculty of Asian Studies acquired a Javanese gamelan orchestra, which will be used to teach classes in World Music and Asian Performing Arts. The ANU gamelan is named "Nyai Widya Laras" (The Venerable Lady Melody of Knowledge), combining the essence of ANU and Canberra School of Music both as institutions to pursue excellence in knowledge and musical/artistic creativity.

A Small Enrolment Languages Project to deliver low-enrolment language courses at Australian universities was introduced. Funding was provided under the Commonwealth Government's "Maintaining Student Choice" scheme, an element of the Higher Education Innovation Program (HEIP) and started the Small Enrolment Languages Project in July 1999. Course content is being determined collaboratively and will be delivered through CD-ROMs and an innovative use of multi-media including the World Wide Web, audiotapes and printed material. It will soon be possible for school students (or any interested people) to access interactive language exercises through the WWW in Hindi and Vietnamese. It is hoped Arabic, Urdu, Thai, Lao, Korean and Russian will soon be added to the interactive program.

In August, 80 people from a large number of universities from all around Australia participated in a highly successful Thai Update conference. The Update also included participants from government, the media, business, TAFEs, schools and others interested in the promotion and coordination of Thai Studies in Australia. The Ambassador of Thailand, His Excellency Sawanit Kongsiri, opened the conference.

Nine ANU students were awarded prizes by the Swiss Government and the ANU for essays in German, French and Italian — three of Switzerland's four national languages. The annual "Swiss Prize" aims to strengthen the interest in, and the study of, modern European languages and promote plurilinguism and cultural diversity. ANU's

winners were Anna de Puit, Samantha Canulli and Angelina Baker for German essays; Felicity Abbott, Kelisiana Thynne and Justine Garrett (French) and Rosalin Mawlanzada, Bronwyn Blue and Valeria Alfonzi (Italian).

In September, the Papua New Guinea High Commission and ANU hosted a seminar to mark the 25th anniversary of the independence of Papua New Guinea.

The Canberra School of Art (CSA) and Alliance Française jointly hosted a group of New Caledonian artists in the School's Sculpture Workshop in March.

One of the world's leading experts on health risks from global change, Professor Tony McMichael, is to return to Australia next year to head the ANU's National Centre for Epidemiology and Population Health (NCEPH). Professor McMichael is currently Professor of Epidemiology at the London School of Hygiene and Tropical Medicine in the UK.

The Graduate Program in Public Policy introduced two short courses on diplomacy, "Economics of Diplomacy, Security and International Policy" and "Case Studies in Diplomacy", to meet demand for professional training from Canberra's diplomatic community.

The Chancellor, Emeritus Professor Peter Baume, launched an initiative by former University staff members who wish to continue their association with the ANU to serve its interests and those of the wider community. Known as the Emeritus Faculty the group aims to foster a sense of collegiality among its members and to enable them to join in the academic and cultural life of the University.

The first ANUTECH Foundations Studies students graduated in 2000. The intensive study skills and academic language course aims to give international students a head start when they commence degrees at Australian universities.

In November, the "Group of Eight" (Go8) universities, of which the ANU is a member, sponsored the inaugural Asia-Pacific Round Table at Georgetown University in Washington DC. Organised with support of the World Bank and the Asia Society, the event brought about 50 senior government officials, executives from the private sector and non-government organisations, representatives of the media, and experts from academia and from global and regional organisations. Georgetown University was chosen because its Centre for Australian and New Zealand Studies provided logistical support.

Enrolments

The University maintained its first year undergraduate entrance standards for the sixth year while recording an increase in the number of offers it made to prospective students in 2000. ANU made 2,396 offers through the University Admissions Centre (UAC), plus 195 through the Victorian Tertiary Admissions Centre. During the year, 200 students transferred internally through the UAC.

However, total student load declined slightly on the previous year. Work is being undertaken to identify the causes of the decline.

Summary Total Annual Student Load, 1995–2000

Year	1995	1996	1997	1998	1999	2000
Total Load	8818.9	8586.6	8714.7	8318.8	8372.5	8205.0

ANU's first Pre-Enrolment Advice Day, in January designed to help students make the transition from university offer to enrolment, was a major success.

Two new 'hands on' science degrees attracted strong interest in December. They are the Bachelor of Biotechnology and the Bachelor of Medical Science.

Other new courses to be introduced in 2000 and 2001 included a Masters of Management and Masters of Management (Technology); Graduate Certificate in Dispute Management; Graduate Diploma in Dispute Management; Bachelor of Science (Science Communication); Bachelor of Arts (Visual); Master of Public Policy (Executive); Master of Commerce by coursework; Bachelor of Computational Science; Master of Actuarial Studies; Graduate Certificate in Actuarial Studies; Bachelor of Biotechnology; Bachelor of Arts (Digital Arts); Master of Arts in Translation Studies and Graduate Diploma in Translation Studies; Graduate Diploma in Information Technology (eScience); Master of Arts by coursework and research in Aboriginal Studies, Anthropology, Archaeology, Biological Anthropology, Art History, Art History and Curatorship, Classics and History; Master of International Affairs; Graduate Diploma in International Affairs and Master of Arts (International Relations); Master of Teaching English as a Foreign Language; Graduate Diploma in Teaching English to Speakers of Other Languages; and Master of Applied Anthropology and Participatory Development.

Resources

Under a deficit reduction strategy implemented in 2000, The Faculties reduced their deficit by \$700,000. The ANU Council recognised the difficulties facing The Faculties which were coping with further reductions after struggling with significant Commonwealth funding cut-backs. The Council recognised particularly concerns including the provision of future equipment and asset maintenance; fluctuating student enrolments; the high proportion of fixed costs, difficulties in obtaining equipment donations for teaching and the needs of an increasing number of postgraduate students.

In January, ANU announced a \$97.5 million two-part funding package to boost its strategic plans for growth.

This included \$11 million towards information technology systems development, a one-off \$5 million reduction in the Faculties' debt and \$10 million for restructuring and staff development and boosting provisions to meet future staff entitlements for long service leave. About \$13 million was allocated to establish the ANU Commercialisation (Venture Capital) Fund with \$8 million held in the

Endowment for Excellence. A further \$5 million was held for one-off investments and the interest on this helped fund salary increases.

Staff in August voted overwhelmingly in favour of a new enterprise bargaining agreement that includes a 12.5% salary increase over three years. A total of 1382 staff voted for the proposal. Fifty staff voted against. Voting was conducted electronically and results were finalised in less than two hours after voting closed. The offer included a 3 per cent increase paid in July last year (1999) and increases of 2 per cent in September 2000, 3 per cent in September 2001 and 4.5 per cent in September 2002 for a total of 12.5 per cent, or 13.1 per cent compounded.

The University's Equity and Diversity Unit purchased a new on-line training program for all staff. The program takes three hours with a test at the end, and gives users a better understanding of their rights and responsibilities in the workplace. It also covers current laws and the University's equal opportunity policies and procedures.

An innovative poster, designed to highlight the diversity of people at university, was launched during the year. The poster, designed by University of Canberra graphic design student, Amy Jepson, was one of a number of joint initiatives between the ANU, University of Canberra, Australian Catholic University and the Australian Defence Force Academy.

In September, the ANU Council noted two significant government reports related to research funding. The reports, The Batterham Discussion Paper and the Innovation Summit Implementation Group Report, both called for increased government support for a range of initiatives across research, science and education. They included increases in funding for the Australian Research Council (consistent with the recent doubling of funding for health and medical research), an additional 2000 undergraduate student places in areas of skills shortage, and doubling the number of Australian Postdoctoral Fellowships.

The University's Council resolved in September 2000 to take a further \$4.7 million equity in ANUTECH. The finance for this was drawn from "other earnings" and will not directly impact on the University's teaching and research programs. It follows a preliminary report from a five-member management group that is examining realignments of the ANUTECH business plan.

New operating arrangements for the Noel Butlin Archives Centre were announced in September. Under the new arrangements researchers would continue to have access to the records held by the Centre, but support services would be moved to the RG Menzies Library Building. The Centre holds significant business and labour collections built up during the past 47 years. It has been operating in the last three years on \$750,000 bridging finance provided by the University. The University set aside \$1 million in the Endowment for Excellence to match funds raised by the Friends of the Archive. The decline in academic interest in the archive's collections and the low level of sponsorship led the University to re-assess the level of support.

The Endowment for Excellence, started in 1996, now stands at \$112 million. External funding reached \$24 million in 2000. The benefits of interest earned by the Endowment were widely distributed over 90 scholarships, bursary and prize funds, and support for 12 academic posts, including 10 professorial chairs. Funds have also been directed to a diverse range of university activity including the Australian Dictionary of Biography, conferences, research activities, lectures, art exhibitions and musical performances.

Research performance

For the second year, ANU Faculties topped the list of institutions gaining the most Australian Research Council (ARC) Large Grant funding per academic staff member. The Faculties will receive \$2.28 million in new grants for 2001, about \$3,700 per academic staff member.

The ANU received \$5.17 million in ARC Grants announced in October, with 16 ARC research fellowships also awarded to ANU — the second highest of any institution. In addition, ANU will receive \$223,444 in grants to collaborate with industry and \$1.6 million in Research Infrastructure (Equipment and Facilities) grants.

Research advances during 2000 were significant. A small selection includes the following:

- In research that has applications for the design of robots and navigation systems, researchers at the Research School of Biological Sciences have discovered that honeybees perform a 'direction dance' to communicate directions and distance. The bees use their vision to gauge how far they have flown and then convert that to a specific dance when they return to the hive — indicating to the other bees where the food sources are.
- Researchers at the John Curtin School of Medical Research identified a large set of genes that regulate cell growth in the immune system on mice. The research revealed key details about how the body defends itself from internal and external attacks. In the future, the findings could be used to develop better pharmaceutical drugs to treat autoimmune diseases such as rheumatoid arthritis, lymphoma and other immune problems including transplant rejects.
- In a new version of 'hands on' research, an epidemiologist at the National Centre for Epidemiology and Population Health has identified a simple and effective way to control the spread of infections in childcare centres through the use of innovative, but simple, infection control measures by staff. The research established a world first in showing that the spread of common cold virus in childcare centres can be inhibited by attention to hand contact and hand care.
- Trials of an AIDS vaccine developed at the John Curtin School of Medical Research, CSIRO and the University of Melbourne will start before the end of 2001. A consortium led by the University of New South Wales and including ANU will conduct the trials following a

\$27 million commercial contract with the US National Institutes of Health.

- Solar technology developed at ANU began providing power to the Rockingham campus of Murdoch University in Perth in August. The trial solar power station is the result of a research and development program at the Centre for Sustainable Energy Systems in conjunction with Solarhart Industries. It is the first commercial scale demonstration of the new technology that has a concentrated solar intensity of 25 times greater than normal.
- Chemists at the Research School of Chemistry and the National University of Singapore developed a new methodology to better understand chemical reactions. The computer modelling methodology allows scientists to 'see' how atoms move in the formation of chemicals and in chemical reactions. The computer software and the methodology are now available free to scientists worldwide.
- Scientists at the Research School of Earth Sciences coordinated efforts to gauge the affect of the biggest earthquake recorded in the world — a magnitude eight earthquake off the coast of Papua New Guinea in November. Initial studies showed that part of New Britain near the centre of the earthquake had shifted nearly a metre as a result of plate movement. The School conducts a tectonic monitoring program in PNG in collaboration with the Rabaul Volcano observatory and the Department of Surveying and Land Studies and the Papua University of Technology

The information environment

Implementation of the University's policy of having an advanced information infrastructure moved ahead substantially during 2000. This work focuses on four priorities: providing systems which facilitate learning; establishing frameworks to support research, collaborations and publications; managing scholarly information and the transformation of library services; and responding to globalisation of higher education and building partnerships. Advances during 2000 were directed towards establishing an integrated system to support research, teaching and learning as well as administrative activity. The new Division of Information, which will carry out this work, will be formally established in 2000.

As previously reported, ANU has begun an \$18 million University-wide administrative computing system upgrade using technology supplied by Peoplesoft. The commissioning in 1999 of the new financial system meant the development of the human resource modules had the major priority during 2000. Work also began on the student administrative system.

A new group, Scholarly Technology Services, was established during 2000 to assist academic staff in a range of information technology applications for research and teaching.

Work has begun on modernising the University web site.

The direct e-mail to all ANU staff, introduced in 1999, has become the major mechanism for formal communication.

The coordinated efforts during 1999 to update the University's computing systems to ensure there were no problems as a result of the year-end date changes were successful.

The Governor General, Sir William Deane, presented the ANU library with its two millionth 'book' in August: Robert Sweet's rare book *Flora Australasica*. The Library also introduced a web interface to the complete works of W B Yeats and the Web of Science global database that provides online links and citations to over 8000 journals.

The physical environment

The \$2.8 million Jaeger 7 Building, an extension to the Research School of Earth Sciences, was officially opened by the Minister for Environment, Senator Robert Hill in March. The new building contains facilities for studying earth movement, fluid dynamics, climate change and earth and bone sample dating. Specially designed laboratories in the building will allow for the simulation of the effects of the earth's rotation on ocean circulation.

ANU House in Collins Street in Melbourne was officially named and opened in March by Melbourne's Lord Mayor, Councillor Peter Costigan. Ten floors of the building have been fully let on commercial leases to a range of companies, including a major telecommunications company, an architectural firm, several financial planners and human resource consultants. The University has retained the 11th floor (190 square metres) as a resource for advanced seminars and postgraduate teaching in information technology, business administration and public policy and to support core research commercialisation activities. While use of this floor by University areas during the first nine months has been limited, those areas that have used it for seminars, business meetings, alumni functions and outreach activity have commented favourably on it. Greater efforts will be made in 2001 to encourage areas to use this resource.

Stage 2 of the School of Music extension to Llewellyn Hall commenced. The new building will house the Jazz Program as well as the Australian Centre for Art and Technology (ACAT) and new spaces for the Percussion and Brass Departments. A state-of-the-art audio recording studio is also planned. The facility will have world-class acoustics.

ANU has adopted a 'clean and green' environmental policy for the campus. The policy, ANU Green, includes energy and water audits, replacement of inefficient plant systems, better environmental design in buildings and a biodiversity plan. The Minister for Environment and Heritage Senator Robert Hill launched the policy in March. At the same ceremony the Vice-Chancellor and Senator Hill signed a Greenhouse Challenge Agreement which will have ANU reducing its greenhouse gas emissions by 5 per cent.

The first laser technology production laboratory of its kind in Australia was officially opened in April by the Minister for Industry, Science and Resources, Senator Nick Minchin. Senator Minchin also launched Acton Lasers, a company formed at the Research School of Physical Sciences and Engineering to develop high power semiconductor lasers. The research team at the School has produced a semiconductor 980 nanometre laser which has world-leading performance and is expected to attract investment to take it to the next stage of production.

A \$850,000 purpose-built optics laboratory was opened in April. The ANU Gravitational Wave Research Facility has been designed to mask a multitude of environmental influences such as seismic vibrations, dust and temperature changes that can interfere with optical experiments required for gravitational wave detection. The Australian Gravitational Wave consortium, comprising the ANU, the University of Adelaide, the University of Western Australia and Monash University, will use the new facility to develop technology for the multi million dollar US gravitational wave project.

ACT Chief Minister, Mrs Kate Carnell, officially opened the BlueLAB at the Research School of Physical Sciences and Engineering in July. Developed with the Yuh Chen Group, BlueLAB will focus on developing new lighting options using white light-emitting-diodes and blue lasers for commercial application including data storage and signage.

The Ian Ross Building, which houses the Engineering and Computer Science Sections of the Faculty of Engineering and Information Technology, was officially opened by ACT Senator Kate Lundy in November. The building is named after Emeritus Professor Ian Ross AO credited with developing engineering as a discipline at ANU.

In November, the ANU Council approved plans for the construction of a 500-car parking station at Baldessin Square.

Outreach to the community

ANU reached out to the Australian and international communities in 2000 through a series of events and cooperative ventures. A wide range of government, community and business organisations utilised academic staff as advisors on policy, scientific, environmental and other issues throughout the year. Academic staff also visited schools and community groups as guest lecturers.

The Schools of Music and Art maintained extensive and successful concert and exhibition programs, including internationally. They have established and enhanced vibrant local outreach and teaching programs in a range of subject areas that involve schools and the broader ACT community.

More than 16,000 people attended the 11 exhibitions staged at the University's Drill Hall Gallery. The exhibitions involved major collaborations with other national institutions, especially with the National Gallery of Australia, and attracted a \$40,000 grant from the Depart-

ment of Communications and the Arts under the *Visions of Australia* program to assist a gallery-initiated touring exhibition being planned for 2001.

A group of ANU scientists and students participated in a program that aims to excite and inspire local high-school students and teachers about physics. The "Adopt a Physicist" program, run by the ACT branch of the Australian Institute of Physics (AIP), which includes a large number of ANU staff and students, involves allocating a physics postgraduate student and a physicist to an ACT high school each year. The physics students visit the schools several times a year to give talks on interesting physics topics, such as how lasers work. The program also arranges for high-school students to visit the ANU, so that they can see real physics in action.

The SMS-ANU Public Lecture series attracted more than 6,300 people from the Canberra community. This year, SMS Consulting joined ANU to sponsor the series, providing funding to enhance promotion of the series to the community. Attendance increased by more than 1500.

The first of a series of events, *Outlook 2020*, initiated by ANU and the Canberra Business Council and designed to address issues facing the ACT and its region, was held in October. The series involves ANU academic staff and business people discussing issues in a lunch time seminar format. Two more are planned for the first half of next year.

More than 1,300 people attended the 10 ANU literary events held during the year. These events were strongly supported by the diplomatic community and presented a range of authors including Frank Moorhouse, Vikram Seth and Thomas Keneally.

ABC radio presenter Robyn Williams chaired two ANU panel discussions as part of the Australian Science Festival. An enthusiastic crowd of more than 1000 attended — and another 40,000 visited the ANU booth at the Amazing World of Science Expo part of the Science Festival.

The ANU's Lions Oratory contest may become the model for an Australia-wide oratory contest. Held for the sixth time in July, the oratory contest attracted 27 entries. Discussions with the Group of Eight Universities are continuing with the aim of establishing the contest on a wider basis — and producing a national final.

Primary and secondary schools from Crookwell to Bombala sent a total of 150 teams involving 1,300 students to Canberra to attend the 11th ACT tournament of the Minds in August. The event is supported by 120 volunteer judges and officials.

The *Biological Services in the ACT* science outreach program for primary school celebrated its 10th year of operation in 2000. The program organised by the Division of Botany and Zoology, Faculty of Science, take reptiles, plants and biology to ACT primary schools. About 4,000 pupils have enjoyed the hands on biological experience and some of them are now ANU graduates and undergraduates.

The ANU Poets lunch in December was dedicated to the late Aboriginal poet, playwright and activist, Jack Davis. More than 120 people attended the lunch to hear 32 of Jack Davis' poems read.

Public viewing nights will begin next year at the Mount Stromlo Observatory following a \$45,000 per year contribution from the ACT Government. The contribution was announced in June and follows the ACT Government's funding support for the construction of the \$2.5 million science and education centre at the observatory. It attracts 35,000 visitors each year.

More than 360 players, a record, competed in the ANU Chess Festival in July, including international chess masters.

Vice-Chancellorship

Professor Deane Terrell's term as Vice-Chancellor concluded at the end of the year. Council congratulated Professor Terrell on the achievements of his term and the very great dedication that he gave to the University during a distinguished term as Vice-Chancellor and in his administrative, teaching and research roles over many years. The Council, staff and students express their best wishes to Professor Terrell and his family.

Council appointed Professor Ian Chubb, Vice-Chancellor of Flinders University of South Australia to succeed Professor Terrell on 1 January 2001.

Conclusion

The University made significant further progress during 2000 in achieving its strategic directions and fulfilling its national role in research and teaching. International recognition of the work of the University and its staff during 2000 was high. The Council looks forward to building on the achievements of 2000, especially in research and teaching activities, and consolidating the University's role as Australia's national university.

Council and Council Committees

Number of meetings and Members' attendance for the period 1/1/00 to 31/12/00

Council

Number of Meetings: 9

<i>Name of Member</i>	<i>Number of Attendances</i>
The Hon Emeritus Professor P Baume (Chair)	8
Dr A Bennett	9
Professor R Terrell	9
Professor F Jackson	9
Professor R Pashley	8
Mr R Egan (to 30/11/2000)	8
Mr M Wasilewicz (from 1/12/2000)	1
Mr O Jepps (to 02/05/2000)	2
Ms R Ennor (from 03/05/2000)	7
Mr I Grigg (to 14/08/2000 and from 13/12/2000)	1
Dr M Keating (to 14/08/2000 and from 13/12/2000)	4
Senator J Tierney (to 17/07/2000)	0
Senator B Mason (from 25/10/2000)	1
Senator K Carr	5
Justice M Finn	7
Mr M Delaney	7
Ms B Arndt	7
Dr D Solomon	8
Professor D Evans (to 29/09/2000)	5
Professor A Milner (from 19/07/2000 to 17/08/00 and from 30/09/2000)	4
Professor D Robinson (to 29/09/2000)	6
Professor J White (from 30/09/2000)	2
Dr M Green	9
Mr K Lonsdale	9
Mr J Muir	8
Ms W Procter	1

Council Committees

Buildings and Grounds Committee

Number of Meetings: 7

<i>Name of Member</i>	<i>Number of Attendances</i>
Mr R Lansdown (Chair)	7
Professor M Neutze (to 3/04/00)	1
Ms C Purdon (from 14/04/00)	4
Professor D Williams	6
Dr J Banks	3
Professor J White	2
Professor D Nicholls	3
Ms P Bleakley	7
Mr R Egan (to 30/11/00)	1
Mr W McKerras	3
Mr M Wasilewicz (from 1/12/00)	0
Mr D Sturkey	4
Mr L Blood	6
Mr P Gerner	6
Miss P Griffin	6
Mr C Burgess	3
Professor E Bourke	1

Committee Against Sexual Harassment

Number of Meetings: 0

CASH is currently under review by the Deputy Vice-Chancellor's office.

Committee on Conditions of Appointment of the Vice-Chancellor and Deputy Vice-Chancellor

Number of Meetings: Committee Members conferred as required throughout 2000 regarding conditions of appointment of the Vice-Chancellor.

Name of Member

Professor P Baume (Chair)
Dr A Bennett
Mr J Muir

Emergency Appointment (Vice-Chancellor) Committee

Number of Meetings: 0

Finance Committee

Number of Meetings: 6

<i>Name of Member</i>	<i>Number of Attendances</i>
Mr J Muir (Chair)	6
Professor D Terrell	5
Mr C Burgess	5
Professor F Jackson	6
Professor R Pashley	6
Mr R Egan (to 30/11/00)	3
Mr M Wasilewicz (from 1/12/00)	0
Ms R Ennor (from 3/05/00)	1
Senator K Carr	0
Senator J W Tierney (to 17/07/2000)	0
Senator B Mason (from 25/10/2000)	0
Mr I Grigg (to 14/08/2000 and from 13/12/2000)	5
Dr L Brodribb	5
Mr L Spencer	5
Professor J Richards	6
Dr A Bennett	5
Dr M Green	5
Mr R Keane	3
Ms M Buxton	2
Ms C Rau	3
Mr K Lonsdale	1

General Services Fee Committee

Number of Meetings: 3

<i>Name of Member</i>	<i>Number of Attendances</i>
Professor J Warhurst (Convenor)	3
Dr M Green	3
Justice M Finn	2
Mr O Jepps (to 2/05/2000)	0
Ms R Ennor (from 3/5/2000)	1
Mr R Egan (to 30/11/2000)	3
Mr M Wasilewicz (from 1/12/2000)	0

Mr S Cornish	3
Mr C Burgess	2
Ms P Weeks	2
Ms M Buxton	2
Mr C Rau	1

Standing Committee of Council

Number of Meetings: 1	
<i>Name of Member</i>	<i>Number of Attendances</i>
Dr A Bennett (Chair)	1
Professor D Terrell	1
Professor F Jackson	1
Professor R Pashley	1
Mr J Muir	1
Mr R Egan (to 30/11/00)	1
Mr W Wasilewicz (from 1/12/00)	0
Mr O Jepps (to 2/05/2000)	0
Ms R Ennor (from 3/05/2000)	1
Dr D Solomon	1
Ms B Arndt	1

Audit Committee

Number of Meetings: 4	
<i>Name of Member</i>	<i>Number of Attendances</i>
Mr L Spencer (Chair)	4
Dr M Keating	3
Dr L Brodribb	4
Mr D Lawler	4
Mr J Muir	3

University Statistics

	ACADEMIC STAFF		GENERAL STAFF			
	Research Only	Teaching and Research	Admin	Technical	Other	TOTAL
Institute of Advanced Studies						
Biological Sciences	59	0	16	80	5	161
Chemistry	51	0	15	46	10	122
Earth Sciences	32	1	13	57	6	109
Inform. Sciences & Engineering	18	0	9	6	0	33
Medical Research	80	1	29	127	17	254
Pacific & Asian Studies	69	1	50	37	4	160
Physical Sciences & Engineering	72	1	19	63	7	162
Social Sciences	47	6	35	25	4	117
Astronomy & Astrophysics	19	1	11	32	1	64
Resource & Environmental Studies	12	1	6	6	0	25
Sub-total	459	12	203	479	54	1207
CENTRES						
Asia-Pacific School of Econ & Mgt	5	26	34	6	0	71
Mathematical Sciences	24	1	5	2	0	31
Cross-Cultural. Research	8	0	4	7	0	18
Humanities Research	5	0	2	1	0	7
Epidemiology & Population Hlth	21	3	13	8	0	45
Mental Health Research	5	0	2	11	0	17
Aboriginal Econ. Policy Research	10	0	3	2	0	14
Sub-total	78	29	61	36	0	204
The Faculties						
Arts	5	100	19	11	0	134
Asian Studies	2	30	8	2	0	41
Economics & Commerce	2	56	14	7	0	78
Engineering & IT	10	34	14	35	0	93
Law	1	42	16	10	0	68
Science	53	117	24	96	1	291
Resources Office	0	0	21	11	1	34
Sub-total	72	378	115	171	2	739
Institute of the Arts	0	89	40	14	9	152
Other	0	19	531	91	143	784
TOTAL STAFF	609	527	950	793	207	3086

Note: Positions are at 31.3.2000; they include visitors, casuals and part-time teachers

STUDENT ENROLMENTS 2000

LEVEL OF COURSE	FULL-TIME			PART-TIME			ALL		TOTAL
	Male	Fem	Sub-T	Male	Fem	Sub-T	Male	Fem	
POSTGRADUATE									
IAS									
PhD	269	209	477	25	22	294	231	47	524
Master by Research	8	4	12	3		11	4	3	15
Master by Coursework	14	10	24	11	12	25	22	22	46
Graduate Diploma	1		1	5	2	6	2	7	8
Non-award	11	6	17	3	3	14	9	6	23
Total IAS	302	229	531	47	39	349	268	85	616
CENTRES									
PhD	45	37	82	13	10	58	47	23	105
Master by Research	1		1		1	1	1	1	2
Master by Coursework	50	57	106	32	38	81	94	69	176
Graduate Diploma	22	15	37	60	60	82	75	120	157
Graduate Certificate	24	11	35	16	12	40	23	28	63
Non-award	46	26	72	1	1	47	28	3	75
Total Centres	188	146	334	121	122	309	268	244	577
THE FACULTIES (Inc. ITA)									
PhD	237	215	452	60	47	296	262	107	558
Master by Research	36	32	68	16	17	52	49	33	101
Master by Coursework	44	50	95	92	87	136	137	179	273
Master (Qualifying)	1		1			1			1
Graduate Diploma	62	127	189	114	142	176	269	256	445
Graduate Certificate	1		1	2	4	3	4	6	7
Non-award	4	3	8	7	4	11	7	10	18
Total The Faculties	386	427	813	290	300	676	728	590	1403
POSTGRADUATE ANU									
PhD	551	460	1011	97	79	648	539	176	1187
Master by Research	45	36	81	19	18	64	54	37	118
Master by Coursework	108	117	225	134	136	242	253	270	495
Master (Qualifying)	1		1			1			1
Graduate Diploma	85	142	227	179	204	264	346	383	610
Graduate Certificate	25	11	36	18	16	43	27	34	70
Non-award	61	36	97	11	8	72	44	19	116
Total Postgraduate	876	802	1678	458	461	1334	1263	919	2597

LEVEL OF COURSE	FULL-TIME			PART-TIME			ALL		TOTAL
	Male	Fem	Sub-T	Male	Fem	Sub-T	Male	Fem	
UNDERGRADUATE									
CENTRES									
Bachelor	1		1				1		1
Cross-Institutional				2	8	10	2	8	10
Non-award	1		1				1		1
Total Centres	1	1	2	2	8	10	3	10	13
THE FACULTIES (Inc. ITA and Exchg)									
Bachelor	2455	2690	5145	752	874	1626	3207	3564	6771
Diploma	6	19	25	14	30	44	20	49	69
Cross-Institutional			5	49	99	148	49	104	153
Non-award	3	2	5	13	19	32	16	21	37
Total The Faculties	2464	2716	5180	828	1022	1850	3292	3737	7029
UNDERGRADUATE ANU									
Bachelor	2455	2691	5146	752	874	1626	3207	3565	6772
Diploma	6	19	25	14	30	44	20	49	69
Cross-Institutional			5	51	107	158	51	112	163
Non-award	4	2	6	13	19	32	17	21	38
Total Undergraduate	2465	2717	5182	830	1030	1860	3295	3747	7042
TOTAL ANU	3341	3519	6860	1288	1491	3194	4558	4666	9639

Allocated enrolments defined as enrolment allocated according to load. The allocation may involve rounding up or down and result in slight discrepancies in totals. The total allocated enrolment will be equivalent to the student enrolment expressed in terms of bodies.

Load Faculty is defined as the Faculty which carries the allocated enrolment.

DEGREE AND DIPLOMA COURSES COMPLETED (December 1999)

	Male	Female	Total
Doctor of Philosophy	134	85	219
Master's by Research	25	17	42
Master's by Coursework	116	131	247
Graduate Diploma	162	205	367
Bachelor	845	1006	1851
Diploma	16	16	32
Graduate Certificate	4	6	10
TOTAL ANU	1302	1466	2768

Allocated enrolments defined as enrolment allocated according to load. The allocation may involve rounding up or down

UNDERGRADUATE STUDENT ENROLMENTS 2000

COURSE	FULL-TIME			PART-TIME			ALL		
	Male	Fem	Sub-T	Male	Fem	Sub-T	Male	Fem	Total
BACHELOR - SINGLE DEGREES									
Arts	178	346	524	149	289	438	327	635	962
Arts Art History	3	28	31	1	14	15	4	42	46
Arts Australian Studies	1	2	3		2	2	1	4	5
Arts Development Studies	4	11	15	4	11	15	8	22	30
Arts European Studies	3	5	8	2	4	6	5	9	14
Arts Policy Studies	9	3	12	6	10	16	15	13	28
Asian Studies	23	39	62	20	28	48	43	67	110
Asian Studies (Sp)	22	47	69	4	6	10	26	53	79
Actuarial Studies	42	21	63	4	4	8	46	25	71
Commerce	115	103	218	49	47	96	164	150	314
Economics	36	16	52	22	9	31	58	25	83
Engineering	68	9	77	13	3	16	81	12	93
Engineering, Software	62	12	74	4		4	66	12	78
Information Technology	77	17	94	16	1	17	93	18	111
Information Technology Commerce				1		1	1		1
Information Technology Information Systems	13	5	18	8	1	9	21	6	27
Information Technology Software Engineering	36	3	39	35	4	39	71	7	78
Law	13	19	32	5	13	18	18	32	50
Law (Graduate)	42	43	85	33	33	66	75	76	151
Science	234	247	481	110	127	237	344	374	718
Science (Forestry)	39	19	58	4	2	6	43	21	64
Science (Psychology)	26	43	69	3	12	15	29	55	84
Science (Res&Env Management)	30	53	83	16	15	31	46	68	114
Music	89	90	179	4	8	12	93	98	191
Visual Arts	91	188	279	12	27	39	103	215	318
Total Single Degrees	1256	1369	2625	525	670	1195	1781	2039	3820

COURSE	FULL-TIME			PART-TIME			University Statistics ALL		
	Male	Fem	Sub-T	Male	Fem	Sub-T	Male	Fem	Total
BACHELOR - COMBINED DEGREES									
Actuarial Studies/Commerce	27	27	54	2	2	4	29	29	58
Actuarial Studies/Economics	18	11	29	4		4	22	11	33
Actuarial Studies/Law	5	5	10				5	5	10
Arts/Asian Studies	35	95	130	7	14	21	42	109	151
Arts/Commerce	35	28	63	10	7	17	45	35	80
Arts/Economics	30	19	49	12	13	25	42	32	74
Arts/Forestry	2		2				2		2
Arts/Law	149	336	485	22	35	57	171	371	542
Arts/Psychology	11	29	40				11	29	40
Arts/Science	88	158	246	28	48	76	116	206	322
Arts/Visual Arts	1	17	18		1	1	1	18	19
Asian Studies/Commerce	23	37	60	5	8	13	28	45	73
Asian Studies/Economics	15	25	40	3	6	9	18	31	49
Asian Studies/Engineering	2	3	5	2		2	4	3	7
Asian Studies /Law	20	74	94	4	7	11	24	81	105
Asian Studies/Science	21	35	56	3	7	10	24	42	66
Asian Studies /Visual Arts		8	8		3	3		11	11
Commerce/Economics	126	76	202	34	10	44	160	86	246
Commerce/Engineering	19	2	21	4	2	6	23	4	27
Commerce/Forestry	2		2				2		2
Commerce/Information Technology	123	55	178	16	3	19	139	58	197
Commerce/Law	84	58	142	6	7	13	90	65	155
Commerce/Psychology	4	5	9				4	5	9
Economics/Information Technology	32	4	36	2	2	4	34	6	40
Economics/Law	49	33	82	15	5	20	64	38	102
Economics/Psychology		2	2					2	2
Engineering/Arts	1		1				1		1
Engineering/Economics	10	6	16	3		3	13	6	19
Engineering/Information Technology	94	9	103	11	2	13	105	11	116
Engineering/Science	65	14	79	13	5	18	78	19	97
Psychology/Law	2	10	12				2	10	12
Psychology/Science		7	7					7	7
Science/Commerce	21	39	60	4	8	12	25	47	72
Science/Economics	26	13	39	5	2	7	31	15	46
Science (Forestry)/Economics	9	3	12				9	3	12
Science/Law	44	73	117	9	5	14	53	78	131
Science/Science (Forestry)	6	6	12	3	2	5	9	8	17
Total Combined Degrees	1199	1322	2521	227	204	431	1426	1526	2952
TOTAL BACHELOR	2455	2691	5146	752	874	1626	3207	3565	6772

COURSE	FULL-TIME			PART-TIME			University Statistics ALL		
	Male	Fem	Sub-T	Male	Fem	Sub-T	Male	Fem	Total
DIPLOMA & NON-AWARD									
Arts Art History					3	3	0	3	3
Arts Classical Studies				1		1	1	0	1
Arts European Languages				4	9	13	4	9	13
Arts History					2	2	0	2	2
Arts Philosophy				4		4	4	0	4
Arts Sociology				1	1	2	1	1	2
Asian Studies				2	4	6	2	4	6
Visual Arts	6	19	25	2	11	13	8	30	38
Non-Award & Cross-Institutional	4	7	11	64	126	190	68	133	201
TOTAL DIPLOMA & NON-AWARD	10	26	36	78	156	234	88	182	270
TOTAL UNDERGRADUATE	2465	2717	5182	830	1030	1860	3295	3747	7042

HOME REGION OF OVERSEAS STUDENTS 2000

COUNTRY	POSTGRADUATE					UNDERGRADUATE			TOTAL
	PhD	M(R)	M(C)	Other	Sub-Total	Bach	Other	Sub-Total	
INTERNATIONAL									
SE Asia									
Indonesia	27	4	29	18	78	20	1	21	99
Laos			4	9	13	3		3	16
Malaysia	3	1	3		7	47		47	54
Philippines	5	2	20	39	66	3		3	69
Singapore	3	1	6	3	13	49		49	62
Thailand	8	4	10	7	29	24		24	53
Viet Nam	7		6	9	22	5		5	27
Other SEA	1		3	12	16	3		3	19
sub-total	54	12	81	97	244	154	1	155	399
East Asia									
China	23	1	23	42	89	17		17	106
Hong Kong	2		1	2	5	30		30	35
Japan	25	3	9	7	44	11	6	17	61
Korea - South	6	1	3	6	16	16		16	32
Macau						2		2	2
sub-total	56	5	36	57	154	76	6	82	236
South Asia									
Bangladesh	4		10	11	25	5		5	30
India	6	1	4		11	8		8	19
Pakistan	4	1		3	8	1		1	9
Sri Lanka	2		2	2	6	6		6	12
sub-total	16	2	16	16	50	20	0	20	70
Other Asia	5		9	20	34	20	1	21	55
Asia Total	131	19	142	190	482	270	8	278	760
Germany	16		2		18	2	1	3	21
Netherlands	7				7	1		1	8
U.K. (incl. Northern Ireland)	17	1	2		20	1		1	21
Other Europe	24	1	5	4	34	12		12	46
Europe Total	64	2	9	4	79	16	1	17	96
Fiji	5		1	5	11	4		4	15
Papua New Guinea	6		5	12	23	5		5	28
Other Pacific	3	1	2	8	14	4		4	18
Pacific Total	14	1	8	25	48	13		13	61
Canada	9	1	2		12				12
U.S.A.	19	2	6	6	33	6	28	34	67
South America	2	1	5	1	9	5		5	14
Other America	3				3	1		1	4
America Total	33	4	13	7	57	12	28	40	97

COUNTRY	POSTGRADUATE					UNDERGRADUATE			TOTAL
	PhD	M(R)	M(C)	Other	Sub-Total	Bach	Other	Sub-Total	
<i>Africa</i>	6		3	5	14	18		18	32
<i>Middle East</i>	5		3	7	15	3		3	18
<i>Total</i>	253	26	178	238	695	332	37	369	1064
OTHER OVERSEAS									
<i>New Zealand</i>	77	2	9	7	95	24	1	25	120
<i>Total</i>	77	2	9	7	95	24	1	25	120
OVERSEAS TOTAL	330	28	187	245	790	356	38	394	1184

Cooperation with Government and other public institutions

The Australian National University encourages members of the academic staff to give specialist advice and assistance to Federal and State Government departments and to other public institutions, both within Australia and internationally. This help takes many forms — consultancies, membership of committees, involvement in particular projects, secondments, etc. The following list records such cooperation for 2000. This is not necessarily comprehensive.

Institute of Advanced Studies

Research School of Astronomy and Astrophysics

Prof M BESSELL, president, Astronomical Society of Australia; member, National Committee of Astronomy; member, Editorial Board of *PASA*; member, AAO Schmidt Telescope Panel; Immediate Past President of IAU Commission 29 on Stellar Spectra.

Dr G BICKNELL, member, Scientific Organising Committee, Workshop on AGN Variability.

Dr M COLLESS, chair, Anglo-Australian Observatory Users' Committee; member, Australia Gemini Science Advisory Committee' chair, 6dF Science Advisory Group; member, Mid-term Review Working Group of the National Committee for Astronomy.

Dr G DA COSTA, president, IAU Commission 37 (to August); Immediate-Past President and member, Organizing Committee IAU Commission 37 (from August); member, Organizing Committee, IAU Division VII; Australian Gemini Project Scientist, Committee Memberships; chair, Committee of Gemini Offices; member, Gemini Science Committee; chair, Australian Gemini Science Advisory Committee; member, Australian Time Allocation Committee; member, Scientific Organizing Committee, Joint Discussion 5 "Mixing and Diffusion in Stars: Theoretical Predictions and Observational Constraints", IAU General Assembly; member, Scientific Organizing Committee, "Extragalactic Star Clusters", IAU Symposium proposal, Pucon, Chile; member, Scientific Organizing Committee, "The Dynamics, Structure and History of Galaxies", Dunk Island; chair, Local Organizing Committee, "The Dynamics, Structure and History of Galaxies", Dunk Island.

Prof M DOPITA, president, IAU Division VI & Commission 34 on Interstellar Matter (1997–2000); chair, IAU Executive Committee Working Group for the International Development of Antarctic Astronomy (1997–2000); Co-chair, Scientific Organising Committee, IAU Symposium 209, "Planetary Nebulae:

Their Role in the Universe"; member, Scientific Organising Committee, IAU Symposium 205, "Galaxies and their Constituents at the Highest Angular Resolutions"; member, Scientific Organising Committee, IAU Joint Discussion 11, "First Results of the FUSE Mission"; member, Board of Editors, *Astrophysics and Space Science* (1993–); member, Visiting Committee of the Capodimonte Observatory; member, NASA Science Oversight Committee for the Wide Field Camera-3; member, Antarctic Astronomy Working Group 1993–.

Dr P FRANCIS, member, Astronomical Society of Australia Education sub-committee; Consultant to design part of a WWW Astrophysics course for Swinburne University.

Prof K FREEMAN, member, Parkes Multibeam Working Group, Australia Telescope National Facility; president, International Astronomical Union (IAU) Division VII and IAU Commission 33 (Structure and Dynamics of the Galactic System); Receiving Editor, *New Astronomy* (Elsevier); member, Scientific Organising Committee, Conference on "Dynamics of Star Clusters and the Milky Way", Heidelberg; member, Scientific Organising Committee, Conference on "Gas and Galaxy Evolution", Socorro; member, Scientific Organising Committee, Conference on "Galaxy Disks and Disk Galaxies, Rome.

Dr R FUX; member, IAU Commission 33, Structure & Dynamics of the Galactic System.

Dr C JACKSON; member, Australia Telescope Users' Committee.

Dr A KALNAJS; member, Organising Committee IAU Commission 33 "Structure and Dynamics of the Galactic System".

Prof J MOULD; chair, Anglo-Australian Telescope Board; member, National Committee for Astronomy; member, AURA Board (Association of Universities for Research in Astronomy); ANU member, of the AURA Board of Member Representatives; chair, Visiting Committee of the European Southern Observatory; member, Faulkes Telescope P/L Board of Directors.

Dr B SCHMIDT; member, Australian Time Assignment Committee; member, Square Kilometer Array Steering Committee.

Dr M SEVENSTER; member, Australia Telescope Users' Committee; member, Australia Telescope Time Assignment Committee.

Dr P WOOD; member, Local Organising Committee, IAU Symposium 209; member, Scientific Organising Committee, IAU Symposium 209.

In consultation with JACKSON, JERJEN, SCHMIDT and VENNES, DA COSTA provided oversight for two 4-day visits of approximately 30 Monash third-year astrophysics undergraduates.

Research School of Biological Sciences

Director

HEARN JP, Scientific Adviser, Parliamentary Committee on Legal and Constitutional Affairs, Inquiry into Cloning (1999–); member, Biotechnology Consultative Group (BIOCOG), Department of Industry, Science and Resources (1999–); Deputy Director, Pest Animal Control CRC (1999–); member, Board, Greenhouse Accounting CRC (1999–); Honorary Research Fellow, CSIRO Wildlife and Ecology, Gungahlin; member, Asia and Pacific Regional Panel for Research in Reproductive Health, WHO (1998–); member, Council, Center for Research Resources, National Institutes for Health, Washington (1995–); chair, Australian Society for Reproductive Biology (2000–); member, Board, ANUTECH (1999–); member, Board, Australian Centre for Intellectual Property in Agriculture (2000–); Referee, National Health and Medical Research Council; reviewer, Reproduction, Fertility and Development, American Primatology.

Developmental Neurobiology and Endocrinology

MARK, RF, Past President, Australian Neuroscience Society; referee, Australian Research Council, National Health and Medical Research Council, New Zealand Neurological Foundation and academic journals, Behavioural Brain Research; Representative, Australian Neurosciences Society on Federation of Australian Scientific and Technological Societies; member, Initial Review Board of the Medical and Scientific Advisory Council of the Alzheimers Association.

MAROTTE, LR, Public Officer, Australian Neuroscience Society, referee, National Health and Medical Research Council grant application.

TYNDALE-BISCOE, H, member, Board of CSIRO Publishing; member, Board of Standards of the Australian Journals of Scientific Research; Academy of Science project Video Histories of Australian Scientists; Referee, 2 Australian Research Council major research grants.

VIDOVIC, M, referee, Australian Research Council grant applications; referee, *Journal of Dairy Research*.

VIGGERS, K, overall Convener and Session Convener, Australian Veterinary Association Annual Conference, Australian Association of Veterinary Conservation Biologists, Perth 2000; referee, Large Australian Research Council grant application; referee, Antarctic Science, Wildlife Research; ACT Representative, Wildlife Health Australia; Steering Committee Member, Wildlife Health Australia.

Ecosystem Dynamics

BALL, MC, Elected Discipline Representative for Eco-physiology, Council of the Australian Society of Plant Physiologists; member, Planning Committee for the Photosynthesis Congress (Brisbane, 2001); member, Editorial Boards of *Oecologia*, *Global Change Biology*, *Plant Biology and Trees: Structure and Function*.

NOBLE, IR, CEO, CRC for Greenhouse Accounting; adviser, NSW Premiers Department; adviser, Indonesian Government; adviser, ALP Environment Committee; chair, Scientific Steering Committee of Global Change and Terrestrial Ecosystems (GCTE); member, Scientific Committee of the International Geosphere Biosphere Program (IGBP) and the Scientific Steering Committee of Global Analysis, Interpretation and Modelling (GAIM). In these capacities he made presentations at conferences and took part in workshops in Australia, Mexico, South Africa and the USA; lead author, Third Intergovernmental Panel on Climate Change Assessment Report and Co-Chair of the IPCC Special Report on Land Use, Land Use Change and Forestry; attended Intergovernmental Panel on Climate Change meetings in Canada, Poland, Switzerland and the USA; member, Global Change Advisory Committee to the Minister for the Environment; adviser to Environment Australia; member, Scientific Advisory Panel of the CRC on the Sustainable Use of Savanna Ecosystems; Expert Adviser, NAFI Forum, Canberra; Expert Adviser, Sydney Futures Exchange Workshop, Sydney; Expert Adviser, National Farmers Federation, Canberra; Expert Adviser, Briefing of Greenpeace International and Australian Conservation Foundation on the IPCC Special Report, Canberra; member, Editorial Boards, *Advances in Global Change Research*, *Climate Policy*, *Ecosystems*, *Diversity & Distributions* and the *Journal of Vegetation Science*.

O'BRIEN, M, developed Clean Development Mechanism (CDM) case studies for plantation forestry, revegetation, avoided deforestation and an integrated catchment scale project; developed a CDM "How-to-Guide" for potential use by Australia and the international community; participant, committee briefing by the CRC for Greenhouse Accounting for the Senate Environment, Communications, Information Technology and the Arts References Committee's inquiry into Australia's response to global warming; presenter, Climate Action Network Australia on behalf of the CRC for Greenhouse Accounting about the LULUCF Special Report and the issue of carbon sinks in the Kyoto Protocol.

ROXBURGH, SH, Referee, *Journal of Vegetation Science and Plant Ecology*.

SLATYER, RO, chair, Rainforest CRC; adviser, Environment Australia, scientific assessment of the natural heritage significance of the Eucalypts; member, Selection Committee for the Chair of Tropical Plant Sciences.

Electron Microscopy Unit

The EMU facilities were used by the University of Canberra, Australian Defence Force Academy, University of NSW and Charles Sturt University, CSIRO, Australian Geological Survey Organisation, Australian Nuclear Science and Technology Organisation, Food Science Australia, the National Gallery of Australia, Australian Federal Police Forensic Division, ACT Electricity and Water, and the Royal Australian Mint.

STOWE, S, editor, *Australian EM Newsletter*; member, Awards Committee, Australian Society for Electron Microscopy; referee, NZ Lottery Grants.

Environmental Biology

BIRD, M, member, Editorial Board of *Geology*.

EVANS J, ANU Representative, The Green Machine Science Education Centre; Honorary Treasurer, Australian Society of Plant Physiologists; referee, scientific journals and Australian Research Council grant; member, Editorial Board of *Plant, Cell and Environment*; member, Editorial Advisory Committee, *Australian Journal of Plant Physiology*; Project Leader, Cooperative Research Centre for Greenhouse Accounting.

FARQUHAR GD, Lead Author, Intergovernmental Panel on Climate Change (IPCC), Third Assessment Report; Convening Lead Author, IPCC Special Report on Land Use, Land Use Change and Forestry; member, Greenhouse Science Advisory Committee (GSAC); member, High Level Steering Committee for the National Carbon Accounting System (Australian Greenhouse Office); Presented evidence to the Senate References Committee on Environment, Communication, Information Technology and the Arts in their Inquiry into Global Warming, on behalf of the CRC for Greenhouse Accounting; Prepared a submission to the Joint Standing Committee on Treaties, House of Representatives, regarding the Kyoto Protocol, on behalf of the CRC for Greenhouse Accounting; Subject Editor, *Plant, Cell and Environment*; member, Greenhouse Science Advisory Committee; Deputy CEO and Program Leader, Cooperative Research Centre for Greenhouse Accounting.

MASLE, J, Project Leader, Cooperative Research Centre for Greenhouse Accounting.

Genomic Interactions Group

DJORDJEVIC, MA, Grant Reviewer, US Department of Agriculture and Australian Research Council; member, Editorial Advisory Board, *Australian Journal of Plant Physiology*, reviewer, *Plant Journal*, *Australian Journal of Plant Physiology*, *Plant Physiology*, *Molecular Plant Microbe Interactions*, *Plant and Soil*, *FEMS Microbiology Letters*, *Soil Biology and Biochemistry*, member, Organising Committee, 8th International Symposium on Nitrogen Fixation with Non-legumes; participant,

Grains Research and Development Council workshop on the root soil interface.

MATHESIUS, U, invited presenter, Grain Research and Development Council workshop on the root soil interface; Invited Speaker, Annual Meeting of the Society of Experimental Biology, Exeter, UK; Reviewer, *Protoplasma*, *Annals of Botany*, *Plant Physiology and Biochemistry*.

ROLFE, BG, Grant Reviewer, US National Science Foundation, US Department of Agriculture and Australian Research Council; Section Editor, *Plant and Soil*; Guest Editor, *Plant Molecular Biology*; Member, Review Board, International Congress on Nitrogen Fixation; Member, Review Board, European Nitrogen Fixation Meetings; Member, Board, International Society for Molecular Biology of Plant Microbe Interactions; Elected Vice President, Australian Electrophoresis Society; Past President and Board Member, International Society of Molecular Plant-Microbe Interactions; Lecturer and consultant, Rural Industry Research and Development Corporation; Participant and Presenter, Millennium for Microbiology, Australian Society for Microbiology, Cairns, Queensland; Participant, Grain Research and Development Council workshop on the root soil interface; Lectures and discussion at Rice Growers Cooperative R&D Workshop; Organised and ran the CRC for Sustainable Rice Production cold damage workshop.

WEILLER, G, Grant Reviewer, PhD Thesis Reviewer and Examiner, Monash University; Book Reviewer, Humana Press; Expert Adviser, workshop, University of Western Australia; Invited seminar speaker, Department of Mathematics and Statistics, University of Western Australia; Department of Electrical and Computer Systems Engineering, Monash University; Annual Meeting of the Society of Industrial Microbiology (SIM 2000) San Diego, USA; Technical Faculty of the University of Bielefeld, Germany; 8th International Conference on Intelligent Systems in Molecular Biology, San Diego, USA.

WEINMAN, JJ, reviewer, *Australian Journal of Plant Physiology*; organised and presented lectures the CRC for Sustainable Rice Production cold damage workshop; Lectures and discussion at Rice Growers Cooperative R&D Workshop.

Molecular Genetics and Evolution

BALL, E, Referee, Australian Research Council grants.

BÜCHEN-OSMOND, C, Visitor, European Bioinformatics Institute, Hinxton, Cambridge, UK; Seminar speaker, Institute for Plant Pathology and Plant Protection, University of Göttingen; Institute of Applied Botany, University of Hamburg; Elected Member, Committee on "Bioinformatics and Networking" of the World Federation of Culture Collection; Participant, discussion meeting on the "Origin of HIV and the

AIDS epidemic", Royal Society of London; Seminar speaker, on the use of the ICTVdB, University of Arizona.

CLARK-WALKER, GD, Member, Editorial Board, *Mitochondrion*, Referee, Australian Research Council grant applications; Referee, *EMBO Journal*.

TRUEMAN, JWH, Member, Editorial Panel, *Systematic Biology*; Member, Referee Panel, Australian Research Council; member, Referee Panel, Australian Biological Resources Study; Member, Threatened Species Committee, Wingecarribee Swamp Recovery Team (NSW National Parks and Wildlife Service and Sydney Catchment Authority); consultancy, NSW National Parks and Wildlife Service, Statewide survey for *Petalura gigantea* in NSW.

TRUEMAN, JWH and Clarke G (CSIRO Entomology), consultancy with NSW National Parks and Wildlife Service, Threatened Species Recovery Plan for *Petalura gigantea*.

TRUEMAN, JWH, Driver F, Hartley D (CSIRO), Goolsby JA (United States Department of Agriculture), collaborative project (United States Department of Agriculture) to determine the phylogenetic structure of the pest fern *Lygodium microphyllum* (continuing).

Molecular Plant Physiology Group

ANDREWS TJ, discussions with CSIRO Telecommunications and Industrial Physics on the topic of artificial photosynthesis.

BADGER, M, Reviewer, Australian Research Council grant applications; Reviewer, manuscripts submitted to several international biochemical, molecular biological and plant physiological journals; Organiser, Fourth International Symposium on Inorganic Carbon Utilisation by Aquatic Photosynthetic Organisms — Fourth International Aquatic CCM Conference (Palm Cove, August 2001).

PRICE, D, Referee, 9 research papers; Co-chair organiser, 12th Photosynthesis Congress (Brisbane, 2001) Symposium; Organiser, Fourth International Symposium on Inorganic Carbon Utilisation by Aquatic Photosynthetic Organisms — Fourth International Aquatic CCM Conference (Palm Cove, August 2001).

Photobioenergetics

ANDERSON, JM, Member, Lemberg Committee, Australian Academy of Science; Member, Editorial Boards, *Plant, Cell and Environment* and *Photosynthesis Research*, Referee, Natural Environment Research Council (UK), US National Science Foundation, US Department of Agriculture, National Science and Engineering Research Council of Canada, Australian Research Council.

CHOW, WS, Member, Editorial Board, *Physiologia Plantarum*, Referee, US Department of Agriculture,

Australian Research Council, New Zealand Foundation for Research into Science and Technology.

GILMORE, A, Referee, US Department of Agriculture.

HENDRICKSON L, survey report: "Grapevine Plantings and Wine Grape Production in the Canberra District", commissioned by the Chief Minister's Department, ACT Government.

OSMOND, CB, Chair, Photosynthesis 2001, 12th International Congress for Photosynthesis; Member, Executive Committee, International Society for Photosynthesis Research; Chair, National Committee for Plant Sciences, Australian Academy of Science; Chair, Advisory Board, *Australian Journal of Plant Physiology*; Member, Editorial Boards of *Planta*, *Plant Biology* and *Plant Physiology*; Representative, Australian Academy of Science Asia Exchange Program Committee; Representative, International Conference Support Scheme, Department of Scientific and Industrial Research, New Zealand; Representative, Board of Standards, Australian Journals of Research; Member, Fachbeirat (scientific advisory board) Max-Planck Institut für Molekulare Pflanzenphysiologie, Göltingen; Strategic Partnerships with Industry — Research and Training (SPIRT) Grant Support from Southcorp, Clonakilla, Brindabella Hills, and Stringybark Hills wineries (\$5000 pa for 3 years, beginning March 1999).

WYDRZYNSKI, T, Member, Editorial Board, *Photosynthesis Research*, Referee, USA-Israel Binational Agricultural Research and Development Fund.

Plant Cell Biology

BURN, JE, Expert Adviser, Blake, Dawson and Waldron.

GUNNING, BES, Editor, *Protoplasma*; Reviewer, *Annals of Botany*, *Protoplasma*, *The Plant Cell*.

HARDHAM, AR, Co-convener, Robertson Symposium on Plant Cell Biology (Canberra) member, Editorial Board, *Fungal Genetics and Biology*, *Protoplasma*, *Advances in Botanical Research*; Examiner of PhD thesis, RMIT University; Member, Governing Board, CRC for Tropical Plant Protection; Member, Executive Committee, CRC for Tropical Plant Protection; Member, National Committee for Plant Science, Australian Academy of Science; Member, Sectional Committee 6, Plant and Microbial Sciences, Australian Academy of Science; Reviewer, Australian Research Council grant applications; Reviewer, Mycological Research, Physiological and Molecular Plant Pathology, Protoplasma.

JOHN, PCL, Keynote Speaker, 6th International Congress of Plant Molecular Biology, Québec, Canada; Member, Scientific Advisory Board, International Agbio company, CropDesign; Participant, Australian Research Council and Research & Development Corporations Innovation Forum: Genomics and Gene

Technologies; Reviewer, *Planta*, *Plant Journal*, *Protoplasma*.

JONES, DA, Co-convener, ANU/CSIRO Plant Biology Seminar program; Reviewer, *Protoplasma*; Reviewer, Australian Research Council grant applications; Reviewer, Biotechnology and Biological Sciences Research Council grant applications.

WASTENEYS, GO, ACT Representative, Australia & New Zealand Society for Cell & Developmental Biology Incorporated; Co-convener, Robertson Symposium on Plant Cell Biology (Canberra); Member, Organising Committee (Biological Program), MicroZcopy 2000, the 16th Australian Conference on Electron Microscopy (Canberra); Reviewer, *Protoplasma*; Seminar speaker, John Innes Centre; University of Salzburg; Plant Industry (CSIRO) Forum on Cotton, and Centre for the Science and Engineering of Materials, ANU.

WATT, M, Reviewer, *Journal of Experimental Botany*, *Plant and Soil*.

WILLIAMSON, RE, Member, Editorial Board, *Planta*, *European Journal of Cell Biology*.

Visual Sciences

MADDESS T, secretary, Canberra Region, Australian Biotechnology Association; Reviewer, Australian Research Council, Strategic Partnerships with Industry — Research and Training (SPIRT), National Health and Medical Research Council, Raine Foundation, ANU Faculties Research Grants Committee grant applications; Reviewer, Clinical and Experimental Ophthalmology and Vision Research; RSBS Representative, Australian Biotechnology Association (ABA) Conference and at functions of the ACT Government Business Development Office and the ABA; Organiser, RSBS contribution, ACT Focus on Business 2000 Conference; Presentations to venture capitalists, government representatives, and overseas biotechnology groups; Member, ANU Awards Committee.

MALESZKA, R, Grant Reviewer, BARD — the United States–Israel Binational Agricultural Research and Development Fund; Guest Lecturer, Department of Genetics, University of Melbourne; PhD Thesis Examiner, University of Queensland; Reviewer, *Molecular and General Genetics* and the *European Journal of Biochemistry*; Visitor, Department of Entomology, University of Arizona, USA.

MORGAN, IG, Scientific Co-chair, Australasia Ophthalmic and Visual Science Meeting; Member, Organising Committee, 2000 Australasia Ophthalmic and Visual Science Meeting Conference (Sydney); Member, Organising Committee, bid for the International Congress of Eye Research for Sydney in 2004; Reviewer, Visual Neuroscience, Neuroscience Letters and *Journal of Neurochemistry*; Reviewer, National Health and Medical Research Council, Australian Re-

search Council and Ophthalmic Research Institute of Australia grant applications.

SRINIVASAN, MV, Member, Editorial Boards, *The Journal of Comparative Physiology* (A), *the Journal of Insect Physiology* and the *Australian Journal of Intelligent Information Processing Systems*.

ZANKER, J, Referee, *Vision Research*, *Perception*, *Neural Computation*, *Nature*, *Proceedings of the Royal Society*, *European Journal of Neuroscience*; Thesis Examiner; Referee, funding agencies Deutsche Forschungsgemeinschaft (Germany), Wellcome Trust (UK).

ZEIL, J, Grant reviewer and expert adviser, National Science Foundation (USA), Wellcome Trust (UK), Smithsonian Tropical Research Institute (USA), Australian Research Council, US Immigration Department; Referee, *Journal of Experimental Biology and Animal Behaviour*.

Research School of Chemistry

Prof M. G. BANWELL, Consultant, Fine Chemicals Program of CSIRO Molecular Science, Melbourne; Consultant, Genencor International Inc, Palo Alto; Consultant, Biota Holdings Ltd, Melbourne; Member, Editorial Boards, *Australian Journal of Chemistry*, *Green Chemistry*, *Indian Journal of Chemistry* (Section B), *Journal of the Chemical Society*, Perkin 1, *New Journal of Chemistry*, *Synlett*; Associate Editor, *Methods in Organic Synthesis*; Member, Executive, Division of Organic Chemistry, RACI (until February 2001); Member, Organising Committee, Organic Division Conference, 11th RACI National Convention, Canberra; Member, Advisory Board, Special Centre for Green Chemistry, Monash University; Assessor, ARC grant applications.

Prof M. A. BENNETT, Member, Asia Exchange and Postdoctoral Sub-committee, Australian Academy of Science; Australian Representative, IUPAC Commission on Nomenclature of Inorganic Chemistry; Member, International Advisory Boards, Dictionary of Organometallic Compounds and Dictionary of Inorganic Compounds; International Editorial Associate, *Inorganic Syntheses*; Member, Editorial Advisory Board, *Inorganic Chemistry*; ACT Representative, Committee of the Australian Association of Alexander von Humboldt Fellows; Co-organiser, Symposium on Selective Transformations with Late Transition Metal Complexes, 2000 International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii; Assessor, ARC grant applications.

Dr N. E. BRASCH, Member, ACT Branch Committee, RACI; Member, Inorganic Chemistry Division Committee, RACI.

Dr A. G. CHRISTY, Associate Editor, *Mineralogical Magazine*

Dr M. A. COLLINS, Member, Physical Chemistry Division Committee, RACI

Dr N. E. DIXON, Member, Organising Committee, ComBio 2001 Conference, 30 September–4 October 2001; Visiting Lecturer, School of Chemistry, University of Sydney; Assessor, ARC and NHMRC grant applications.

Prof C. J. EASTON, Member, Policy Committee, Federation of Australian Scientific and Technological Societies (FASTS); Secretary and Chair Elect, Organic Chemistry Division, RACI; President Elect, ACT Branch, RACI; Member, Advisory Board, Centre for Chiral and Molecular Technologies, Deakin University; Member, Organising Committee, 11th RACI National Convention; Member, Organising Committee, Organic Chemistry Division Conference, 11th RACI National Convention, Canberra; Member, Editorial Board, ARKIVOC; Member, Referee Panel, Chemical Communications; Member, Organising Committee, Symposium on New Developments in Organic Radical Chemistry, 2000 International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii; Member, International Advisory Board, 2002 EUCHEM Conference on Organic Free Radicals

Prof D. J. EVANS, Permanent Visiting Scientist, National Institute of Standards and Technology, Department of Commerce, USA; Member, Sectional Committee 3, Australian Academy of Science; Member, Technical Review Group, Australian Partnership for Advanced Computing (APAC); Member, Merit Allocation Committee, APAC; Member, Organising Committee, 5th Liblice Conference on Statistical Mechanics of Liquids, Spinlerv Mlyn, Czech Republic, 9–14 June 2002; Member, Scientific Committee, 2nd Pacific Basin Conference on Adsorption Science and Technology, Brisbane, May 2000; Member, Editorial Advisory Board, *Chemical Physics*; Member, Editorial Boards, *Molecular Simulation*, *Molecular Physics*; Assessor, ARC grant applications

Dr G. A. HEATH, Honorary Fellow, Australian War Memorial; Member, Raman Microscope Steering Committee, University of Canberra; Supervising Scientist, CSIRO Student Research Scheme; Assessor, ARC grant applications

Dr M. A. KENIRY, Assessor, ARC and NHMRC grant applications

Dr E. KRAUSZ, Chair, Physical Chemistry Division and Conference Organiser, 11th RACI National Convention, Canberra; Assessor, ARC grant applications; Assessor, NSF & DOE grant applications.

Prof L. N. MANDER, Member, Sectional Committee 3, Australian Academy of Science; Member, Editorial Advisory Boards, *Current Organic Chemistry*, *Dictionary of Organic Compounds*, *Heterocycles*, *Journal of the Chemical Society*, Perkin 1, Natural Product Reports, *Synthesis*, *Synlett*; Member, Board of Consulting Editors, *Tetrahedron*, *Tetrahedron Letters*; PhD Supervisor,

Pascasarjana Universitas Padjadjaran, Bandung, Indonesia; Assessor, ARC grant applications.

Dr D. L. OLLIS, Assessor, ARC and NHMRC grant applications; Member, North American Fellowships Committee, Australian Academy of Science.

Prof L. RADOM, Vice-president, World Association of Theoretically Oriented Chemists; Member, International Advisory Committee, 15th IUPAC Conference on Physical Organic Chemistry, Göteborg, Sweden; Co-organiser, Symposium on Computational Quantum Chemistry: Theoretical and Experimental Perspectives, 2000 International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii; Member, International Advisory Committee, 16th IUPAC Conference on Physical Organic Chemistry, San Diego, USA, August 2002; Member, Editorial Advisory Boards, *Australian Journal of Chemistry*, *European Mass Spectrometry*, *International Journal of Mass Spectrometry and Ion Processes*, *International Journal of Quantum Chemistry*, *Journal of Computational Chemistry*, *Journal of Molecular Structure: Theochem*, *Journal of Physical Organic Chemistry*, *Journal of the Chemical Society*, Perkin Transactions 2; Assessor, ARC grant applications

Dr P. A. REYNOLDS, Member, Instrument Scheduling Panel "Excitations" ISIS Spallation Source, Rutherford–Appleton Laboratory, UK

Dr E. M. SEVICK, Assessor, ARC grant applications

Dr T. R. WELBERRY, Vice President, Society of Crystallographers in Australia (SCA) (until 4 February 2000); President, Society of Crystallographers in Australia and New Zealand (SCANZ, formerly SCA) (from 4 February 2000); Member, National Committee for Crystallography, Australian Academy of Science (from April 2000); chair, Organising Committee, 21st Meeting of the Society of Crystallographers in Australia, February 2000; Assessor, ARC grant applications

Dr E. WENGER, Guest-editor, *Journal of Organometallic Chemistry* (Vol. 607, 2000); Member, Organising Committee, 11th RACI Convention, Canberra; Organiser, Bennett Symposium and Inorganic Division Program, 11th RACI Convention, Canberra.

Prof J. W. WHITE, Chair, National Committee for Crystallography (Australian Academy of Science); Chair, Scholarships Committee, Oxford Australia Fund; Science Policy Secretary, Australian Academy of Science; Member, ASRP Policy and Review Board; Member, Council of the Asian Crystallographic Association; Member, Board of Governors, Consortium for Advanced Radiation Sources, CARS, University of Chicago; Member, ISIS Inter–Appleton Laboratory, UK; Member, ISIS Scheduling Panel, Rutherford–Appleton Laboratory, UK; Member, Beam Facilities Consultative Group, Australian Nuclear Science and Technology Organisation; Member, Steering Committee, Oxford Australia Fund; Member, Council, Australian Academy of Science; Member, Council, Australian Institute of

Nuclear Science and Engineering; Member, Neutron Scattering Specialist Committee, Australian Institute of Nuclear Science and Engineering; Member, Advisory Committee, School of Chemistry, University of Sydney; Member, Australian Academy of Science/Royal Society Exchange Program Committee; Vice-president, Australian Neutron Beam Users Committee; Member, CSIRO, Chemicals and Plastics Sector Advisory Committee; Member, International Review Committee, KEK-JAERI, Japan; Member, International Advisory Panel, Faculty of Science, National University of Singapore; Member, Scientific Program Committee, International Union of Pure and Applied Chemistry, World Chemistry Congress; President, RACI; Member, Editorial Boards, *Advances in Physics*, *Current Opinion in Solid State and Materials Science*, *Journal of Materials Chemistry*, *Physical Chemistry Chemical Physics*; Assessor, ARC grant applications.

Dr S. B. WILD, Consulting Editor, *Tetrahedron: Asymmetry*; Member, Editorial Advisory Board, *Main Group Chemistry*; Assessor, ARC grant applications.

Dr R. L. WITHERS, Member, Organising Committee, Crystal XXI, 21st Meeting of the Society of Crystallographers in Australia; Member, Program Committee, Microscopy 2000, 16th Australian Conference on Electron Microscopy; Consultant, Electron Diffraction Commission, International Union of Crystallography; Member, Aperiodic Commission, International Union of Crystallography; External examiner, Institute of Condensed Matter Chemistry, CNRS, Bordeaux, France (PhD thesis defence)

Research School of Earth Sciences

Prof D.H. GREEN, member, Board of Management, Australian National Seismic Imaging Resource (ANSIR); chair, Greenhouse Science Advisory Committee in the Department of the Environment and Heritage; member, Cambridge Commonwealth Trust.

Prof B.L.N. KENNETT, member, National Committee on Solid Earth Sciences, and chair, the Subcommittee on Seismology and Physics of the Earth's Interior; chair, Academy Committees for Postdoctoral Opportunities in Japan and exchange arrangements with N.E. Asia (China, Japan, Korea, Taiwan); represents the Academy of Sciences on the National Committee for support of International Conferences in Australia; Deputy Director, Australian National Seismic Imaging Resource (ANSIR), a Major National Research Facility operated as a joint venture by the Australian Geological Survey Organisation and the Australian National University; continued to provide support to the Comprehensive Nuclear-Test-Ban Treaty (CTBT) Organisation in Vienna; member, review team, International Data Centre for the CTBT; President, International Association for Seismology and the Physics of the Earth's Interior (IASPEI); in that position

is a member of the Executive Committee of the International Union of Geodesy and Geophysics (IUGG).

Prof K. LAMBECK, Chair, Antarctic Science Advisory Committee; member, AUSLIG Geodesy Reference Group; member, AUSAID Technical Advisory Group; member, Pangea Resources International Science Review Board; Vice President (until May) and currently Foreign Secretary, Australian Academy of Science and member of its Council; member, EPILOG steering committee (climate and environment during the Last Glacial Maximum), of the BALTEEM working group (Palaeoenvironment and Palaeoclimate of the Baltic during the Last Interglacial); associate member, Canadian Institute for Advanced Research; member, Stage 3 Working Group concerned with climate and environment of Europe during oxygen isotope stage 3; cooperative research projects with scientists in Italy, France, Netherlands, Sweden, United Kingdom, Switzerland and the United States.

Dr F.E.M. LILLEY, member, Geomagnetism and Aeronomy Subcommittee; worked with Dr C.E. Barton and Dr H. McCreadie of AGSO to organise the Fourth Australian Geomagnetic Workshop, held at the AGSO buildings, Canberra.

Dr I.S. WILLIAMS, continued his longstanding collaboration with Australian Scientific Instruments (now a proprietary limited subsidiary of ANUTECH Pty Ltd) in the manufacture and marketing of SHRIMP ion microprobes; visited the National Institute of Polar Research, Tokyo, with Mr J. Hyder, ASI, to set up procedures for stable isotope analysis using the new NIPR SHRIMP II.

The Ion Microprobe subgroup continues to maintain a close working relationship with Australian Geological Survey Organization (AGSO) geochronologists, sharing expertise, standards, time, costs and maintenance responsibilities for the SHRIMP I and II ion microprobes. This year the two groups combined in the sampling and characterisation of a new zircon standard for SHRIMP analysis, to be known as Temora.

The portable instrument facility of ANSIR is housed at RSES and equipment is available via a competitive proposal scheme. In 2000 instrumentation has been provided to: Monash University for broadband studies in Victoria; a consortium of CSIRO Exploration and Mining and BHP Coal for studies of seismicity in the Appin Coal Field, NSW; RSES for the Western Australian Craton experiment; The Institute of Geological and Nuclear Sciences, New Zealand in association with RSES for work in the Transantarctic mountains.

Research School of Information Sciences and Engineering

Computer Sciences Laboratory

Dr Peter BARTLETT, Editor, *Machine Learning*; Action Editor, *Journal of Machine Learning Research*; Assoc

Editor, *Mathematics of Control Signals and Systems*; Member, Editorial Board, *Journal of Artificial Intelligence Research*; Member, Editorial Board, *Machine Learning*; Member, Program Committee, International Workshop on Algorithmic Learning Theory; Member, Program Committee, International Symposium on Soft Computing for Industry; Member, Program Committee, International Conference on Neural Information Processing; Member, Program Committee, International Workshop on Algorithmic Learning Theory.

Dr Matthias FUCHS, Member, Program Committee, Genetic and Evolutionary Computation Conference

Dr Jen DAVOREN, Member, Program Committee, Workshop on Discrete Event Systems (Ghent, Belgium, 2000)

Dr Rajeev GORÉ, ACT Representative, Judging Panel, Australian Computer Science Society's Distinguished Dissertation Award; Member, Program Committee, International Conference on Theorem Proving with Analytic Tableaux and Related Methods

Dr Markus HEGLAND, Committee Member, Computational Mathematics Interest Group of the Australian/NZ Industrial and Applied Mathematics Society; Member, Editorial Board, *SIAM Journal of Scientific Computing*; Reviewer, Workshop on Parallel and Distributed Computing in Image Processing, Video; Processing and Multimedia (PDIVM-2000)

Prof John LLOYD, Member, Advisory Board, Theory and Practice of Logic Programming; Editorial Adviser, *The Journal of Logic Programming*; Member, Editorial Board, *New Generation Computing*; Member, Editorial Board, Addison-Wesley International Series in *Logic Programming*; Member, Editorial Board, *Journal of Functional and Logic Programming*; Member, Editorial Board, *The Computer Journal*; Program Chair, Australasian Workshop on Computational Logic (ANU); Program Chair, First International Conference on Computational Logic (Imperial College, London); Vice-President (Pacific Rim), International Federation for Computational Logic

Dr Bruce MILLAR, Member, Organising Committee, Australian International Conference on Speech Science and Technology (SST-2000); President, Australian Speech Science and Technology Association Incorporated (ASSTA Inc); Chair, National Spoken Language Database Committee, ASSTA Inc; Member, Editorial Board, *Speech Communication*; Member, Advisory Council, International Speech Communication Association; Member, Permanent Council, International Congress of Phonetic Sciences; Member, Permanent Council, International Conference on Spoken Language Processing; Member, Coordinating Committee for Speech Databases and Assessment (COCOSDA); Rapporteur for Oceania Region, Coordinating Committee for Speech Databases and Assessment (COCOSDA); Member, Board, Summer Institute of

Linguistics Australia; Chair, School Committee, Board of the Summer Institute of Linguistics Australia; Member, Scientific Committee, International Conference on Language Resources and Evaluation (LREC-2000); Member, International Advisory Committee, International Conference on Spoken Language Processing (ICSLP-2000); Member, International Committee, Workshop on Innovative Speech Processing (WISP-2001); Member, Technical Programme Committee, Audio-Video Biometric Person Authentication (AVB-PA-2001); Member, Scientific Review Board, Australian International Conference on Speech Science and Technology (SST-2000)

Dr John SLANEY, Member, Program Committee, International Conference on Automated Deduction (CADE); Member, Program Committee, Conference on Frontiers of Combining Systems (FroCoS); President, International Conferences on Automated Deduction Inc; Member, Program Committee, Australian Joint Conference on Artificial Intelligence; Program Co-chair, Pacific Rim International Conference on Artificial Intelligence (PRICAI-2000, Melbourne)

Department of Systems Engineering

Prof Brian ANDERSON, President, Australian Academy of Science; Adviser, International Federation of Automatic Control; Advisory Committee, Centre for Integrated Dynamics and Control; Director, Cochlear Ltd; Editorial Board Member, *Applied and Computational Control, Signals, and Circuits*; Editorial Board Member, *Journal of Multidimensional Systems and Signal Processing*; Editorial Board Member, *Optimal Control Applications and Methods*; Editorial Board Member, *International Journal of Adaptive Control and Signal Processing*; Editorial Board Member, *International Journal of Robust and Nonlinear Control*; Editorial Board Member, *IEEE Control Systems Society*, "Major Impact Papers" Volume; Member, Asian Control Profs Association; Member, Australia Prize Advisory Committee; Member, Prime Minister's Science, Engineering and Innovation Council; Member, Steering Committee, Innovations Summit; Member, Scientific Review Group, Pangea Resources Australia Pty Ltd

Prof Alexander ZELINSKY, Member, Organising Committee, International Conference on Field and Service Robotics (1997-000); Editorial Board Member, *International Journal of Robotics Research* (2000-2002); Editorial Board Member, Special Issue of the *International Journal of Robotics Research* (November 2000); Program Committee Member, Australian Conference on Robotics and Automation (ACRA 2000); Best Paper Panel Member, International Conference on Robotics and Automation (ICRA 2000); Chair of Special Session, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2000)

Department of Telecommunications Engineering

Prof Rodney KENNEDY, Assoc Editor, *IEEE Transactions on Communications*, *Data Communications in the Area of Modulation and Signal Design*, Member, Editorial Board, *Journal of Adaptive Control and Signal Processing*, Member, Acoustical Society of America; Grant Proposal Referee, Australian Research Council

John Curtin School of Medical Research

Prof GL ADA, chair, Vaccine Working Group, National Centre in HIV Epidemiology and Clinical Research (NCHECR), Sydney; member, Australian Influenza Vaccine Committee; member, Programme Advisory Committee and Programme Executive Committee of the Australian HIV Vaccine Consortium (Director, Professor David Cooper, Head of NCHECR); scientific patron, Austin Research Institute, Melbourne; acted as a referee for manuscripts submitted to Adis International Ltd., New Zealand.

Dr R BAKER, Director and Vice-President, Genome Conference Inc; Director, Australian Society for Medical Research; member, organising committee for ComBio Conference, Canberra, 2001; expert consultant, Human Gene Nomenclature Committee, London.

Dr JM BEKKERS, member, council for the Australian Neuroscience Society; consultant, Axon Instruments Inc, Foster City, California, USA.

Prof RV BLANDEN, member, Editorial Boards, *Immunology and Cell Biology*, and the *Asia-Pacific Journal of Biotechnology*; chair, Research Advisory Committee, National Centre in HIV Virology Research; ANU representative, Board of the CRC for Pest Animal Control.

Dr P COOPER, Public Officer, Australian Cancer Society and the Clinical Oncological Society of Australia (until July); consultant for ANUTECH.

Prof DR CURTIS, member, Panel of Advisers, National Institute of Forensic Science Australia

Prof AF DULHUNTY, member, council, Australian Physiological and Pharmacological Society and RGIC for The National Heart Foundation.

Prof S EASTEAL, editor, *Molecular Biology and Evolution*.

Dr P FOSTER, associate editor, *Pharmacology and Therapeutics*, member, executive committee, International Eosinophil Society; member, working group for the basic science section of the International Eosinophil Meeting, Banf, 2001.

Dr C FREEMAN, member, local organising committee, 2001 Matrix Biology conference, Canberra.

Prof PW GAGE, member, Editorial Committee, *g of Cellular and Molecular Neurobiology*, and the Scientific

Board of the Motor Neurone Disease Research Institute of Australia; President, Australian Physiological and Pharmacological Society.

Prof C GOODNOW, member, Australian Society for Immunology, member American Association of Immunologists; member, American Association for the Advancement of Science; member, a number of advisory boards including: Walter and Eliza Hall Institute; Scientific Advisory Board, Australian Genome Research Facility and the Scientific Advisory Board, Illumina, Inc, San Diego; Scientific Advisory Board, Genome Institute of the Novartis Foundation, San Diego; member, Editorial Boards of *Journal of Experimental Medicine*, *Immunological Reviews*, *International Immunology*, *Current Biology*, and *Genome Biology*.

Dr J GREADY, convener and symposium organizer of the Australian Society for Biochemistry and Molecular Biology Bioinformatics Special Interest Group.

Prof IA HENDRY, science adviser, board of the Wenkart Foundation; member, John James Memorial Ethics Committee; member, editorial boards, *Journal of Neuroscience Research* and *International Journal of Developmental Neuroscience*, assessor, National Health and Medical Research Council, Australian Research Council, Medical Research Council (NZ), and National Science Foundation (USA).

Dr CE HILL, Member, NHMRC Training Awards Committee; ACT representative, Australian and New Zealand Microcirculation Society.

Prof DA JANS, member, Joint Commission for the Selection of Candidates for Italian Govt Scholarships; delivered lectures and practical classes at James Cook University of North Queensland, Townsville; external assessor for Rubicon 2000, Biochemistry and Mol Biol Dept, Adelaide University. Member, editorial boards, *Australasian g of Cancer* (2000–) and *Current Drug Targets* (2001).

Dr P JEFFREY, member, Australia Science Festival Advisory Council; member, Vice Chancellor's Outreach and Reference Group.

Dr K MATTHAEI, Consultant, Australian Quarantine Inspection.

Dr P McCULLAGH, President, National Brain Injury; appointed to NHMRC Working Party on the Persistent Vegetative State; honorary medical adviser, Vietnam Veterans' Association of Australia, Legacy and the Returned and Services League of Australia.

Prof C PARISH, editor-in-Chief, *Immunology and Cell Biology*; member, Medical Research Advisory Committee of the Australian Cancer Research Foundation.

Prof IA RAMSHAW, member, Australian Drug Evaluation Sub-Committee, ACT Science and Technology Council and Scientific Advisory Panel Westmead Insti-

tute for Cancer Research; Editorial Board member, *Viral Immunology*, and *Microbes and Infection*.

Prof SJ REDMAN, member, Editorial Boards, *Journal of Neurophysiology*, *Synapse*, *Neuroscience*, *Journal of Neuroscience Methods*, *Neuroreport*, *Trends in Neuroscience*, *Journal of Computational Neuroscience*, *European Journal of Neuroscience*, *Journal of Clinical Neuroscience* and *Clinical & Experimental Pharmacology & Physiology*; Deputy chair, NH&MRC Discipline Panel, and member, grant assessing panel for the New Zealand Health Research Council; member, Wellcome Trust Interviewing Committee for International Fellowships; assessor, Australian Research Council, National Health and Medical Research Council, National Science Foundation, Ramaciotti Foundation and Wellcome Trust; member, Executive Committee, International Brain Research Organization; member, Scientific Advisory Committee, Prince of Wales Medical Research Institute; ANU representative, National Health Sciences Centre.

Dr F SHANNON, member, NHMRC Discipline Panel; member, Board of the Lorne Genome Conference Inc.; consultant, Boehringer Ingelheim.

Dr C SIMEONOVIC, member, Editorial Board, *Cell Transplantation*; member, Local Organising Committee, The Canberra Hospital Annual Scientific Meeting.

Dr R SLATTERY, invited to launch the Juvenile Diabetes Foundation International "Walk for the Cure" fundraising kick-off 2000.

Dr G STUART, Project Grant assessor for NH&MRC; teacher, IBRO School of Brain Function in Hong Kong.

Dr D TREMETHICK, invited analyst for Chemtract, Biochemistry and Molecular Biology.

Dr B WALMSLEY, Committee member NH&MRC Regional Grants Interviewing Committee, Brisbane; Project Grant assessor, NH&MRC and ARC.

Prof JA WHITWORTH, Trustee, Sylvia and Charles Viertel Charitable Foundation Medical Advisory Board; Trustee, Foundation for High Blood Pressure Research; chair, F1-11 Aircraft Health Study; chair, Advisory Panel — Commonwealth Health Minister's Awards for Excellence in Health and Medical Research; member, WHO Global Advisory Committee on Health Research; member, Ad Hoc Committee for Stroke, World Heart Foundation; Honorary Ambassador for Canberra; member, Canberra Clinical School Board of Studies; member, Committee of Deans of Australasian Medical Schools (CDAMS); Co-chair, WHO/ISH Guidelines Writing Committee; member, WHO/ISH Liaison Committee; chair, High Blood Pressure Research Council of Australia; Vice-President, International Society of Hypertension Committee member, Review of the Blood Banking and Plasma Product Sector.

Dr DO WILLENBORG, member, International Advisory Board, International Society of Neuroimmunology; Editorial Board member, *Journal of Neuroimmunology*.

Prof IG YOUNG, editor, journal *DNA Sequence*, consultant, Boehringer-Ingelheim; member, Biological Defence Advisory Committee, Department of Defence.

Research School of Pacific and Asian Studies

Division of Economics

ATHUKORALA, Dr P, Adviser, Asia Recovery Information Centre, Asian Development Bank; assessor, Australian Research Council large grants; team leader, moderator and coordinator of conference proceedings, International Conference on Trade Policy Issues, Asian Development Bank Institute, Tokyo, Japan, June; author, policy report, 'Capital Mobility, Crisis and Adjustment: A Malaysian Case Study' for the International Centre for the Study of East Asian Development, Kitakyushu, Japan.

CHAND, Dr S, Adviser, Government of Papua New Guinea on privatisation.

de BROUWER, Prof G J, Adviser, Department of Foreign Affairs.

DRYSDALE, Prof P, Assessor, Australian Research Council large grants; witness, Senate Select Committee on Superannuation and Financial Services; adviser, APEC; consultant/lead researcher, Australian International Education Office, Tokyo; member, Expert Panel, Japan-IMF Scholarship Program for Asia.

DUNCAN, Prof R C, Member: Australian Competition Tribunal, Australian Department of the Treasury; Aid Advisory Council, Australian Department of Foreign Affairs and Trade; UNESCO Social Sciences Network, Australian Department of Foreign Affairs and Trade.

GARNAUT, Prof R, Chair (May 1994 to May 2000), Australian Centre for International Agricultural Research; chair, International Advisory Group to Papua New Guinea; member, Advisory Council, Minister for Foreign Affairs.

HILL, Prof H, Participant, roundtable discussions with: the Australian Department of Foreign Affairs and Trade; Australian Agency for International Development Assistance (AusAID); Philippines National Economic and Development Authority.

KALIRAJAN, Dr K P, Consultant, Impediments to Australia's trade and investment in Indian Ocean Rim — Association for Regional Cooperation (IOR-ARC), Department of Foreign Affairs and Trade, Australia; resource person, Decentralisation and Rural Poverty Alleviation, Tamil Nadu Planning Commission, India.

MANNING, Dr C, Adviser, Social Monitoring and Early Response Unit, World Bank/ AusAID, Jakarta.

McKIBBIN, Prof W, Consultant: Australian Competition and Consumer Commission; Australian Greenhouse Office; Department of Foreign Affairs and Trade; Australian Coal Association; The World Bank; Australian Treasury; Consultant, US Congressional Budget Office; Tactical Global Management.

McLEOD, Dr R H, Participant, roundtable discussions on Indonesia: Department of Foreign Affairs and Trade; Office of National Assessment; Australian Agency for International Development Assistance (AusAID); BHP; organiser of an ad hoc roundtable discussion with visitors from Indonesia's National Income Optimisation Task Force.

MENG, Dr X, Consultant, ACIL Australia Pty Ltd: China Capacity Building Program.

SONG, Dr L, Consultant: International Finance Corporation (IFC); State Economic and Trade Commission of PRC.

WOLFF, L, Committee member, IDP Education Australia; assessor, Australian-European Scholarships.

Division of Pacific and Asian History

BALLARD, Dr C, Adviser, Australian Government parties and the Department of Foreign Affairs and Trade; consultant, Freeport McMoren and the Lem-baga Musyawarah Adat Suku Amungme (LEMASA).

DOUGLAS, Dr B, Member of RSPAS team briefing, Department of Foreign Affairs and Trade; Adviser, Papua New Guinea members of Community Equity in Education Project, Papua New Guinea Branch, AusAID.

FEALY, Dr G, Consultant: Department of Foreign Affairs and Trade; The Asia Foundation, Jakarta; USAID Jakarta; adviser, BHP.

JACKSON, Dr P, Presenter of two orientation seminars to Australian volunteers for work in Thailand.

LAL, Prof B V, Consultant, Refugee Tribunal, Sydney.

McCORMACK, Prof G, Adviser: the Japan Desk, Department of Foreign Affairs and Trade; lecturer, Australian Defence College, Canberra.

MORRIS-SUZUKI, Prof T, Member, Foreign Affairs Council.

NELSON, Prof H, Adviser, Department of Foreign Affairs and Trade; assessor, Australian Research Council large and small grants; adviser, Department of Veterans' Affairs.

Division of Politics and International Relations

AMYX, Dr J, Adviser, the Japan Desk, Department of Foreign Affairs and Trade.

DINNEN, Dr S, Adviser, Solomon Islands Peace Process (attached to the Peace Office of the Solomon Islands Christian Association in Honiara, Solomon Islands); Justice Specialist on the Australia/PNG Law and Justice Sector Review.

ELLIOTT, Dr L, Lecturer, Royal Australian Airforce Staff College; invited lecturer, Australian Defence College.

FRY, G, Lecturer: Naval Training College, Sydney; Australian Government, Parliament House, Canberra; Department of Foreign Affairs and Trade's Graduate Training Course.

HARRIS, Prof S, Co-chair, the Australian Committee of the Council for Security Cooperation in the Asia-Pacific; member: International Steering Committee, Foreign Affairs Council; Advisory Council, Japan Centre for International Exchange; Trilateral Commission; Australian member, Council for Asia-Europe Cooperation.

KERKVLiet, Prof B, Assessor, Australia Research Council grants.

MAY, Dr R J, Adviser: Joint [Parliamentary] Committee, Foreign Affairs, Defence and Trade; Minister for Foreign Affairs and Trade; Department of Foreign Affairs and Trade personnel; Embassies of Switzerland, Singapore, Norway, the United Kingdom; lecturer, Australian Defence College.

NOBLE, Dr G, Lecturer, Australian Defence College.

REGAN, A, Adviser: Australian Department of Foreign Affairs (PNG Branch) and Trade; AusAID (Bougainville desk of the PNG Branch); AusAID (Pacific Branch) and to Australian Department of Foreign Affairs and Trade (Pacific Branch); provided assistance, Australian Department of Foreign Affairs and Trade / Bougainville Peace Monitoring Group.

REUS-SMIT, Dr C, Guest lecturer, Australian Defence College.

Division of Society and Environment

Department of Anthropology

FILER, Dr C, Adviser: AusAID, Papua New Guinea; Chamber of Mines and Petroleum, Papua New Guinea; Department of Mining, Papua New Guinea.

KILDEA, G, Adviser: SBS TV; NSW Film and Television Office; Australian Film Commission; Ronin Films.

ROBINSON, Dr K, Consultant: Community Participation Strategy, Bapedal Regional Project, Bali, Indonesia; IDSS Community Participation and Gender

Working Paper; East Timor Rural Water Supply; AusAID; Gender Policy in Indonesia.

RUMSEY, Dr A, Invited participant, Papua New Guinea Provincial Capacities Workshop for AusAID.

WEINER, Dr J F, Adviser: Gurang Land Council (Aboriginal Corporation); Indigenous Land Corporation, Brisbane; consultant, audit of Incorporated Land Groups in Kutubu Oil Project Area, Chevron Niugini Ltd; prepared native title connection reports, Butchulla, Wondunna, Olga Miller, Gurang Land Council; prepared a strategic land use and acquisition plan for southeast Queensland, for the Indigenous Land Corporation.

Department of Archaeology and Natural History

AMBROSE, W, Member: Antarctic Science Advisory Committee; Human Impacts Program Advisory Committee (PAC), Australian Antarctic Division.

GOLSON, Emeritus Prof J, Joint consultant with T P Denham, Archaeology and Anthropology, Faculty of Arts, and Dr P L Swadling, Department of Archaeology and Natural History, RSPAS, advising a Papua New Guinea committee representative of the Papua New Guinea National Committee for UNESCO, the Papua New Guinea National Museum and Art Gallery, the University of Papua New Guinea, the Western Highlands Provincial Government and the Kuk community in the matter of the nomination of the Kuk archaeological site, Western Highlands Province, for World Heritage status.

HOPE, Prof G S, Member: Expert Panel, Cape York Management Committee, Environment Branch, Department of Primary Industries, Queensland Government; member, Advisory Committees: Winge-carribee Reserve; Sydney Water; member, Advisory Board, Seven Summits project, Public Broadcasting, Boston; member, Lemberg Award advisory committee, Australian Academy of Science; assessor: Australia Research Council grants; New Zealand Research Awards, New Zealand Government.

Department of Human Geography

ALLEN, Dr B J, Adviser, Australian Agency for International Development; commercial partner, Dames and Moore Pty Ltd.

BOURKE, Dr R M, Adviser, Sandalwood Project, CSIRO Forestry and Forest Products; commercial partner, Dames and Moore Pty Ltd.

GIBSON, Dr K D, Assessor, Australian Research Council grants.

PRETES, M, Consultant: Village Enterprise Fund, Kenya and Uganda; Aboriginal Legal Rights Movement, South Australia.

RIMMER, Prof P J, Presenter, Royal Australian Navy's maritime study period; panel member, Board of Senior

Secondary Studies (Geography and Asian Studies Panels).

Department of Linguistics

PAWLEY, Prof A, Principal investigator, project investigating knowledge of plants by Kalam people of Papua New Guinea (funded by Exgenix Operations Ltd, Melbourne); external adviser, Department of Literature and Language, University of the South Pacific; chair, Steering Committee, International Conference on Austronesian Linguistics; adviser, Summer Institute of Linguistics.

ROSS, Dr M, Adviser, Summer Institute of Linguistics.

Tryon, Dr D, Member, Pacific Islands Senior Visiting Fellowship Scheme Advisory Committee, Department of Foreign Affairs and Trade.

Contemporary China Centre

UNGER, Dr J, Adviser, AusAID.

Gender Relations Centre

LAW, Dr L, Assessor, Australian Research Council grants.

Transformation of Communist Systems Project

MILLER, Dr R F, External specialists' panel, Centre for International Strategic Analysis Pty Ltd, Perth.

Non Divisional Groups

Director's Section

FOX, Prof J J, Assessor, Australian Research Council grant application; project assessor, Australian Centre for International Agricultural Research; consultant to AusAID on East Timor; consultant to World Bank on Indonesian forestry.

Pacific Manuscripts Bureau

MAIDMENT, W, Archival assistance: Papua New Guinea National Archives and Records Service; Yap State Archives; National Archives of Australia; Australian Council of Trade Unions; Papua New Guinea Maritime Workers Industrial Union Archives, Port Moresby.

Resource Management in the Asia-Pacific Project

BALLARD, Dr C, See entry under Pacific and Asian History.

McWILLIAM, Dr A, Consultant/Research Officer, Aboriginal Areas Protection Authority, Northern Territory (including discussions with the Royal Australian Air Force); consultant, on Work Bank project with UNTAET in East Timor; adviser, Provincial Government in Nusa Tenggara Timur.

State, Society and Governance in Melanesia Project

DOUGLAS, Dr B, Briefing to PNG members of Community Equity in Education Project, PNG Branch,

AusAID; member, RSPAS team to brief Department of Foreign Affairs and Trade on the current situation and future direction in the South Pacific.

REGAN, A, Assistance to the Solomon Islands Christian Association with the development of peacemaking and reconciliation efforts.

SSGM Team members, Briefings to AusAID and Department of Foreign Affairs and Trade.

Strategic and Defence Studies Centre

BALL, Prof D, Member, Council for Security Cooperation in the Asia-Pacific (CSCAP).

DIBB, Prof P, Member, Foreign Affairs Council; chair of the Defence Consultation Team to the Secretary of Defence and Chief of the Defence Force; chair of security discussions with China.

DUPONT, A, Academic adviser, ACT Accreditation Council

HORNER, Prof D M, Member, Australian Army Military History Projects Committee; head, Australian Army's Land Warfare Studies Centre.

McFARLANE, J, Presenter, 'Asia-Pacific security and transnational crime', to New Zealand Police Headquarters, Wellington.

Research School of Social Sciences

Australian Dictionary of Biography

Dr C.D. COULTHARD-CLARK, Invited speaker at seminar on Australians in the Korean War: 50 years on, Victoria Barracks, Melbourne.

B. DAWSON, President, St John's Schoolhouse Museum board of management.

Prof K. S. INGLIS, Member, comité scientifique, Historial de la Grande Guerre, Peronne, France.

Prof J. RITCHIE, Lecturer, Australian Defence College; Member, advisory committee, Australian National Dictionary Centre; Member, advisory board, Biographical Dictionary of the Australian Senate; Member, editorial board, *Tasmanian Historical Studies*.

Centre for Democratic Institutions

Dr Sharon BESSELL, Workshop leader and speaker, gender and democracy workshop and plenary session, global forum for women political leaders, Manila; Invited speaker on gender, education and social cohesion at a regional consultation hosted by the World Bank and Asian Development Bank, Manila.

R. RICH, Team leader, AusAID Indonesia governance mission, Jakarta; Presenter, Australian Youth Ambassadors pre-departure training program.

Centre for Economic Policy Research

Prof B.J. CHAPMAN, Consultant to UK Department for International Development on analysis of education financing in Rwanda; Department of Employment, Workplace Relations and Small Business on politics, history and economics of HECS; Chair, reference committee, Household Income and Labour Dynamics Australia (HILDA) survey, University of Melbourne; Member, labour market data advisory committee, Australian Bureau of Statistics; Invited speaker on young Australians' education: gender issues at conference organised by DETYA and the Australian Institute of Political Science; Member, editorial board, *Education Economics*; *Economics of Education Review*; *Australian Journal of Labour Economics*.

Dr T. CROSSLEY, Consultant to Commonwealth Department of Family and Community Services. Academic adviser and member, steering committee, Household Income and Labour Market Dynamics Australia (HILDA) survey; Member, editorial board, *Canadian Journal of Economics*.

Centre for Immigration and Multicultural Studies

Dr J.JUPP, Consultant to Victorian Government Multicultural Affairs Unit; Chair, international relations committee, Academy of the Social Sciences in Australia; International member, Refugee Studies Centre, York University, Canada; Member, Canberra regional committee on migration, planning and settlement, Department of Immigration and Multicultural Affairs; advisory board, European Studies Centre, University of New South Wales; Asia Pacific migration research network of the UNESCO-MOST program; executive committee, politics and ethnicity committee, International Political Science Association; Advisory editor, *Journal of Australian Studies*; Member, editorial board, *International Journal* (Canada); Reform; Member, board of associate editors, *Journal of International Migration and Integration* (Canada).

Centre for Tax System Integrity

Dr V. BRAITHWAITE, Chair, ethics committee, Australian Institute of Criminology; Member, cash economy task force, Australian Taxation Office; Guest speaker on influencing community attitudes for Roads and Traffic Authority of New South Wales; Participant, social capital think tank on accountability sponsored by Commonwealth Department of Family and Community Services; workshop on the future of education and vocational training organised by Australian Student Traineeship Foundation; Assoc editor, *Australian Journal of Psychology*; Member, editorial board, *Journal of Family Studies*.

Dr B. MORRISON, Adviser, Family Planning ACT Healthpact proposal on promoting young people's health in the ACT: bullying project.

Dr E. AHMED, Adviser, Family Planning ACT Healthpact proposal on promoting young people's health in the ACT: bullying project.

Demography Program

Dr M.J. ABBASI-SHAVAZI, Assistant, Royal Melbourne Institute of Technology on contraceptive knowledge, practice and access to women's health care services of Iranian migrant women living in the Melbourne metropolitan area.

Dr H. BOOTH, Council member, Australian Population Association; Editor, *Journal of Population Research*.

Dr A.C. HAYES, Consultant to AusAID on poverty and deprivation indicators in Indonesia; United Nations Population Fund and Royal Government of Cambodia on integrating population policy into the next 5-year development plan and on the next UNFPA-RGC country programme; Assoc editor and book review editor, *Journal of Population Research*.

Dr T.H. HULL, Consultant to AusAID on series of development assistance projects in Indonesia; Member, international steering committee. Asia Pacific conference on reproductive Health, organised by the Philippine NGO Council on Population Health and Welfare, Inc.

Prof G.W. JONES, Honorary treasurer and member, steering committee, Academy of the Social Sciences in Australia; Invited keynote speaker, first Pakistan population conference, Karachi; Invited participant, Population Association of America conference, Los Angeles; IUSSP/APN seminar on age structural transitions and policy implications, Phuket, Thailand; Assoc editor, *Journal of Population Research*; Member, international advisory board, Bulletin of Indonesian Economic Studies; Member, editorial board, *Pakistan Development Review*; Labour and Management in Development.

Dr S.-E. KHOO, Consultant to review of category jumping, Department of Immigration and Multicultural Affairs; Member, health ethics committee, Australian Institute of Health and Welfare; Assoc editor, *Journal of Population Research*.

Dr D. LUCAS, Consultant to Awards and National Symbols Branch, Department of Prime Minister and Cabinet, on civil unrest and crisis in Mozambique, Ethiopia and Eritrea; Vice president, Welsh Society of Canberra and editor, *The Welsh Australian*; Board member, Australian Reproductive Health Foundation; Committee member, Australian Reproductive Health Association; Member, editorial board, *African Population Studies*.

Prof P. McDONALD, Chair, working group on low fertility, International Union for the Scientific Study of Population; Member, executive committee and chair, programme committee, board of trustees of the International Centre for Diarrhoeal Disease Research, Bangladesh; external users group, Household and Income Dynamics Australia (HILDA) Survey, University of Melbourne and Department of Family and Community Services; Panel A committee, Academy of the Social Sciences; Member, scientific review board, *Demographic Research* (on-line journal).

Dr C. WILSON, Invited discussant at annual meeting of the Population Association of America, Los Angeles; Member, scientific review board, *Demographic Research* (on-line journal).

Development Studies Network

Dr P. THOMAS, Consultant to Papua New Guinea women's and children's health project; Papua New Guinea rural health project; Pacific Island child abuse project; Pacific Island non communicable diseases project; Member, advisory group, Australian Broadcasting Corporation; Radio Australia; Development in the Pacific Project.

Director

Prof I. McALLISTER, Consultant, Department of Defence; President, British politics group. American Political Science Association; Member, executive committee, comparative politics section, American Political Science Association; International Committee for Research into Elections and Representative Democracy; Member, advisory committee, National Drug Strategy Household Survey, Commonwealth Department of Health and Family Services; Member, editorial board, *Party Politics*.

Economics Program

Dr D. COBB-CLARK, Consultant to Department of Family and Community Services on the parenting payment intervention pilot, long-term unemployed pilot, mature-age pilot, and workless couples pilot; Member, ministerial advisory council on government schooling; reference committee, Household Income and Labour Dynamics in Australia (HILDA) panel survey, University of Melbourne; Assoc editor, *Australian Journal of Labour Economics*.

Prof G.D. SNOOKS, Invited major theme paper on uncovering the laws of global history, International Congress of Historical Sciences, Oslo.

Prof R.G. GREGORY, Keynote speaker, Department of Education, Training and Youth Affairs senior executive service conference; tenth Colin Clark memorial lecture, University of Queensland; Expert witness, equal remuneration principle case, Crown Solicitor's Office, Sydney; Assoc editor, *Labour Economics*; Mem-

ber, editorial committee, *Economic and Labour Relations Review*.

Dr M. KEATING, chair, research committee of the Institute of Public Administration; Keynote speaker, public sector leaders summit, Perth; Business Council of Australia; national conference of Institute of Public Administration; Member, editorial board, *Australian Journal of Public Administration*.

Dr D. MITCHELL, Consultant to AusAID on ASEAN social safety net provision, and on social protection policy development in East Asia; Presentation to House of Commons Select Committee on Social Security Reform; Member, editorial board, *International Social Security Review*.

Prof A.R. PAGAN, Board member, Reserve Bank of Australia; Reserve Bank of New Zealand; Distinguished Lecture, New Economic School, Moscow; Ely Lectures, Johns Hopkins University; Assoc editor, *Journal of Applied Econometrics*; *Econometric Reviews*; Co-editor, *Themes in Modern Econometrics*, Cambridge University Press; Member, editorial board, *Economic Record*; Member, advisory board, Macroeconomic Dynamics.

Prof J.D. PITCHFORD, Assoc editor, *Journal of Population Economics*

J. SMITH, ACT editor, *Urban Policy and Research*.

Prof G.D. SNOOKS, General editor, *Modern Economic History of Southeast Asia* (21 volumes), Macmillan; Member, editorial board, *Environment and History*.

History Program

Dr G. BOWEN, Treasurer, Australian and New Zealand American Studies Association.

Dr D. CRAIG, Vice-president, Australian and New Zealand American Studies Association.

Dr T. GRIFFITHS, Board member, Australian Science and Technology Heritage Centre; Member, scientific advisory board, Earthwatch Australia; Member, advisory board, *Australian Journal of Politics and History*; Member, editorial advisory board, *Public History Review*; *Gippsland Heritage Journal*; *Landscapes* (UK); Member, editorial board and chair, Commonwealth working party, *Australian Dictionary of Biography*.

I. HANCOCK, Member, advisory council, National Archives of Australia; Historical consultant, release of Cabinet records; Member, advisory board, Biographical Dictionary of the Senate; Member, editorial advisory board, Documents on Australian Foreign Policy.

Prof B.W. HIGMAN, Member, Elsa Goveia Prize committee, Association of Caribbean Historians; Chair, organising committee, fourth biennial conference of the Australian Association for Caribbean Studies; Member, editorial board, *New West Indian Guide*; *Journal of Caribbean History*; *Studies in the World History of Slavery*,

Abolition and Emancipation, University of the West Indies Press.

Prof P. JALLAND, Member, executive committee and standing committee, executive, Australian Academy of the Social Sciences.

A. LAUGESEN, Member, executive committee, Australian and New Zealand American Studies Association.

Emeritus Prof F.B. SMITH, Member, editorial board, *Health and History*.

J. THOMPSON, Expert examiner for the appraisal of applications for the export of Australian cultural property under the terms of the Australian government's Protection of Moveable Cultural Heritage Act; Board chair, Muse Inc.

Law Program

Dr L. BEHRENDT, Executive officer (NSW), Black Women's Action in Education Foundation; Elected member, research advisory council, Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS); Member, ethics committee, AIATSIS; Aboriginal and Torres Strait Islander Commission treaty think tank; documents reference group, Council for Aboriginal Reconciliation; management committee, Women's Legal Service (ACT); Editor, *Law Text Culture*; Member, advisory board, Balayi.

Prof J. BRAITHWAITE, Consultant to United Nations Office for Drug Control and Crime Prevention; Director, Foundation for Effective Markets; Member, advisory council, International Institute for Restorative Justice; scientific advisory board, Drug Use Monitoring in Australia; Member, international advisory board, Oxford Socio-Legal Studies; *British Journal of Criminology*; Member, international editorial board, *Policy Studies*; Member, editorial board, *Law and Society Review*; *International Journal of the Sociology of Law*; *Journal of Financial Regulation and Compliance*, *Crime and Society Series*, Westview Press; *Australasian Studies in Criminology*; *Australian and New Zealand Journal of Criminology*; Member, editorial advisory board, *Law and Policy*; *Criminal Justice*; *Law and Social Inquiry*; *International Journal of Criminology*; Member, editorial advisory panel, *Theoretical Criminology*; *Australian Journal of Corporate Law*.

Prof P. CANE, Secretary and treasurer, Australian Society of Legal Philosophy; Consultant, James Hardie & Co Ltd; NZI Insurance; Adviser, UK Review of Tribunals; Guest editor, *Administrative Law in a Federal System: Federal Law Review*, Vol 28(2); Assoc editor, *Torts Law Journal*; *Australian Journal of Legal Philosophy*; Member, editorial committee, *Journal of Obligations and Remedies*; *Law Probability and Risk*; *Common Law World Law Review*.

Dr A. KENT, Member, editorial board, *China Information*.

C. MANTZIARIS, Consultant, Aboriginal and Torres Strait Islander Commission; National Native Title Tribunal; Corrs Chambers Westgarth.

D. ROCHE, convener, NSW Youth Justice conferences; Submission author and witness, Senate legal and constitutional references committee, Inquiry into the Human Rights (Mandatory Sentencing of Juvenile Offenders) Bill 1999.

Dr N. SEDDON, Panel member, independent report to Victorian government, Audit Review of Government Contracts; Legal awareness seminars to AUSAID, Department of Defence, Attorney-Generals, DOFA; Adviser to Department of Defence on standard form contracts; Australian National Audit Office (ANAO) on government contracting and the use of confidentiality clauses; Guest editor, *Administrative Law in a Federal System: Federal Law Review*, Vol 28(2).

Prof J. STAPLETON, Adviser to the Restatement (Third) of Torts: General Principles; Consultant to I&L Securities; National Blood Authority (UK); Member, editorial board, *Torts Law Journal*.

Prof L.R. ZINES, Expert Adviser, ACT federation centenary committee; Member, centenary national advisory panel, Founding Documents Website project managed by the National Archives; advisory committee, Judiciary Act of the Australian Law Reform Commission; Member, advisory board, *Federal Law Review*; *Public Law Review*.

Philosophy Program

Prof M. SMITH, Information officer and member of council, Australasian Association of Philosophy; Member, executive, Australian Society for Legal Philosophy; Member, editorial board, *Australasian Journal of Philosophy*; *Ethics*; *Philosopher's Imprint*; *Philosophical Explorations*.

Political Science Program

Prof F. CASTLES, Co-editor, *Reshaping Australian Institutions* series, Cambridge University Press; Member, international advisory board, *Acta Politica*; Member, editorial board, *The Journal of Commonwealth and Comparative Politics*.

Dr R. GIBSON, Member, executive committee, British politics group, American Political Science Association.

Prof B. HINDESS, Member, editorial board, *Critical Review of International Social and Political Philosophy*; *Journal of Political Philosophy*; Member, editorial advisory board, *European Journal of Social Theory*; *Theory and Event*; *Communal/Plural*; *Thesis 11*.

Prof M. SAWER, Member, international consultative committee, Research Centre on Women and Politics, University of Ottawa; public affairs committee, Academy of the Social Sciences in Australia; political science accreditation panel, Board of Senior Secondary Studies,

ACT; executive, research committee 19 (Sex Roles and Politics), International Political Science Association; social responsibility committee, YWCA Australia; Member, editorial board, *Australian Journal of Politics and History*.

Dr John UHR, Member, editorial committee, *The Vision in Hindsight* centenary of federation project, Parliamentary Library; editorial committee, centenary history, Australian National Audit Office; Adviser, Victorian Royal Commission into Metropolitan Ambulance Service; Invited witness, Victorian Parliamentary Public Accounts Committee; Member, advisory board, *The Drawing Board: An Australian Review of Public Affairs*.

Research Evaluation and Policy Project

B. BIGLIA, Guest editor, *Research Evaluation* 9(2). Special issue on data and strategies in evaluating public R&D.

L. BUTLER, Member, editorial board, *Scientometrics*.

Social and Political Theory Program

Prof H.G. BRENNAN, Editor, *Economics and Philosophy*; Joint editor, *Collected Works of James M. Buchanan* (19 volumes), Liberty Press; Economics & Philosophy; Assoc editor, *Political Philosophy*; Member, editorial board, *Public Finance Review*; *Australian Economic Papers*; *Constitutional Political Economy*, President, Relationships Australia, Canberra region; Vice-President, Relationships Australia, nationally; Consultant, Anglican Primate's committee on tax reform.

Prof R.E. GOODIN, Consultant to World Health Organization on health policy; Chair, David Easton Award Committee of the Foundations of Political Theory; Member, executive committee, Society for the Advancement of Socio-Economics; founding board, Committee on the Political Economy of the Good Society (PEGS); Guest editor, *Ethics 111 Symposium* with Martha Nussbaum; *Journal of Political Philosophy* 8(1-4); Co-editor, *Journal of Political Philosophy*; Editor, *Theories of Institutional Design* series, Cambridge University Press; Member, editorial board, *Ethics*, *British Journal of Political Science*; *Journal of Public Policy*; *Political Studies*; *Responsive Community*; *New Political Economy*; *Acta Politica* (Netherlands); *La Revue Internationale d'Éthique Sociétale et Gouvernementale*; *Journal of Social and Government Ethics* (Canada); *Policy Sciences*; *PS: Political Science & Politics*.

Prof Philip PETTIT, Member, fellowships committee, Australian European University; advisory board, Erasmus Institute for Philosophy and Economics, Erasmus University; advisory board, Law and Philosophy Center, Columbia University; steering group, project on ethics and cloning, Australian Academy of Science; Panel C committee, Academy of Social Sciences in Australia; Member, advisory board, McDonnell project

in philosophy and the neurosciences, Simon Fraser University; international advisory committee, Ford Foundation; board of academic advisers, Freedom Project, John Templeton Foundation; review committee, Brown University; Non-UK based adviser for philosophy in the UK Higher Education 2001 research assessment exercise; Guest editor, *Monist*, issue on Civic Republicanism; Joint editor, *Journal of Philosophy*; Assoc editor, *Journal of Political Philosophy*; Member, editorial board, *Journal of Applied Philosophy*; *Philosophical Papers*; *Ethics*; *Australasian Journal of Philosophy*; *Ratio*; *International Journal of Philosophical Studies*; *European Journal of Philosophy*; *Philosophy and Phenomenological Research*; *Sorites* (on-line journal); *Philosophical Explorations* (Netherlands); *Cahiers de philosophie de l'université de Caen* (France); *Journal of Economic Methodology in Practice*; *Enfoques*; *Contemporary Political Theory* series, Cambridge University Press; *Cambridge Studies in Philosophy and Law* series, Cambridge University Press.

Social Science Data Archives

E. V. MERRILL, Secretary, Australian Consortium for Social and Political Research Incorporated. Regional secretary, International Association for Social Science Information Service and Technology (IASSIST).

Sociology Program

Prof F.L. JONES, Chair, council, Australian Consortium for Political and Social Research, Inc; Member, consultative committee on ancestry, Australian Bureau of Statistics; Panel of experts, National Education Performance Monitoring Task Force; Consultant, Australian Council for Educational Research; Member, editorial board, *Journal of Sociology*; *Australian Journal of Social Research*.

Dr J. McMILLAN, Consultant, Australian Council for Educational Research.

Prof J. WAJCMAN, Member, council, Society for Social Studies of Science; policy committee, Industrial Relations Research Centre, UNSW; Member, editorial board, *Journal of the British Sociological Association*; *Gender, Work and Organization*; *Science, Technology and Human Values*; *Science as Culture*; *Gender, Technology and Development*; *Feminist Theory*.

Centre for Resource and Environmental Studies

Dr Stephen DOVERS, member, Editorial Board, *Journal of Environmental Management*; Associate Editor, *Australian Journal of Environmental Management*; member, Standards Australia working group environmental risk management, Ecological Society of Australia, Environment Institute of Australia, International Society for Ecological Economics (ISEE), International Advisory Committee ISEE 2000 Conference; collaborated with

Land and Water Australia, Emergency Management Australia, Environment Australia.

Dr Fred GHASSEMI, member, Editorial board, *Environmental Modelling and Software*, guest editor, special issue of the *Environmental Modelling and Software on Groundwater Flow and Solute Transport Modelling*.

Dr Michael HUTCHINSON, guest member, Steering Committee, International Geosphere-Biosphere Programme — Biospheric Aspects of the Hydrological Cycle (IGBP-BAHC); member, Organizing Committee, Seventh International Conference on Precipitation; consultant, World Bank Global Environment Fund (GEF), Australian Land Information Group (AUSLIG); Land and Water Resources Research and Development Corporation (LWRRDC); NSW Department of Land & Water Conservation (DLWC); adviser, Bureau of Rural Science, Agriculture, Fisheries and Forestry Australia; Environment Australia; Canadian Forest Service; Texas A&M University; Centro Internacional de Mejoramiento de Maiz y Trigo; Climate Research Unit, University of East Anglia; Potsdam Institute for Climate Impact Research; ACT Department of Environment; National Climate Centre, Australian Bureau of Meteorology; Queensland Department of Natural Resources; Victorian Department of Natural Resources.

Prof Tony JAKEMAN, Adjunct Professor, University of Western Australia; Editor-in-chief, *Environmental Modelling and Software*; member, Editorial Advisory Board, *Encyclopaedia of Life Support Systems*, associate editor, *Journal of Forecasting* (Wiley), member, editorial board, *Hydrological Processes*, *Ecological Modelling*; *Environmetrics*; *Environmental Software*, *Systems Analysis Modelling Simulation*; president, Modelling and Simulation Society of Australia and New Zealand Inc.; chair, Atmosphere, State of the Environment, ACT Region; member, Technical Advisory Board, The International Institute of Environmental Sciences and Environmental Computing; Board of Directors, International Association for Mathematics and Computers in Simulation.

Rosemary JAMES, Director, Wetlands International — Oceania.

Dr David LINDENMAYER, member, IUCN/SSC Australasian Marsupials and Monotremes Specialist Group; Greening Australia Advisory Committee; Leadbeater's Possum Recovery Team, Victorian Department of Conservation of Natural Resources; Editorial Board, *Landscape Ecology*; *Ecological Applications*, *Environmental Software and Modelling*, adviser, Department of Land and Water Conservation; consultant and expert adviser, Environment Australia; NSW National Parks and Wildlife Service; Greening Australia; State Forests of NSW; NSW Department of Land and Water Conservation.

Dr Brendan MACKEY, Associate Editor, Editorial Board, *Environmental Conservation*; member, Expert

Panel which undertook a review of Environmental Management Systems for the South East Queensland Regional Forest Agreement; member, International Earth Charter Drafting team, chaired by Prof Steven Rockefeller from Middlebury College, USA; member, IUCN Commission on Environmental Law, and a core member of its Ethics and Jurisprudence Working Group and attended the inaugural meeting of the group at the Hastings Centre, New York; President, The Australian National Committee for the Earth Charter.

Prof Henry NIX, Adjunct Professor, University of Queensland, Visitor, CRC for Coastal Zone, Estuary and Waterway Management; chair, Committee of Management, Edith and Joy London Foundation, ANU; Land Reference Group, State of Environment Report, Capital Region; Environmental Management Planning Committee, ANU; director, Water Research Foundation of Australia; member, Advisory Committee, Australian Network for Plant Conservation; Australian UNESCO Man and the Biosphere Committee; Recovery Team for *Burrmys parvus*; Environment Committee, Australian Academy of Science; CSIRO Biodiversity Sector Advisory Committee; Birrigai Outdoor School Advisory Committee, ACT; CSIRO Intersectoral Advisory Committee on Tropical Agriculture, Birds Australia Council; Research Advisory Group, Ballast Water Decision Support System, AQIS; Decision Support System for Ballast Water, Steering Committee, AQIS.

Prof Cliff OLLIER, member, Science Advisory Committee, Latrobe University, Bendigo Campus; member, Editorial Board, *Geomorphology*.

Dr Jack PEZZEY, Consultant, Australian Greenhouse Office.

Dr Libby ROBIN, editor, *History of Australian Science Newsletter*; board member, Historical Records of Australian Science; Commonwealth Working Party, Australian Dictionary of Biography; Australian Humanities Review; consultant, National Museum of Australia; Birds Australia/Centenary of Federation (History and Education Program).

Dr Helen ROSS, adviser, WHO Collaborating Centre in Environmental Health for the Asia/Pacific, University of Western Sydney; associate editor, *Australian Journal of Environmental Management*; member, International Advisory Board, Impact Assessment and Project Appraisal; editorial board, *Society and Natural Resources*; International Committee, International Association for Impact Assessment; Board and Steering Committee, National Thai Studies Centre.

D.I. SMITH, member, Emergency Management Australia, National Emergency Management Advisory Committee; Australian National Coordination Committee for the International Decade for Natural Disaster Reduction; editorial board, *Applied Geography*.

Prof RJ WASSON, member and Officer, Scientific Committee, International Geosphere and Biosphere Program, ICSU; member, Capital Region State of the Environment Water Group; adviser and consultant, Upper Murrumbidgee Catchment Management Coordinating Committee; member, Australian Academy of Science Committee for Global Change; Australian Academy of Science Quaternary Research Committee; Healthy Rivers Reference Group, Environment Australia; International Association of Hydrological Sciences, Working Group on Landuse, Deforestation, Erosion, and Sedimentation; Editorial Board of *Quaternary International*; director, Water Research Foundation of Australia.

Prof Ian WHITE, chair, Oyster Research Advisory Committee, Acid Sulfate Soils Management Advisory Committee, Technical Committee; research director, Water Research Foundation of Australia; president, Australian Water and Waste Water Association — ACT Branch; member, Acid Sulfate Soils Management Advisory Committee; Standing Committee on Agriculture and Resource Management National Working Party on Acid Sulfate Soils; Scientific Advisory Committee Eurobodalla Shire Council; Cudgeon Lake Restoration Committee; STAR Water Working Group, South Pacific Applied Geoscience Council; consultant, UNESCO; AUSAID; ASSMAC; Olympic Games Coordinating Committee; Healthy Rivers Commission NSW; DLWC; Chipping Norton Lakes Authority; WA Department of Environment Protection.

The Faculties

Faculty of Arts

Archaeology and Anthropology

Prof BELLWOOD, completed his term as a member of the ARC Humanities Panel.

Dr BULBECK, cooperated with the Makassar Archaeology Office, Indonesian government, in analysing the sediments and excavated finds from sites in South Sulawesi in Makassar.

Mr FARRINGTON, adviser, the Australian Museum on a proposed exhibition of ancient Peruvian artefacts.

Dr GROVES, analysis of bones for Federal Police and Environment Australia.

Dr HISCOCK, adviser on Archaeological Heritage Management in the Arthur-Pieman Conservation Area to the Tasmanian Government, Commission of Planning and Resource Development.

Prof MERLAN, introductory material written for Conservation Commission of the Northern Territory on research into plants and their applications, and indigenous involvement.

Prof SPRIGGS, (with Mr S. Bedford, New Zealand Historic Places Trust) research and staff training at the Mangaasi site, Efate, Vanuatu, with Vanuatu National Museum; 'Prehistoric fauna of Vanuatu' (with Mr S Bedford New Zealand Historic Places Trust, Dr D. Steadman, Florida Museum of Natural History and Dr J. Mead, Northern Arizona University).

Dr SUMMERHAYES, member, AMS Specialist Advisory Group, Australian Institute of Nuclear Science and Engineering; affiliated to Department of Prehistory, National Museum and Art Gallery of Papua New Guinea; Research Associate, Australian Museum, Sydney, collaborations with Dr J. Specht and Dr R. Torrance; 'PIXE-PIGME sourcing of Southeast Solomons obsidian', with Dr J. Dockall, BP Bishop Museum, Hawaii.

Classics Program

Dr MINCHIN, ANU representative, executive committee, Australian Society for Classical Studies; Classics representative, Council of the Australian Archaeological Institute at Athens; member (as ANU representative), ACT Accreditation Panel of the Board of Secondary Studies, for Latin; speaker: Belconnen Rotary, fundraising event for the Canberra Hospital, Aquaviva.

Dr MOFFATT, editorial work as member, publications committee, Australian Association for Byzantine Studies; submitted Australian bibliographical data for the journal *Byzantinische Zeitschrift*; ANU representative, Council of the Australian Archaeological Institute at Athens (AAIA), secretary and program organiser, ANU (Canberra) Friends of the AAIA; delivered University of Adelaide's annual Galatis Byzantine Lecture; speaker, University of the Third Age's Greek Tragedy group; speaker, Canberra Potters.

French Program

Dr BROWN, presenter, round-table discussion of Catherine Breillat's film *Romance and censorship*, Radio 2XX/Screen Australia/Electric Shadows Cinema, Canberra; participant, Round-Table discussion with visiting international "Observatoire de la Francophonie"; Panel member, French Government National Postgraduate Scholarship Scheme; Panel Member, French Government "Baudin" National Undergraduate Scholarship Scheme; opened Art Exhibition on Lithography, Alliance Française.

Dr MAURER, ANU representative, accreditation panel for French; invited seminar presenter, Secondary Teaching Studies, Languages Other than English, University of Canberra; member, national scholarships board at the French Embassy.

Dr MULLER, member, national scholarships board, French Embassy; participant, workshop on EU enlargement at ANU attended by European diplomats, a government minister, and several other academics; rewrote and translated a formal letter concerning the

Australian National University's Europe Centre sent by the President of the Australian Senate to the President of the European Parliament; as board member, Australian European Studies Association organised, advertised, ran and marked entries for the national essay competition.

Dr Brown and Dr Muller ran the French part of the Swiss essay competition.

German Program

Dr HILLMAN, participant, LIFT weekend, run by the Goethe Institute; lecturer, Goethe Society of Canberra.

Dr JANSEN, member, Accreditation Panel for German, Board of Senior Secondary Studies; member, organising committee for the Modern Language Teachers' Annual Conference to be held in Canberra in 2001.

Ms SCHMIDT, committee member, Canberra branch, Australian Goethe Society; involved in student recruitment activities; presenter, local secondary schools; invited by the German Embassy, to sit on the DAAD's (German Academic Exchange Service) selection committee for research scholarships.

Russian Program

Rosh IRELAND, Chair, NAATI Russian Panel; Chair, Regional Advisory Committee until June, when he resigned as Chair but continued as a member.

Dr TRAVERS, Secretary, Australian Society of WW1 Aero Historians.

Dr Kevin WINDLE, member, NAATI Russian Panel and the Regional Advisory Committee; Secretary-Treasurer, Australian and New Zealand Slavists' Association (ANZSA); member, editorial board, *Australian Slavonic & East European Studies*, assessed submissions for a special issue of *The Journal of Pragmatics and Cognition*, edited by Anna Wierzbicka and Nicholas Enfield; researched and drafted report published by Prof J. Lo Bianco, Director of Language Australia; engaged in joint project with Dr David Lovell, School of Politics, Australian Defence Force Academy.

Linguistics and Applied Linguistics Program

Dr ANDREWS, course teacher, Australian Linguistic Institute on LFG Architecture and Descriptive Problems.

Dr HERCUS worked jointly with David Nathan, Information Officer, AIATSIS on a project funded by ATSIC to produce an interactive CD on the Paakantyi Language of the Darling River; fieldwork, far South West of New South Wales, Dareton, Broken Hill and Wilcannia; talking dictionary and texts checked with Paakantyi people; jointly with Prof Barry Blake, La Trobe University on the Mathi-mathi language; visited Tibooburra and Birdsville on fieldwork for an ARC project on analysis of previously recorded materials on

Yardliyawara and Yarluyandi Languages; joint project with Dr Mary Laughren, University of Queensland on the Wanyi language for the World Endangered Languages Project; gave course on Victorian Aboriginal Languages to the Australian Linguistics Institute, Melbourne; gave workshop at Port Augusta for the Arabana teaching course; adviser, Wangkumara and Punthumara Land claims, the Birdsville Cultural Centre and the de Rose Hill Land claim.

Dr LIDDICOAT, editor, *Current Issues in Language Planning*, member, Editorial Committee, *Australian Review of Applied Linguistics*, referee, *Journal of Pragmatics and Applied Linguistics*, member, Australian Linguistic Association, the Applied Linguistics Association of Australia, the Modern Language Teachers Association and the Australian Literacy Educators Association, the AT-ESOL Association and the Australian Council of Education Administrators; invited to give evidence to the Legislative Assembly Education Committee's "inquiry into adolescents and young adults at risk of not achieving satisfactory education and training outcomes"; delegation member, organised by the Education Committee, Legislative Assembly to meet with the South African Portfolio Committee on Education (National Assembly); member of the Steering Committee, Barnardos Australia Home Tutoring Project; worked with the Embassy of Italy to develop a bilingual school program for Italian in the ACT.

Ms Peita LITTLETON studied for the Interpreters' Accreditation in Applied Language (Australian Sign Language) at the Canberra Institute of Technology, Canberra.

Dr Rose produced three forensic speaker identification reports for the Australian Federal Police and National Crime Authority; member, Technical Program and Proceedings Committee, 8th Australian International Speech Science and Technology Conference (SST 2000); refereed 16 papers for publication; member, Forensic Speaker Identification Committee, Australian Speech Science and Technology Association (ASSTA), and National Voice Centre Research Committee; organiser and supervisor in the production of 12 internationally refereed papers given by staff and student members of the department's Phonetics Laboratory at SST; at the request of the Department of Defence, developed a full semester unit teaching students to recognise two groups of three closely related languages by their sounds alone.

Prof WIERZBICKA member, editorial board of several journals including *Cognition and Emotion*, *Culture and Psychology*, *Pragmatics*, and *Australian Journal of Linguistics*; reviewed papers and book proposals for *Cognition and Emotion*, *Culture and Psychology*, *Ethos*, *Journal of Pragmatics*, Cambridge University Press and Oxford University Press; member, Australian Academy of the Humanities, the Australian Academy of Social Sciences and the Russian Academy of Sciences; member

of the Australian Linguistic Society, the Societas Linguistica Europa, the International Pragmatics Association and the International Society for Research on Emotions.

School of Social Sciences

Dr GEORGE, presenter: Centre for the Study of Globalisation and Regionalisation, and Department of Political Science, The University of Warwick; Department of International Relations, The University of Wales, Abersystwyth.

Dr GRAY, address to the New Zealand delegation for the Australian Political Exchange Council, Canberra.

Dr HOPKINS, presenter: Department of Industry, Science and Resources workshop, Canberra; Annual Meeting, Royal Australasian College of Physicians, Adelaide; New Technologies and Work study group, Bad Homburg, Germany; European Safety, Reliability and Data Association, Karlstad, Sweden; Australian Institute of Engineers Conference, Newcastle; First National Occupational Health and Safety Management Systems Conference, Sydney; Industry workshop, Melbourne; NSW Minerals Industry Conference, Terrigal; lecture to Santos oil and gas company, Adelaide; speaking tour in New Zealand; Department of Defence lecture, Canberra; Department of Customs, Canberra.

KELLOW, A., LOWI, T. and SIMMS, M.J., presenters, World Congress of the International Political Science Association, Quebec.

KELLY, R.M. and Simms, M.J., presenters, World Congress of the International Political Science Association, Quebec.

Dr KLOVDAHL, presenter: Second International Workshop on Network Sampling (IWNS), Maastricht; International Social Network Conference, Invited Key-note Address, Infectious Diseases Section, Vancouver BC Canada; International Social Network Conference, Vancouver BC Canada; Health Canada, Ottawa; Centers for Disease Control and Prevention, Atlanta, GA.

Dr KUHN, presenter: Australasian Political Studies Association Conference, Canberra; Seminar on the Bund, Melbourne; Nationalism Workshop, Australian National University.

Prof PAPADAKIS, presenter: Future of Governance in Australia Project, The Australian National University; Department of Sociology and Social Work, University of Tasmania; Natural Environment and Wilderness Study Seminar, University of Tasmania.

Dr ROWLAND, presenter: Millenium Meeting of the Australian Population Association and Population Association of New Zealand, Wellington; Australian Association of Gerontology Conference, Adelaide; Australian Population Association Conference, Melbourne;

Public Lecture Series on Australian Population Policy, ANU Canberra.

Dr SAHA, presenter, Annual Meeting of the American Education Research Association, New Orleans.

SIMMS, M.J. and MILLER, R.K., presenters, World Congress of the International Political Science Association, Quebec.

SIMMS, M.J., presenter, United Nations Conference on Women, Dallas; National Conference of the Institute of Public Administration, Perth.

Prof WARHURST, presenter: Australasian Political Studies Association, Annual Conference; Pontifical Council for Justice and Peace Conference, Melbourne; Federation Lecture and 8th Nan Phillips Memorial Lecture, Canberra Historical Society, Old Parliament House.

Dr WHITE, presenter, invited paper, The Australian Sociological Association, Adelaide.

Centre for Arab and Islamic Studies

Aileen KEATING provided advice to BHP.

Kirill NOURZHANOV, member: Council of the Australasian Society for Communist and Post-Communist Societies; International Advisory Board of the Contemporary Europe Research Centre (CERC), University of Melbourne; Formal and informal consultant to a number of governmental and non-governmental bodies, including the Department of Foreign Affairs and Trade, the Office of National Assessment, the Department of Immigration and Multicultural Affairs, Legal Aid, SMEC, and the Refugee Review Tribunal, as well as members of the Australian Parliament.

Amin SAIKAL, member: Expert Adviser Group, the InterAction Council of former Heads of State; International Commission on Cooperation and Security in West Asia; International Advisory Council of the Toda Institute for Global Peace and Policy Research; Iranian Tourism Advisory Panel; The Editorial Advisory Board, *Global Dialogue*, The International Association for the Study of Persian-Speaking Societies; The Australasian Association for the Study of Socialist Countries; The Australasian Middle Eastern Studies Association (AMESA); The Advisory Board, *Journal of Arabic, Islamic and Middle Eastern Studies*, Australian Friends of Turkey Steering Committee; Academic Council on the United Nations System; participant, Eighth Australia-Iran Joint Ministerial Commission; Formal and informal consultant to a number of governmental and non-governmental bodies, including the National Office of Overseas Skills Recognition, the Department of Foreign Affairs and Trade, the Office of National Assessment, the Department of Immigration and Multicultural Affairs, the Refugee Council of Australia, and the Refugee Review Tribunal.

Faculty of Asian Studies

Professor de CRESPIGNY, President, Chinese Studies Association of Australia; host to senior diplomats from European countries appointed to posts in the Asian region.

Dr DILLER, formal review of teaching of Southeast Asian languages at the University of California;

Dr HENDRIKS, teacher, intensive two-week course on the "History of the Japanese Language" for Columbia University; consultant for Japanese language examinations for the University of Oslo.

Professor HOOKER, member, Commonwealth Government's Foreign Affairs Council; external examiner, Universiti of Brunei Darussalam; member, Council in the Asian Studies Association in Australia.

Dr KUMAR, Vice-President and Treasurer, Australian Academy of the Humanities.

Professor MILNER, member, Commonwealth Government's Foreign Affairs Council; member, Advisory Board of the Council of International Education Exchange, the Research Committee of the Australian Institute of International Affairs and the Committee of the Australia-Malaysia Cultural Foundation; editor, Southeast Asian Publication Series at the Asian Studies Association of Australia; member, Editorial Boards of the Australian Institute of International Affairs, the review of Indonesian and Malaysian Affairs, the Cambridge University Asia-Pacific series; convener, Perceptions Retreat, Dunlop Asia Leadership program of Asialink (Melbourne); expert witness for the Senate Select Committee on Superannuation and Financial Services.

Professor MILNER and Alison BROINOWSKI continue to edit the internet monthly magazine, *Asian Analysis*, sponsored by the business group, ASEAN Focus.

The Dean, FAS and the Director, RSPAS join the First Assistant Secretary, East Asia and First Assistant Secretary, Southeast Asia (Department of Foreign Affairs and Trade) in organising occasional meetings focused on urgent regional issues. These meetings are hosted by Rafe de CRESPIGNY, Master of University House and Adjunct Professor in FAS, involving specialists from ANU, DFAT, the Office of National Assessments and the Department of Defence.

Dr POWERS, Vice-President, Australasian Society for Asian and Comparative Philosophy.

Dr QUINN played a leading role in an international workshop on reconciliation in East Timor, at Georgetown University, Washington

Dr REYNOLDS, chair, Southeast Asia Regional Advisory Panel, United States Social Research Council.

Dr WELLS, President, Korean Studies Association of Australasia.

Ms YANG, consultant for the Australian Political Exchange Council.

Faculty members contributed to the following newspapers: *The Australian*, *The Australian Financial Review*, *the Canberra Times*, *the New York Times*, *the Herald Tribune*, they also appeared on the ABC and SBS.

Faculty of Economics and Commerce

Department of Commerce

ADAMSON, B., member, ATSI Special Admissions Scheme Committee.

BARTON, A.D. chair, ANU/CPA Annual Research Lecture in Government Accounting Committee, Submission to and appearance before the Public Accounts and Estimates Committee, Government of Victoria, on accounting for public heritage facilities; treasurer, Cambridge Australia Trust; Referee, *Abacus: Accounting Auditing and Accountability Journal*; *Fiscal Studies*; *Accounting and Business Research*; *Cambridge Journal of Economics*; *Australian Accounting Review*.

BIRT, J.L., member, AIESEC Exchange Program Selection Committee.

BRAILS福德, T.J., Executive Council, Accounting Association of Australia and New Zealand; Auditor, Asia-Pacific Finance Association; Technical Committee, Accounting Association of Australia and New Zealand Annual Conference; Research Policy Committee, SIRCA; Accreditation consultant, CPA Australia; Editorial Board *Accounting and Finance*; *Accounting Research Journal*; *Accounting, Accountability and Performance*; Co-editor McGraw-Hill Series in Advanced Finance; Referee, *Abacus: Accounting and Finance*; *Accounting, Accountability and Performance*; *Accounting Research Journal*; *Australian Journal of Management*; *International Review of Economics and Finance*; *Journal of Banking and Finance*; *Journal of Financial Research*; *Journal of Futures Markets*; *Pacific Accounting Review*; *Pacific-Basin Finance Journal*; *Quarterly Review of Economics and Finance*.

BUCKMASTER, N.C., adjudicator, Australian Annual Report Awards (Banking and Finance).

BURRITT, R.L., external adviser on Progress Reporting to the Australian Greenhouse Challenge Office; submission to Victorian Government Follow Up Inquiry into Environmental Accounting and Reporting, Public Accounts and Estimates Committee; Editorial Advisory Board and Editorial Panel, *Accounting Forum*; *Journal of Environmental Management*; Guest Editor, *Accounting, Auditing and Accountability Journal*; Referee, *Critical Perspectives on Accounting*; *Australian Accounting Review*; *Accounting, Auditing and Accountability Journal*; *Abacus*; *Accounting Research Journal*;

Agenda; *Australian Accounting Review*; *British Accounting Review*.

CRAIG, R.J., member, Organising Committee, ANU/ASCPA Annual Research Lecture in Government Accounting; External adviser to the Malaysian Graduate School of Management; ANU representative, NSW/ACT CPA Australia Universities Committee; Editorial Board, *Accounting Commerce and Finance: The Islamic Perspective*; *The Asian Review of Accounting*; *The Journal of Akuntansi and Auditing*, Indonesia; Associate Editor, *Accounting Education: An International Journal*; Referee *Accounting, Auditing and Accountability*; *Abacus*; *Accounting Forum*; *Accounting Commerce and Finance: The Islamic Perspective*; *Agenda*, *Prometheus*, *Asia Pacific Interdisciplinary Research in Accounting Conference*.

FLEMING, G.A., editor, *Australian Economic History Review*.

GLASSOP, L.I., executive Member, Australian Institute of Socio-Analysis; Finance Coordinator, Australian Institute of Socio-Analysis; Convener, Scientific Seminar on Organisational Learning, Australian Institute of Socio-Analysis; Editorial Board, *Socio-Analysis*

HEANEY, R.A., Editorial Board, *Accounting Research Journal*; Book Review Editor, *Accounting and Finance*; Referee, *Accounting and Finance*; *Australian Journal of Management*; *Journal of Futures Markets*; *Agenda*.

JUBB, P.B., member, ICAA/CPA, Joint Legislation Review Committee; referee, *Accounting Research Journal*.

OLIVER, B.R., chair, Applications Committee, CPA Australia (ACT Division); chair, Promotions Committee, CPA Australia (ACT Division); referee, *Accounting Research Journal*; *Accounting and Finance*.

SHAILER, G.E.P., Corporate Governance Panel of the Public Sector Accountants Committee, CPA Australia; ACT/Corporate Governance Cell of the Public Sector Accounting Centre of Excellence, CPA Australia; referee, *Accounting, Accountability and Performance*; *Pacific Accounting Review*; *Asian Review of Accounting*.

TRAN, A.V., provision of research consulting services to Business Skills Section, Department of Immigration and Multicultural Affairs, Commonwealth Government of Australia; Presentation of "Reporting and Professional Practice Workshop" to CPA exam candidates for CPA Australia; reviewer, Australian Tax Forum.

Department of Economics

Robert ALBON, member, Judging Panel, Australian Institute of Public Administration Prize for Commonwealth Statutory Authority Annual Reports; presentation to Officials from the Social Development Department of the Chinese State Development Planning Commission, ANU.

Paul CHEN, ACT Board of Senior Secondary Studies; Initiator and organiser of "Economics Workshop for College Students and Teachers", sponsored by the Department of Economics, Faculty of Economics & Commerce, ANU, Parliament House, Canberra.

Steve DOWRICK, Consultant to Productivity Commission; Invited Speaker at Annual Conference of the Federation of Japanese Chambers of Commerce and Industry, Canberra; Referee for Productivity Commission report on "The distribution of the Economic Gains of the 1990s"; Referee for Australian Research Council Large Grants (5 reports); referee, *American Economic Review*, *Economic Journal*, *Australian Economic History Review*, *Oxford Economic Papers*.

Simon GRANT, member of the Council of the Econometric Society; member, Editorial Board, *Economics Bulletin*, member, Editorial Board, *Journal of Mathematical Economics*; member, Editorial Board, *Australian Economic Papers*; Referee: *American Economic Review*, *Econometrica*, *International Economic Review*, *Journal of Economic Theory*.

Chris JONES, Policy Adviser for the Asia Development Bank in the Kyrgyz Republic.

Jeffrey J. KLINE, referee: *Journal of Economic Behavior and Organization* *Australian Economic Papers*, *Australian Economic Review*.

Flavio MENEZES, member, Selection Committee for Adriano Ramariz Duarte Prize for the best paper published in the *Brazilian Review of Econometrics*; member, Organizational Committee, Brazilian Econometric Society; Referee, *American Economic Review*, *Economic Inquiry* *International Economic Review*, *Journal of Public Economic Theory*, *Journal of Public Economics*, *Mathematical Social Sciences*, *Pesquisa e Planejamento Economico*, *Review of Economic Design*, *Revista de Brasileira de Economia*.

Rod TYERS, Australian Productivity Commission; Reviewer: Review of the Australian General Tariff; Appointed External Fellow of the Centre for Research on Globalisation and Labour Markets, School of Economics, University of Nottingham, UK; Fully funded visit and appointment to the organising committee of the International Economic Association for Conference on Globalisation and Labour Markets in the UK; Referee: *Economic Record*, *Review of International Economics*, *World Bank Bank Economic Review*, *World Economy*, *Australian Journal of Labour Economics*, *Australian Journal of Agriculture and Resource Economics*.

John QUIGGIN, Board Member, Queensland Competition Authority; Adjunct Professor, Queensland University of Technology; Inaugural Don Dunstan Foundation Visiting Professor, Don Dunstan Foundation and the University of Adelaide; Defence Policy: One Clear Objective, submission to Defence Review 2000; Feasibility and Consequences of a Ban on Internet Gambling, Submission to Senate and National

Office of the information Economy Inquiries; Submission to Review of Australia's General Tariff Arrangements, prepared for Australian Industry Group, Sydney; Telstra: Structure, Ownership and Service; submission to Committee of Inquiry into Telstra Service Standards; Regular opinion columnist: *Australian Financial Review*; Occasional commentator: ABC Radio and Television, other media; Associate Editor: *Journal of Economic Behavior and Organization*; *Journal of Risk and Uncertainty*; Member, Editorial Board: *Australian Economic Papers*; *Australian Journal of Agricultural and Resource Economics*; *Economic and Labour Relations Review*; *Journal of Economic and Social Policy*; *Journal of Environmental Economics and Management*; Referee: *American Economic Review*; *American Journal of Agricultural Economics*; *Australian and New Zealand Journal of Public Health*; *Australian Economic Review*; *Australian Research Council*; *Journal of Health Economics*; *Scandinavian Journal of Economics*; *Tela* (Australian Conservation Foundation), *Australian Journal of Political Science*, *Economics and Philosophy*, *Australian Journal of Agricultural and Resource Economics*.

Graeme WELLS, Co-editor, *Economic Record*; Referee: *Australian Economic Papers*, *Australian Research Council Large Grants*, *Marsden Foundation Grants*.

Department of Economic History

Members of the department played a significant role in the broader university and in outreach activities. Mr CORNISH hosted the Asia-Pacific Conference of the Golden Key International Honour Society, and was re-appointed to Chair the ACT Board of Senior Secondary Studies. Mr GAGE organised conferences for the National Europe Centre and the Australian National Centre for Latin American Studies Project on European Union Enlargement, and on Australian-Latin American relationships.

Department of Statistics and Econometrics

Dr O'NEILL, Associate Editor, *Biometrics*; Council Member, Statistical Society of Australia, Canberra Branch, and Central Council Delegate, Statistical Society of Australia; consultant for the Department of Health and Human Services, the Bureau of Transport Economics and Victorian Department of Natural Resources and Environment.

Professor NICHOLLS, member: Faculty Visiting Committee, University of Wollongong; Accreditation Marketing Committee and Honorary Life Membership Committee of the Statistical Society of Australia; Vice President of the Statistical Society of Australia; expert witness for the National Competition Policy Committee Review of the ACT Taxi Industry; gave statistical and/or financial advice for NSW Bureau of Crime Research; Australian Science Festival; Minter Ellison; Commonwealth Department of Industry; Science and

Resources and the ACT Government; attended The Statistical Society Conference in Adelaide and Market Research Society Workshops in Sydney, Canberra and Melbourne.

Dr MARTIN, Faculty representative for the Universities Awards Committee; Associate Editor, *Journal of Statistical Computation and Simulation*, and *Australian and New Zealand Journal of Statistics*; referee for several journals including *JRSSB*, *JSCS*, *Australian and New Zealand Journal of Statistics*, and *Journal of the American Statistical Association*; finalist for the Australian Awards for University Teaching; awarded Accredited Statistician (AStat) status; consultant for the Bureau of Transport Economics.

Dr STERN, member for the 16th Biennial Conference Organising Committee for the Statistical Society of Australia; Statistical Society of Australia, an associate editor and a referee for *JRSSB*, and referee for *JASA*; consultant for the department of Health and Human Services and Bureau of Transport Economics; attended the 16th Annual Statistical Society of Australia Conference held in Adelaide; awarded Accredited Statistician (AStat) status.

Dr BREUNIG, referee for several journals including *Journal of Quantitative Economics*, *Empirical Economics* and *Econometric Reviews*; discussant at several conferences in 2000; Labour Market Research Workshop, Department of Family and Community Services; Labour Econometrics Workshop, University of Tasmania; Panel Data Conference, Department of Family and Community Services; attended the World Congress Econometric Society, University of Washington.

David SERVICE, Fellow of the Institute of Actuaries of Australia.

David PITT, member, IAAust Prizes and Awards Committee and Syllabus Committee, NSW Board of Studies; Fellow of the Institute of Actuaries of Australia.

Mr Don POSKITT, attended the International Conference of the Royal Statistical Society, University of Reading, UK; referee for the *Annals of Statistics* and the *Journal of the American Statistical Association*.

Dr SKEELS, member, Australasian Standing Committee of the Econometric Society; committee member, ACT Branch of the Marketing Research Society of Australia; attended several conferences in 2000: The World Congress of the Econometric Society at Seattle, Fuqua School of Business on Risk Neutral and Objective Probability Distributions at Duke University and Triangle Econometrics Conference at Durham; referee for several journals including *Thomson Nelson Learning*, *Econometrica*, *Handbook of Applied Econometrics* and *Journal of Econometrics*.

Faculty of Law

D K ANTON, president, Environmental Law Alliance Worldwide; international analyst, Environmental Law Institute, Washington, D.C.; member, IUCN Commission on Environmental Law, provided detailed analysis of the Australian Gene Technology Bill 2000; co-editor, *Asia Pacific Journal of Environmental Law*; Director, Australian Centre of Environmental Law (ACEL), provided expert advice to Australian and International peak bodies on various issues in environmental law.

Adjunct Prof P BAILEY, conducted inquiry and presented a report with recommendations in relation to allegations of sexual harassment, Australian Defence Force Academy; external examiner and guest lecturer, University of Hong Kong; presented an intensive course with Prof M Singh, "National Protection of Human Rights", New Delhi University; president, Canberra Branch International Commission of Jurists; consultant, Australian Defence Force Academy, University of New South Wales.

Dr J A BEHRENS, member, violence sub-committee, discussions and drafting of written material for recommendations to the Commonwealth Attorney-General on family law reform, Family Law Council of Australia; part-time legal member, Social Security Appeals Tribunal; member, editorial board, *Australian Journal of Family Law*; member, national editorial advisory board, *Women Against Violence: An Australian Feminist Journal*; contributions to, editorial policy on "family violence", loose-leaf service Australian Family Law and Practice, CCH Australia Ltd; secretary, parents' committee, Cook Pre-School; member, Parents' and Friends' Association, Northside Infants School (Canberra Grammar).

Prof S C BOTTOMLEY, director, and member of audit committee, Credit Union of Canberra; legal adviser, Senate Committee on Regulations and Ordinances; member, Canberra regional committee, business law section, Law Council of Australia; instructor, Australian Institute of Company Directors; member, editorial committee, *Australian Journal of Corporate Law*; referee, Australian Research Grants; presented session on directors' duties to annual board meeting, Australian Medical Association Ltd; public lecture, Vital Issues Seminar Program, Department of Parliamentary Library.

S BRONITT, associate, Australian Institute of Criminology; chair, Domestic Violence Prevention Council; member, criminal law committee of the ACT Law Society; state editor, *Criminal Law Journal*.

Prof T D CAMPBELL, president, chair executive committee, co-organiser annual conference and editor of the society's journal, *Australian Society of Legal Philosophy*; visiting Prof, King's College, London; associate editor, refereeing submitted articles, *The Journal of Political*

Philosophy, member, advisory boards, The Edinburgh University Law Review, The Griffith Law Review, Res Publica, Federal Law Review.

Prof H C CHARLESWORTH, Prof, Global Law Program, New York University, School of Law; Counsellor, American Society of International Law; president, Australian and New Zealand Society of International Law; member, advisory board, Melbourne Journal of International Law and Leiden Journal of International Law; member, board of editors, *American Journal of International Law*; co-editor, *Australian Year Book of International Law*; referee, Australian Research Council; member, Council of the Australia-Asia Institute, Foreign Affairs Council.

J A CLARKE, referees' reports on manuscripts, *Melbourne University Law Review*, *Indigenous Law Bulletin*.

Prof M D COPER, trustee, The Lionel Murphy Scholarship Foundation; chair, Transport Industry Accreditation Council; adviser to organisers, Dismissal Exhibition at Old Parliament House, marking the 25th anniversary of the sacking of Gough Whitlam.

R M CREYKE, member, Administrative Review Council; appointments committee, Economics Department, Australian Defence Force Academy; with J McMillan undertook a one-day legal awareness workshop, Association for Tertiary Education Managers, Canberra Branch; attended biennial meeting, Administrative Law Teachers of Australia, Adelaide; vice-president (from Sept 2000), Australian Institute of Administrative Law; member, Australian Institute of Health Law & Ethics, Women's Lawyers Association of ACT; member board, Softlaw Community Projects Pty Ltd; veterans' affairs editor, *Butterworths Administrative Law Service*, *Butterworths Bulletin Service*, *Butterworths Australian Law Reports*; editorial board, *National Law Review*; consultant, Phillips Fox Solicitors; presentation to members of COMNET (Commonwealth Corporate Heads of Agencies), with Emeritus Prof D Pearce and J McMillan, on findings of phase III ARC-funded external review project; presented session on Australian administrative law, Chinese Ministry of Justice, legal needs associated with China's Accession to the WTO; gave evidence (as part of the Administrative Review Council team) to public hearings by Senate Legal and Constitutional Legislation Committee, in the Inquiry on the Provisions of the Administrative Review Tribunal Bill 2000 and the Administrative Review Tribunal (Transitional and Consequential Provisions) Bill 2000, Parliament House, Canberra; presented paper as panelist, "Administrative Law in Transition—The Proposed Administrative Review Tribunal", a one-day seminar in Parliament House, jointly sponsored by the Senate Legal and Constitutional Legislation Committee and the Australian Institute of Administrative Law (proceedings published in Hansard).

Prof J L R DAVIS, presented courses on "Advanced Contract Law" and "The Trade Practices Act and Allied

Legislation" for Professional Certificate in Arbitration and Mediation conducted by Professional and Continuing Education Department, University of Adelaide; one-day course on "Law of Contract", Continuing Legal Education Program, Law Faculty, University of New South Wales; provided expert advice, Joint Standing Committee [of the Commonwealth Parliament] on electoral matters, on aspects of the sub judice convention and Parliamentary privilege; presented two-day course on "Principles of Contract Law", on behalf of the National Centre for Development Studies, to employees of South Australian Water Corporation.

M FLYNN, councillor, member of committee, Law Society of the ACT, alternative dispute resolution committee, initiating a members' mediators list and a mediation competition in ACT secondary schools in the national Schools Conflict Resolution and Mediation (SCRAM) competition; vice-president, Canberra Branch, Australian section, International Commission of Jurists.

M GANI, member, the Autism Spectrum Disorder Advisory and Consultative Committee.

Prof N A GUNNINGHAM, collaborator and co-investigator, research project on EMS, Center for Law and Society, University of California, Berkeley USA; referee, Australian Research Council; consultancy reports and specialist academic advice, National Occupational Health and Safety Commission, Rural Industry Research and Development Corporation/Forest and Wood Products Research and Development Corporation, OECD on issues of occupational health and safety/ environmental regulation and policy.

J S JONES, member, Genetic Manipulation Advisory Committee, Department Health and Aged Care; committee member and executive, Environmental Defenders' Office.

J D McMILLAN, examiner of PhD thesis, University of Sydney; president, national executive (from Sept 2000), Australian Institute of Administrative Law; external referee, *Melbourne University Law Review* and *University New South Wales Law Journal*; member, editorial board, *Federal Law Review*; AIAL Forum; referee, Australian Research Council; member, Federal Offenders Review Panel, commenting on draft decisions regarding release of federal offenders; consultant, provide advice on government law issues, Government Services Group, Clayton Utz; prepared constitutional law opinion, Commonwealth Parliament Joint Standing Committee on Migration; prepared High Court's submissions for Department of Immigration and Multicultural Affairs; prepared submission to Commonwealth Parliament Joint Standing Committee on Migration; presentation to, with Prof D Pearce and R Creyke, COMNET (Commonwealth Corporate Heads of Agencies), on findings of phase III ARC-funded external review project; conducted roundtable discussion (with Emeritus Prof D Pearce) with mem-

bers of a Victorian Parliament committee examining subordinate legislation; research director for conference, conducted jointly by Australian Institute of Administrative Law and Senate Legal and Constitutional References Committee – "Administrative Law in Transition — the Proposed Administrative Review Tribunal"; authored paper, project being conducted by Commonwealth Parliamentary Library on "The Vision in Hindsight" (major publication to celebrate centenary of Parliament); member of group authoring a chapter for a book to be published by the Public Service Merit Protection Commission, to celebrate the centenary of the Public Service.

P MATHEW, treasurer, Council of Australian and New Zealand Society of International Law; editorial board, *Australian Year Book of International Law*; participant in roundtable, Department of Foreign Affairs and Trade and Attorney-General's Department; discussion and contribution of ideas concerning the high level diplomatic initiative on treaty body reform; researcher, Jesuit Refugee Service; paper presented to the regional meeting of the United Nations High Commissioner for Refugees regarding Australia's adoption of the "safe third country" principle.

Emeritus Prof D PEARCE, co-editor, *AIAL Forum*, Australian Institute of Administrative Law; legal advice on interpretation of legislation, Senate Rural and Regional Affairs and Transport Committee on development of Brisbane airport master plan; consultant, Therapeutic Goods Administration, inquiry and report relating to the advertising of certain therapeutic goods.

A M SIMPSON, volunteer solicitor, Welfare Rights Legal Centre; volunteer tutor, Barnados Foundation.

D J STEWART, presented one-day course, introduction to intellectual property, for Australian Tertiary Education Managers; 2-day course on Commercialisation of Intellectual Property, for Macquarie Graduate School of Management; seminars and workshops instructor, Law for Practising Managers Course, Australian Graduate School of Management; director, ACT Welfare Rights and Legal Centre; instructor, two-day workshop on management and commercialisation of intellectual property, Meat and Livestock Authority.

A STONE, member, executive committee, Australian Society of Legal Philosophy; member, management committee and employment subcommittee, Women's Legal Center, ACT; editor, *Federal Law Review*; member, organising committee, ACT Schools Constitutional Convention; panellist, parliamentary education office forum, on Separation of Powers to Year 11 and 12 Students; participant in panel discussion, on "Our Place in the World in 2020: What do we want to be known for?"

P C WEEKS, chair, misconduct investigation committee, Australian Defence Force Academy, University

New South Wales; editorial committee, *Australian Journal of Labour Law*; assessor, Australian Research Council; part-time legal member, Social Security Appeals Tribunal; chair, ACT Government Sex Industry Consultative Group; director, The Credit Union of Canberra; issues paper on "Non-Receipt of Notices" for the Social Security Appeals Tribunal (also digested in Social Security Appeals Tribunal Bulletin, Issue No 115, July 2000).

Dr F D WHEELER, associate, Centre for Comparative Constitutional Studies, University of Melbourne; comments editor, *Public Law Review*; treasurer, Australian Association of Constitutional Law; comments editor, *Public Law Review*; referee, *Sydney Law Review*; member, advisory committee on judiciary act reference, Australian Law Reform Commission.

Dr G J WILLIAMS, consultant, Asia Pacific Forum of National Human Rights Institutions on Abrogation or Amendment of the Fiji Constitution; consultant, Aboriginal & Torres Strait Islander Commission (ATSIC), with Dr L Behrendt, Research School of Social Sciences, (RSSH), on The Advancement of Indigenous Rights in Australia: A Preliminary Discussion Paper; consultant, EDUCO Australia Pty Ltd on Constitution, courts and executive, Mozambique government officials; media commentator on public law issues and the High Court; columnist, The Australian on the Centenary of Federation.

Institute of the Arts

Canberra School of Art

Cooperative arrangements with the National Cultural Institutions and ACT arts organisations are a feature of the CSA profile. In 1999, BITA agreed to recommend ITA's name be changed to the National Institute of the Arts to better reflect the level of its standing nationally and internationally. The School is developing partnership arrangements with National Cultural Institutions for various events, and in 2000, formalised arrangements with Canberra Museum & Art Gallery. The Institute Library and Resource Centre continued its excellent work with the ACT Library, to service a growing number of community music and visual arts users. Our relationship with the National Gallery of Australia was further consolidated during the year with Art Theory classes again conducted in the Gallery.

The CSA Public Program was again very prominent in 2000. Exhibition, Art Forum, Visiting Artists, & Visual Arts Access programs, together with high profile events presented special opportunities for students, the arts community and the public. In 2000, two national touring exhibitions were developed. International work from Thailand's Khon Kaen University Faculty of Fine and Applied Art was presented in our Foyer Gallery, while three exhibitions from CSA were toured abroad.

Patsy PAYNE presented an exhibition of digital prints from CSA in Taipei, in association with an International Print Symposium. An exhibition of glass from the Canberra School of Art Glass Workshop toured to Hsinchu and Singapore. A collection of work of past and present students and staff from CSA's Gold and Silversmith Workshop, was exhibited at the Deutsches Goldschmiedehaus, Hanau in Germany and in Nantou and Tainan in Taiwan.

All these high profile activities, together with record enrolments in the Visual Arts Access program, have reflected most favourably on the School, the University and Canberra. Further initiatives in these areas are being planned. Assistance from the ACT Government cultural program for these kinds of activities has been appreciated.

Canberra School of Music

For the first time, the CSM integrated the Masterschool of the Canberra International Chamber Music Festival into its curricular activities. A CSM woodwind ensemble presented a concert for the Festival conducted by Jeffrey Crellin, Principal Oboe with the Melbourne Symphony Orchestra.

The School played host to GlobalFreeway Australian Youth Orchestra's New Music Now workshop. Various CSM staff tutored in other programs offered by this organisation, and the CSM was consulted in discussions around their e-Learning Project.

University Schools and Centres

Asia Pacific School of Economics and Management

Australia-Japan Research Centre

Gordon de BROUWER, member, American Economic Association; member, East Asian Economic Association; member, Economic Society of Australia; Reviewer, Agenda; Reviewer, Journal of Asian Business; Reviewer, Journal of Macroeconomics; adviser, Department of Foreign Affairs and Trade; editor of proceedings of international conference on Financial Markets and Policies in East Asia in Canberra hosted by the AJRC, supported by the East Asia office of the International Monetary Fund

Peter DRYSDALE, adviser, Asia Pacific Foundation of Canada; adviser, Institute of Fiscal and Monetary Policy Research, Japanese Ministry of Finance; Director, Pacific Trade and Development Conference Secretariat; Distinguished Associate, Asia Pacific Center, Stanford University; member, Advisory Board, Ritsumeikan University, Kyoto; member, APEC Panel of Independent Experts; member, Asian Studies Association of Australia; member, Australian Studies Association of Ja-

pan; member, Board of the Australian Proteome Analysis Facility, School of Biological Sciences, Macquarie University; member, Economic Society of Australia and New Zealand Royal Economic Society; member, International Advisory Board, China Center for Economic Research, Peking University; International Associate, Foundation for Advanced Information & Research, Japan; member, International Advisory Board, Asia Pacific Institute, Waseda University; member, Japan Economic Association, East Coast, USA; member, Japanese Studies Association of Australia; member, Korean Studies Association of Australia; member, Pacific Economic Cooperation Conference International Standing Committee; member, Pacific Trade and Development Conference International Steering Committee; member, Panel of International Advisers, Korea Institute for International Economic Policy; member, Board, Sydney Institute; member, United States Academy of Political Science; Research Associate, Center on Japanese Economy and Business, Columbia University; member, Editorial Advisory Board, *Economics Today*, member, Editorial Advisory Board, *IDRC Journal*; member, Editorial Advisory Board, *Japanese Studies*, member, Editorial Advisory Board, *Journal of Economic Studies*, member, Editorial Board, *Journal of Asian-Pacific Economic Literature*, member, Editorial Advisory Board, *Pacific Economic Papers*, member, Editorial Advisory Board, *Pacific Review*; member, Editorial Advisory Board, Routledge Economics/Asian Series; member, Editorial Advisory Board, World Bank Book Series; adviser, APEC; Assessor, Australian Research Council Large Grants; consultant/Team leader Witness, Senate select committee on Superannuation and Financial Services

Peter DRYSDALE and Ligang SONG, editors, *China's Entry to the WTO: Strategic Issues and Quantitative Assessments*, completing seven years of collaboration between the AJRC and several Chinese institutes.

Peter DRYSDALE, Yunling ZHANG and Ligang SONG, editors, *APEC and Liberalisation of the Chinese Economy* with APEC Policy Research Centre of the Chinese Academy of Social Sciences, funded under AusAID's Australia-China Institutional Links Project.

Christopher FINDLAY, member, Australian Pacific Economic Cooperation Committee; Consultancy, Department of Education Training and Youth Affairs; Consultancy, Department of Foreign Affairs and Trade; Consultancy, Federation of Korean Industry

Masayoshi HONMA, member, American Agricultural Economics Association; member, Japan Economic Association; member, Editorial Board, *International Association of Agricultural Economists*, member, Editorial Board, *Japan Agricultural Economic Association*

Ligang SONG, Secretary (until Sept.), Association for Chinese Economic Studies; Consultancy, Boao Investment Holdings; consultant, International Finance

Corporation; consultant, State Economic and Trade Commission of PRC

Ray TREWIN, ACT Councillor, Australian Agricultural and Economics Society; member, Australian Economic Society; member, International Association of Agricultural Economists; Refereed ABARE's report on the impact of agricultural trade liberalisation on developing countries; Consultancy, AusAID; Consultancy, Department of Foreign Affairs and Trade; Consultancy, Australian Greenhouse Office; Consultancy, PECC; Team leader, Export subsidy measures in major agricultural exporting countries for Taiwanese government; Team leader, RIRDC project; RIRDC/STA project

Leon WOLFF, Assessor, Australian-European Scholarships

Australian National Internships Program

Jenny HUTCHINSON, member, Editorial Board, *Dissent*

Economics

Prema-Chandra ATHUKORALA, Adviser, Asia Recovery Information Centre, Asian Development Bank; Assessor, Australian Research Council Large Grants; Policy report, Capital Mobility, Crisis and Adjustment: a Malaysian case study for the International Centre for the Study of East Asian Development

George FANE, consultant for World Bank

Ross GARNAUT, chair, Foreign Affairs Council; chair (until May), Australian Centre for International Agricultural Research; chair, Asia Pacific Economics Group; chair, Asia Society AustralAsia Centre; chair, Asia Society, New York; chair, Centre for Strategic and International Studies, Indonesia; chair, China Centre for Economic Research Advisory Board, Beijing; chair, China Economy and Business Program; chair, Indonesia Project; chair, International Advisory group to PNG; chair, Korea Economy group; Fellow, Australian Academy of Social Sciences; member, Advisory Council to Minister for Foreign Affairs; member, Economic Society of Australia; member, Review team to review Asialink, University of Melbourne; Review Board, Public Policy Research Grants Program, Beijing; chair, Editorial Board, *Asian-Pacific Economic Literature*; chair, Editorial Board, *Bulletin of Indonesian Economic Studies*; member, Australian Economic Review

Hal HILL, member, International Centre for the Study of East Asian Development, Japan; member, Research Advisory Group; member, East Asian Development Economic Association, Japan; member, Editorial Board, *ASEAN Economic Bulletin*; member, Editorial Board, *Asian Journal of Agricultural Economics*; member, Editorial Board, *Bulletin of Indonesian Economic Studies*; member, Editorial Board, Cambridge University Press, Asia-Pacific Monographs; member, Editorial Board,

Journal of Asia-Pacific Economy; member, Editorial Board, *Monash Mt Eliza Business Review*; member, Editorial Board, *Oxford Development Studies*; member, Editorial Board, *World Development*; member, Editorial Board, *Journal of Asian Business*; member, Editorial Board, Academic journals/book series: *Asian-Pacific Economic Literature*; Referee, *Journal of Development Studies*; Referee, Allen & Unwin; Referee, *Bulletin of Indonesian Economic Studies*; Referee, Institute of; Grant, From AusAID for Philippine Economy Project; Half-day course, North Korean officials Southeast Asian Studies; Referee, *Journal of Asia-Pacific Economy*; Referee, *Singapore Journal of Tropical Geography*; Referee, Routledge; Referee, *Transnational Corporations*; Referee, *World Development*

Chris MANNING, member, East Asian Economics Association; member, Editorial Board, *Bulletin of Indonesian Economic Studies*; member, Editorial Board, *Populasi*; adviser to World Bank and AusAID.

Warwick McKIBBIN, Board member, Economic Society of Australia, Canberra; Fellow, Australian Academy of Social Sciences; member, Advisory Board, Australia-Japan Research Centre, ANU; member, Advisory Board, Centre for Economic Policy Research, ANU; member, American Economic Association; member, Econometric Society; member, Royal Economic Society; member, United Nations Global Modeling Forum; member, Editorial Board, *Asia Pacific Economic Review*; member, Editorial Board, *Open Economics Review*; member, Editorial Board, *Economic Modeling*; Reviewer, *Economic Modeling*; Reviewer, *Journal of International Trade and Development*; consultant, Australian Coal Association; consultant, Australian Competition and Consumer Commission; consultant, Australian Greenhouse Office; consultant, Australian Treasury; consultant, Department of Foreign Affairs and Trade; consultant, Tactical Global Management; consultant, The World Bank; consultant, US Congressional Budget Office

Xin MENG, member, American Economic Association Economics; member, Society of Labor Economics; Reviewer, *Economic Record*; Reviewer, *Journal of Comparative Economics*; Reviewer, *Pacific Economic Review*; consultant, ACIL Australia Pty Ltd.; consultant, China Capacity Building Program

Hadi SOESASTRO, member (until Sept.), National Economic Council of the Republic of Indonesia; member, Board of the Prasetya Mulya Graduate School of Management; member, Indonesian Economist Association; member, International Advisory Board of the Asia Society; member, International Advisory Board, *Bulletin of Indonesian Economic Studies*; member, International Editorial Board, *ASEAN Economic Bulletin*.

Mei WEN, member, China Economists Association; member, European Association for Research in Industrial Economics; member, Royal Economic Association;

Secretary, Association for Chinese Economic Studies; Reviewer, *The Economic Journal*

Leon WOLFF, member, ANU Law Students Society; member, Committee Against Sexual Harassment, ANU; member, Equity and Diversity Consultative Group, ANU; member, IDP Education Australia; Reviewer, Dartmouth Publishers; Reviewer, Legal Education Review

Graduate Program in Public Policy

Jenny HUTCHINSON, Consultancy, AusAID

Donald LAMBERTON, Board member, International Telecommunications Society; member, American Economic Society; member, American Society for Information Science and Technology; member, Economic Society of Australia; member, Royal Economic Society; member, World Future Society; Board member, Economics of Innovation and New Technology; Board member, Futures Research Quarterly; Board member, Human Systems Development; Coordinating Editor, Information Economics and Policy & Book Review Editor; General editor, *Prometheus*, Advisory Board member, Social Sciences and Humanities Advisory Committee

Deborah MITCHELL, member, Editorial Board, *International Social Security Review*; British High Commission, Presentation to House of Commons Select Committee on Social Security reform

Richard MULGAN, member, Editorial Board, *Journal of Political Philosophy: Political Science*, Consultancy, Metropolitan Ambulance Service

John UHR, Board member, Advisory Board, The Drawing Board: An Australian Review of Public Affairs; Manuscript reviewer, *Journal of Public Administration Research and Theory*; Manuscript reviewer, *Australian Journal of Political Science*; Manuscript reviewer, *Canadian Journal of Political Science*; Manuscript reviewer, *The Journal of Political Philosophy*; member, Editorial Committee, *Centenary History*, Australian National Audit Office, Canberra; member, Editorial Committee, *The Vision of Hindsight*, Centenary of Federation project, Information and Research Services, Department of the Parliamentary Library, Canberra; adviser, Victorian Royal Commission into Metropolitan Ambulance Service; Invited witness, Victorian Parliamentary Public Accounts Committee

Glenn WITHERS, Board member, Economic Society of Australia (ACT Branch); Vice President, Committee for Economic Development of Australia; Vice President, Institute of Public Administration of Australia (ACT Branch); member, Royal Economic Society; member, American Economic Association; Fellow, Academy of Social Sciences of Australia; member, Editorial Board, *Australian Social Monitor*; member, Editorial Board, *Defence and Peace Economics*; member, Editorial Board, *Journal of Cultural Economics*, Expert

Advice, Business Council of Australia; Expert Advice, Department of Health and Aged Care; Expert Advice, Premier's Department, Victoria; Consultancy, Australian Broadcasting Corporation; Co-ordinator, Export Subsidy Measures in Major Agricultural Exporting Countries (for Taiwan Government)

National Centre for Development Studies

Heinz ARNDT (with Karen McVicker), Consultancy, AusAID, Asian-Pacific Economic Literature Journal subscription

Ron DUNCAN, member, American Agricultural Economics Society; member, Australian Department of Foreign Affairs and Trade, Aid Advisory Council; member, Australian Department of Foreign Affairs and Trade, UNESCO Social Sciences Network; member, Australian Department of Treasury, Australian Competition Tribunal; Branch Councillor, Australian Agricultural and Resource Economic Society (Canberra Branch); member, Asian Development Bank Institute Advisory Panel; member, Economic Society of Australia; Consultancy, AusAID; Consultancy, World Bank; Consultancy, Asian Development Bank; Economic advisory services, Australian Competition and Consumer Commission; (with Maree Tait) Consultancy, AusAID, Economics training of DPRK students; Consultancy, Sasakawa Peace Foundation; Consultancy, ACIAR

Ron DUNCAN (with Maree TAIT and Debra GROGAN), Consultancy, AusAID, Outreach activities for PNG and the Pacific Region

Jeff BENNETT, member, Economic Society of Australia; Branch President, Australian; chair of Board, Asian-Pacific Economic Literature; Academic Editor, Cambridge University Press, *Trade and Development Series*; chair of Board/Editor, *Pacific Economic Bulletin*; member, Editorial Board, *The Australian Agricultural and Resource Economics Journal*, Agricultural and Resource Economic Society (Canberra Branch); member, Centre for Independent Studies Advisory Council; member, Environment Institute of Australia; Assoc Editor, *Australian Journal of Agricultural and Resource Economics*; member, Editorial Advisory Board, *Australian Journal of Environmental Management*; member, Editorial Board, *Ecological Management and Restoration*

Satish CHAND, member, American Economic Association; member, Economic Society of Australia; adviser to the Government of Papua New Guinea; Consultancy, Privatisation Commission, Government of Papua New Guinea

Deborah COBB-CLARK, member, ACT Department of Education: Ministerial Advisory Committee on Government Schooling; member, American Economics Association; member, Economic Society of Australia; member, Society of Labor Economics; Consultancy, Department of Family and Community Services, Parenting Branch

Deborah DWYER, Terry DWYER, Michael WARD and Maree TAIT, Consultancy, Institute of National Affairs, Papua New Guinea

Terry DWYER, member, American Economic Association; member, Economic Society of Australia; member, Australian Business Economists; Fellow, Taxation Institute of Australia; member, Financial Planning Association of Australia; Consultancy, Australian Vice-Chancellor's Committee

Christopher FINDLAY, member, Economic Society of Australia; chair, Pacific Economic Cooperation Conference Coordinating Group; member, Foreign Affairs Council; Consultancy, AusAID, PNG aviation policy

Rana GANGULY, Fellow, Australian Institute of Management; Consultancy, Boao Investment Holdings; Rana Ganguly (with Satish Chand and Theo Levantis), Consultancy member and project Coordinator, Government of PNG; Consultancy member, AusAID; Consultancy, IDP Education Australia Ltd Projects

Habiba GITAY, chair and Coordinator, Australian Greenhouse Office, Environment Australia; member, British Ecological Society; member, Ecological Society for Australia; member, Steering Committee; Consultancy, Greenhouse Accounting Report in conjunction with the Steering Committee Report Third assesment report of the WG11; Senior adviser, World Resources Institute Report 2000

Debra GROGAN, member, Canberra Society of Editors; Assoc Editor, *Pacific Economic Bulletin*

Michael HESS, Editor, *Labour and Management in Development*; Consultancy, Office of Higher Education, Papua New Guinea

Padma LAL, Executive member, Australia and New Zealand Society of Ecological Economics; member, Australian Institute of Agriculture Science and Technology (AIAST); Life member, International Society for Mangrove Ecosystems (ISME); member, Australian Agricultural and Resource Economic Society (AARES); member, Common Property Network; member, International Association of Aquaculture Economics and Management; member, International Society of Ecological Economics (ISEE); adviser, Productivity Commission; adviser, Sugar Commission of Fiji; adviser, UNESCO (Vietnam); Consultancy, AusAID; Reviewer/adviser, Ministry of Planning, Fiji; Consultancy, ACIAR, Fiji sugar industry

Peter LARMOUR, Consultancy, Asian Development Bank; Consultancy, Centre for Democratic Institutions

Suiwah LEUNG, Fellow, Australian Institute of Company Directors; member, Advisory Board of Minter Ellison Lawyers; member, Board of Studies, Graduate Program of Economics, ANU; member, Economic Society of Australia; Non-executive Director, Board of the ACT Electricity and Water Corporation (until June

2000); Consultancy, AusAID; Consultancy, Government of Vietnam

Theodore LEVANTIS, Consultancy, Government of Fiji; Consultancy, Government of Papua New Guinea

Yuk Chu LIU, member, Economic Society of Australia; Consultancy, AusAID

Ann NEVILE, member, Institute of Public Administration, Australia

Christine SYLVESTER, member, African Studies Association; member, International Studies Association; member, Pan-European Association of International Relations; Associative Editor, *Alternatives*; Associative Editor, *AustralAsian Review of African Studies*; Associative Editor, *International Feminist Journal of Politics*; Consultancy, AusAID and Government of Thailand; Consultancy, University of Tampere, Finland; Curriculum and Personnel adviser, Institute of Social Studies, The Hague

Maree TAIT, member, Editorial Board, *Asian-Pacific Economic Literature*; member, Editorial Board, *Pacific Economic Bulletin*; Editor, *Pacific Economic Bulletin*; Executive Editor, Cambridge University Press, *Trade and Development Series*; Consultancy, Sagric International Pty Ltd; Consultancy, AusAID; Consultancy, Sagric International Pty Ltd.; Consultancy, Hawthorn Consulting Group; Consultancy, GRM International Pty Ltd.; Consultancy, Hawthorn International Education Ltd.; Consultancy, Melbourne Enterprises International Ltd

Maree TAIT (with Debra GROGAN), Consultancy, AusAID

Maree TAIT and Michael HESS, Consultancy, Australian Customs Service

Maree TAIT (with Meera NAIR), Consultancy, ACIL Australia Pty Ltd

Maree TAIT (with Ray TREWIN, AJRC), Consultancy, Hawthorn International Education Ltd; Consultancy, Hawthorn Consulting Group

Yongzheng YANG, Consultancy, Asian Development Bank; Consultancy, ACIAR

Elsbeth YOUNG, chair, Antarctic Naming and Medals Committee, ANARE, Environment Australia; chair, National Committee for Geography, Academy of Science, Australia; Fellow, Academy of Social Sciences in Australia; member, Institute of Australian Geographers; member, International Association for the Study of Common Property; member, Editorial Advisory Board and International Representation, *Australian Geographical Studies*; member, Editorial Board, *Aboriginal History*; member, Editorial Board, *New Zealand Geographer*; Consultancy, AusAID

Yongzheng YANG, member, American Economic Association; member, Association for Chinese Economic Studies of Australia

National Graduate School of Management

Mark DODGSON, Board member, Centre for Developing Cities; Board member, Australian Business Research Advisory Board; Board member, Canberra Sister City Committee; member, Editorial Board, *Research Policy*; member, Editorial Board, *Technology Analysis and Strategic Management*; member, Editorial Board, *Industry and Innovation*; member, Editorial Board, *Management Decision*; Editor in Chief, *R & D Enterprise—Asia Pacific*; member, Editorial Board, *International Journal of Innovation Management*

Bruce STENING, member, Editorial Board, *Accountability & Performance*; member, Editorial Board, *Asia Pacific Journal of Human Resources*; member, Editorial Board, *Asian Academy of Management Journal*; member, Editorial Board, *Journal of World Business*; member, Editorial Board, *Monash Mt Eliza Business Review*; member, Editorial Board, *Research Practice in Human Resource Management*

Centre for Aboriginal Economic Policy Research

Ongoing collaboration with RioTinto Ltd as an opinion leader on their partnership with Indigenous Australians programs and community relations programs.

Jon ALTMAN, Board Member, ARC Key Centre for Tropical Wildlife Management, Northern Territory University, Darwin; member, Selection Committee on Australian Research Council (ARC) Strategic Partnership with Industry-Research and Training (SPIRT) graduate student, Centre for Indigenous Natural and Cultural Resource Management, Northern Territory University; member, Research Advisory Board, VKHRCDU, University of Melbourne; member, Promotions Committee, University of Sydney; collaborated with Dr Kingsley Palmer, Deputy Principal, AIATSIS and with Dr Luke Taylor, Research Director, AIATSIS; member, Advisory Group, Issues Deliberation Australia Deliberative Poll on Reconciliation; collaborated with Professor David Birch, Corporate Citizenship Research Unit, Deakin University; adviser to PhD student, University of Western Sydney; member, Scientific Program Advisory and Evaluation Group, Co-operative Research Centre for the Sustainable Development of the Tropical Savanna, Northern Territory University; member, Advisory Group to Desart and ATSIC; associate editor, *Journal of Tourism Studies*; Referee for Melbourne University Press; referee for Australian Journal of Political Science; reviewer for the ARC Key Centre for Tropical Wildlife Management; adviser, Council for Aboriginal Reconciliation; member, Advisory Group for Australia Deliberates: Reconciliation — Where from Here?; con-

sultant, ATSIC; consultant, Human Rights and Equal Opportunity Commission; collaboration with Office of Indigenous Policy, Department of Prime Minister and Cabinet; comment to Senator Tambling on discussion paper; assisted Mr Bela Kover, University of Canberra; adviser to Senator Robert Hill, Minister for the Environment; adviser, Environment Australia's Heritage Commission; collaboration with Indigenous arts section, Department of Communication, Information Technology and the Arts; submission to the CGC in response to the Draft Report of the Indigenous Funding Inquiry; adviser to Darren Dick, Human Rights and Equal Opportunity Commission; consultant to Rowan Cole, First Nations Credit Union, Melbourne and Ms Barbara Bradshaw, Traditional Credit Union, Darwin; adviser to Bob McMullan, Opposition spokesman on Aboriginal and Torres Strait Islander Affairs.

Jon ALTMAN and David POLLACK, assistance to ATSIC and Aboriginal art centres (Warmun, Warlayirti and Merrepen); assistance to Production Statistics Branch, ABS, working with Dr Michael Vardon.

Jon ALTMAN and Neil WESTBURY, provided advice to a Meeting of Experts on Corroborree 2000, Sydney.

Jon ALTMAN, Neil WESTBURY, Diane SMITH, Jerry SCHWAB, participated in Corroborree 2000.

Jon ALTMAN, Matthew GRAY, Boyd HUNTER, Diane SMITH, John TAYLOR, in response to a request from DEWRSB, hosted a visit from the Organisation for Economic Cooperation and Development (OECD) at CAEPR.

Bill ARTHUR, conducted discussions with AIATSIS regarding the production of an Indigenous atlas; invited by the Kimberley Land Council to provide data from field records to assist in the preparation of a native title application in Mangala/Nyigina lands; hosted a visit of the Delegation of the Central Council for the Theoretical Research, CPV Committee, Vietnam; submission to the CGC Inquiry.

Bill ARTHUR and John TAYLOR, hosted a delegation from the 'South Africa Capacity Building Program, National Population Unit, Ministry of Welfare, Pretoria.

Julie FINLAYSON, member, Editorial Board, *Aboriginal History*.

Julie FINLAYSON and David MARTIN, consultants, ATSIC Central Office: Native Title Representative Bodies: Re-Determination Processes.

Boyd HUNTER, adviser to Drs Alison Preston and Siobhan Austen, Prof Peter Kenyon and Elisa Rose Birch, Economics, Finance Department, Curtin University of Technology; adviser to Honours student, University of Sydney; elected member, AIATSIS; member, Editorial Board, *Australian Journal of Labour Economics*, referee for *Australian Economic History Review*, *Australian Economic Review*, *The Economic Record*, *Australian Bulletin of Labour*, *Journal of Social and Eco-*

conomic Policy, and the *Journal of the Australian Population Research*, assisted Dr Alan Gray regarding Oxfam International mission to assist with the improvement of the conditions of Indigenous Australians by contributing to enhanced international scrutiny and pressure; adviser to Mr Ross Jones, ATSIC; adviser to the New South Wales Bureau of Crime Statistics and Research; adviser to Ms Amanda Couthardt from a Queensland legal firm; adviser to ABS; Submission to the CGC inquiry.

Boyd HUNTER and Matthew GRAY, completion of three major reports for DEWRB analysing data from the longitudinal survey of Aboriginal and Torres Strait Islander job seekers.

Robert LEVITUS, consultant, National Museum Of Australia: The History of Aboriginal Rights.

Siobhan McDONNELL, book reviewer, Indigenous Law Bulletin.

David MARTIN, lecturer on native title to Law School, University of New South Wales; examiner, Masters Thesis, La Trobe University; adviser, Interdepartmental Committee examining potential reform of the Prescribed Bodies Corporate regime under the NTA.

Kate ROSS and John TAYLOR, consultants, ATSIC State Office in New South Wales: Baseline Indigenous Comparative Social and Economic Study.

Tim ROWSE, elected member, Australian Academy of Humanities; book reviewer, Historical Records of Australian Science.

Will SANDERS, academic supervisor, Australian National Internship Program of students working with the Council for Aboriginal Reconciliation, Office of Indigenous policy, Department of Prime Minister and Cabinet.

Will SANDERS and Diane SMITH, provision of advice and case studies to ATSIC for submission to the McClure Welfare Reform Group.

Diane SMITH, lecturer, Geography Department, Honolulu University, Hawaii; presenter: Federal Treaty Negotiation Office, Vancouver, British Columbia; Centre for Property Studies, University of New Brunswick, Fredericton; Department of Sociology, Saint John's University, New Brunswick; International Day of Indigenous Peoples Conference hosted by the Federal Government's Department of Indian and Northern Affairs Canada, Ottawa; Centre for Comparative Studies and Ethnicity, Stanford University, Palo Alto; Presidential Mediation Consultant, NNTT for Nguna-wal native title claims in the Australian Capital Territory.

John TAYLOR, collaborated with the South East Arnhem Land Collaborative Project, University of Wollongong; collaboration with colleagues at the University of Adelaide, University of Waikato, University

of Houston, University of Calgary, Mahidol University, McMaster University and Stanford University; member, ABS General Social Survey Reference Group; member, ABS Indigenous Social Survey Reference Group; referee for *Australian and New Zealand Journal of Statistics*; participant in consortium led by the VKHRCU, University of Melbourne; consultant, Parks Australia North division of Environment Australia: Population Dynamics in the Mutitjulu Community.

John TAYLOR and Neil WESTBURY, consultancy for Fred Hollows Foundation and Jawoyn Association.

Neil WESTBURY, consultant, ATSIC State Office in New South Wales.

Centre for Cross-Cultural Research

Adjunct Professor with the HRC, worked on a third 13-part series for the ABC. One part deals with the provenance of selected European and American works of art in Australian collections. Betty was Chair of the ACT Centenary of Federation Committee; member, Federal Council for the Centenary of Federation, and Chair of its Events and Celebrations Committee; member of the Australia/India Council.

Pip DEVESON co-curated 'Yingapungapu', one of the opening exhibitions in the Gallery of First Australians at the NMA, that included three short films featuring the Yingapungapu sand sculpture used in mortuary and cleansing ceremonies in North East Arnhem Land.

Centre for Educational Development and Academic Methods

Matthew ABSALOM, invited with Margot Pearson to review a book proposal for the Sage Publishing Book Series: Teaching and Learning the Humanities in Higher Education.

Gerlese ÅKERLIND, joint coordinator, EARLI Special Interest Group on Experience and Awareness, member, organising committee for the International Workshop on 'Updating Phenomenography', University of Hong Kong; reviewer for the journal, HERD.

Don ANDERSON, member, New Zealand Academic Audit panel; member, editorial boards of the journals *Social Psychology of Education* (USA), *Higher Education Research and Development* (Aus), and *Higher Education* (UK).

Richard JOHNSON, prepared a discussion paper on the general theme of The Place of Universities today and the Structures to Carry out their Roles for DETYA; prepared a paper on gaps in educational research, for the Enquiry into Teacher Education in NSW; Writing for DETYA an overview of four pieces of research on the impact of research in education to be published during 2001; writing four sets of discussion notes on books for the Victorian Council of Adult Education; cooperated

with the Faculty of Nursing, University of Newcastle, in a project on Consumer Participation in Health Care; Continued commissioned tasks for the Australian Council of Deans of Nursing.

Margot PEARSON, during UK conference met with Dr Pat Cryer, Visiting Professor for the Development of Graduate Education at Manchester University; and Dr Angie Titchen, co-editor of *Practice Knowledge and Expertise in the Health Professions* (Oxford, Butterworth-Heinemann) in which Margot has a chapter; co-authored an article with Dr Angela Brew on Research Training and Supervision Development; reviewer for *The Australian Journal of Adult and Community Education*; referee for the journal *Higher Education Research and Development*, co-supervisor of a PhD student in the Sociology Program, who is lecturing in NZ; attended the meeting of directors of ADUs at UWA, Perth.

Malcolm PETTIGROVE, principal member of ANU's GCCA/CEQ/PREQ liaison group.

Chris TREVITT, ANU representative, Association of Pacific Rim Universities (APRU) international conference on 'Distance Learning and the Internet', Southern California University, Los Angeles; invited to: advise the Institute of Foresters of Australia; critically review a substantial (£3 million) Joint Infrastructure Fund proposal to the UK Economic and Social Research Council; review papers for Higher Education Research and Development.

Centre for Mental Health Research

Dr H. CHRISTENSEN, member, Editorial Boards, *Psychology and Aging and Gerontology*; member, Scientific and Research Sub-Committee of the Alzheimer's Association; member, Medical and Scientific Advisory Panel, Alzheimer's Disease International; Mental Health Reference Group HealthPact.

Dr K. DEAR, Associate Editor, *Journal of Statistical Computing and Simulation*; Australasian Regional Editor, *Journal of Biopharmaceutical Statistics*

Prof A.S. HENDERSON, editor for Australasia and the Far East, *Social Psychiatry and Psychiatric Epidemiology*; member, editorial boards: *International Journal of Methods in Psychiatric Research*, *Dementia*, *European Archives of Psychiatry and Clinical Neuroscience*, *New Trends in Experimental and Clinical Psychiatry and Aging and Mental Health*; member, board of assessors, Australian and New Zealand *Journal of Psychiatry*; member, editorial review panel, *Australasian Journal on Ageing*; member, Committee of International Consultants, *Epidemiologia e Psichiatria Sociale* (Rome).

Prof A.F. JORM, Editor-in-Chief, *Australasian Journal on Ageing*; member, Editorial Board, *International Journal of Methods in Psychiatric Research*; Acting Chair, Departmental Ethics Committee (Commonwealth Department of Health and Aged Care); president, Australasian Society for Psychiatric Research; member,

Scientific and Research Sub-Committee of the Alzheimer's Association; member, Medical and Scientific Advisory Panel, Alzheimer's Disease International; member, Board of the Mental Health Council of Australia; member, Research Committee of the Australian Rotary Health Research Fund; chair, NHMRC Project Grant Discipline Panel in Mental Health.

Dr B. RODGERS, Advisory Editor, *Journal of Social Welfare and Family Law*; member, NHMRC Project Grant Discipline Panel in Health Sciences; member, New Zealand Health Research Council Project Grant Assessing Committee in Public Health.

During 2000, staff of the Centre reviewed 74 manuscripts for journals, assessed 22 grant applications for Australian and overseas funding organisations and examined 2 theses.

Humanities Research Centre

The Consortium for Research and Information Outreach (CRIO) is a joint initiative of the CCR and HRC and seeks to partner with cultural institutions in Australia in order to make the results of research available to a broad range of people and groups in a variety of forms, but particularly through digital media technologies. The first of our partners is the National Museum of Australia (NMA), and we are currently in discussions with the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) with a view to their future membership.

Ralph ELLIOTT, AM, lecturer under the auspices of the English Department at University College, Australian Defence Force Academy.

Bill GAMMAGE, Co-commentator, Anzac Day march, ABC TV Adelaide; 'Anzac' commentary for NBC (US) Olympic Games coverage; Interviews for the National Library of Australia's Oral History Unit: 'Drovers' Reunion', Camooweal, QLD; launched the history issue of Rural Society, Wagga Wagga City Council Chambers.

Iain McCALMAN, Council Member, Australian Academy of the Humanities; Vice President, Australian Academy of the Humanities; Member, Research Infrastructure Committee, Academy of the Humanities; Member, International Advisory Committee, Consortium of Humanities Centres and Institutes; President, Australian Consortium of Humanities Centres and Institutes; President, Australasian and Pacific Society of Eighteenth-Century Studies; Member, National Library of Australia, Harold White Fellowship Committee (representing the Academy of Social Sciences in Australia); Member, International Affiliates Board, Humanities Research Institute, University of California; Member, Advisory Board, Research Institute in the Humanities and Social Sciences, Sydney; Member, National Museum of Australia, Academic Advisory Group; Interim Academic Planning Coordinator, National Eu-

rope Centre Advisory Board; Chair, Advisory Board, National Dictionary Centre; Member, Board of Directors, Freilich Foundation; Chair, Review of the School of Social Inquiry, Murdoch University.

Brian MASSUMI, Architecture studio review, jury member, Yale University School of Architecture; Member, Editorial Board, *Postmodern Culture*; Member, Editorial Board, *Traces: A Multilingual Journal of Cultural Theory*; Member, Editorial Board, *The UTS Review: Cultural Studies and New Writing*, Founding Editor, *Theory Out of Bounds*, book series.

Caroline TURNER, 'Tracking Kultja' committee for an Indigenous festival at the National Museum of Australia; adviser to the National Library of Australia's 2001 exhibition 'Cook and Omai: The Cult of the South Seas'.

National Centre for Epidemiology and Population Health

Prof Tony ADAMS, member, PHAA Governance Review Team; book editor, *Australian and New Zealand Journal of Public Health*; consultant, Review Turning Point Alcohol and Drug Centre Inc; Review National Centre for Immunisation Research and Surveillance.

Dr Gabriele BAMMER, member, Scientific Committee on Musculoskeletal Disorders, International Commission on Occupational Health; member, Governing Council, Mulanggarri Foundation, University of Canberra; member, New pharmacotherapies project advisory group, Turning Point Alcohol and Drug Centre Inc.; member, international scientific advisory panel, 10th International Conference for the Reduction of Drug Related Harm; member, Steering Committee for a UK heroin trial, Department of Social Science and Medicine, Imperial College School of Medicine, London; member, International Expert Scientific Advisory Group, Health Council of the Netherlands heroin prescription proposal; member, Executive of the Australian Network of Academic Public Health Institutions; member, advisory board, Interagency Committee on Alcohol and Drugs (ICAD), ACT Department of Health and Community Care; member, advisory board, Supervised Injecting Places working group, ACT Department of Health and Community Care; member, Editorial Board, *Australian and New Zealand Journal of Public Health*; reviewer, *Australian and New Zealand Journal of Public Health and Drug and Alcohol Review*; ACT Minister for Health; Department of Health and Community Care; Invited oral submission, House of Representatives Standing Committee; five public lectures by invitation in Brazil in Porto Alegre, Sao Paulo, Salvador, Belo Horizonte and Rio De Janiero organised by Coordenadoria de Institutos de Pesquisa (CIP-SES/SP), Centro de Referência em Saúde do Trabalhador de São Paulo (CEREST/SP-SES/SP) and Divisão de Vigilância Sanitária do Trabalho (DVST-CVS-SES/SP); advice and assistance to Consumers' Health Forum;

member, advisory committee, National Hepatitis C Education and Prevention Strategy, Australian Intravenous League.

Dr Cathy BANWELL, consultant, NSW Southern Area Health Service, Boorowa Community Partnerships Research Project; referee, Canadian Institutes of Health Research, Interdisciplinary Health Research Teams (IHRTs) Program (2000); referee, NSW Health Promotion Demonstration Research Grant Scheme.

Prof Niels BECKER, member, Program Committee of the 22nd Annual Conference of the International Society for Clinical Biostatisticians, August 19–23, 2001, Stockholm, Sweden.

Mary BEERS, member, Australian Society for Microbiology; member, Australasian epidemiological Association; member, Public Health Association of Australia; member, Communicable Diseases Network of Australia and New Zealand; member, Public Health Laboratory Network; member, Animal Public Health Information Network; member, Director's Network, Global Network for Training in Applied epidemiology and Public Health Interventions; member, Steering Committee, OzFoodnet; member, Communicable Diseases Network of Australia Conference committee and abstract reviewer; convener, MAE Conferences 2000 & 2001; member, Editorial Board, *Communicable Diseases Intelligence*, referee, *Australian and New Zealand Journal of Public Health* and *Australian Infection Control Journal*; consultant, Development of a National Haemovigilance System, Haemovigilance Working Party, Australian Red Cross Blood Service; The Financing of Public Health Laboratory activities of public health importance, National Public Health Partnership; referee, National Health and Medical Research Council Project Grants; Public Health Laboratory Network; Pneumococcal Working Party; Commonwealth Blood & Blood products review; National Australian Enhanced Foodborne Surveillance System (OzFoodnet); Response to media inquiries on communicable disease issues.

Dr Dorothy BROOM, member, NHMRC National Breast Cancer Centre Monitoring Working Group; member, National Public Health Partnership Chairs of National Strategies Coordinating Committee; member, National Editorial Advisory Collective, *Australian Feminist Studies*; member, International Editorial Advisory Board, *Culture, Health and Sexuality*; referee, *Social Science and Medicine*, *Australian and New Zealand Journal of Public Health* and *Australian Feminist Studies*; book reviewer, *International Journal of Primary Health — Interchange* and *Australian and New Zealand Journal of Public Health*; referee, Social Sciences and Humanities Council of Canada; Royal Women's Hospital, Melbourne; National Health and Medical Research Council; Australian Research Council; Board of management, Toora Inc (accommodation, referral and advocacy for homeless women); member, steering com-

mittee, Australian Women's Health Network; patron, Family Planning Association; member, Canberra Centre for Women's Health Matters.

Dr James BUTLER, member, Early Detection and Diagnosis Working Group, NHMRC National Breast Cancer Centre; member, Central Coordinating Committee, Department of Veterans Affairs Preventive Care Trial; member, Consultative Committee on Diagnostic Imaging Research Program (CCDIRP), Commonwealth Department of Health and Aged Care; member, advisory board, Global Health Outcomes Board, Pharmacica; referee, *Journal of Health Economics* and *Australian and New Zealand Journal of Public Health*; consultant, Schering-Plough Pty Ltd; Applied Economics Pty Ltd on a project for the Commonwealth Department of Health and Aged Care; Commonwealth Department of Health and Aged Care; Royal Australasian College of Surgeons on behalf of AusAID; Australian Technical Advisory Group on Immunisation (ATAGI).

Prof John CALDWELL, Vice President, Australian Reproductive Health Alliance; patron, Australian Population Association; Honorary President, International Union for the Scientific Study of Population; referee, *Population and Development Review*, *Social Science and Medicine*, *Studies in Family Planning*, *Journal of Comparative Family Studies* and *International Planned Parenthood Perspectives*; member, editorial boards, *Population and Development Review*, *Social Science and Medicine*, *Studies in Family Planning*, *Pakistan Development Review*, *Sociological Perspectives*, *Journal of Population Research*, *African Journal of Reproductive Health*, *Bulletin of the World Health Organisation*, *Demographic Research*, *Journal of Health Management*, *Journal of Health, Population and Nutrition* and *Global Bioethics*; consultant, AusAID, HIV/AIDS in Melanesia; referee, Wellcome Foundation.

Pat CALDWELL, member, editorial board, *Global Bioethics*

Dr Gordon CARMICHAEL, immediate past president and member of council, Australian Population Association; referee, *Journal of Population Research* and *Asian and Pacific Migration Journal*; guest editor, Supplement to Volume 18, Proceedings of the APA/PANZ Millennium Meeting, *Journal of Population Research*; invited reviewer, UN Economic Commission for Europe, Fertility and Family Surveys, Standard County Report series; Grounds and Fixtures Officer, Junior League Management Committee, Soccer Canberra; president, Woden Valley (Junior) Soccer Club.

Dr Phyll DANCE, member, Steering Committee for research on Safe disposal of injecting equipment, Australian IV League; member, Steering Committee for research on Evaluation and proposed best practice for Therapeutic Communities, The Australian Therapeutic Communities Association; secretary, Canberra Injectors Network.

Dr Phyll DANCE, Roslyn BROWN, ACT Legislative Steering Committee.

Dr Phyll DANCE, Roslyn BROWN, and Dr Gabriele BAMMER, Department of Health and Aged Care ACT Branch on residential care needs for older Indigenous people.

Dr Keith DEAR, associate editor, *Journal of Statistical Computation and Simulation*, *Australasian Regional Editor*, *Journal of Biopharmaceutical Statistics*; referee, *Medical Journal of Australia*, *Statistics in Medicine* and *Social Psychiatry and Psychiatric Epidemiology*; consultant, National Health Sciences Centre, statistical analysis of the 'Vaccine Intervention Trial in Early IDDM'; referee, National Health and Medical Research Council Project Grants.

Prof John DEEBLE, consultant, The Financing of Public Health Laboratory activities of public health importance; National Public Health Partnership.

Jane DIXON, member, ACT branch Public Health Association of Australia; executive board member, International Society for Equity in Health; referee, NSW Health Promotion Demonstration Research Grant Scheme.

Prof Bob DOUGLAS, convener, Annual Conference of the Australasian Epidemiological Association (AEA); co-opted member, AEA Council; member, Network of Academic Australian Public Health Institutions, Director's Network; coordinating editor, Cochrane Collaborative Review Group on *Acute Respiratory Infections*; referee, *Medical Journal of Australia* and *Australian and New Zealand Journal of Public Health*; referee, National Health and Medical Research Council Project Grants; Sax Orator for the Public Health Association of Australia (ACT Branch).

Dr Rennie D'SOUZA, secretariat, National Certification Committee for Poliomyelitis Eradication; secretariat, National Polio Expert Committee; member, Oral Polio Vaccine/Injectable Polio Vaccine Working Party.

Richard ECKERSLEY, member, OzQol, Australian Quality of Life Studies; member advisory board, Expert Steering Committee, National Drug Strategy Prevention Agenda, Commonwealth Department of Health and Aged Care; member advisory board, External Reference Group, Measuring Australia's Progress, Australian Bureau of Statistics; member advisory board, Reference Panel, Human Settlements chapter, State of the Environment, Australia 2001, Environment Australia; member advisory board, Reach Out! On-Line Youth Suicide Prevention Service; member, Research Advisory Group, Kids Help Line; consultant, Health Inequalities Research Collaboration, Commonwealth Department of Health and Aged Care; referee, Queensland University of Technology 2000 grants in support of creative works in the arts and design; 2001 ATN small grants application; submission to inquiry into the

education of boys by the House of Representatives Standing Committee on Employment, Education and Workplace Relations; presentation to Inter-Governmental Committee on Drugs, Hobart; invited speaker to students: Canberra College; Hawker College, Canberra; Canberra Grammar School.

Dr Charles GUEST, convener, Public Health Association Conference, Canberra, 2000; president, Public Health Association of Australia, ACT Branch; member of council, Faculty of Public Health Medicine, Royal Australasian College of Physicians; member, Specialist Medical Review Council; member, Health Advisory Committee, National Health and Medical Research Council; member, Environmental Council Information Task Group; member, National Health and Medical Research Working Party — Review of water and flouride intake from discretionary flouride supplements; member, National Health and Medical Research Working Party — Safety of additives to tobacco products; invited editor, *Climate Change and Microbial Systems*, special issue of *Microbiology Australia* 2000:21(2); referee, *American Journal of Epidemiology*, *Australian Health Trends*, *Australian and New Zealand Journal of Public Health*, *Australian and New Zealand Journal of Medicine*, *Ecosystem Health*, *Journal of Epidemiology and Community Health*, *Medical Journal of Australia*, *Microbiology Australia*, Public Health Reports (United States Public Health Service) and Social Science and Medicine; referee, Anti-Cancer Foundation, South Australia; Apex/Diabetes Australia Research and Education projects; Arbovirus Research Program, Queensland Health; National Health and Medical Research Council; National Occupational Health and Safety Commission; Ophthalmological Research Institute of Australia; Victorian Health Promotion Foundation; Western Australia Health Promotion Foundation; Queensland Cancer Fund; referee of chemical assessment reports, Industrial Chemicals Notification and Assessment Scheme; submission, Treaties Committee Inquiry into the Kyoto Protocol, Joint Standing Committee on Treaties, Parliament House, Canberra; invited testimony, Australian Senate Inquiry into Australia's Response to Global Warming, <<http://www.aph.gov.au/Hansard/senate/commtee/comsen.htm>>.

Dr Lei LI, referee, Statistical Methodology and Statistical Computer Software in Transportation Research.

Dr Lynette LIM, Adjunct Associate Prof, Faculty of Medicine and Health Sciences, University of Newcastle (1999-Present); referee, *Medical Journal of Australia* and *Australian and New Zealand Journal of Public Health*; referee, National Health and Medical Research Council Project Grants.

David McDONALD, ACT State Convener, Injury Prevention Special Interest Group, Public Health Association of Australia; board member, Alcohol and Other Drugs Council of Australia; chairperson, National Research Reference Group, Alcohol and Other Drugs

Council of Australia; executive committee member, Australian Evaluation Society, ACT Region; member, Advisory Committee of the Resource Centre of the Alcohol and Other Drugs Council of Australia; member, National Drug Research Strategy Committee, reporting to the Intergovernmental Committee on Drugs; research representative, ACT Association of Alcohol and Other Drugs Agencies; member, editorial board, *Current Issues in Criminal Justice*, referee, *Current Issues in Criminal Justice*, *Trend & Issues in Crime and Criminal Justice* and *Drug and Alcohol Review*; consultant, United Nations International Drug Control Program, Regional Office for South Asia, Leader of the Terminal Evaluation Mission of the UNDCP Program in Bangladesh, Dhaka; ACT Department of Health and Community Care; referee, DETYA/ARC Strategic Partnerships with Industry — Research & Training Scheme; National Health and Medical Research Council Project Grants; adviser to government: Drugs and Crime Prevention Committee, Parliament of Victoria; House of Representative's Standing Committee on Community and Family Affairs: Substance Abuse in Australian Communities; NSW Police Service Information and Intelligence Centre; Commonwealth Department of Health and Aged Care re monitoring and evaluation strategy for the National Drug Strategy; to industry: Aboriginal and Torres Strait Islander Health Clearinghouse, Edith Cowan University; KPMG Consulting Pty Ltd.; to numerous journalists researching stories; invited lecturer: Michigan State University Study Abroad program; Australian Federal Police New Agents.

Dr Clare McGUINNESS, member of Faculty of ACT Branch of Royal Australian College of General Practice; member, National Research Council of the Royal Australian College of General Practice; advanced trainee, Australasian Faculty of Public Health Medicine; Member, Consumers Health Forum; member, Health Issues Centre; member, ACTCOSS; member, ACT Branch of Diabetes Australia.

Dr Mahomed PATEL, member, Measles Elimination Advisory Committee, National Centre for Disease Control; technical adviser, National Guidelines for the Prevention and Control of Outbreaks of Measles; member, advisory committee, Communicable Diseases Network of Australia and New Zealand; chair, Global Network of Training Programs in Epidemiology and Public Health Interventions (TEPHINET) up to April 2000; referee, *Medical Journal of Australia*, *Bulletin of the World Health Organisation*, *Epidemiology and Infection* and *Communicable Diseases Intelligence*; invited lecturer, The Meningococcal Foundation of Australia Incidence, Sydney.

Dr Geetha RANMUTHUGALA, invited lecturer, Australian Water Association, Health Interest Group, NSW.

Dr Beverley SIBTHORPE, member, Steering Committee for the evaluation of the Enhanced Primary Care Items and Implementation Strategy, General Practice

Branch, Department of Health and Aged Care; member, Steering Committee for the evaluation of State Based Organisations for Divisions of General Practice Branch, Department of Health and Aged Care; trial evaluation for joint venture, ACT Department of Health and Community Services and ACT Division of General Practice funded by the Department of Health and Aged Care; external reviews of the evaluation of the Divisions and Hospitals Integration Program (DHIP) for the Department of Health and Aged Care; referee, National Health and Medical Research Council Project Grants; National Heart Foundation of Australia; Office of Aboriginal and Torres Strait Islander Health, Department of Health and Aged Care; Office of Aboriginal and Torres Strait Islander Health, Department of Health and Aged Care; invited presenter: public meeting of trial stakeholders, Hyatt Hotel; ACT Department of Health and Community Care; Health and Policy Resource Committee, Australian Council of Social Services, Canberra.

Dr Len SMITH, national councillor, Australian Population Association; board member, Health Informatics Society of Australia; public officer, Australasian Epidemiological Association; associate editor, *Journal of Population Research*, referee, *Medical Journal of Australia*, *Australian and New Zealand Journal of Public Health* and *Population and Development Review*; referee, National Health and Medical Research Council Project Grants; referee, Australian Institute of Health and Welfare.

Dr Wayne SMITH, steering committee for the National Partnership for Childhood Development and Well-being.

Dr Andrea WHITTAKER, general councillor, Asian Studies Association of Australia, 1998-2000; member, editorial board, *Women in Asia Series*; Women's Caucus of the Asian Studies Association of Australia; referee, National Health and Medical Research Council Project Grants; Murdoch Institute; invited lecturer, Centre for Southeast Asian Studies, University of Washington, Seattle.

Eileen WILSON, member, ACT branch Public Health Association of Australia; precis panel, Breastfeeding Review.

Rosalie WOODRUFF, member, Australasian Epidemiological Association; secretary, ACT branch Public Health Association of Australia.

School of Mathematical Sciences

Centre for Mathematics and its Applications

R J BAXTER, Member, editorial boards: *Journal of Geometric and Functional Analysis*, *Journal of Statistical Physics*, *Physica A*, *Philosophical Transactions of the Royal Society, Series A*, *Annals of Combinatorics*, *Theoretical Physics and Related Mathematics* (International Press);

Senior Fellow: Asia-Pacific Center for Theoretical Physics, Seoul, Korea.

H S BOOTH, Assistant editor, *ANZIAM Journal*; Reviewer, American Mathematical Society, (Mathematical Reviews).

D J DALEY, Adviser/Consultant to ACT Board of Secondary Studies; Trustee and Assoc editor, Applied Probability Trust and Journals.

J M GANI, Editor, *The Mathematical Scientist*, Managing Editor, *Applied Probability Journals*, member, editorial board, *Utilitas Mathematica*, *Stochastic Analysis and its Applications*, *IMA Journal of Mathematics Applied in Medicine and Biology*; Co-editor (with G R Haynatzki, V R Haynatzki and S T Rachev), Math. Comput. Modelling "Stochastic Models in Mathematical Biology", Special Volume 32, 1-2, 2000; member, Australian-French Association of Professional and Technical Specialists; Australian Academy of Science Committee on Asian Exchange Fellowships; organiser (with C E Praeger, I H Sloan, B Davies and A V Isaev), World Mathematical Year 2000 Conference, ANU, 24-25 November, 2000.

P G HALL, Member, editorial boards, *Annals of Statistics*, *Australian and New Zealand Journal of Statistics*, *Econometric Theory*, *Journal of Statistical Planning and Inference*, *Korean Journal of Statistics*, *Probability Theory and Related Fields*, *Statistica Sinica*.

C C HEYDE, Board member, Australian Mathematics Trust; member, Membership Committee, International Statistical Institute; Bernoulli Society Publications Committee; Publications Committee, International Statistical Institute; Executive Committee, Graduate School of Arts and Sciences, Columbia University; Director, Center for Applied Probability, Columbia University; trustee, Applied Probability Trust; Editor-in-Chief, *Journal of Applied Probability*, *Advances in Applied Probability*; (joint) Editor, *Australian Mathematical Society Lecture Series*; *Springer Series in Probability and its Applications*; Assoc editor, *The Mathematical Scientist*; Advisory Editor, *Journal of Applied Mathematics and Stochastic Analysis*; Reviewer for the National Science Foundation, National Research Council of Canada, Australian Research Council.

A V ISAEV, Assoc editor, *Journal of Mathematical Analysis and Applications*

L G KOVÁCS, Member, editorial boards, *Journal of Group Theory* and *Periodica Mathematica Hungarica*.

S LIU, Reviewer, Mathematical Reviews; Contributing Editor, *Current Index to Statistics*.

A G R M^cINTOSH, Member, editorial board, *Bulletin of the Australian Mathematical Society*; Scientific Advisory Committee, International Conference on Clifford Analysis, Prague.

B H NEUMANN, Honorary editor, *Bulletin of the Australian Mathematical Society*; *The Australasian Journal of Combinatorics*, *Algebra Colloquium* (Beijing); Editor and member of editorial board, *Houston Journal of Mathematics*; editorial consultant, Southeast Asian Bulletin of Mathematics: *Mathematical Spectrum*.

M F NEWMAN, Editorial adviser, *Journal of Symbolic Computation*; member, editorial board, *International Journal of Algebra and Computation*; Australian Mathematical Olympiad Committee; problems committee, Mathematics Challenge for Young Australians.

D W ROBINSON, Member, Research Training and Careers Committee, Australian Research Council; Steering Committee, Australian Mathematical Society; Vice-President, Australian Mathematical Society (from July); Chair, Australian Academy of Science's National Committee for Mathematics.

N S TRUDINGER, Principal organiser, Isaac Newton Institute, Programme on Nonlinear Partial Differential Equations, 2001. Member, editorial boards, *The Proceedings of the Royal Society of Edinburgh, Series A*; *Journal of Potential Analysis*; *Bulletin of Australian Mathematical Society*; *Advances in Mathematical Sciences and Applications*; *Journal of Mathematical Analysis and Applications*; *Calculus of Variations and Partial Differential Equations*; *Nonlinear Analysis Forum*; *Taiwanese Journal of Mathematics and Nonlinear Differential Equations and Applications*.

A H WELSH, Member, editorial boards, *Biometrics*; *The Annals of Statistics*, *The Australian and New Zealand Journal of Statistics*.

S R WILSON, Vice-President, International Biometric Society (IBS); Assoc editor, *Annals of Human Genetics*; member, editorial board, *Statistical Methods in Medical Research*; representative, Statistical Society of Australia, Australian Foundation for Science; member, Technology Committee, IBS; Conference Advisory Committee, IBS; International Statistical Institute (ISI) Standing Committee for the Promotion of Statistics in the Life Sciences; editor, Biometrics Section, *Encyclopedia of Life Support Systems*; member, Institute of Mathematical Statistics (IMS) Committee on Memorials; editorial committee for the 6th edition of the ISI's *Dictionary of Statistical Terms*; assessor, Medical and Scientific Research Grant Applications, Anti-Cancer Council of Victoria; organiser, International Biometric Conference, Berkeley, California; review panel of the Department of Mathematics and Statistics at The University of Western Australia.

Department of Mathematics

R A BRYCE, Problems Committee of the Mathematical Challenge for Young Australians; Problems Committee, Australian Mathematics Competition; Australian Mathematical Olympiad Committee; Advisory Committee, Australian Mathematics Trust.; ANU

representative on ACT Board of Senior Secondary Studies; Chair, Assessment and Accreditation Committee of BSSS

P J COSSEY, Assoc Editor, *Bulletin of the Australian Mathematical Society*; Member, Standing Committee of Education, Australian Mathematical Society; Public Officer, Australian Mathematical Society; Public Officer, AMPAI.

L FERRARIO, Member, Scientific Organising Committee, International Symposium "Magnetic Fields across the H-R Diagram"; Santiago, Chile, January 2001.

A A T HOWE, Treasurer, Australian Mathematical Society.

J E HUTCHINSON, Representative, Australian Mathematical Society, ANU.

N F SMYTHE, Apple University Development Fund Awards Committee; Lake Tuggeranong College presentation for maths teachers on using Maple, January 27, AUC Academic Conference, James Cook University (to be held September 2001); Chair, Programs Committee and Editor of Proceedings.

S VENNES, Referee, *Astrophysical Journal*, *Astronomy & Astrophysics* Publications of the Astronomical Society of the Pacific, & The Monthly Notices of the Royal Astronomical Society.

University Administration

Endowment Office

Bruno YVANOVIICH, member, Advisory Committee, Faculty of Management and Business Studies, Canberra Institute of Technology; member, Fundraising Institute of Australia, ACT Steering Committee; attendee, Annual Conference, Fundraising Institute of Australia in Melbourne.

Fenner Hall

Fenner Hall continued to contribute to the education of children enrolled in the Turner Primary School. The Turner Primary School is an integrated environment that facilitates and mainstreams children with physical disabilities. Fenner residents undertook roles as teacher aides in various areas.

Fenner Hall's foster child, Navina Budhthokia and her village continued to benefit from the efforts and support of the residents. Recent communications indicate that this support has now enabled her siblings to also access education and health support.

Information Technology Services

Management Information Services

The ANU continues to play a large part in setting up the Australia New Zealand Higher Education PeopleSoft Special Interest Group and hosts its Web Pages.

The Head of the Desktop Support Group and ESP Infrastructure Team assisted with curriculum and training related issues for the User Support Certificate/s offered at CIT and elsewhere for the Australian National Training Authority (ANTA).

MIS staff attended the following conferences during the year: EDUCAUSE 2000; TechED 2000; Government eCommerce Competency Standards (ICA99).

IT Information Unit

The Manager, IT Information Unit attended an Information Literacy Workshop organised by the Council of Australian University Librarians (CAUL) in Adelaide.

The IT Information Officer attended the South Pacific User Services Conference (SPUSC) at Monash University.

The Manager, with the Manager, Social Sciences and Humanities, The Library, visited the Universities of Queensland and Griffith, the Queensland University of Technology and the Queensland Department of Education in preparation for the establishment of an Information Literacy Program at ANU.

University House

Established links with the University of the Third Age, Independent Scholars Association of Australia, and the Canberra Association of International Students; hosted the Australian Federation of University Women; major sponsor, Canberra Symphony Orchestra; supporter, annual Chamber Music Festival organised by Pro Musica; joined the ACT Government's Adopt-a-Road program; responsible for Marcus Clarke Street.

Dr de CRESPIGNY, President, Chinese Studies Association of Australia; involved with the proposed National Europe Centre and the Australian National Centre for Latin American Studies; continued work on The Biographical Dictionary of Later Han China for the international sinological press E J Brill of Leiden; editor, *Festschrift* for Emeritus Professor Liu Ts'un-yan; gave seminars and held discussions with colleagues at Harvard, Columbia, Colegio de Mexico, Mexican Department of Foreign Affairs and senior university administrators.

Joint Research Projects undertaken with universities, CSIRO and other institutions

Institute of Advanced Studies

Research School of Astronomy and Astrophysics

The Physical Conditions in the Extended Emission-Line Regions of Nearby Seyfert Galaxies by M ALLEN, Prof MA DOPITA and Dr GV BICKNELL with Z Tsetanov, Johns Hopkins University.

MACHO Project by T AXELROD, K FREEMAN, B PETERSON, A DRAKE with R Allsman, ANUSF; C Alcock, K Cook, M Geha, S Marshall, D Minniti, P Popowski, C Nelson, A Tomaney, Lawrence Livermore National Lab; P Quinn, ESO; C Stubbs, A Becker, University of Washington; W Sutherland, Oxford; D Welch, McMaster; D Alves, STScI; D Bennett, Notre Dame; K Griest, T Vandehei, UCSD; M Lehner, Sheffield.

TAOS Project by T AXELROD with C Alcock, K Cook, S Marshall, Lawrence Livermore National Lab; T Lee, C-Y Wen, SK King, Academia Sinica, Taiwan; WP Chen, C Lemme, A Wang, National Central University, Taiwan; I de Pater, UC Berkeley; J Lissauer, NASA Ames.

Southern Trans-Neptunian Object Survey by T AXELROD, B SCHMIDT, C JACKSON, R MOODY with C Alcock, K Cook, S Marshall, Lawrence Livermore National Lab; I de Pater, UC Berkeley; J Lissauer, NASA Ames.

REACT by T AXELROD, J MOULD, B SCHMIDT, P PRICE with S Kulkarni, F Harrison, A Diercks, T Galama, CalTech.

Echelle Spectroscopy of Solar-type Stars by MS BESSELL with J O'Mara, University of Queensland.

Model Atmospheres of Metal-deficient Stars by MS BESSELL with Fiorella Castelli, Trieste Observatory.

Follow-up Spectroscopy of Hamburg-ESO Objective Prism by MS BESSELL and JE Norris with Norbert Christlieb, Hamburg University.

SUBARU Observations of Extreme Metal Deficient Stars by MS BESSELL, JE Norris with Hiroyasa Ando.

Search for Nearby Young Stars by MS BESSELL with B Zuckerman, I Song and R Webb, UCLA.

UBVRI Photometry of Subdwarfs by MS BESSELL with R Shobbrook RSAA visitor.

Magnetised Accretion Discs, by G BICKNELL with Z Kuncic, University of Sydney.

High Energy Emission from Blazars by G BICKNELL with S Wagner, Landessternwarte, Heidelberg.

The 2dF Galaxy Redshift Survey by Dr MM COLLESS, Dr BA Peterson and Dr CA Jackson with Drs K Taylor, J Bland-Hawthorn, IR Lewis, TJ Bridges and RD Cannon, AAO; Drs WJ Couch and R De Propriis, UNSW and UK collaborators.

The EFAR Project: The Peculiar Motions of Early-Type Galaxies in Two Distant Regions, by Dr MM COLLESS with Prof RL Davies, Durham; Prof D Burstein, Arizona State; Prof G Wegner, Dartmouth; Dr R Saglia, Munich; Dr R McMahan, UNC.

OzPoz: Design and Construction of a Fibre Positioner Unit for the FLAMES Spectrograph on the European Southern Observatory's Very Large Telescope by Dr MM COLLESS with Dr K Taylor, AAO; AProf W C Couch, UNSW.

The 6dF Galaxy Survey: a Survey of the Mass and Motions in the Local Universe using a New Fibre Spectrograph on the AAO Schmidt Telescope, by Dr MM COLLESS with Dr QA Parker, Dr W Saunders, Dr FG Watson, AAO and other collaborators in Australia, USA, UK and France.

Spectral Properties of Radio-selected Broad Absorption Line QSOs, by Dr M de KOOL with Prof R Becker, Lawrence Livermore National Laboratories.

Analysis and Interpretation of HST-STIS Broad Absorption Line QSO spectra by Dr M de KOOL with Dr N Arav, University of California Davis and Dr KT Korista, University of Western Michigan.

The Dwarf Spheroidal Companions to M31 by Dr G Da COSTA with Dr T Armardroff, KPNO, Dr N Caldwell, Whipple Obs; and Dr P Seitzer, Univ of Michigan.

The Chemical Histories of the Fornax and Carina Dwarf Spheroidal Galaxies by Dr G Da COSTA with Dr T Smecker-Hane, UC Irvine; Dr J Hesser and Dr P Stetson, DAO; and Dr D Hatzidimitriou, Univ of Crete.

The Origin of Globular Cluster Abundance Anomalies — Clues from the Main Sequence by Dr G Da COSTA with Prof J Norris, Dr B Gibson, Swinburne Univ; Dr R Cannon, AAO and Dr B Croke, ANU.

Magnesium Isotope Ratios in Globular Cluster Red Giants by Dr G Da COSTA with Prof J Norris and Dr J Lattanzio, Monash Univ.

The Origin of Globular Cluster Abundance Anomalies: Clues from the Main Sequence by Dr GS Da COSTA and Prof JE NORRIS with Dr D Cannon, Anglo-Aus-

tralian Observatory; and Dr B F Croke, University of Crete.

The COLA Project: Compact Objects in Low-powered AGN by Prof M DOPITA and Lisa S Kewley with Dr PN Appleton Iowa State U; Dr AP Marston, Caltech; Dr R Norris ATNF & Dr A Zezas, CFA.

Calibration of Nebular Emission-Line Diagnostics, by Prof M DOPITA with Dr S Oey, STScI; Prof JC Shields, Ohio U; & Dr RC Smith, CTIO.

Photoionisation and Shock Modelling of the HII region Abundance Sequence and of Luminous Infrared Galaxies, by Prof MA DOPITA, LK Kewley, Dr CA Heisler and Dr RS Sutherland, RSAA; Prof B Rocca-Volmerange and E Moy, Institut d'Astrophysique, France.

Southern Planetary Nebulae by Prof MA DOPITA and Prof CT Hua, Laboratoire Astrophysique Spatiale, Marseilles, France, & Prof RE Williams, STScI.

Astronomical Site Testing at Dome C in the Antarctic by Prof JR MOULD, Prof MA DOPITA, and Dr RS SUTHERLAND with Prof J Storey, Dr M Ashley, and Dr M Burton, University of New South Wales; Prof J Vernin, Dr Coulman and Dr M Azouit, Université de Nice; Prof P Maffei and Dr L Valenziano, Università di Perugia; and Prof R Viotti, Istituto di Astrofisica Spaziale, Frascati.

Determination of the Emission Mechanism in LINERS and Seyferts by Prof MA DOPITA, Dr R SUTHERLAND and Dr GV BICKNELL with Dr AP Koratkar and Dr M Allen, Space Telescope Science Institute.

HST Observations of the O-Rich Supernova Remnant in the Magellanic Clouds by Prof MA DOPITA and Dr R SUTHERLAND with Dr WP Blair Johns Hopkins University, Baltimore; Dr PF Winkler, Middlebury College; Dr R Kirshner and Dr JC Raymond, Center for Astrophysics, Harvard; Dr K Long and Dr J Morse, Space Telescope Science Institute.

The Helical Jet/ISM Interaction in NGC 4258 by Dr GN Cecil, Univ of N Carolina, USA with Prof MA DOPITA, MSSSO; Dr LJ Greenhill, CFA, USA; Dr Moran, CFA, USA and Dr CG De Pree, NRAO, USA.

A Galaxy Cluster at Redshift 2.38, by Dr PJ FRANCIS, with Dr BE Woodgate, Dr GM Williger, Dr E Malumuth, Dr N Collins, and Dr P Palunas, NASA GSFC.

The Parkes Half-Jansky Quasar Sample, by Dr PJ FRANCIS, with Dr RL Webster, M Whiting and Dr MJ Drinkwater, University of Melbourne.

Red Quasars from the Two Micron All Sky Survey, Dr PJ FRANCIS with Dr RL Cutri, NASA, IPAC.

Studies of Neutral Hydrogen in Dwarf Elliptical Galaxies of the Centaurus A Group by Prof K FREEMAN and Dr H JERJEN with Dr S Beaulieu, University of Cambridge and Prof C Carignan, University of Montreal.

Internal Proper Motions and Radial Velocities in the Globular Cluster Omega Centauri, by Prof K FREEMAN with R Reijns, Prof T de Zeeuw and Drs R Le Poole, University of Leiden; Dr P Seitzer, University of Michigan; and Dr F van Leeuwen, Cambridge University.

HST Studies of The Post-Starburst Galaxy NGC 5102 by Prof K FREEMAN with Dr S Beaulieu, Cambridge University; Prof C Norman, Johns Hopkins University; Prof N Scoville, Caltech; and Dr P Quinn, ESO.

Kinematics of Planetary Nebulae in Nearby Galaxies and in the Intracluster Medium of the Virgo Cluster by Prof K FREEMAN with Dr M Arnaboldi and Prof M Capaccioli, Osservatorio di Capodimonte, Naples; Prof R Kudritzki and Dr R Mendez, University of Muenchen; Prof H Ford, Johns Hopkins University; Prof R Ciardullo and Dr J Feldmeier, Penn State University; and Dr G Jacoby, NOAO.

HST Studies of the Inner Regions of Barred Galaxies by Prof K FREEMAN with Dr M Carollo, JHU and Prof T de Zeeuw, Leiden.

HST Studies of Lyman-alpha Absorption of QSOs by the Outer Regions of Spiral Galaxies, by Prof K FREEMAN with Dr S Cote, ESO and Prof C Carignan, Montreal.

Structure of the Galactic Bulge from the MACHO Red Clump Stars, by R FUX and T AXELROD with P Popowski, Lawrence Livermore National Laboratory, USA.

Evolution and Unified Schemes of Radio-loud AGN by Dr C JACKSON with Prof JV Wall, University of Oxford.

Local Radio Source Populations and the LRLF by Dr C JACKSON with Dr EM Sadler & VJ McIntyre, University of Sydney and Prof RD Cannon, AAO.

The Space Density of Flat Spectrum Radio Quasars by Dr C JACKSON with Prof JV Wall, University of Oxford, Dr PA Shaver and Dr IM Hook, European Southern Observatory Garching.

Optically-faint, Radio-bright Radio Galaxies at High Redshift by Dr C JACKSON with Prof R Norris and Prof R Ekers, ATNF.

Distance and Depth of the Virgo Cluster by Dr H JERJEN, Prof KC FREEMAN with Dr B Binggeli, Astronomical Institute of the University of Basel, Switzerland.

Empirical Calibration of the SBF Method for dEs by Dr H JERJEN with M Rejkuba, European Southern Observatory, Germany.

SBF and Spectroscopic Survey of Dwarf Elliptical Galaxies in the Supergalactic Plane by Dr H JERJEN with Prof M Valtonen, M Hanski, R Rekola, Dr L Takalo, Tuorla Observatory, Finland.

The All-Sky 21cm Survey at the Parkes Radio Telescope by Dr H JERJEN, Prof KC FREEMAN and Prof JR MOULD with Prof R Webster, University of Melbourne and Dr G Banks University of Wales; Dr D G Barnes, ATNF; Prof R Bhathal, UWS; Prof MJ Disney, University of Wales; Prof R D Ekers, ATNF; Dr B Gibson, University of Colorado; Dr P Henning, New Mexico; V Kilborn, University of Melbourne; Dr B Koribalski, ATNF; Dr P Knezek, STScI; Dr D Malin, AAO; Dr T Osterloo, ATNF; Dr R M Price, ATNF; Dr SD Ryder, AAO; Prof E M Sadler, University of Sydney; Dr L Staveley-Smith, ATNF; Dr AE Wright, ATNF.

Dynamics of the Shearing Sheet, by Dr AJ KALNAJS with Prof A Toomre, MIT.

Probing the Galactic Potential, Dr AJ KALNAJS with Dr L Staveley-Smith, ATNF.

Theoretical Starburst Modelling by L KEWLEY, Prof M DOPITA and Dr R SUTHERLAND, with Dr C Leitherer, Space Telescope Science Institute.

Compact Objects in Low Power AGN COLA project by L KEWLEY and Prof M DOPITA with Dr P Appleton, Iowa State Univ; Dr E Corbett, ATNF; Dr T Marston, Caltech; Prof R Norris, ATNF; Prof C Struck, Iowa State Univ; Dr A Zezas, CfA.

X-Ray Luminous Starburst Galaxies by L KEWLEY with Dr A Zezas, CfA; Prof M Ward, U Leicester.

Interference Excision for Radio Arrays by L KEWLEY with Prof R Ekers, ATNF; Dr B Sault, ATNF.

Compact Radio Sources: Obscured AGN or Compact Radio Supernovae? by L KEWLEY with Prof M DOPITA, Dr R SUTHERLAND, Prof R Norris, ATNF.

The Joint Australian Centre for Astrophysical Research in the Antarctic by Prof JR MOULD, Prof MA DOPITA, Dr P MCGREGOR, Dr R SUTHERLAND and Dr P WOOD with Prof J Storey, Dr M Ashley, and Dr M Burton, University of New South Wales.

The Extragalactic Distance Scale by Prof J MOULD and Dr K SEBO with JP Huchra Harvard Smithsonian, CfA; L Ferrarese, UCLA; HC Ford, Johns Hopkins University; WL Freedman, Observatories of the Carnegie Institution of Washington; J Graham & D Kelson, Carnegie Institution of Washington; B Gibson, Swinburne University; JG Hoessel, University of Wisconsin; GD Illingworth, UCSC; RC Kennicutt Jr, University of Arizona; BF Madore, Nancy Silbermann, IPAC, Caltech; A Saha, NOAO; & PB Stetson, DAO.

The Multiband Photometric Imager for SIRTf by Prof J MOULD with E Arens, UC Berkeley; C Beichman, Caltech; T Gautier, JPL; E Haller, LBL; C Lada, Harvard Smithsonian; G Rieke & F Low, U Arizona; G Neugebauer, Caltech; P Richards, UC Berkeley; M Rieke & P Strittmatter, U Arizona; and M Werner, JPL.

NICMOS Observations of Extragalactic Cepheids by Prof J MOULD with L Macri, Harvard University; D Calzetti, Space Telescope Science Institute; W Freedman, Carnegie Observatories; B Gibson, Swinburne University; J Graham, Carnegie Institution of Washington; J Huchra, Harvard Smithsonian Center for Astrophysics; S Hughes, B Madore, IPAC Caltech; E Persson, Carnegie Observatories; and P Stetson, Herzberg Institute for Astrophysics.

Identification of the Galaxy's Missing Mass, by Prof J MOULD, Prof K FREEMAN, Dr G Da COSTA and Dr T AXELROD with K Cook & C Alcock, Lawrence Livermore National Lab.

The Most Metal Deficient Stars by Prof JE NORRIS with Prof TC Beers, Michigan State University; and Dr SG Ryan, Open University, United Kingdom.

Lithium Abundances of Halo Stars by Prof JE NORRIS with Prof TC Beers, Michigan State University; Dr SG Ryan, Open University.

Carbon-Rich Metal-Poor Stars by Prof JE NORRIS and Prof MS BESSELL, with Dr H Ando, National Astronomical Observatory, Japan; Dr W Aoki, National Astronomical Observatory, Japan; Prof TC Beers, Michigan State University; and Dr SG Ryan, Open University.

The Origin of Globular Cluster Abundance Anomalies: Magnesium Isotope Ratios in Omega Centauri and other clusters by Prof J E NORRIS and Dr GS Da COSTA, with Dr J Lattanzio, Monash University and I Ivans, University of Texas at Austin.

In Situ Studies of the Old Populations of the Galaxy by Prof JE NORRIS and Prof KC FREEMAN with Prof G Gilmore, Cambridge University; and Prof RFG Wyse, Johns Hopkins University.

Studies of Structure in the Galactic Halo by Prof JE NORRIS and Prof KC FREEMAN, with Dr HL Morrison, Case Western Reserve University; Prof M Mateo, University of Michigan; Dr E Olszewski and P Harding, University of Arizona.

Blue Horizontal Branch Stars and the Mass of the Galaxy by Prof JE NORRIS with Dr P Hewett, University of Cambridge and Dr S J Warren, Imperial College London.

Wide-Field HI Synthesis Mosaic of the Spiral Galaxy M83, by O-K PARK and Prof K FREEMAN with Dr B Koribalski, ATNF and Dr D Malin, AAO.

Studies of Ionized Gas in High Velocity Clouds, by M PUTMAN and Prof K FREEMAN with Dr B Gibson, University of Colorado and Dr J Bland-Hawthorn, AAO.

The High-Z SN Search by B P SCHMIDT with N Suntzeff, C Smith, R Schommer, CTIO; A Clocchiatti, U Catolica; R Kirshner, P Challis, P Garnavich, Harvard; B Leibundgut, J Spyromilio, P Woudt, ESO; M

Phillips, Carnegie; M Hamuy, Arizona; C Stubbs, C Hogan, D Reiss, A Diercks, UW; A Filippenko, A Riess, Berkeley, J Tonry, Hawaii; R Gilliland, STScI.

Supernova Intensive Study with HST by B P SCHMIDT with R Kirshner, Harvard; D Branch, Oklahoma; R Chevalier, Virginia; A Filippenko, Berkeley; C Fransson, Stockholm; B Leibundgut, ESO; N Panagia, STScI; M Phillips and N Suntzeff, CTIO; C Wheeler, Texas.

The Trans Neptunian Search by B P SCHMIDT and T AXELROD, with C Alcock, U Penn; K Cook, LLNL.

The REACT Gamma Ray Burst Study by B P SCHMIDT, T AXELROD and P PRICE, with S Kulkarni and F Harrison, CalTech; and D Frail, NRAO.

Global Properties of Inner-ring Galaxies by Dr M SEVENSTER and Prof K FREEMAN with Dr B Koribalski, ATNF, CSIRO; Dr A Lancon, Obs de Strasbourg; Dr P van der Werf, Sterrewacht Leiden.

Unusual OH-maser Point Sources by Dr M SEVENSTER with Dr J Chapman, ATNF, CSIRO.

Dynamical Behaviour of Infrared Carbon Stars by Dr M SEVENSTER with Dr M Groenewegen, MPA, Garching; Prof A Omont and E Josselin, IAP, France; Prof H Habing, Sterrewacht Leiden.

Stellar Evolution and Nucleosynthesis on the AGB by Dr PR WOOD with Dr J Lattanzio, Monash University.

Theoretical Models of Mira Variables by Dr PR WOOD with Prof M Scholz, University of Heidelberg and Dr T Bedding, University of Sydney.

Observational Studies and Theoretical Models of Mira Variables by Dr PR WOOD with H Richter, Technical University of Berlin.

Optical/Near-IR Spectra of AGB stars by Dr PR WOOD with Dr A Lançon, University of Strasbourg.

Infrared and SiO Observations of Stars Near the Galactic Center by Dr PR WOOD with Dr S Deguchi, Nobeyama Radio Observatory.

Infrared Observations of ISO Sources in the Magellanic Clouds by Dr PR WOOD with Dr T Tanabe and Dr Y Nakada, University of Tokyo.

Infrared Observations of Cepheids in M33 by Dr PR WOOD with Dr D Bersier, Harvard.

Velocity Monitoring of LMC Red Giants by Dr PR WOOD and Dr T Axelrod with Dr D Welch, McMaster University.

Studies of MSX Sources in the Magellanic Clouds by Dr PR WOOD with Dr M Cohen, Berkeley.

Studies of the Variability of AGB Stars in the Magellanic Clouds and Near the Galactic Centre by Dr PR

WOOD with Prof H Habing and M Cioni, Leiden and Dr A Omont, IAP Paris.

Research School of Biological Sciences

Developmental Neurobiology and Endocrinology

Study of mammalian embryo implantation by HEARN, JP with Prof R Seamark, CRC for Pest Animal Control.

Biochemical embryology of the tammar wallaby by HEARN, JP with Dr L Hinds, CSIRO.

Development of the trigeminal sensory pathway and modulation of spinal reflexes after spinal cord injury and regeneration by HO, SM with A/Prof P Waite, Neural Injury Research Unit, University of NSW.

Transplantation of nasal olfactory tissue in paraplegic rats by HO, SM with Prof A Mackay-Sim, Center for Molecular Neurobiology, School of Biomolecular and Biomedical Science, Griffith University.

Computer modelling of motion vision by IBBOTSON, MR with Dr CWG Clifford, Psychology Department, Macquarie University.

Research in the fields of psychophysics and visual physiology by IBBOTSON, MR with Dr CWG Clifford, Macquarie University.

Eye control mechanisms in human and non-human primates by IBBOTSON, MR with Dr Mustari, Emory University, Atlanta, USA.

The function of corticocortical feedback in the primate visual system by JAMES, AC with Drs J Bullier, P Girard, J-M Hupé, INSERM Unit 371, Lyon, France and Drs BR Payne and SG Lomber, Boston University School of Medicine, USA.

Anatomy of the hypothalamus of the developing and adult wallaby by MAROTTE, LR with G Cheng, A/Prof KWS Ashwell, University of NSW.

Development of thalamocortical synapses in the somatosensory cortex of the wallaby by MAROTTE, LR with Dr DL Flett, A/Prof PME Waite, University of NSW and Dr CA Leamey, University of Sydney.

Chemical atlas of the wallaby brain by MAROTTE, LR with A/Prof KWS Ashwell, Prof G Paxinos, University of NSW.

Expression of developmental markers in the brain of the wallaby pouch young by MAROTTE, LR with A/Prof KWS Ashwell, University of NSW.

Expression of developmental markers in the brain of the wallaby pouch young by MAROTTE, LR with Dr J Mai, University of Dusseldorf, Germany.

Comparative astroglial architecture by MAROTTE, LR with Prof J Colombo, Programa Unidad de Neurobiol-

ogie Aplicada (PRUNA) (Conicet) Buenos Aires, Argentina.

Long-term changes in gene frequency between the original population and surviving populations of greater gliders in isolated patches of eucalypt forest near Tumut, NSW by TYNDALE-BISCOE, H with Dr A Taylor, Department of Biological Sciences, Monash University.

Eph Antibodies by VIDOVIC, M with Prof U Drescher, Department of Physical Biology, Max-Planck Institute for Developmental Biology, Tubingen, Germany.

The Marsupial CRC. Fertility control of eastern grey kangaroos by VIGGERS, K with Dr A Kitchener.

The Marsupial CRC. Issues associated with impacts of eastern grey kangaroos in the ACT by VIGGERS, K with Dr P Bayliss,

Methods for estimating population abundance of eastern grey kangaroos by VIGGERS, K with D Fletcher, Environment ACT, Wildlife Research and Monitoring Unit and The Marsupial CRC.

Assessment of parasitism in greater gliders using PCR of faecal material by VIGGERS, K with Prof A Thompson, Division of Veterinary and Biomedical Sciences, Murdoch University.

Population genetics of the greater glider in a fragmented landscape by VIGGERS, K with Dr A Taylor, Department of Biological Sciences, Monash University and Dr D Lindenmayer, Centre for Resource and Environmental Studies, ANU.

Environmental Biology

Radiocarbon dating of archaeological sites in Australia by BIRD, M with Dr D Bruno, Monash University, Dr J Balme, University of WA, Dr R Bert, La Trobe University and Dr J Field, University of Sydney.

Carbon-isotope records of environmental change recorded in wool by BIRD, M with Dr B Witt, University of Queensland, Gatton, QLD.

Studies of the fractionation of carbon-isotopes by microorganisms during soil carbon degradation by BIRD, M with Dr Santruckova, University of Southern Bohemia, Czech Republic.

A study of soil carbon in the Siberian boreal forests and Botswana by BIRD, M and Styles J with Prof J Lloyd, Max Planck Institute for Biogeochemistry.

A study of carbon inventories in Botswanan soils by BIRD, M with Dr E Veenendaal, Okavango Research Centre, Botswana.

Radiocarbon dating of Australian Archaeological sites by BIRD, M with Dr CSM Turney, Royal Holloway, University of London and Dr L Ayliffe, CNRS-CEA, Gif Sur Yvette, France.

Radiocarbon dating study of the Border Cave archaeological site by BIRD, M with Dr P Bowman, South Africa Museum.

Photosynthetic acclimation of plants to growth irradiance: the relative importance of SLA and nitrogen partitioning in maximising carbon gain by EVANS, JR with Dr H Poorter, Utrecht University, The Netherlands.

Investigating CO₂ diffusion inside leaves by EVANS, JR with Dr B Genty, University of Paris-Sud, France.

Leaf physiology by FARQUHAR, GD and MILLER, JM with Dr RJ Williams, CRC for Tropical Savannas.

Studies of isotope dynamics in lupins and eucalypts by FARQUHAR, GD and CERNUSAK, L with Prof JS Pate, University of Western Australia.

Carbon isotope discrimination in tree rings by FARQUHAR, GD with Dr WG Allaway and D Pepper, University of Sydney.

Enhancing the effectiveness of using carbon and oxygen isotope discrimination measures to select elite pine clones with improved water-use efficiency by FARQUHAR, GD with Dr ZH Xu, Dr M Dieters and Dr NV Prasolova, Queensland Forest Research Institute and Prof P Saffigna, Griffith University.

Stomatal models by FARQUHAR, GD with Dr T Buckley, Prof K Mott, Utah State University, USA.

Investigations into the ecophysiology of three sympatric eucalypts by FARQUHAR, GD and KRIEDEMANN P with Dr J Anderson, Idaho State University, USA and Dr Mike Austin, CSIRO.

Carbon and oxygen isotopes discrimination tropical mangrove communities by FARQUHAR, GD and WONG, SC with Prof JE Ong, and Dr WK Gong, Centre for Marine and Coastal Studies, University Sains Malaysia.

Isotope discrimination and wheat performance by FARQUHAR, GD, WONG, SC and GAN, K with Dr R Richards, Dr A Condon, Dr G Rebetzke and Dr A Walcroft, University of Waikato, New Zealand.

Isotope discrimination in tree rings by FARQUHAR, GD and BARBOUR, MM with Dr A Walcroft, Landcare Research, New Zealand.

Oxygen isotope fractionation by FARQUHAR, GD with Dr J Lloyd, Max-Planck-Institut für Biogeochemie, Jena, Germany.

The molecular physiology of ammonium transport in rice by MASLE, J with Dr Upadhyaya, Dr P Ryan, CSIRO and Dr M Udvardi, Max Planck Institute for Molecular Plant Physiology, Germany.

The functional genomics of root mechanical impedance and drought stress by MASLE, J and MALESZKA R with INRA and CNRS (Versailles-Le Moulon).

Assessment of the tin gene for yield improvement in wheat by MASLE, J with Dr R Richards and Dr A van Herwaarden, CSIRO.

Eurosiberian Carbonflux project in Siberia by STYLES, JM and FARQUHAR, GD with Dr J Lloyd and Dr D Schulze, Max Planck Institute for Biogeochemistry, Jena, Germany; Dr R Leuning and Dr M Raupach, CSIRO; Dr F Kelliher and Dr J Byers, Manaaki Whenua Landcare Research, New Zealand; Dr N Tchekakova and Dr O Chibistova, V.N. Sukachev Institute of Forests, Siberian Branch, Russian Academy of Sciences, Krasnoyarsk.

Effects of elevated CO₂ on the growth and water-use efficiency of *Acacia auriculiformis* by WONG, SC and FARQUHAR, GD with Dr KC Woo, Northern Territory University.

Rootstock influence on the relationship between vine performance and grape quality (ARC-SPIRT funded project) by WONG, SC and YONG, JWH with J Smith and Prof G Scollary, Charles Sturt University, Wagga Wagga, NSW and Dr B Holzapfel, NSW Agriculture.

On the physiology of orchids by WONG, SC with Prof CS Hew, School of Biological Sciences, National University of Singapore.

On ecophysiology of tropical rainforests by WONG, SC and FARQUHAR, GD with Dr IM Turner, Singapore Botanic Gardens.

Isolation and analysis of cytokinin mutants of *Arabidopsis thaliana* by transposon tagging approach by YONG, JWH; MASLE, J and LETHAM, DS with Dr T Tantikanjana and Prof V Sundaresan, Institute of Molecular Agribiology, National University of Singapore, Singapore.

Ecosystem Dynamics

Effects of elevated [CO₂] on hydraulic architecture of eucalypt seedlings by BALL, MC with Dr B Atwell, Macquarie University.

Strategies of water use in dry rainforest tree species: linking hydraulic architecture and function by BALL, MC with B Choat and Dr JAM Holtum, James Cook University.

Biomechanics of freezing damage in eucalypt seedlings by BALL, MC with Dr J Wolfe, University of NSW.

Seasonal variation in acclimation of respiration to temperature in snow gum seedlings by BALL, MC with Dr OK Atkin, York University.

Biomechanics of freezing damage in eucalypt seedlings by BALL, MC and CANNY, MJ with Dr AB Nicotra, ANU, Dr J Wolfe, University of NSW and D Hughes, CSIRO Land and Water Research.

Land use change in the Miombo of Southern Africa by DAVIES, I with Dr P Desanker, University of Virginia, USA.

Global change impacts on landscape fires working group by LAVOREL, S with Dr M Flannigan, Dr R Gardner, Dr G Cary, National Center for Ecological Analysis and Synthesis, Santa Barbara, USA.

Long-term population dynamics of rainforests by NOBLE, IR and DAVIES, I with Prof JH Connell, University of Santa Barbara, USA.

Mechanisms maintaining diversity of trees in tropical and subtropical rain forest by NOBLE, IR and GEHRING, CA with Prof JH Connell, University of Santa Barbara, USA.

Modelling the dynamics of landscapes by NOBLE, IR and DAVIES, I with Dr S Lavorel, Centre d'Ecologie Fonctionnelle et Evolutive, CNRS, France, Dr J Gignoux, Ecol Normale Supérieure, CNRS, France and Dr RH Gardner, University of Maryland, USA.

Exchange visits of senior staff and students on vegetation and landscape modelling and the response of landscapes to global change by NOBLE, IR with Dr S Lavorel and Dr J Gignoux, CNRS, Montpellier and ENS, Paris.

The Greenhouse Alliance of CRC's with an interest in climate change and greenhouse issues initiated by NOBLE, IR with Cooperative Research Centres with a greenhouse interest.

Development of an open standard for greenhouse accounting in forests by NOBLE, IR with Sydney Futures Exchange and NSW State Forests.

Rangeland monitoring using satellite imagery by RODERICK, ML with A Holm, University of WA and Dr S Cridland, Environmental Resource Information Network.

Estimating pasture productivity using satellite imagery by RODERICK, ML and HUME, I with Dr T McVicar, CSIRO.

Climate-vegetation models by RODERICK, ML with Dr A Sparrow, University of Canterbury, New Zealand.

Spatial modelling of the interactions between sponges and echinoderms by ROXBURGH, SH with Dr A Davis, University of Wollongong.

Competition and coexistence in an Australian understorey forest community by ROXBURGH, SH with Dr P Chesson, University of California, USA.

Development of novel methods for determining guild structure from plant competition experiments by ROXBURGH, SH with Dr JB Wilson, Otago University, New Zealand.

Development of methodologies for carbon-budget modelling at landscape to regional scales by

ROXBURGH, SH with Dr D McKenney, Great Lakes Forestry Centre, Canadian Forest Service, Canada.

Joint Indonesian/Australian Marine Biotechnology and Rehabilitation Consortium by WASSON, M; HEARN, J; BADGER, M; BALL, M and BAL, LE with AIMS and CRC Reef Research.

Study of viability of carbon emission reduction projects in Indonesian Islands by WASSON, M with Woodside Energy.

A comparison of Traditional Intellectual Property provisions in the Biodiversity Convention and the WTO TRIPS agreement by WASSON, M with John Scott, James Cook University.

Electron Microscopy Unit

Lichen structure by HEADY, R with Prof S Hammer, University of Boston, USA.

CryoSEM studies of dissolved element distribution and air embolism in roots by HUANG, CX with Prof ME McCully, CSIRO.

Establishment of a Microscopy and MicroAnalysis Consortium of the ACT (MACACT) by STOWE S with representation from ANU, University of Canberra, Australian Defence Force Academy, CSIRO, Australian Federal Police Forensic Service, Australian Geological Survey Organisation.

Many other visitors with separate affiliations used the ANUEMU.

Genomic Interactions Group

Analysis of *Sinorhizobium meliloti* grown under acid stress conditions by DJORDJEVIC, MA; GUERREIRO, N and ROLFE BG with Dr W Reeves, Murdoch University.

Use of transgenic clovers to monitor auxin accumulation in aerial tissues by DJORDJEVIC, MA and MATHESIOUS, U with Dr Beveridge and Dr Turnbull, University of Queensland.

Proteome analysis of *Mycoplasma* by DJORDJEVIC, MA and GUERREIRO, N with Dr S Djordjevic, Elizabeth McArthur Agricultural Institute.

Mass spectrometry analysis of tryptic digests of plant and bacterial proteins by ROLFE, BG; WEINMAN, JJ and DJORDJEVIC, MA with the Australian Proteome Analysis Facility (APAF), Macquarie University.

Analysis of novel regulatory circuits induced by mutations in exopolysaccharide synthesis by ROLFE, BG; GUERREIRO, N and DJORDJEVIC, MA with Dr Ksenzenko and Dr Ivashina, Institute of Biochemistry and Physiology of Microorganisms, Russian Academy of Sciences, Pushchino, Russia.

Proteome analysis of developing nodule tissue in Medicago by ROLFE, BG and DJORDJEVIC, MA with Dr

E Kondorosi and Prof A Kondorosi, IVS CNRS Gif-sur Yvette, France.

Proteome analysis of the global regulation controlled by the *nolR* regulator gene by ROLFE, BG; WEINMAN, JJ with Dr E Kondorosi and Prof A Kondorosi, IVS CNRS Gif-sur Yvette, France.

Temporal and spatial order of events during the induction of cortical cell divisions in white clover by *Rhizobium leguminosarum* bv. *trifolii* inoculation or localized cytokinin addition by ROLFE, BG and MATHESIOUS, U with Dr E Kondorosi and Prof A Kondorosi, IVS CNRS Gif-sur Yvette, France.

The role of ENOD40 during nodulation by ROLFE, BG with Dr M Crespi, IVS-CNRS, Gif France.

Molecular genetic analysis of rice-associating *Rhizobium* strains by ROLFE, B G, WEINMAN JJ and DJORDJEVIC MA with Dr FB Dazzo, Michigan State University, Michigan, USA.

Development of rice *Rhizobium* inoculant by ROLFE, BG with Bio-Care Technology Pty Ltd NSW.

Proteome analysis of membrane proteins by ROLFE, BG with DJORDJEVIC, MA and Prof A Puhler, Department of Genetics, Faculty of Biology, University of Bielefeld, Germany.

Evolution of immunoglobulin genes in mammals by WEILLER, GF with Prof EJ Steele, University of Wollongong.

DNA sequence alignment respecting recombination events by WEILLER, GF with Prof R Giegerich and Dr S Kurtz, Faculty of Technology, University of Bielefeld, Germany.

Distance methods for the reconstruction of recombinant phylogenies by WEILLER, GF with Prof R Giegerich, Faculty of Technology, University of Bielefeld, Germany.

Investigations of molecular mechanisms causing cold sterility in rice by WEINMAN, JJ and ROLFE, BG with RL Williams, Agricultural Research Station, Yanco.

A molecular genetic investigation of microspore development in rice anthers by WEINMAN, JJ and ROLFE BG with RL Williams, Agricultural Research Station, Yanco.

Role of *nodR* gene in LCO production and level of acyl group saturation by WEINMAN, JJ and DJORDJEVIC, MA with Prof Spaink, Leiden University

Molecular Genetics and Evolution

Molecular control of coral development by BALL, EE and HAYWARD, DC with Dr DJ Miller and Dr J Catmull, James Cook University and Prof R Saint and G Samuel, University of Adelaide.

Comparative development of glial cells in grasshopper and *Drosophila* by BALL, EE with Prof GM Technau, Johannes Gutenberg University, Germany.

Further improvements of the code to standardised virus characteristics and mapping tools for other databases systems by BÜCHEN-OSMOND, C with L Blaine, E Krichevsky and T Piselli, Bioinformatics, American Type Culture Collection, Manassas, USA.

Further improvements to DELTA Windows software and its incorporation into ICTVdB to enhance the manoeuvrability within large data-sets, outputs in print (RTF format) and on the Web (HTML) by BÜCHEN-OSMOND, C with Dr MJ Dallwitz and E Zurcher, CSIRO.

Development of strategies to coordinate the worldwide data input by members of the ICTV Study Groups using the data submission forms, and to introduce a mechanism to up-date virus taxonomy using ICTVdB on the web by BÜCHEN-OSMOND, C with Dr T Della-Porta, CSIRO.

Virus taxonomy and nomenclature, a project to introduce approved taxonomies to sequence databases by BÜCHEN-OSMOND, C with Dr R Apweiler and Dr S Plibout, SWISS-PROT and Dr G Stoesser EMBL, EBI, Hinxton, UK.

Genes involved in heavy metal resistance in plants and yeast by CHEN, XJ with Dr R Zhang, University of Wollongong.

Regulation of multidrug resistance by protein phosphorylation by CHEN, XJ with Dr K Kuchler, University of Vienna.

Mutations affecting the assembly of F_1 -ATPase by CHEN, XJ and CLARK-WALKER, GD with Dr J Velours, Institut de Biochimie et de Génétique Cellulaire du CNRS, France.

The mitochondrial genome of *Schwanniomyces occidentalis* encodes genes for NADH dehydrogenase by CLARK-WALKER, GD with C Fernet and Prof M Claisse, Centre Génétique Moléculaire, CNRS, France.

P element induced hybrid element insertion and hybrid element excision repair by GRAY, YHM with Dr J Sved, University of Sydney.

Transposon-induced chromosomal rearrangements by GRAY, YHM with Dr S Whyard, CSIRO.

Antisense RNA by GRAY, YHM with Dr S Whyard, CSIRO and B Dixon RSBS/Division of Biochemistry and Molecular Biology.

The role of environmental stress in TE-induced chromosomal rearrangements by GRAY, YHM with Dr S Whyard, CSIRO and Dr A Malacrida, University of Pavia, Italy.

Microsatellite markers in *A. mangium* by GRAY, YHM with Dr P Butcher, CSIRO.

Male fertility mutants in *D. melanogaster* by GRAY, YHM with Dr M Perotti, University of Milano, Milan, Italy.

Molecular control of grasshopper development by HAYWARD, DC and BALL, EE with Prof NH Patel, University of Chicago, USA.

Evolution of RXR/USPs in insects by HAYWARD, DC; TRUEMAN, JW; MALESZKA, R and BALL, EE with Dr M Bastiani, University of Utah, USA and Dr M Whiting, Brigham Young University, USA.

Molecular Plant Physiology Group

Crystallographic structural studies of Rubisco activase by ANDREWS, TJ; KANE, HJ and WHITNEY, SM with Dr I Andersson, Swedish Agricultural University, Uppsala, Sweden.

The activation and catalytic mechanism of the plant carbon-fixing enzyme, Rubisco by ANDREWS, TJ; KANE, HJ and WHITNEY, SM with A/Prof R Lilley and M Kelly, University of Wollongong, Dr P Curmi, University of NSW and Dr A Portis, University of Illinois, USA.

Investigations of CO₂ acquisition mechanism in dinoflagellates by BADGER, MR; ANDREWS, TJ; PRICE, GD and WHITNEY, SM with Dr DC Yellowlees and W Leggat, James Cook University.

Effects of high temperatures on coral photosynthesis and bleaching by BADGER, MR and FRANKLIN, L with Prof T Larkum and Dr O Hoegh-Guldberg, University of Sydney.

Molecular and physiological analysis of plant respiration by BADGER, MR and PRICE, GD with Prof DA Day, ANU, Prof T Wiskich, University of Adelaide, Dr J Whelan, University of WA, Dr S Robinson, University of Wollongong.

Secretion of beta-glucuronidase in plants, yeast and bacteria by BADGER, MR, PRICE, GD with Dr R Jefferson, Dr A Killian and T Ngyuen, Centre for Applied Molecular Biology in International Agriculture (CAMBIA).

Isolation and characterisation of ovule specific regulatory elements and genes from rice and *Arabidopsis* by BADGER, MR and PRICE, GD with Dr R Jefferson, Dr A Killian and W Yang, Centre for Applied Molecular Biology in International Agriculture (CAMBIA).

Molecular Analysis of the CO₂ Concentrating Mechanism in Cyanobacteria by BADGER, MR and PRICE, GD with Dr D Sültemeyer, University of Kaiserslautern, Kaiserslautern, Germany.

Molecular and immunological analysis of carboxysomes by PRICE, GD with Dr M Ludwig, Macquarie University.

Analysis of the CO₂-Concentrating mechanism in cyanobacteria by PRICE, GD and BADGER, MR with Dr T Omata and Dr T Ogawa, University of Nagoya, Japan.

Role of heat shock proteins in protecting photosynthetic processes in cyanobacteria by PRICE, GD and BADGER, MR with Dr CS Pike, Franklin and Marshall College, USA and Prof C-Y Lin, National Taiwan University.

Analysis of metabolites in transgenic *Flaveria bidentis* (a C₄ dicot) with reduced amounts of Rubisco by von CAEMMERER, S with Dr RT Furbank, CSIRO.

Mechanisms influencing the growth and distribution of C₄ grasses under rising CO₂ concentrations by von CAEMMERER, S with Dr O Ghannoum, Prof JP Conroy, University of Western Sydney.

Construction of transgenic *Flaveria bidentis* (a C₄ dicot) with reduced amounts of mesophyll carbonic anhydrase by von CAEMMERER, S with Dr M Ludwig, Macquarie University, and Dr RT Furbank, CSIRO.

Field gas exchange studies on C₃ and C₄ grasses grown at elevated CO₂ by von CAEMMERER, S with Dr O Ghannoum, University of Western Sydney and Dr P Newton, Grasslands Research Centre, New Zealand.

Photobioenergetics

Electron paramagnetic resonance studies of the S₀ state of photosystem II by ÅHRLING, K with Prof S Styring and Dr S Peterson, Lund University, Sweden.

Photoinactivation of photosystem II in grapevines by CHOW, WS with J Flexas, Universitat de les Illes, Balaras, Spain.

Global Gaussian spectral deconvolution analysis of chlorophyll b-less and b-deficient mutants of barley with a time- and spectral-wavelength-resolving streak camera by GILMORE, A with Dr S Itoh, National Institute of Basic Biology, Japan.

Analysis of the unique 1-step violaxanthin cycle in *Mantoniella squamata*: time-resolved fluorescence and molecular genetic approaches by GILMORE, A with Prof Y Yamamoto, University of Hawaii, USA.

Characterization of chlorophyll a excited state lifetime distribution behavior in genetically engineered pigment-protein mutants of *Arabidopsis thaliana* by GILMORE, A with Prof K Niyogi and Dr X-P Li, University of California, USA.

Very high light resistant mutants of *Chlamydomonas reinhardtii* by OSMOND, CB with Prof J Boynton, Duke University, USA.

Biodiversity of Antarctic plant viruses by SKOTNICKI, M with Dr P Selkirk, Macquarie University.

SQUID measurements of the catalytic manganese in photosystem II by WYDRZYNSKI, T and ÅHRLING, K with Dr D Tillbrook and Dr G Stevens, CSIRO.

Analysis of the substrate water exchange reactions in photosystem II reconstituted with strontium by WYDRZYNSKI, T with Dr W Hillier, Michigan State University, USA and Prof C Dismukes, Princeton University, USA.

Plant Cell Biology

Production of antibodies against desaturase by ELLIOTT, J with Dr S Singh, CSIRO.

Tubular vacuolar system in Oomycete hyphae by HARDHAM, AR with A/Prof WG Allaway, University of Sydney.

Isolation of avirulence and pathogenicity genes from *Phytophthora* by HARDHAM, AR, MARSHALL, JS, SKALAMERA, D with Dr D Maclean, Dr A Drenth and Dr S Basnayake, University of Queensland.

Proteins associating with the cyclin dependent kinases of plant cells, especially CKS proteins by JOHN, PCL with Dr EA Williams, University of Western Australia.

Complementation of yeast cell cycle control proteins with potential plant homologues by JOHN, PCL with Dr J Hayles and Prof P Nurse, Imperial Cancer Research Fund Laboratories, London, UK.

Effects of plant cyclin dependent kinase inhibitor proteins on mitosis in live plant cells by JOHN, PCL and CLEARY, AL with Prof LC Fowke, University of Saskatchewan, Canada.

Location and activity of plant cyclin dependent kinases by JOHN, PCL and ZHANG, K with Prof D Inzé, University of Gent, Belgium.

Isolation of the tomato I-3 gene for resistance to the wilt pathogen *Fusarium oxysporum* pv *lycopersici* by JONES, DA and HEMMING, M with Dr B Carroll, University of Queensland.

Isolation of the tomato I-3 gene for resistance to the wilt pathogen *Fusarium oxysporum* pv *lycopersici* by JONES, DA and HEMMING, M with D McGrath, Bowen Horticultural Research Station, Queensland Department of Primary Industry.

Structure of plant extracytosolic leucine-rich repeat proteins by JONES, DA and LANG, S with Dr B Kobe, University of Queensland.

Testing the interaction between the tomato Cf-9 resistance gene and the *Cladosporium fulvum* Avr9 avirulence gene in wheat by JONES, DA and WILSON, R with Dr P Langridge and R Whitford, University of Adelaide.

Localisation of the site of Cf-9 action by JONES, DA with Prof JDG Jones, Sainsbury Laboratory, Norwich, UK.

The role of the cytoskeleton in regulating development of plant transfer cells by WASTENEYS, GO with A/Prof CE Offler, Dr DW McCurdy and MJ Talbot (RSBS Collaborative Scholar), The University of Newcastle, Prof VR Franceschi, Washington State University, USA and Dr KC Vaughn, USDA-ARS, Stoneville, USA.

Assessment of growth performance under hypoxic conditions and expression of metabolic indicators of hypoxic stress in the *hyp1* mutant of *Arabidopsis* by WASTENEYS, GO with Dr L Dennis and K Ismond, CSIRO.

Gravitropism in tip-growing cells of characean algae by WASTENEYS, GO with Dr M Braun, University of Bonn, Germany.

The cytoskeleton of characean algae by WASTENEYS, GO with Dr I Foissner, University of Salzburg, Austria.

ER dynamics and root hair development in *Arabidopsis thaliana* by WASTENEYS, GO with Dr ME Galway, St Francis Xavier University, Canada, Prof J Schiefelbein, University of Michigan, USA and Dr T Sakai, Kyoto University, Japan.

The role of ethylene in cell division polarity and hypoxic stress responses by WASTENEYS, GO and GUNNING, BES with Prof H Kazama, International Christian University, Japan and Prof H Imaseki, Nagoya University, Japan.

Characterization of spiralling in microtubule organization and constitutive spiral mutants of *Arabidopsis thaliana* by WASTENEYS, GO and RASHBROOKE, M with Dr T Hashimoto, Nara Institute of Science and Technology, Japan.

Interactions between the *BOT1* and *MOR1* genes of *Arabidopsis thaliana* by WASTENEYS, GO and RASHBROOKE, MC with Dr H Höfte, INRA, Versailles, France.

Characterization of endomembrane mutants of *Arabidopsis thaliana* by WASTENEYS, GO; RASHBROOKE, MC; WHITTINGTON, A and HENDERSON, S with Dr I Foissner, University of Salzburg, Austria and Dr T Sakai, Kyoto University, Japan.

Proteoid roots of Australian native plants by WATT, M with Prof JS Pate, University of Western Australia.

Gene expression in proteoid roots by WATT, M with Dr P Ryan, CSIRO.

Structure and dynamics of the endoplasmic reticulum in *Arabidopsis* by WILLIAMSON, RE with Prof R Ridge and Dr Y Uozumi, International Christian University, Tokyo.

Characterisation of the *rsw2* mutant of *Arabidopsis* by WILLIAMSON, RE and BURN, JE with Dr H Höfte, INRA, Versailles, France.

Visual Sciences

Glaucoma research by MADDESS, T with Dr I Goldberg, University of NSW.

Glaucoma research and eye movements by MADDESS, T with Dr L Severt, Virginia Medical College, USA.

Texture discrimination by MADDESS, T with Dr Y Nagai, Kokushikan University, Tokyo, Japan.

Molecular mechanisms involved in the regulation of eye growth by MORGAN, IG and MALESZKA, R with Dr P Megaw, Latrobe University.

The control of the release of dopamine by the retinal dark-light switch and its relationship to the control of eye growth by MORGAN, IG with Dr M Boelen and Dr P Megaw, Latrobe University.

Epidemiological evaluation of the risk factors in human myopia by MORGAN, IG with Prof P Mitchell and Dr K Rose, University of Sydney.

The control of dopamine release in relation to other measures of dopaminergic cell activation by MORGAN, IG with Prof W Stell, University of Calgary, Canada and Prof M Iuvone, Emory University, USA.

The relationship between regulation of dopamine release and changes in psychophysical measures of light adaptation by MORGAN, IG with Dr L Frishman, University of Houston, USA.

Dopaminergic regulation of retinal physiology by MORGAN, IG with Dr S-G He, Academia Sinica, Shanghai, PRC.

Biologically inspired robotics by SRINIVASAN, MV and CHAHL, J with Prof S Venkatesh, Curtin University.

Honeybee orientation by SRINIVASAN, MV and ZHANG, SW with J Berry and Dr K Cheng, Macquarie University.

Neuroethological Robotics by SRINIVASAN, MV; ZEIL, J; ZHANG, SW and CHAHL, JS with Prof R Wehner, Universität Zürich, Switzerland, Prof R Pfeiffer, ETH, Zürich, Switzerland, Prof T Collett, Dr T Osorio, Dr P Husbands, University of Sussex, UK, Dr H Mallot, Max-Planck Institut für biologische Kybernetik, Tübingen, Germany and Prof R Beer, Case Western Reserve University, USA.

Honeybee vision by SRINIVASAN, MV and ZHANG, SW with Prof R Gadagkar, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India.

Honeybee navigation by SRINIVASAN, MV and ZHANG, SW with Prof J Tautz and M Altwein, University of Würzburg, Germany.

Honeybee orientation by SRINIVASAN, MV and ZHANG, SW with Dr M Collett, State University of Michigan, USA.

Transduction mechanisms in CO₂ receptors of insects by STANGE, G with Prof Dr F Marion-Poll, Institut National Agronomique Paris-Grignon, France.

Motion Vision Ecology by ZEIL, J with Dr M Eckert, University of Technology, Sydney.

Colour and colour changes in Australian fiddler crabs by ZEIL, J with Dr J Marshall, University of Queensland, Australia and Dr M Vorobiev, University of Baltimore, USA.

Path integration in fiddler crabs by ZEIL, J with Dr J Layne, Cornell University, USA.

Honeybee communication by ZHANG, SW and SRINIVASAN, MV with Prof H Esch, University of Notre Dame, South Bend, USA.

Visual perception in honeybees by ZHANG, SW and SRINIVASAN, MV with Prof L Chen, Beijing Laboratory of Cognitive Science, University of Science and Technology and Cognitive Brain Imaging Research Center, Chinese Academy of Sciences, Beijing Hospital, China.

Research School of Chemistry

Synthesis and Mechanism

Biotransformations by Prof M. G. BANWELL with Dr G. Whited, Genencor International Inc., Palo Alto, California, USA.

Combinatorial synthesis of potential anti-mitotic drugs by Prof M. G. BANWELL and D. J. WONG with Dr A. M. Bray, Chiron Technologies Pty Ltd, Clayton, Victoria.

Studies directed towards the total synthesis of the spinosyn class of insecticides by Prof M. G. BANWELL and Dr B. D. KELLY with Drs A. Knill and G. W. Simpson, CSIRO Molecular Science, Melbourne; and Prof B. Jarrott, Department of Pharmacology, Monash University.

The development of new generation anti-infective agents by Profs M. G. BANWELL and C. J. EASTON, Drs N. L. HUNGERFORD, T. MASSIL, M. R. NAIRN, M. J. PIGGOTT, K. ROBINSON, and G. J. TARRANT with Dr P. J. O'Hanlon, SmithKline Beecham, Harlow, UK.

The development of novel carbohydrate-like drugs by Prof M. G. BANWELL, Drs D. J. ARMITT and L. LIU with Prof C. R. Parish and Dr C. C. Freeman, JC-SMR; and Dr R. Don, Progen Industries Ltd, Brisbane.

The synthesis of sialic acid analogues by Prof M. G. BANWELL and X. H. MA with Dr K. Watson, Biota Chemistry Laboratories, Department of Chemistry, Monash University.

The total synthesis of the phytotoxic polyketide herbicide herbexidiene by Prof M. G. BANWELL and R.

PREMRAJ with Dr G. W. Simson, CSIRO Molecular Science, Melbourne.

Organotransition Metal Chemistry

Arene-ruthenium complexes by Prof M. A. BENNETT with Prof P. Salvadori and Dr P. Pertici, Università di Pisa, Italy.

Arene-ruthenium complexes containing sulfur-donor ligands by Prof M. A. BENNETT with Prof L.-Y. Goh, National University of Singapore.

Cyclometallated complexes of gold and platinum by Prof M. A. BENNETT with Prof S. K. Bhargava, Department of Applied Chemistry, RMIT University, Melbourne.

NMR studies of ligand replacement reactions of ruthenium acetylacetonate complexes by Prof M. A. BENNETT with Prof B. E. Mann, University of Sheffield, UK.

Theoretical studies of alkyne insertions into nickel-carbon bonds by Dr E. WENGER with Dr S. A. Macgregor, Heriot-Watt University, Edinburgh, UK.

Theoretical studies of mixed metal metallocarbohedrenes by Dr E. WENGER with Prof I. G. Dance, University of New South Wales.

Coordination Chemistry, Kinetics and Mechanism

Mechanistic studies on the reaction between (b-N-methylimidazolyl)cobalamin and N-methylimidazole by Dr N. E. BRASCH and A. G. CREGAN with Prof R. van Eldik, University of Erlangen-Nürnberg, Germany.

Theoretical Chemical Physics

Classical simulation of the photo dissociation of sym-triazine by Dr M. A. COLLINS with Prof K. Song, Korea National University of Education.

Collisional energy transfer by Dr M. A. COLLINS with Dr K. Lim, Deakin University, Victoria.

Hydrogen abstraction in H + CH₄ by Dr M. A. COLLINS with Prof J. Valentini, Columbia University, USA.

First-principles chemical reaction dynamics by Dr M. A. COLLINS with Assoc Prof D. H. Zhang, National University of Singapore.

Protein Synthesis and Evolution

Cleavage of DNA by chromium(V) complexes by Dr N. E. DIXON with Prof P. A. Lay, School of Chemistry, University of Sydney.

Cloning, expression and characterisation of archaeal chaperonins by Dr N. E. DIXON with Drs R. Cavic-

chioli and P. M. G. Curmi, University of New South Wales.

Crystallisation of the DnaB helicase and DnaB.DnaC complex by Drs N. E. DIXON and N. K. WILLIAMS with Drs A. Oakley and M. C. J. Wilce, University of Western Australia.

Expression and isolation of the *Bacillus subtilis* DnaC helicase and DnaI proteins by Drs N. E. DIXON and S. E. BROWN with Dr J. M. Guss and Prof R. G. Wake, Department of Biochemistry, University of Sydney.

Geminivirus DNA replication mechanisms by Dr N. E. DIXON with Drs D. Pountney and A. Rezaian, CSIRO Division of Plant Industry, Glen Osmond, South Australia.

Intein-mediated protein circularisation by Drs N. E. DIXON and N. K. WILLIAMS with Prof G. Otting and Dr A. Sharipo, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden.

In vitro protein synthesis by Dr N. E. DIXON with Prof G. Otting and S. Pursglove, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm; and Prof M. Ehrenberg and Dr B. R. Henderson, University of Uppsala, Sweden.

Radiolabelled antibodies for cancer diagnosis and treatment by Dr N. E. DIXON, N. Di BARTOLO, and Prof A. M. SARGESON with Dr S. Smith, Australian Nuclear Science and Technology Organization (ANSTO), Sydney.

Structure and mechanism of action of *Escherichia coli* proline aminopeptidase by Dr N. E. DIXON, P. E. LILLEY, and Dr P. M. SCHAEFFER with Prof H. C. Freeman and Dr J. M. Guss, Department of Biochemistry, University of Sydney.

Structure of the *Escherichia coli* DnaB helicase protein and the DnaB.DnaC complex by Drs N. E. DIXON and S. E. BROWN, P. M. SCHAEFFER, and N. K. WILLIAMS with M. Barcena, Prof J. M. Carazo, and Dr L. E. Donate, Centro Nacional de Biotecnología, Universidad Autónoma, Madrid, Spain.

Structures and functions of *Escherichia coli* replisomal proteins by Drs N. E. DIXON, S. E. BROWN, and S. HAMDAN with Prof G. Otting, Karolinska Institute, Stockholm, Sweden; and Drs C. M. Elvin, P. Jennings, K. Kongswan, and G. Wijffels, CSIRO Division of Livestock Industries, Brisbane.

Biochemical Reactions and Molecular Recognition

Applications of carbon nanotubes in organic chemistry by Prof C. J. EASTON and Dr A. G. MEYER with Drs L. Dai and G. W. Simpson, CSIRO Molecular Science, Melbourne.

Chemistry of scymnol by Prof C. J. EASTON and M. GEBARA with J. Broadbent, McFarlane Laboratories Pty Ltd, Melbourne; and Dr G. W. Simpson, CSIRO Molecular Science, Melbourne.

Chlorine chemistry by Prof C. J. EASTON, Dr P. A. COGHLAN, and P. G. DUMANSKI with R. Faulkner, Australian Vinyls Pty. Ltd., Melbourne; Dr G. W. Simpson, CSIRO Molecular Science, Melbourne; and the Plastics and Chemicals Industries Association (PACIA), Melbourne.

Cycloaddition reactions of nitrile oxides by Prof C. J. EASTON, C. K. Y. LEE, and G. J. VUCKOVIC with Drs G. P. Savage and G. W. Simpson, Dunlena Pty Ltd and CSIRO Molecular Science, Melbourne.

Free radical reactions of peptides and proteins by Prof C. J. EASTON and A. J. MORTIMER with Dr M. J. Davies, Heart Research Institute, Sydney; Dr R. O'Hair, University of Melbourne; and Prof I. Ryu, Osaka Prefecture University, Japan.

Improving beer stability and quality by Prof C. J. EASTON, J. B. KELLY, and Dr K. LEE with Dr T. Oliver and Prof P. Rogers, Carlton United Breweries, Melbourne.

Lipid chemistry by Prof C. J. EASTON with Profs A. Ferrante and A. Poulos, Adelaide Medical Centre for Women and Children.

Lipid modified coordinating ligands by Prof C. J. EASTON and J. B. KELLY with Dr J. Altin, Division of Biochemistry and Molecular Biology, ANU.

Supramolecular chemistry of cyclodextrins by Prof C. J. EASTON, L. BARR, J. B. HARPER, Drs K. LEE and A. G. MEYER, Messrs H. ONAGI and F. TORTORELLA with Prof S. F. Lincoln, J. Locke, and B. L. May, University of Adelaide.

The development of new generation anti-infective agents by Profs M. G. BANWELL and C. J. EASTON, Drs N. L. HUNGERFORD, T. MASSIL, M. R. NAIRN, M. J. PIGGOTT, K. ROBINSON, and G. J. TARRANT with Dr P. J. O'Hanlon, SmithKline Beecham, Harlow, UK.

Liquid State Chemical Physics

Applications of general temperature expressions by Prof D. J. EVANS and O. G. JEPPS with Dr G. S. D. Ayton, University of Utah, USA; and Dr L. Lue, National Institute of Standards and Technology (NIST), Boulder, USA and University of Manchester Institute of Science and Technology (MIST), UK.

Derivation of potential models for phase equilibria by Dr J. P. DELHOMMELLE with Dr P. Millie, Laboratoire Francis Perrin, France.

Generalised Langevin equation for nonequilibrium systems by Prof D. J. EVANS with Dr J. Ennis, CSIRO Petroleum, Melbourne; and Drs P. J. Daivis, M. G.

McPhie, and Prof I. K. Snook, RMIT University, Melbourne.

Implications of chaos for thermophysical properties by Prof D. J. EVANS with Dr F. Bonetto, Rutgers University, USA; Dr I. Borzsák, Hungarian Academy of Sciences, Budapest; Prof E. G. D. Cohen, Rockefeller University, New York, USA; Prof D. J. Isbister, Drs J. S. den Toom Hansen and F. Zhang, Australian Defence Force Academy (ADFA), University of New South Wales, Canberra; Prof P. T. Cummings, University of Tennessee, USA; and Dr D. J. Searles, Griffith University, Brisbane.

The Fluctuation Theorem by Prof D. J. EVANS and E. J. MITTAG with Dr G. S. D. Ayton, University of Utah, USA; and Dr D. J. Searles, Griffith University, Brisbane.

Coordination Chemistry and Inorganic Spectro-Electrochemistry

Biological nitrogen fixation: the nitrogenase enzyme by Dr G. A. HEATH with Dr L. L. Martin, Flinders University of South Australia.

Cary spectrophotometer development program by Dr G. A. HEATH with Dr A. Marks, Varian-Australia Ltd, Melbourne.

Corrosion inhibitors by Dr G. A. HEATH with Prof D. C. Creagh and Dr V. Otieno-Alego, University of Canberra; and D. L. Hallam, Museum of Australia, Canberra.

Conservation treatments by Drs G. A. HEATH and R. WEBSTER with W. Dodd and A. Wain, Treloar Centre, Australian War Memorial, Canberra.

Electroanalytical chemistry by Dr G. A. HEATH with Dr D. G. Humphrey, CSIRO Forestry and Forest Products, Melbourne; and Dr B. D. Yeomans, Australian Government Analytical Laboratory, Canberra.

Electrochemistry of dioximes and dithiocarbamates by Drs G. A. HEATH and R. Webster with Prof A. M. Bond, Monash University, Melbourne.

Electronic properties of electrochromic monomers and dendrimers by Dr G. A. HEATH with Drs M. P. Cifuentes and M. G. Humphrey, Department of Chemistry, ANU.

Molecular orbital calculations on transition metal clusters by Dr G. A. HEATH with Dr J. E. McGrady, University of York, UK.

NMR-spectroelectrochemistry by Drs G. A. HEATH and R. BRAMLEY with Dr P. D. Prenzler, Charles Sturt University, Wagga Wagga.

Redox properties of binuclear halide complexes and metal-sulfur clusters by Dr G. A. HEATH with Dr R. Raptis, University of Puerto Rico, San Juan.

Spectro-electrochemistry of the nitrogenase metal-sulfur cofactor by Dr G. A. HEATH with Dr S. P. Best, University of Melbourne; and Prof C. J. Pickett, Nitrogen Fixation Laboratory (John Innes Centre), Norwich, UK.

Spectro-electrochemistry of dimeric porphyrins by Dr G. A. HEATH with Dr D. P. Arnold, Queensland University of Technology, Brisbane.

Nuclear Magnetic Resonance

Multidimensional NMR studies of chaperone proteins by Dr M. A. KENIRY with Assoc Prof J. Carver, University of Wollongong.

Nuclear magnetic resonance studies of the association of spermine with the estrogen receptor DNA-binding domain by Dr M. A. KENIRY with Prof C. Benz and Dr G. Scott, University of California, San Francisco, USA.

Structural and functional studies of analogues of human insulin-like growth factor-I by Dr M. A. KENIRY and Mrs L. G. LAJOKI with Assoc Prof J. Carver, University of Wollongong; Dr J. C. Wallace, University of Adelaide; and Drs G. Francis and S. Milner, Cooperative Research Centre for Tissue Growth and Repair, Adelaide.

Structural studies of drug-DNA complexes and novel DNA structures by Dr M. A. KENIRY with Prof R. H. Shafer, University of California, San Francisco, USA.

Laser and Optical Spectroscopy

Analysis of anomalous MCD spectra of photosystem II by Drs E. KRAUSZ and V. M. MASTERS with Dr B. Williamson, University of Christchurch, New Zealand.

Chemiluminescence and photoluminescence of Rubisco and model systems by Drs E. KRAUSZ and X. WANG with Dr J. Andrews RSBS, ANU; Assoc Prof R. Lilley, University of Wollongong; and Dr G. Moran, University of New South Wales, Sydney.

Spectroscopic imaging of fluid microinclusions by Dr E. KRAUSZ with Dr A. Berry, Research School of Earth Sciences, ANU (RSES).

Spectroscopy and function of chromophoric units in photosystem II by Drs E. KRAUSZ and V. M. Masters with Dr R. J. Pace, Department of Chemistry, ANU; and S. Peterson, University of Lund, Sweden.

Upconversion systems by Drs E. KRAUSZ and V. M. MASTERS with Drs S. Lüthi and M. Riley, University of Queensland, Brisbane.

Organic Synthesis

Biosynthetic, structural and metabolic studies on gibberellins by Prof L. N. MANDER with Dr M. Talon, Department of Citriculture, IVIA, E-46113, Moncada, Valencia, Spain; and Dr J. Zeevaert, MSU-DOE Plant Research Laboratory, Michigan State University, USA.

Biosynthetic, structural and metabolic studies on gibberellins by Prof L. N. MANDER with Dr P. Hedden and Prof J. MacMillan, Long Ashton Research Station, Bristol, UK.

Biosynthetic, structural and metabolic studies on gibberellins by Prof L. N. MANDER and B. TWITCHIN with Dr V. M. Sponsel, Division of Life Sciences, University of Texas, San Antonio, Texas, USA.

Biosynthetic, structural and metabolic studies on gibberellins by Prof L. N. MANDER and B. TWITCHIN with Prof O. Junttila, Department of Plant Physiology and Microbiology, University of Tromsø, Norway.

Biosynthetic, structural and metabolic studies on gibberellins by Prof L. N. MANDER and B. TWITCHIN with Prof R. P. Pharis, Department of Biology, University of Calgary, Canada.

Biosynthetic, structural and metabolic studies on gibberellins by Prof L. N. MANDER, S. K. COOK, and B. TWITCHIN with Drs M. Koshioka and M. Nakayama, National Research Institute of Vegetables, Ornamental Plants and Tea, Ministry of Agriculture, Forestry and Fisheries, Japan.

Biosynthetic, structural and metabolic studies on gibberellins by Prof L. N. MANDER and B. TWITCHIN with Dr T. Lange, Pflanzenphysiologisches Institut und Botanischer Garten, Universität Göttingen, Germany.

Influence of gibberellins on light stimulation of germination in Western Australian species by Prof L. N. MANDER and B. TWITCHIN with Dr J. Plummer, Department of Horticultural Science, University of Western Australia, Perth.

Structural and biosynthetic studies on antheridiogens from fern gametophytes by Prof L. N. MANDER with Dr H. Yamane, Biotechnology Research Center, University of Tokyo, Japan.

Structural and biosynthetic studies on antheridiogens from fern gametophytes by Prof L. N. MANDER with Dr J. Banks, Department of Botany and Plant Pathology, University of Purdue, USA.

Structural and biosynthetic studies on antheridiogens from fern gametophytes by Prof L. N. MANDER with Dr J. Nester, Department of Biological Sciences, Sam Houston State University, Texas, USA.

Structural studies on biologically active extractives from olives by Prof L. N. MANDER and A. J. HERLT with Drs P. Antolovitch, P. Prenzler, K. Robards, and D. Ryan, Charles Sturt University, Wagga Wagga.

Structural studies on biologically active extractive from *Barintonia asiatica* (the "fish killer tree") by Prof L. N. MANDER and A. J. HERLT with Drs R. Rumampuk and P. Tarigan, Kimia Pascasarjana Laboratory, Padjadjaran University, Bandung, Indonesia.

Studies on fruit development by Prof L. N. MANDER and B. TWITCHIN with Dr Y. Ben-Tal, Ministry of Agriculture, The Volcani Center, Bet-Dagan, Israel.

Studies on fruit development by Prof L. N. MANDER and B. TWITCHIN with Dr P. S. Blake, Horticulture Research International, East Malling, UK.

Studies on gibberellin receptors by Prof L. N. MANDER, Dr J. T. BLANCHFIELD and S. K. Cook with Dr P. M. Chandler, CSIRO Division of Plant Industry, Canberra.

Studies on growth inhibition by Prof L. N. MANDER and Dr G. ADAMSON with Drs L. T. Evans and R. W. King, CSIRO Division of Plant Industry, Canberra; and Prof R. P. Pharis, University of Calgary, Canada.

Studies on the genetics of *Pisum* by Prof L. N. MANDER and B. TWITCHIN with Prof J. B. Reid and Dr J. J. Ross, Department of Plant Science, University of Tasmania, Hobart.

Protein Crystallography and Engineering

Structural studies of the b receptor of IL5 and receptor by Drs D. L. OLLIS and P. D. CARR with Prof I. G. Young, JCSMR, ANU.

Structural studies of the P_{II} and GlnK proteins by Drs D. L. OLLIS and P. D. CARR with Dr S. G. Vasudevan, James Cook University, Townsville.

Structure function studies with esterases by Dr D. L. OLLIS with Dr J. Oakshot, CSIRO Department of Entomology, Canberra.

Structure function studies with plant malate dehydrogenases by Drs D. L. OLLIS and P. D. Carr with Dr A. Ashton, CSIRO Division of Plant Industry, Canberra.

Computational Quantum Chemistry

Carbene chemistry by Prof L. RADOM and Dr A. P. SCOTT with Prof M. S. Platz, Ohio State University, Columbus, Ohio, USA.

Evaluation of accurate proton affinities and gas-phase acidities by Prof L. RADOM with Dr B. J. Smith, Biomolecular Research Institute, Melbourne.

Multireference G2 and G3 theories by Prof L. RADOM and Dr D. M. SMITH with Prof M. S. Gordon and M. A. Freitag, Iowa State University, Ames, Iowa, USA; and Dr T. I. Sølling, University of Copenhagen, Denmark.

Nucleophilic substitution reactions by Prof L. RADOM with Prof A. Pross, Ben Gurion University, Israel; and Dr T. I. Sølling, University of Copenhagen, Denmark.

Radical addition reactions by Prof L. RADOM and Dr D. J. HENRY with Prof H. Fischer, University of Zurich, Switzerland; and Dr M. W. Wong, National University of Singapore.

Reactions catalysed by vitamin B₁₂ by Prof L. RADOM, Drs D. M. SMITH and S. D. WETMORE with Prof B. T. Golding, University of Newcastle-upon-Tyne, UK.

Thermochemistry of free radicals by Prof L. RADOM, Dr D. J. HENRY and C. J. PARKINSON with Prof P. M. Mayer, University of Ottawa, Canada.

Polymers and Soft Condensed Matter

Compression of a polymer chain by a small obstacle: the effect of fluctuations on the escape transition by Dr E. M. SEVICK with Dr J. Ennis-King, CSIRO Petroleum, Glen Waverley, Victoria.

Size-separation of polymers in ordered obstacle assemblies: DNA electrophoresis in microlithographic arrays by Dr E. M. SEVICK with Dr D. R. M. Williams, University of Sydney.

Biomolecular Simulations and Calculations

Free energy approximations in model proteins and polymers by Dr A. E. TORDA with Dr T. Huber, ANU Supercomputer Facility (ANUSF); and Drs F. Müller-Plathe and D. Reith, Max-Planck Institut für Polymerforschung, Mainz, Germany.

Interpreting protein threading by Dr A. E. TORDA and J. B. PROCTER with Drs P. Christen and M. Hegland, Research School of Information Sciences and Engineering, ANU (RSISE).

Protein sequence optimisation by Dr A. E. TORDA and A. J. COOTES with Dr P. M. G. Curmi, University of New South Wales, Sydney.

Disordered Materials

Diffuse scattering from benzil, C₁₄H₁₀O₂ by Drs T. R. WELBERRY, A. J. EDWARDS, and D. J. GOOSENS with Prof W. I. F. David, ISIS, Rutherford-Appleton Laboratory, Oxford, UK.

Diffuse scattering in non-stoichiometric apatites by Dr A. G. CHRISTY with P. Alberius-Hennig and Prof S. A. Lidin, University of Stockholm, Sweden.

Disorder in 1:1 adducts of hexamethylenetetramine with azelaic acid by Dr T. R. WELBERRY with Drs M. Gardon and K. J. Schenk, Université de Lausanne, Switzerland.

High energy diffuse X-ray scattering by Dr T. R. WELBERRY with Drs D. R. Haefner and P. L. Lee, Argonne National Laboratory, Illinois, USA.

Petrographic observations on sediment from rural and urban canals in the Midlands by Dr A. G. CHRISTY with Drs J. Dodd and D. J. Large, University of Nottingham, UK; and Drs N. J. Fortey, A. E. Milodowski, and M. Styles, British Geological Survey, Keyworth, UK.

Synthesis and structural characterisation of beryllian sapphirines by Drs A. G. CHRISTY and Y. TABIRA with Prof E. S. Grew, University of Maine, Orono, USA; and Dr A. Hölscher and Prof W. F. Schreyer, Ruhr-Universität, Bochum, Germany.

Solid State Molecular Science

Bonding in transition metal complexes by Dr P. A. REYNOLDS with Prof B. N. Figgis and Dr A. N. Sobolev, University of Western Australia, Perth.

Conformation of proteins at interfaces by Prof J. W. WHITE and Dr S. A. Holt with S. Poon, University of Melbourne.

Dendrimer and polystyrene surfactant structure by Prof J. W. WHITE, G. KIRTON, and Dr P. A. REYNOLDS with Dr C. J. Hawker, IBM Research Laboratories, Almaden, California, USA.

Early stages of zeolite crystallisation by Prof J. W. WHITE with Prof C. R. A. Catlow, Royal Institution, London, UK; and Dr J. N. Watson, ANSTO, Sydney.

Experimental electron densities in transition metal complexes by Dr P. A. REYNOLDS with Lektor F. K. Larsen and Dr B. B. Iversen, University of Aarhus, Denmark.

Kinetics of template action in silicalite synthesis by Prof J. W. WHITE with Dr L. Iton, Argonne National Laboratory, Chicago, USA.

Millisecond X-ray reflectometer for ChemMatCARS by Prof J. W. WHITE with Dr R. Garrett, ANSTO, Sydney; and Dr J. Viccaro, University of Chicago, USA.

Nanostructure of milk membrane and proteins by Prof J. W. WHITE and Dr S. A. HOLT with Dr B. Cox, Dairy Research Corporation, Melbourne.

Neutron reflectivity and small angle scattering from monomolecular polymer particles and lattices by Prof J. W. WHITE with Dr H. de Bruyn and Prof R. Gilbert, University of Sydney.

Structure of high internal phase emulsions by Prof J. W. WHITE with Drs R. Goodridge and D. E. Yates, Orica, Australia; and Dr E. P. Gilbert, Argonne National Laboratory, Chicago, USA.

Structure of polymer latex solutions by Prof J. W. WHITE with Dr H. de Bruyn and Prof R. Gilbert, University of Sydney.

Structure of polymer surfactant films by Prof J. W. WHITE with Dr J. Penfold, Rutherford-Appleton Laboratory, Oxford, UK.

Structure of templated silicate films by Prof J. W. WHITE with Dr M. Trau, University of Queensland, Brisbane.

Template distribution function in modified silicate gels by Prof J. W. WHITE with Drs L. Iton, J. Richardson,

and F. Trouw, Argonne National Laboratory, Chicago, USA.

X-ray reflectometry studies of contact lens coatings for extended wear by Prof J. W. WHITE and Dr S. A. HOLT with C. Fong, CSIRO Molecular Science, Melbourne.

The following collaborators visited the group during 2000 to conduct X-ray reflectometry experiments..

Dr C. Buckley (Curtin University of Technology, Perth); Dr G. Dennis (University of New South Wales, Sydney); Dr G. Edwards (Scienceworks, Mt. Ommaney, Queensland); Dr K. Latham (RMIT University, Melbourne); Drs V. Luca, D. Martin, and J. Watson (ANSTO, Sydney); J. Phair (University of Melbourne).

Inorganic Stereochemistry and Asymmetric Synthesis

Chiral phosphine-metal dopants for conducting polyanilines by Dr S. B. WILD with Prof L. A. P. Kane-Maguire, Department of Chemistry, University of Wollongong.

Diastereoselectivity in Group 11 complexes of Pfaltz ligands by Dr S. B. WILD with Dr J. Aldrich-Wright, University of Western Sydney.

Microbial phosphonate uptake and metabolism: enlisting microorganisms to deliver antimicrobials effectively by Dr S. B. WILD with Dr G. L. Mendz, School of Biochemistry and Molecular Genetics, University of New South Wales, Sydney.

Solid State Structural Chemistry

A modulated structure approach to problem single crystal structure refinements involving tin complexes by Prof A. D. RAE with Dr S. W. Ng, University of Malaya, Kuala Lumpur, Malaysia.

A superspace approach to compositionally flexible solid solution phases by Dr R. L. WITHERS with Dr L. Elcoro and Prof J. M. Perez-Mato, Universidad del Pais Vasco, Bilbao, Spain.

Constrained refinement techniques for problem crystal structure refinements involving pseudo symmetry, twinning and disorder by Prof A. D. RAE with Dr K. J. Haller, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Displacive structural phase transitions in the AM_2O_7 family of displacively flexible framework structures by Dr R. L. WITHERS with Dr J. S. O. Evans, University of Durham, UK; and Prof A. W. Sleight, University of Oregon, USA.

Oxygen/fluorine ordering and displacive structural phase transitions in $K_3MoO_3F_3$ by Dr R. L. WITHERS with Dr. K. Friese and Prof G. Madariaga, Universidad del Pais Vasco, Bilbao, Spain.

TEM studies of ferroelasticity in $Sb_2Mo_{0.75}W_{0.25}O_6$ by Dr R. L. WITHERS with Prof J. Galy, CEMES/CNRS, Toulouse, France; and Dr A. Castro, CSIC, Madrid, Spain.

Research School of Earth Sciences

Dr R.A. ARMSTRONG continued a collaborative project on provenance of sediments from the Centralian Basin with Dr A. Camacho of the University of New South Wales.

Dr R. ARMSTRONG has been involved in a number of joint international research projects with scientists from several African countries, the United Kingdom, Germany, Portugal, Austria, Brazil and South Korea. These include Prof L. Robb, Prof U. Reimold, Dr R. Gibson, Dr M. Poujol (University of the Witwatersrand, RSA); Prof S. McCourt (University of Durban-Westville, RSA), Prof A. Wilson (University of Natal, RSA); Prof M. de Wit, W. Board (University of Cape Town, RSA); Prof S. de Waal (University of Pretoria, RSA); Prof A.B. Kampunzu and Dr R. Mapeo (University of Botswana), B.K. Paya (Geological Survey of Botswana); Mr. K. Hoffmann (Geological Survey of Namibia); D. Jamal (Eduardo Mondlane University, Mozambique); Prof C. Koeberl (University of Vienna), Dr J. Konzett (University of Innsbruck, Austria), S. Heflerich (J.W. Goethe-University, Frankfurt, Germany), Dr S. Siegesmund (Institut für Geologie und Dynamik der Lithosphäre, Germany), Dr R. Key (British Geological Survey); Dr Deung-Lyong Cho (Korea Institute of Geology, Mining and Materials) and Dr M. Pimentel (University of Brazilia, Brazil).

Dr R. ARMSTRONG has also had extensive and fruitful collaboration with a number of scientists from the Geological Surveys of Britain, Botswana, South Korea, Namibia and Zambia. He has also consulted for, and collaborated with, scientists from the South African Council for Geosciences in projects in the southern African region and in Morocco. A number of geochronological projects for Australian and international exploration companies were completed during the year.

J. BALLARD, Drs I.H. CAMPBELL and J.M. PALIN, are collaborating with CODELCO on a study of igneous and hydrothermal activity in and around the giant Chuquicamata porphyry copper deposit in northern Chile.

Dr V. BENNETT continues collaborations with Prof M. Garcia, University of Hawaii on the source characteristics of Hawaiian plume basalts, and with Dr A. Kent of the Danish Lithosphere Center on the origins of Baffin Island basalts.

Dr A.J. BERRY continued to work with Dr E.R. Krausz, Research School of Chemistry, the Australian National University, on the study of fluid inclusions by optical absorption spectroscopy.

Dr A.J. BERRY collaborated with Dr M. James on neutron diffraction studies of humite minerals.

Dr A.J. BERRY visited the School of Chemistry, University of Exeter, United Kingdom as part of his collaboration with Drs S.C. Wimperis and S.E. Ashbrook on nuclear magnetic resonance studies of high-pressure hydrous magnesium silicates.

Dr M. BIRD collaborated with Dr B. David, Monash University, Dr J. Balme, University of Western Australia, Dr B. Roberts, La Trobe University, and Dr J. Field, University of Sydney on the radiocarbon dating of archaeological sites in Australia. He also worked with Dr B. Witt of the Gatton Campus of the University of Queensland on carbon-isotope records of environmental change recorded in wool.

Dr M. BIRD continued collaboration with Dr H. Santruckova of the University of Southern Bohemia, Czech Republic, on studies of the fractionation of carbon-isotopes by micro-organisms during soil carbon degradation. He is also working with Prof J. Lloyd, Max Planck Institute for Biogeochemistry on a study of soil carbon in the Siberian boreal forests and Botswana. He also continued to collaborate with Dr E. Veenendaal, Okavango Research Centre, Botswana on a study of carbon inventories in Botswanan soils, and he collaborated with Dr C.S.M. Turney, Royal Holloway, University of London and Dr L. Ayliffe, CNRS-CEA, Gif Sur Yvette, France on the radiocarbon dating of Australian Archaeological sites. Together with Dr P. Bowman of the McGregor Museum, South Africa, he is participating in a radiocarbon dating study of the Border Cave Archaeological site.

Dr J. BRAUN is working on a project studying the diffusion of argon in K-feldspars with Dr J. Lee of Queen's University, Canada. He continues collaborative work on the dynamics of compressional orogens and the interactions between tectonics and erosion with the Geodynamics Group of Prof C. Beaumont at Dalhousie University, Canada. He is collaborating with Miss S. Frederiksen of the University of Aarhus, Denmark on incorporating strain localization in models of continental extension, and with Mr. Y. van Brabant of the University of Liège, Belgium on the tectonic development of the Variscan fold-and-thrust belt in the Rhenohercynian zone in Belgium and Germany.

Drs I.H. CAMPBELL and J.M. PALIN, in collaboration with Placer Granny Smith Pty Ltd have obtained a SPIRT grant for "Mapping ore-fluid pathways around mesothermal gold deposits in the Laverton region, WA using alkali elements and stable isotopes. A. Stoltze began a PhD on the project late in the year.

Drs I.H. CAMPBELL and J. MAVROGENES and B. SETIABUDI are working with Rio Tinto Indonesia on a study of the Kelian Gold Mine in Kalimantan.

Prof J. CHAPPELL undertook a collaborative project in the Flinders Ranges with Prof M.A.J. Williams of Ad-

elaide University and Dr D. Adamson of Macquarie University, determining the nature, extent and palaeoclimatic implications of newly-discovered Late Pleistocene wetland deposits. He also gave a series of lectures over a week as Distinguished Lecturer at the School of Geography and Geology, University of Wollongong. In partnership with Dr M. Bird, he collaborated with Dr B. Witt of the Gatton Campus of the University of Queensland on carbon-isotope records of environmental change recorded in wool and shearing-shed dung accumulations.

Prof J. CHAPPELL continued his collaboration on Cenozoic fossil sites with Dr K. Aplin of the Western Australian Museum, with field trips together to new sites in the Kimberley and Barrow Island.

Prof S.F. COX is supervising University of Newcastle PhD students, K. Ruming and T. Wilson. He is also collaborating with Dr M. Knackstedt (jointly at the University of New South Wales and The Australian National University) in the development and application of percolation theory to modelling fluid flow in hydrothermal systems. He is also collaborating with the latter in the development of x-ray tomography facilities to characterise fracture and pore geometries in deformed rocks. Moreover, together with Dr J. Streit, National Centre for Petroleum Geology and Geophysics, University of Adelaide, he is preparing a joint work on the evolution of fracture geometries in deforming rock analogue materials. In May, he presented part of a workshop to Masters students and minerals industry participants at the CODES Special Research Centre at the University of Tasmania.

Prof S.F. COX is conducting collaborative research on structural and deformational controls on fluid flow and ore genesis in Archaean lode gold deposits in the Kambalda area sponsored by WMC Resources Ltd (St Ives Gold Operations) and the ARC-APA (Industry) scheme. He is also collaborating with Dr B. Drummond (AGSO) on aspects of crustal-scale fluid flow through fault systems in the Eastern Goldfields of Western Australia. In December, Prof S.F. Cox participated in a joint AGSO-NSW Department of Minerals and Energy workshop on seismic hazard in the Newcastle region.

S.J. FALLON is working with Dr J. Lough and Dr D. Barnes (AIMS) and J. White from Misima Mines Ltd. documenting environmental influences on Porites corals from a high sedimentation environment, Misima Island, PNG.

C.M. FANNING collaborated with Assoc Prof C. Fergusson, University of Wollongong on the Anakie Inlier of Queensland, Prof C.J. Wilson and S. Boger, University of Melbourne on the age and evolution of the southern Prince Charles Mountains, Antarctica, Dr G. Clarke and N. Kelly, University of Sydney on the age and evolution of eastern Enderby Land, Antarctica, and

with Dr D. Gray and C. Spaggiari, Monash University on the age of blueschist rocks from Victoria.

C.M. FANNING continued collaborations with the Geological Surveys of South Australia, Victoria, New South Wales, and Queensland. He also collaborates with a number of mineral and petroleum exploration companies.

C.M. FANNING is collaborating with Dr K.R. Ludwig and Dr R. Mundil of the Berkeley Geochronology Center, San Francisco, USA, Dr J.A. Aleinikoff and W.V. Premo of the US Geological Survey, Denver USA, Dr K. Shiraishi and Dr Y. Motoyoshi of the National Institute for Polar Research, Tokyo, Japan, Dr J. Goodge, Southern Methodist University, USA, Dr J.J. Peucat of Geosciences, Rennes, France, Prof R.P. Menot, Université Jean Monet, St Etienne, France, Prof P. K. Link of Idaho State University, Dr T.S. Laudon of University of Wisconsin, Dr J. Jacobs of University of Bremen, Germany, Prof F. Hervé of University of Chile, Santiago, Chile, Prof D. Gebauer and Dr A. Liati, ETH Zürich, Switzerland, Dr R.J. Pankhurst and Dr I. Millar of the British Antarctic Survey, UK, Dr C.W. Rapela, Universidad de la Plata, Argentina and Dr A. Morton, British Geological Survey.

Dr J. FITZGERALD collaborated with Prof T.M. Harrison, University of California, Los Angeles on characterisation of exsolution in a cryptoperthite that is being studied for Ar-release systematics.

Dr M. GAGAN continued collaboration with A. Mueller and Dr B. Opdyke, Department of Geology, the Australian National University to reconstruct the palaeo-oceanography of the eastern Indian Ocean using stable isotope ratios in corals and foraminifera. Collaborations with other Australian universities include coral reconstructions of the mid-Holocene climate of the equatorial central Pacific (Assoc Prof C. Woodroffe, Department of Geosciences, University of Wollongong) and measurement of stable isotope ratios in speleothems from China (Dr J-x. Zhao and Prof K. Collerson, Department of Earth Sciences, University of Queensland).

Dr M. GAGAN is collaborating with Dr G. Woerhide, Centre for Biodiversity, Queensland Museum, to study the stable-isotope systematics of Great Barrier Reef sponges.

Dr M. GAGAN continued cooperative research with Dr W. Hantoro, Indonesian Institute of Sciences, to extract late Quaternary climatic histories from raised coral terraces in Indonesia. Collaborative work continues with Prof K. Sieh, California Institute of Technology and Prof L. Edwards, University of Minnesota, which aims to integrate palaeoclimatic and palaeoseismological records derived from Indonesian corals. Work continued with Drs T. Corregge, G. Cabioch, and J. Recy, ORSTOM and Drs W. Beck and G. Burr, University of Arizona to reconstruct tropical palaeocli-

mates of the southwestern Pacific during the Younger Dryas event. Collaborative research on coral-based palaeoclimatology continued with Dr L. Ayliffe, University of Utah, USA. He is also working with Prof G. Miller, University of Colorado, to reconstruct Australian palaeoclimates using isotopic signatures in emu and Genyornis eggshell. New collaborative work to investigate the geochemistry of foraminifera in deep-sea cores is under way with Prof H. Spero, University of California at Davis, and Prof D. Lea, University of California at Santa Barbara.

Prof D.H. GREEN continued his collaboration with the School of Earth Sciences, University of Tasmania (Drs A.J. Crawford, T.J. Falloon and L. Danyush-evsky). He also continues as a member of the Tectonics Special Research Centre Advisory Council at the University of Western Australia.

Prof D.H. GREEN continued his collaboration with Dr K. Niida, University of Hokkaido and Prof H. Davies, University of Papua New Guinea on the study of ultramafic rocks.

Prof R.W. GRIFFITHS began a new collaborative project with Dr J. Bye of the University of Melbourne on the dynamics of air-sea interaction.

Prof R.W. GRIFFITHS continued a collaboration with ASI on the construction and marketing of the Geophysical Flows Rotating Table. Three units were shipped to customers at the University of California at San Diego, USA, the University of Rhode Island, USA, and the University of Alberta, Canada.

Prof R.W. GRIFFITHS and Dr R.C. KERR began the first trial laboratory experiments as part of a collaboration with Prof K.V. Cashman, Oregon State University, USA, on the dynamics and emplacement of long basaltic lava flows, partially funded by an NSF research grant to Prof Cashman. Prof Griffiths is also collaborating with Dr J.A. Whitehead of the Woods Hole Oceanographic Institution, USA, on theoretical problems in morphological instabilities driven by cooling and rheology change.

Prof R. GRÜN collaborates with Prof A. Gleadow, Department of Geology, University of Melbourne, to study the thermal stability of paramagnetic centres from cores of the Otway basin, Dr P. White, Department of Anthropology, University of Sydney to date the site of Cuddie Springs, Dr C. Murray-Wallace, Department of Geosciences, University of Wollongong to date marine sequences in the Spencer Gulf, and Dr K. Moriarty and Dr R. Wells, Flinders University, to date faunal remains from Naracoorte Cave.

Prof R. GRÜN has developed a virtually non-destructive ESR dating protocol which allows the measurement of enamel fragments without the necessity of destructive grinding. He has collected hominid samples from the anthropological sites Cave of Hearths, Hutjiespunt and Swartkrans, South Africa (Prof V.A. Tobias, Dr L.

Berger, Department of Anatomy, Medical School, University of the Witwatersrand, Prof J. Parkington, Department of Archaeology, Cape Town University, Dr F. Thakeray, Transvaal Museum, Pretoria), Skhul, Israel (Dr J. Pilbeam, Peabody Museum, Harvard University and Prof O. Bar-Yosef, Department of Anthropology, Harvard University), Tabun (Prof C.B. Stringer, Natural History Museum, London) and Atapuerca, Spain (Dr J.L. Arsuaga, Department of Palaeontology, Universidad Complutense, Madrid and Dr J. Bermudes de Castro, Museo de Ciencias Naturales, Madrid). He continues his collaboration with Prof Bershov, Dr A. Gurbanov, Institute of the Geology of Ore Deposits, Moscow and Dr D. Koshchug, Moscow State University. Samples from the Eldzhurtinskiy granite complex have been employed to establish which surface sampling techniques can be used for ESR studies of cooling and denudation rates. Samples were also collected from the Elbrus for the reconstruction of the eruption history of Europe's highest volcano.

Prof R. GRÜN, Prof M McCULLOCH and Dr N. Spooner are collaborators in Prof Miller's (Department of Geological Sciences, University of Colorado at Boulder) successful NSF application "Megafauna Extinction, Ecosystem Disruption, and Climate Change in Australia: Assessing the Human Factor".

C. HEATH has commenced a PhD study of the "Origin and composition of ore-forming fluids in the giant Golden Mile gold deposit, Kalgoorlie" in collaboration with Kalgoorlie Consolidated Gold Mines. The project is being supported by a grant to Drs Campbell and Palin through the SPIRT program.

E HENDY, Prof M. McCULLOCH and Dr M. GAGAN continued collaborative work with Drs J. Lough, D. Barnes and P. Isdale. Hendy's PhD research is a central project of the AUSCORE (AUSTRALIAN CORAL RECORDS) initiative to demonstrate that corals accurately record common climate signals and can document decadal to centennial climate variability in the Great Barrier Reef over the last 400 years.

Dr J. HERMANN collaborated with Dr O. Müntener, Geologisches Institut, ETH-Zürich, Switzerland, on the differentiation of mafic magma at the continental crust-mantle boundary and the exhumation of lower crust and upper mantle during rifting; with Prof R. Compagnoni, University of Torino, Italy, on the features of ultra-high pressure metamorphism in the Dora-Maira Massif; with Prof V. Shatsky and Prof A. Korsakov, Geophysics and Mineralogy, Novosibirsk, Russia, on age and exhumation rate of diamondiferous rocks from the Kokchetav Massif, Khazakhstan; with Dr M. Scambelluri, University of Genova, Italy, on subduction related structures in the Erro-Tobbio unit, Western Alps and on constraints on subduction zone fluids derived from the high pressure break down of serpentinites; with Dr B. Cesare, University of Padova, Italy, on magmatic and metamorphic evolution of ma-

fic cumulates of the Tauern window, Alps and with Dr Igor Villa, University of Bern, Switzerland, on dating of multiply-zoned amphiboles.

Dr G.O. HUGHES is collaborating with M. Barry and Prof G. Ivey of the Centre for Water Research, University of Western Australia, on aspects of mixing due to turbulence in stratified fluid.

Dr G.O. HUGHES continued a collaboration with Dr S.B. Dalziel, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, Dr P.F. Linden, Department of Mechanical and Aerospace Engineering, University of California San Diego, and Dr B.R. Sutherland, Department of Mathematical Sciences, University of Alberta. They are studying the evolution of internal gravity waves in a stratified fluid and mixing due to stratified turbulence.

Prof B.L.N. KENNETT has continued to provide support to the Comprehensive Nuclear-Test-Ban Treaty (CTBT) Organisation in Vienna. With J. Grant in Tennant Creek he has been involved in the process of the upgrade of the Warramunga Array to meet the requirements of the treaty for both seismic and infrasonic recording. The infrasound upgrade was completed in October. Certification of both arrays will occur soon following the completion of authentication procedures for the data being transmitted by satellite to Vienna. He was also a member of the review team for the International Data Centre for the CTBT carried out over a two-week period at the beginning of November.

Prof B.L.N. KENNETT is President of the International Association for Seismology and the Physics of the Earth's Interior (IASPEI) and in that position is a member of the Executive Committee of the International Union of Geodesy and Geophysics (IUGG).

Prof B.L.N. KENNETT has established collaborative links with the Earthquake Research Institute, University of Tokyo for the Ocean Hemisphere Project (Prof Y. Fukao) and the study of strong ground motion (Dr K. Koketsu, Dr T. Furumura).

Dr R.C. KERR continued a collaboration with Dr S.J. Barnes of Division and Exploration and Mining, Perth, in modelling komatiite lava emplacement and thermal erosion at Perserverance, Western Australia.

Dr R.C. KERR continued a collaboration with Dr C.M. Lesher, Mineral Exploration Research Centre, Laurentian University, and Dr D.A. Williams, Department of Geology, Arizona State University, in developing and applying numerical models of the submarine flow of komatiite lavas.

Prof K. LAMBECK is a member of the EPILOG steering committee (climate and environment during the Last Glacial Maximum), of the BALTEEM working group (Palaeoenvironment and Palaeoclimate of the Baltic during the Last Interglacial), an associate member of the Canadian Institute for Advanced Research, and a

member of the Stage 3 Working Group concerned with climate and environment of Europe during oxygen isotope stage 3. In addition, he has cooperative research projects with scientists in Italy, France, Netherlands, Sweden, United Kingdom, Switzerland and the United States.

Dr F.E.M. LILLEY is collaborating with Dr A. White of Flinders University and Dr G. Heinson of Adelaide University in a number of marine electromagnetic studies, the most recent of which is OCELOT2000.

Dr F.E.M. LILLEY and Dr A.P. HITCHMAN continued collaboration with Dr P. Milligan of AGSO on the use of aeromagnetic crossover misfits as data of opportunity for studying electromagnetic induction in the Earth.

Dr F.E.M. LILLEY is collaborating with Prof J.T. Weaver of the University of Victoria, Canada, on methods for the analysis of magnetotelluric data. Dr Lilley is collaborating with Assoc Prof I.J. Ferguson of the University of Manitoba, Canada, on the interpretation of magnetotelluric data from western Queensland. Dr Lilley is collaborating with Dr M.R. Ingham of Victoria University of Wellington, New Zealand, on E-Map methods of magnetotelluric investigation.

Prof M. McCULLOCH collaborates with Dr M. Kingsford from the Department of Biology, University of Sydney, on trace element analyses of fish otoliths, Dr C. Murray-Wallace, Department of Geosciences, University of Wollongong, to date marine sequences in the Spencer Gulf, and Dr K. Moriarty and Dr R. Wells, Flinders University, to date faunal remains from Naracoorte Cave. He is also collaborating with Dr T. Tentori from Central Queensland University, Rockhampton, on trace element analyses of sclerites from soft corals.

Prof M. McCULLOCH has continued his collaboration with Dr A. Tudhope from the University of Edinburgh on U-series dating fossil corals from the uplifted coral terraces at Huon Peninsula Papua New Guinea. Collaboration continues with Prof U. Radtke from Köln University, Germany. He is also working with Dr Ingram, University of California at Berkeley, in a National Geographic sponsored project on coral bleaching in the southern Pacific.

Prof I. McDOUGALL and Dr W.J. Dunlap have collaborated closely with S. McLaren, a PhD student in the Department of Geology and Geophysics, University of Adelaide, and with Dr M. Sandiford, on a thermochronological study of part of the northern Flinders Ranges, South Australia. Prof McDougall is working closely with Dr R. Watkins, Curtin University of Technology, on a project dealing with the mid-Cenozoic and younger history of the northern Kenya Rift, east of Lake Turkana. He also continued a collaboration with Dr G. Acton, formerly of the University of New England, on

dating Cenozoic volcanic rocks in eastern Australia, to better define the polar wander path of Australia.

Prof I. McDOUGALL accepted an invitation to participate in a collaborative research project with Dr B. Robineau and Dr P. Bachelery, Université de La Réunion, on further studies of the history of the volcanoes of La Réunion, Indian Ocean. A two-week visit was made in July, fortuitously coinciding with the declining stages of a volcanic eruption from the active volcano, Piton de la Fournaise. He was privileged to undertake extensive field work during the visit; this included the opportunity to appreciate some of the considerable advances in understanding of the geology of La Réunion since he worked there more than 30 years ago. He also maintains an active collaboration with Prof F.H. Brown of the University of Utah that deals with numerical time scale studies of stratigraphic sequences in Kenya and Ethiopia in relation to hominid evolution. This work is also linked with that of Dr M.G. Leakey of the National Museums of Kenya. A collaborative project with Dr D. Karner, Dr P. Renne and T. Becker of the University of California, Berkeley and the Berkeley Geochronology Center on the usefulness of the high potassium mineral, leucite, as a potential standard for dating Quaternary rocks by the ^{40}Ar - ^{39}Ar method, was successfully completed during the year, as was a project collaboration with Prof W.J. Verwoerd and Dr L. Chevallier, University of Stellenbosch, on K-Ar dating of Marion Island, a Quaternary shield volcano in the Southern Ocean.

H. MCGREGOR and Dr M. GAGAN continued collaborative research with Drs G. Brunskill, J. Lough and D. Barnes. Ms. McGregor's PhD research is part of Project TROPICS (Tropical River-Ocean Processes in Coastal Settings) and aims to use corals to reconstruct the mid-Holocene climate of the Western Pacific Warm Pool north of Papua New Guinea.

Dr H. McQUEEN and Prof K. LAMBECK collaborated with Prof T. Sato of the National Astronomical Observatory of Japan in operating and analysing a Superconducting Gravimeter at Mt Stromlo to monitor dynamic processes in the Earth. The former also collaborated with Dr M. Amalvict of the Université Louis Pasteur in Strasbourg on FG5 Absolute gravimeter calibrations at Mt Stromlo.

Dr C.E. MARTIN collaborates with Dr D. Al Bakri and Alma Joglekar, Orange Agricultural College, The University of Sydney, on elemental and isotopic tracers of the sources of phosphorus in the Orange water supply catchment. (Dr Martin is acting as Assoc Supervisor for Joglekar's PhD research).

Dr C.E. MARTIN continued to collaborate with R. Syzmczak on studies of the noble metal geochemistry of riverine and estuarine waters that were collected in Papua New Guinea on cruises of the R/V Franklin as part of Project TROPICS (Tropical River-Ocean Processes in Continental Settings).

Dr C.E. MARTIN continued to collaborate with Dr G. Brunskill on studies of the geochemistry of platinum-group elements and Os isotopic systematics in riverine and estuarine sediments from Papua New Guinea.

Dr C.E. MARTIN and Prof M. McCULLOCH continued their collaboration with Drs C. Wilson, P. Wallbrink, and J. Olley (Land and Water) on tracing the sources and transport of sediment and associated phosphorus in Australian rivers. Dr Martin is also collaborating with Dr R. Oliver (Murray-Darling Freshwater Research Centre) on an investigation of the uptake of trace elements by the blue-green "algae" (cyanobacteria) *Anabena*.

Dr C.E. MARTIN continued her collaboration with Drs B. Peucker-Ehrenbrink and G. Ravizza, Woods Hole Oceanographic Institution, USA, in studies of the Os isotope and platinum-group element geochemistry of sediments and natural waters. Dr Martin is a member of the international project TROPICS working group, which is studying the physical and chemical oceanography and sedimentology of the coastal margins of Papua New Guinea.

Dr C. MÉRIAUX continued a collaboration with Dr J.R. Lister, Institute of Theoretical Geophysics, University of Cambridge, on the propagation of dykes in the Earth's crust.

Dr H. O'NEILL and W.O. HIBBERSON continued to collaborate with Dr I.E. Grey of the Division of Minerals on a study of novel crystalline phases synthesised at very high pressures in the system $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2$. Dr O'Neill also continued his collaboration with Dr M.I. Pownceby of the Division of Minerals on the experimental calibration of solid-state redox sensors, and on Fe^{2+}/Mg partitioning between co-existing minerals.

Dr H. O'NEILL is collaborating with Dr S. Redfern, University of Cambridge, on neutron-diffraction studies of order-disorder phenomena in spinels and other minerals. He is working with Prof H. Palme, Universität zu Köln, on trace element partitioning in chondritic meteorites, and with Prof S. Chakraborty, Ruhr-Universität Bochum, on a laser ablation ICP-MS study of trace-element partitioning in metamorphic rocks.

Dr J.M. PALIN provided sulfur isotope data for M. Kilby of the Australian National University Department of Geology as part of her honours project on the environmental geochemistry of sulfur around the Ranger uranium mine, Northern Territory.

Dr D. PHILLIPS collaborated with Dr I. Cartwright and C. Read of Monash University on the Arunta Block, Dr C. Fergusson from the University of Wollongong and Prof R. Offler of the University of Newcastle on the Lachlan Belt and with A. Rae from the University of Tasmania on Philippine volcanics.

Dr D. PHILLIPS has participated in collaborative studies with the Australian Geological Survey Organisation as well as the Geological Surveys of South Australia, the Northern Territories and Western Australia. He also collaborated with a number of Australian exploration and mining companies.

Dr D. PHILLIPS participated in collaborative research projects with Dr J. Vry of Victoria University of Wellington, Prof J.S. Marsh of Rhodes University, South Africa, Dr C. DeLor of BRGM, France, Dr I. Basson of Mineral Services, South Africa and Dr J. Goodge of the Southern Methodist University, Dallas.

As leader of the regolith dating project with the CRC for Landscape Evolution & Mineral Exploration, Dr B. PILLANS collaborated with Dr P. O'Sullivan and Dr B. Kohn, University of Melbourne and Prof R. Bourman, University of South Australia.

Dr PILLANS is leader of the dating project in CRC LEME and is primarily responsible for dating regolith materials by paleomagnetic techniques.

Dr B. PILLANS continued his collaboration with Dr A. Bateman (Kalgoorlie Consolidated Gold Mines) in paleomagnetic dating of regolith at Mt Percy mine, Kalgoorlie

Dr B. PILLANS continued his collaboration with Drs B. Alloway, A. Beu, and T. Naish, Institute of Geological & Nuclear Sciences, on Plio-Pleistocene stratigraphy of Wanganui Basin, New Zealand. He also collaborated with Dr G.W. Berger, Desert Research Institute, Reno, and Drs P. Tonkin and P. Almond, Lincoln University, on luminescence dating of New Zealand loess.

B. ROHRLACH and Drs I.H. CAMPBELL, R.R. LOUCKS, J.M. PALIN and Prof I. McDUGALL have continued their collaboration with WMC Resources Ltd in the study of the Tampakan Cu-au deposit ore district in southern Mindanao, Philippines.

Dr D. RUBATTO collaborated with Dr I. S. Buick from La Trobe University, Victoria, on the geochronology and geological evolution of the Reynolds Range (central Australia), as delineated by U-bearing minerals during prograde metamorphism and anatexis, and recently commenced a joint project with Prof D. Ellis and Dr L. Zhang (Department of Geology) to constrain the age of high pressure metamorphism in the Tianshan belt of NW China.

Dr D. RUBATTO continued her collaboration with Prof V. Tromsdorff from the Institute for Mineralogy and Petrology, ETH, Zürich, on the geochronology of peridotite bodies from the Alps and South Spain. Her project on the geochronology of the Argentera Massif (Western Alps) in collaboration with Dr B. Lombardo, Dr F. Colombo and Prof R. Compagnoni from Torino University has been completed, whilst the collaboration with Dr B. Cesare from the University of Padova con-

tinues with the acquisition of new geochemical data on the mafic rocks from the Tauri Window (Eastern Alps). She also works with Dr D. Castelli from Torino University, Italy, on the petrology and geochemistry of metamorphic titanite.

Dr N. SPOONER collaborates with Prof A. Anderson, RSPAS, the Australian National University, on optical dating of megafaunal extinction event, Fiji, Prof J. Bowler, University of Melbourne on optical dating at Lake Mungo, Dr Philip Hughes, Consultant, on optical and carbon dating at Lake George: a reassessment of the regional palaeohydrology and palaeoclimate in the late Quaternary and Dr J. Magee, Department of Geology, The Faculties, the Australian National University on the paleohydrology of the Lake Eyre basin and megafaunal extinction.

Dr N. SPOONER collaborates with Dr J. Olley of Division of Land and Water, on optical dating on the Murrumbidgee floodplains, which involves a comparison between single and multiple-grain dating.

Dr N. SPOONER collaborates with Prof A. Franklin, University of Maryland on the kinetics of red quartz luminescence and numerical modelling and with Prof G. Miller, University of Colorado at Boulder on optical dating of the Genyornis newtoni extinction event. He is Assoc Investigator of a successful NERC (UK) grant with Dr Turney, University of London on "The human colonisation of Australia: Breaking the 40 ka BP radio-carbon barrier".

Dr P. TREGONING is collaborating with Dr R. Govind of the Australian Surveying and Land Information Group to analyse the co-seismic movement of the GPS site at the Cocos Islands after the June 18 earthquake.

Dr P. TREGONING has continued his cooperation with Drs R. King, T. Herring and S. McClusky of the department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology in the development and testing of the GAMIT GPS software. He also continued to collaborate with R. Curley, Department of Surveying and Land Studies, The Papua New Guinea University of Technology, and S. Saunders, Rabaul Volcano Observatory, in the ongoing measuring of tectonic motion in Papua New Guinea.

Prof J.S. TURNER continued his collaborations with Prof G. Veronis, Yale University. Their study of double-diffusive intrusions has been extended to explore further the differences between isolated sources of salt or sugar sources flowing into homogeneous solutions of the other. Work on the production of vortex rings, with Prof P.F. Linden, University of California, San Diego, has led to insight into the swimming mechanisms of fish and other marine organisms, and application of these concepts to the design of propulsion devices.

Dr I.S. WILLIAMS continued his collaboration with Prof B.W. Chappell, Macquarie University, and Prof

A.J.R. White, Victorian Institute of Earth and Planetary Sciences, in a study of the evolution of the Lachlan Fold Belt as recorded in zircon preserved in igneous and sedimentary rocks; with Dr P. Blevin, ANU Geology Department, in the study of magmatism associated with Palaeozoic mineralization in NSW; and with Dr I. Buick, La Trobe University, and J. Miller, Monash University, in the study of metamorphism in central Australia and South Africa. Dr Williams also renewed his collaboration with Prof J. Hergt, Melbourne University, in the study of the Tasmanian Dolerites, with Dr W. Collins, University of Newcastle, in the study of the history of high-grade metamorphism in the southern Arunta, central Australia, and with Prof M.J. Rickard, University of Newcastle, in the study of inherited zircon in granite from Fiji.

Dr I.S. WILLIAMS continued his longstanding collaboration with Australian Scientific Instruments (now a proprietary limited subsidiary of ANUTECH Pty Ltd) in the manufacture and marketing of SHRIMP ion microprobes. Over a two-week period in March-April he visited the National Institute of Polar Research, Tokyo, with J. Hyder, ASI, to set up procedures for stable isotope analysis using the new NIPR SHRIMP II.

Dr I.S. WILLIAMS continued his collaboration with Prof H. Zeck, Copenhagen University, in the use of zircon inheritance in Miocene igneous rocks from southern Spain to study the processes of magma genesis, and with Dr J. Goode, Southern Methodist University, Dallas, on the provenance of late Proterozoic and early Palaeozoic sediments of the Beardmore Group and elsewhere in the Transantarctic Mountains. He spent two weeks in Tokyo working with Dr K. Shiraishi and Dr K. Misawa, National Institute of Polar Research, on SHRIMP analysis of the oxygen isotopic composition of meteorites, and also undertook small collaborative studies in zircon geochronology with Dr U. Pöller, Max Planck Institute, Mainz, Dr K. Burke, University of Houston and Dr J. Kraus, Mobil Exploration Ventures, Dallas.

Research School of Information Sciences and Engineering

Computer Sciences Laboratory

Data Segmentation by Dr Peter BARTLETT with Dr Adam Kowalczyk (Telstra Research Laboratories, Melbourne, VIC)

Techniques for Combining Learning Systems for Regression and Density Estimation by Dr Peter BARTLETT with Dr Marcus Frean and Prof Tom Downs (University of Queensland, Brisbane, QLD)

Neural Network Learning by Dr Peter BARTLETT with Dr Martin Anthony (London School of Economics and Political Science, London, UK)

Complexity of Learning by Dr Peter BARTLETT with Dr Shai Ben-David (Israel Institute of Technology (Technion), Haifa, Israel)

Uniform Convergence by Dr Peter BARTLETT with Dr Gabor Lugosi (Pompeu Fabra University, Barcelona, Spain)

Logics for Hybrid Systems by Dr Jennifer DAVOREN with Prof Anil Nerode (Cornell University, Ithaca, USA)

Logical Methods for Hybrid Systems by Dr Jennifer DAVOREN and Dr Thomas MOOR (SE) with Prof Gerardo Lafferriere (Portland State University, Portland, USA), Dr George Pappas (University of Pennsylvania, Philadelphia, USA)

Modular and Hierarchical Control of Hybrid Systems by Dr Jennifer DAVOREN and Dr Thomas MOOR (SE) with Dr Jorg Raisch (Max Planck Institut, city, country)

Investigating ATP Progress in the Light of TPTP Data by Dr Matthias FUCHS with Dr Geoff Sutcliffe (James Cook University, Townsville, QLD)

Concurrent Constraint Programming and Display Logic by Dr Rajeev GORE with Dr Francois Fages (Departement de Informatique, Ecole Normale Supérieure, Paris, France)

Extending Display Calculi by Dr Rajeev GORE with Dr Stéphane Demri (Laboratoire LEINBIZ, CNRS, Paris, France)

Proof Theory of Nonclassical Logics by Dr Rajeev GORE with Prof Hiroakira Ono (Japan Advanced Institute of Science and Technology, Kanazawa, Japan)

Computational Interpretations of Intuitionistic Tense Logics by Dr Rajeev GORE with Dr Jean Goubault-Larrecq (GIE Dyade, Paris, France)

Propositional Logics on the Computer by Dr Rajeev GORE with Prof Gerhard Jaeger (Institute of Applied Mathematics, University of Berne, Switzerland)

Knowledge Representation for Machine Learning by Prof John LLOYD with Dr Christophe Giraud-Carrier (University of Bristol, Bristol, UK), Dr Antony Bowers (STMicroelectronics Ltd, Bristol, UK)

Points at the Intersection of Relevant and Combinatory Logics by Emeritus Prof Robert MEYER with Assoc Prof Martin Bunder (University of Wollongong, Wollongong, NSW)

Joint Audio-Visual Evidence in Speech by Dr Bruce MILLAR with Dr Gerard Bailly (Université Stendhal, Grenoble, France), Dr Jordi Robert-Ribes (Cable and Wireless Optus, Sydney, NSW)

Web-Accessible Descriptive Schemes for Spoken Language Data by Dr Bruce MILLAR with Dr Toomas Altsaar (Helsinki University of Technology, Helsinki, Finland)

Modelling of Audio-Video Characterisation of the Speaking Face by Dr Bruce MILLAR and Roland GÖCKE with Prof Cheol-Woo Jo (Changwon National University, Changwon, Korea)

Combinatorial Optimisation and Decision Problems by Dr John SLANEY with Dr Sylvie Thiébaux and Dr Phil Kilby (CSIRO Mathematical and Information Sciences, Canberra)

Department of Systems Engineering

Department of Systems Engineering: collaborative agreement with Volvo ABB, Sweden.

Control Relevant System Metrics for Model Validation by Prof Brian ANDERSON, Dr Thomas BRINSMEAD with Dr Franky De Bruyne (Siemens, Huizingen, Belgium)

Safe (Cautious) Multiple Model Adaptive Control by Prof Brian ANDERSON, Dr Thomas BRINSMEAD with Dr Subhrakanti Dey (University of Melbourne), Dr Joao Hespanha, (University of Southern California LA, USA), Dr Daniel Liberzon (Yale University, USA), Prof A.S. Morse (Yale University, USA), Dr Franky De Bruyne (Siemens, Huizingen, Belgium)

Stochastic Control with Multiplicative Noise by Prof John MOORE with Dr Mustapha Ait Rami, Prof Xunyu Zhou (Chinese University of Hong Kong)

Human-Machine Interaction by Prof Alexander ZELINSKY, Dr Sebastien ROUGEAUX with Volvo ABB (Sweden)

Vision-Based Mobile Robot Navigation by Prof Alexander ZELINSKY, Simon THOMPSON, Luke FLETCHER with Prof Mandyam Srinivasan (RSBS, ANU), Dr Toshihiro Matsui (ETL, Japan)

Logical Foundations of Hybrid Dynamical Systems by Dr Jennifer DAVOREN (CSL), Dr Thomas MOOR (SE), Dr Rajeev GORE (CSL), Dr Jeremy DAWSON (CSL), Nicolette BONNETTE (CSL) with V. Coultard (Department of Mathematics, ANU), Dr George Pappas (University of Pennsylvania, USA), Prof Gerardo Lafferriere (Portland State University, USA), Prof Anil Nerode (Cornell University, USA), Greg O'Keefe (University of Tasmania, 2000-2001 summer scholar)

Modular and Hierarchical Control of Hybrid Systems by Dr Thomas MOOR (SE), Dr Jennifer DAVOREN (CSL), Prof Brian ANDERSON (SE), Matthew SMITH (SE) with Dr Jörg Raisch (Max Planck Institut für Dynamik Komplexer Technischer Systeme, Magdeburg, Germany)

Autonomous Submersible Robot by Dr David WETTERGREEN, Prof Alexander ZELINSKY, Chris GASKETT, Peter BROWN with Chanop Silpa-Anan (FEIT, ANU), Prof Hugh Durrant-Whyte (University of Sydney, Sydney), BEI Electronics Inc (California, USA) Donner Wind River Systems (California, USA)

Human-Robot Cooperative Systems by Prof Alexander ZELINSKY, Jochen HEINZMANN, Rowel ATIENZA, Timothy EDWARDS with ACSys (Canberra)

Department of Telecommunications Engineering

Higher Order Soundfield Microphones by Dr Thushara ABHAYAPALA with Dr Robert Williamson (FEIT, ANU), Dr Gary Elko (Bell Laboratories, Lucent Technologies, Murray Hill, US)

Sound Field Reproduction Using an Array of Loudspeakers by Dr Thushara ABHAYAPALA with Dr Darren Ward (Imperial College, London, UK)

Robustness of Optimal Detectors in Wireless Channels to a Channel Autocovariance Mismatch by Dr Brian HART with Dr Iain Collings (University of Sydney, Sydney)

Writing four book chapters on Equalisation for Wireless Channels by Dr Brian HART with Prof Desmond Taylor (University of Canterbury, Christchurch, New Zealand), Dr Giorgio Vitetta (University of Modena, Italy), Dr Aarne Mammela (VTT Electronics, The Technical Research Centre of Finland, Finland)

Data Detection and Channel Estimation by Dr Brian HART with Prof Subbarayan Pasupathy (University of Toronto, Canada)

Adaptive Receivers for Wireless Multimedia Applications by Prof Rodney KENNEDY with Dr Predrag Rapajic (University of New South Wales), NEC (Melbourne)

Performance Improvement of xDSL and Cable Modems for Internet Service Delivery in the Presence of Noise by Prof Rodney KENNEDY with A/Prof Lei Wei (University of Wollongong), Motorola (Sydney)

Improved Digital Television (Phase 2) by Prof Rodney KENNEDY, Dr Brian HART, Dr Thushara ABHAYAPALA with Prof Richard Johnson (Cornell University, Ithaca, New York, USA) Prof William Sethares (University of Wisconsin, Madison, USA), News Limited (Sydney, NSW)

Collaborative Research, Development and Commercialisation Agreement (Phase 3) by Prof Rodney KENNEDY, Dr Brian HART, Dr Thushara ABHAYAPALA with Dr Robert Williamson (FEIT), Prof Richard Johnson (Cornell University, Ithaca, New York, USA) Prof William Sethares (University of Wisconsin, Madison, USA), Philips Laboratories (Briarcliff, New York, USA), Fox Television Stations Inc. (California, USA)

Collaborative Research, Development and Commercialisation Agreement (Phase 4) by Prof Rodney KENNEDY, Dr Thushara ABHAYAPALA, Dr Robert WILLIAMSON with Prof Richard Johnson (Cornell University, Ithaca, New York, USA) Prof William

Sethares (University of Wisconsin, Madison, USA), Philips Laboratories (Briarcliff, New York, USA), Fox Television Stations Inc. (California, USA)

John Curtin School of Medical Research

Most of our collaborative research projects are with other Australian universities or bodies or international institutions. However, in 2000 we were involved in more than 20 collaborations within the ACT, either intra campus or with the Canberra Hospital or CSIRO. These included several between Dr GREASY'S Computational Molecular Biology and the ANU Supercomputer Facility, Prof YOUNG and the Protein Structure Group at RSC on the structure of the IL-5 receptor and Dr HUTTLEY'S with Prof Sue Wilson of the School of Mathematical Sciences. Prof Kieran KIRK, Head of BAMBI is a member of the Director's Research Advisory Board.

More than 100 research projects are being conducted in collaboration with scientists from other Australian or overseas research institutions. These are all listed in our full Annual Report which can be viewed at <<http://jcsr.anu.edu.au>>. A few illustrative examples may be mentioned here:

Gene mapping, gene expression profiling and protein profiling of mouse mutation on an array of arrays by Prof C GOODNOW with Dr Mark Chee, Illumina, Inc, San Diego.

Neuromuscular growth factors by Prof I A HENDRY with Dr Ian MacLennan, Department of Anatomy, University of Otago.

The mechanism of nuclear transport and role in infection of the NS5 polymerase protein of Dengue virus by Prof DA JANS with Dr S Vasudevan, Biochemistry & Molecular Biology, James Cook University of North Queensland.

Investigation into immunogenicity of DNA vaccines by Prof I RAMSHAW with Prof H Robinson, Department of Pathology, University of Massachusetts, Worcester, MA USA.

The role of chemokines in the rejection of pig proislet xenografts by Dr C SIMEONOVIC with Dr William A Kuziel, section of Molecular Genetics and Microbiology, University of Texas at Austin.

Onset of ACTH hypertension by Prof J WHITWORTH with Prof Rick Jackson, Dept of Medicine, University of QLD.

Research School of Pacific and Asian Studies

Division of Economics

ATHUKORALA, Dr P-C: Capital mobility, crisis and adjustment in Malaysia, with M Yap, Malaysian Institute of Economic Research; Processed food exports from developing countries, with A Gulati, Institute of Economic Growth, Delhi, Bhanupong Nidhiprobha, Tamassat University, Thailand, and S K Jayasuriya, La Trobe University.

DRYSDALE, Prof P, : Financial markets and policies in East Asia, with R Gibbs, Macquarie Bank, D Wilson, Goldman Sachs, H W Chung, Korea Institute of Finance, Dr R Rajan, University of Adelaide, Prof E Sakakibara, Keio University, Dr S Grenville, Reserve Bank of Australia, Prof M Kawai, The World Bank, Prof K Inoue, Kobe University, Dr R Y Siregar, National University of Singapore, Dr M Pangestu, Centre for Strategic and International Studies, Dr M Habir, PEFINDO, D Nellor, International Monetary Fund, Dr K Henry, The Treasury, G DeBelle, Reserve Bank of Australia, Prof C-M Hsu, National Taiwan University, B McCauley, Bank of International Settlements, Prof A Grimes, National Institute of Policy Studies, Prof G Fan, National Economic Research Institute, Prof B Nidhiprabha, Thammasat University, Dr R Glick, Federal Reserve Bank of San Francisco, Dr N K Jin, National University of Singapore, Dr J-W Lee, Korea University, Dr M Crosby, University of Melbourne, M Sherwin, Reserve Bank of New Zealand, M Blejer, International Monetary Fund, Dr H Soesastro, Centre for Strategic and International Studies, Jakarta; Achieving high growth: experience of transitional economies in East Asia, with Dr Y Huang, Salomon Smith Barney, Prof M Kawai, The World Bank, Prof D Perkins, Harvard University, Prof W T Woo, University of California, Davis, Prof J Bonin, Wesleyan University, Dr W Martin, The World Bank, Dr M Graham, Institute for International Economics, Prof S Urata, Waseda University, L Harkim, The World Bank, Prof W Hai, Peking University, Dr L Sun, Institute for Applied Systems Analysis, Dr C Feng, Academy of Social Sciences, Dr J Riedel, John Hopkins University, Dr L D Doanh, Central Institute of Economic Management, R Luanglatbandith, National Statistical Centre, Laos, Dr S Hach, Cambodian Development Research Institute, Dr J Menon, Asian Development Bank, Dr B Hitchcock, Asian Development Bank, Dr C K Quinones, Mercy Corps International, B Babson, The World Bank, Dr M Than, Institute of Southeast Asian Studies, I Okamoto, Institute of Developing Economies, B Lintner, Far Eastern Economic Review; Future financial arrangements in East Asia, with H Kuroda, Ministry of Finance, Prof T Ito, Ministry of Finance, Prof J Goto, Kobe University, Prof E Ogawa, Hitotsubashi University, Prof N Yoshino, Keio University, R Battellino, Reserve Bank of Australia, Dr D Gruen, Reserve Bank of Australia, Dr K

Henry, The Treasury, P Furnell, The Treasury, Dr R Rajan, University of Adelaide; Bank rescue packages in Japan and Asia, with Dr J Corbett, Nissan Institute, Oxford University, Dr E Sakakibara, Keio University, Prof D Vines, Oxford University, Dr P Dee, Productivity Commission, Prof R Snape, Productivity Commission; Key issues for East Asian food sector, with Prof M Honma, Seikei University, Dr R Stringer, University of Adelaide, D Stokes, Productivity Commission, J Kennedy, Supermarket to Asia, J Davis, RIRDC; APEC agenda for 2001 Summit, with Prof Y Zhang, Chinese Academy of Social Sciences, Dr L Jianren, Chinese Academy of Social Sciences, X Zhou, Chinese Academy of Social Sciences, C Luzhi, China Institute for International Studies, Prof L R Lin, Nan-kai University.

FANE, Dr G: Liberalisation of exchange controls in Bangladesh, with Dr H Ahammad, Economic Research Centre, University of Western Australia; Analysis of welfare changes in computable general equilibrium models, with Dr H Ahammad, Economic Research Centre, University of Western Australia.

HILL, Prof H: Philippine Economy Project, with Prof A Balisacan, University of the Philippines; East Timor: an economic policy framework for rapid growth, with J Saldanha, University of California, San Diego; examiner, PhD theses, La Trobe University and Adelaide University; member, Review Committee, Australian Centre for Korean Studies, Griffith University.

KALIRAJAN, Dr K P: Singapore economy: key issues for the 21st century, with Prof B Rao and Prof G Shantakumar, Department of Economics, National University of Singapore; Sources of growth in East Asia, with Prof N Singh, Department of Economics, University of California, Santa Cruz; Accelerating growth through globalising Indian agriculture, with Prof U Sankar, Madras School of Economics, Chennai, India.

McKIBBIN, Prof W: Global dimensions of demographic change, with Dr R Bryant, Brookings Institution; Economics for an integrated world, with Prof P Wilcoxon, University of Texas at Austin; Global costs of policies to reduce Greenhouse gas emissions, with Dr R Shackleton, US Environmental Protection Agency; Monetary and fiscal policy rules in the European Union, with Prof R Neck, University of Klagenfurt, Austria; Monetary and fiscal policy rules in the European Union, with G Haber, University of Klagenfurt; The need for both intertemporal optimisation and stickiness in Real World Policy Model, with Prof D Vines, Oxford University; The gains from trade liberalization with endogenous productivity and risk premia effects, with Dr A Stoeckel, Centre for International Economics, Canberra; Greenhouse Gas Policy in Australia, with D Pearce, Centre for International Economics, Canberra; Global costs of policies to reduce Greenhouse gas emissions, with Dr P Bagnoli, Department of Finance, Canada; The gains from trade liberalization with en-

ogenous productivity and risk premia effects, with Dr K K Tang, University of Queensland.

McLEOD, Dr R H: Supervisor, PhD candidate, University of Melbourne.

MENG, Dr X: Two-tier labour markets in urban China: occupational segregation and wage differentials between urban residents and rural migrants, with Dr J Zhang, Chinese University of Hong Kong; The gender earnings gap: effects of institutions and firms – a comparative study of French and Australian private firms, with Dr D Meurs; Labour market integration in urban China, with Dr M Maurer-Fazio, Bates College, USA, and Dr H Wang, Beijing University, China; Urban unemployment and poverty in China, with Dr S Li, Institute of Economics, Chinese Academy of Social Sciences.

SONG, Dr L: Private enterprise development in China: study report, with Dr Y Yao, China Center for Economic Research, Peking University.

WARR, Prof P G: Policy and economic policy in Indonesia, with Prof K Anderson and G Wittwer, Centre for International Economics, University of Adelaide; continuing research with Dr B Nidhiprabha, Faculty of Economics, Thammasat University, Bangkok.

WEN, Dr M: Ownership and technical efficiency – a cross-section study on the third industrial census of China, with Dr D Li, Texas A&M University, and Prof P Lloyd, University of Melbourne; Push or pull? The relationship between development, trade and resource endowment, with Prof S King, University of Melbourne; Excess capacity investment: government versus private firms, with Dr D Sasaki, University of Exeter; Spatial distribution of manufacturing in China, with Dr M Amiti, University of Melbourne.

WOLFF, L: Japanese legal historiography, with Dr P Schmidt, Centre for Asian and Pacific Legal Systems, Faculty of Law, University of Sydney; Japanese legal abbreviations, with Assoc Prof L Nottage, Faculty of Law, Kyushu University; Comparative corporate compliance, with Dr C Parker, School of Law, The University of New South Wales.

Division of Pacific and Asian History

BALLARD, Dr C: Colonial exploration of Dutch New Guinea, with Dr A Ploeg, Utrecht University, Netherlands; member, research committee for the 'The Race for the Snow Mountains of West New Guinea' exhibition, Tropenmuseum, Amsterdam, in conjunction with the Tropen Instituut, Amsterdam, Viewpoint Productions Pty Ltd, Amsterdam, and the Royal Geographical Society, London; technical advisor on the documentary film *Freeport, the Amungme, and the Mountains*, with Viewpoint Productions Pty Ltd, Amsterdam, and Dutch national television; Agreement on a program of international scientific cooperation (Programme International de Coopération Scientifique [PICS]) on Pacific

societies between RSPAS and the Centre de Recherche et de Documentation sur l'Océanie (Marseille, France), Centre National de la Recherche Scientifique (CNRS); Memorandum of Understanding on long-term research collaboration in Irian Jaya, with the Universitas Cenderawasih (Irian Jaya, Indonesia) and the University of Amsterdam; New Caledonia, with École des Hautes Études en Sciences Sociales (EHESS) and the Centre National de la Recherche Scientifique (CNRS), France; 'Racisms', with Dr H Jebens, Frobenius Institute, Frankfurt.

BARMÉ, Prof G R: Qing dynasty history and the Yuan Ming Yuan, with L Conner, New York; History of Wang Fu Jing, Beijing's main 20th century commercial centre, with S Ye; Digital Encyclopaedia Project, with the Long Bow Group, Boston, and the digital media faculty at MIT; The Cultural Revolution Documentary Film Project, with Dr C Hinton and R Gordon, Long Bow Group, Boston, Prof E Perry, Harvard University, Prof A Walder, Stanford University, Prof A Nathan, Columbia University, and other academics in Sweden and Australia; Chinese intellectual history, with Prof Xu Jilan, Shanghai University; in collaboration with Asian Studies Association of Australia, organised and interpreted for keynote speaker, Liang Xiaoyan, on 'Civil Society in China Today'; Voicing Concerns: Contemporary Chinese Intellectuality, with Dr G Davies, Monash University.

CHOE-WALL, Dr Y H: Encyclopaedia of Korea, with scholars from Australian and overseas universities.

DENOON, Prof D: Blackwells History of Australasia Project, with Dr M Wyndham, The Faculties, and Prof P Mien-Smith, University of Canterbury, Christchurch, NZ; A history of Papua New Guinea, with Dr A Kituai, University of Papua New Guinea.

DENOON, Prof D, Prof B V LAL, Prof H NELSON, Dr B DOUGLAS, C WEIR, M MORGAN and T BALEIWAQA (PAH): Bursting the boundaries: places, persons, gender and disciplines, with Dr G Fry, International Relations, Dr P Turnbull, Centre for Cross-cultural Research, K Teaiwa, Anthropology, RSPAS, G Rawlings, Pacific Manuscripts Bureau, RSPAS, and Dr J Martinello and Dr A Chanter, University of Canberra.

ELVIN, Prof J M D: Introduction of the concluding volumes of J Needham et al, *Science and Civilisation in China*, in collaboration with the Needham Research Institute.

JACKSON, Dr P: Geopolitical history of Thai culture, 1850–2000, with Dr R Harrison, Thai Literature, School of Oriental and African Studies, University of London.

LAL, Prof B V: Encyclopaedia of the Pacific Islands, with scholars from around the world; Pacific People, Pacific Places, with Department of History, University of Canterbury.

MCCORMACK, Prof G: Situating Okinawa: politics, economy and identity with Dr G Hook and Dr R Siddle, University of Sheffield, UK; discussion meeting at Seoul National University on shared research interests with Japan specialist scholars of Seoul National University, Sejong Institute, Kookmin University; preliminary meeting in Osaka with President and Vice-President of Osaka Foreign Studies University, Prof Akagi and Prof Nishimura, discussing common research agendas and possible cooperation, especially with regard to the Mekong River region.

MORRIS-SUZUKI, Prof T: Multiculturalism in an age of globalisation, with Prof T Iyotani, et al., Hitotsubashi University, Japan; Internationalisation of Japanese science and technology information, with Dr M Low, University of Queensland, and Prof S Nakayama, et al., Kanagawa University, Kanagawa, Japan; Americanisation and East Asia, with Prof T Nakano, Tokyo University of Foreign Studies, and others; Asia-Pacific network of Asian studies, with 25 representatives from 15 countries.

MORRIS-SUZUKI, Prof T, Prof G MCCORMACK and Prof G BARMÉ: New stage of globalization and Asian societies, with Prof T Saito, Tokyo University of Foreign Studies, Japan, and the Japanese Ministry of Education.

NELSON, Prof H: Research into World War II in Papua New Guinea, with the Australian War Memorial; collaboration with the National Museum of Australia and the Centre for Cross-cultural Research, ANU, to provide information for the museum's opening exhibition.

NELSON, Prof H and Dr K TAMURA: Experiences and participation in World War II in Papua New Guinea, with Dr H Iwamoto, Tsukuba University, Tokyo, and others, including scholars from Papua New Guinea.

TAMURA, Dr K: Migration in the Asia-Pacific Area, preliminary discussions with the Japan Centre for Area Studies and the National Museum of Ethnology, Osaka, Japan.

Division of Politics and International Relations

AMYX, Dr J, Beyond Bilateralism: US-Japan Cooperation / Competition in Asia project (sponsored by the Japan-US Friendship Commission [JUSFC]), with colleagues in the US (University of California-San Diego, University of Washington, University of Southern California, Harvard University, Middlebury College) and in Singapore (National University of Singapore) (book in progress, edited by Ellis Krauss and T J Pempel); Japan: the Lost Decade project (sponsored by the Institute of Social Sciences, Tokyo University) with colleagues in the US (University of California, Berkeley, Yale University, Purdue University, Harvard University,

University of Hawaii, Brigham Young University) and in Japan (University of Tokyo, Kobe University, Sophia University, Aoyama Gakuin University) (book in progress, edited by Nobuhiro Hiwatari); Japan's Bubble Economy project (sponsored by the National Institute for Research Advancement (NIRA), Tokyo), with colleagues in Japan (University of Tokyo, Kyoto University, Keio University, Osaka City University, Kobe University) and in the US (University of California, San Diego) (book in progress, edited by Michio Muramatsu and Masahiro Okuno-Fujiwara); Japan's Economic Crisis: Building a New Model project (sponsored by the US-Japan Foundation) with colleagues in the US (Stanford University, Institute for International Economics) and in Japan (the National Graduate Institute for Policy Studies, Ministry of Finance) (book in progress, edited by Daniel Okimoto).

COLLIER, Dr C: Supervisor, National Visiting Scholar, University of Adelaide.

CROUCH, Dr H: Director, Indonesia Project, International Crisis Group.

ELLIOTT, Dr L: Non-traditional security issues in Southeast Asia (Ford Foundation Project), with Institute of Defence and Strategic Studies, Nanyang Technological University; Engaging governance, with the Centre for International Politics, Department of Government, University of Manchester.

FRY, G: Contending images of world politics, with Dr J O'Hagan, Centre for International Studies, University of Southern California; examiner, Honours theses, Flinders University.

HAMILTON-HART, Dr N: Political economy of finance in Malaysia, with K S Jomo, University of Malaya.

HARRIS, Prof S: Alliance relationships, with Australian academics and the Kennedy School at Harvard University.

KERKVLIE, Prof B: Meanings and practices of freedom in Asia and Africa, with colleagues in the US (Washington, Princeton, Yale, and Columbia Universities, University of Wisconsin, University of California, Los Angeles) and in the UK (University of London, Buckingham University); Agricultural collectivization and decollectivization, with colleagues at Hanoi National University; Land policies and related issues, with colleagues at the University of Sydney and the College of Agriculture no. 1, Vietnam; collaborative teaching and staff development: with Prof David Marr, working with colleagues at the Hanoi National University's College of Social Science and Humanities to have visiting fellows and two PhD students from Vietnam at the ANU (four-year project, funded by Ford Foundation); thesis examiner, PhD dissertation for University of New South Wales and MA thesis for National University of Singapore; coordinator for ANU Fellowships for Southeast Asian Studies, which enable graduate students and

recent PhD holders in the United States to do research at the ANU (funded by the Luce Foundation).

MAY, Dr R J: Muslim autonomy in Mindanao, with associates at P Gowing Memorial Research Center, Marawi City, Philippines; Regime change and regime maintenance in Asia and the Pacific project, with various institutions in Australia and overseas; Papua New Guinea election study 1997, with Department of Political and Administrative Studies, University of Papua New Guinea; Asia Pacific Security Outlook 2001, with Japan Center for International Exchange, Tokyo, and East-West Center, Hawaii; member, Asia Pacific Security Outlook (APSO) Project Team; collaborated in a workshop on 'Autonomy and Democracy in Asia and the Pacific', Darwin with Institute for Democracy and Electoral Assistance, Stockholm, and Centre for Democratic Institutions (CDI), ANU (and currently editing a volume with Ben Reilly, formerly of International Democracy and Electoral Assistance [IDEA]); presented seminars at Aarhus University and at the Department of Peace and Conflict Research, Uppsala University; contributed to project on language and ethnic conflict, convened by Michael Brown, Georgetown University (book in press); examined theses for UNSW, La Trobe, Australian Defence Force Academy.

NOBLE, Dr G: International production networks in the disk drive business, with the University of California, San Diego; Economic engagement between Japan and Asia, with the University of California, Berkeley and Waseda University.

O'COLLINS, Emeritus Prof M: Supervisor, PhD student, University of Western Australia, and Master's student, Australian Catholic University; member, Advisory Board, Australian Catholic University School of Social Work; provided research and thesis preparation and examination advice to the University of Papua New Guinea; presented a lecture on 'Equity and Diversity' in the 'Women of Influence' lecture series organised by a joint committee from the Australian National University, the University of Canberra, the Defence Force Academy UNSW and the Australian Catholic University Canberra Campus; organiser of a workshop on 'Indigenous Issues in Social Work Education', Australian Catholic University, Canberra Campus; held discussions on development issues in the South Pacific with the Dean of Social Welfare, University of California, Berkeley and the Director of the Centre for Australian and New Zealand Studies, Georgetown University, Washington DC.

REGAN, A: Twenty Years of the PNG Constitution, with Assoc Prof O Jessep, Faculty of Law, University of New South Wales, and E Kwa, Faculty of Law, University of PNG.

ZHANG, Dr Y: Examiner, MA thesis, School of International Relations, Peking University; supervisor, PhD student, University of Auckland.

Division of Society and Environment

Department of Anthropology

BROOKFIELD, Emeritus Prof H: People, land management and environmental change, with Dr L Jansky, United Nations University; People, land management and environmental change, with Dr C Padoch, New York Botanical Garden; People, land management and environmental change, with F Kaihura, Agricultural Research and Development Institute, Ukirigira, Tanzania; People, land management and environmental change, with Prof M Stocking, University of East Anglia, UK; People, land management and environmental change, with Prof I Boiro, Université de Conakry, Guinée; People, land management and environmental change, with Prof E A Gyasi, University of Ghana; People, land management and environmental change, with Dr R M Kiome, Kenya Agricultural Research Institute; People, land management and environmental change, with J Tumuhairwe, Makerere University, Uganda; People, land management and environmental change, with Prof G Huijun, Chinese Academy of Sciences, Kunming; People, land management and environmental change, with Prof D G McGrath, Universidade Federal do Pará, Brazil; People, land management and environmental change, with J Sowe, National Research Institute, PNG.

FILER, Dr C: Future of the Tropical Forest Peoples project, with the Department of Anthropology, University of Kent at Canterbury; Property, transactions and creations: new economic relations in the Pacific project, with the University of Cambridge and Brunel University; Policy that works for forests and people project, with the International Institute for Environment and Development; International financial flows and the environment program, with the World Resources Institute.

KILDEA, G: Documentary film about a cargo cult in Papua New Guinea, with Dr A Lattas, University of Newcastle, and A Simon, Arcadia Pictures, New York; documentary film editing, with SBS Television, NSW Film and Television Office, Australian Film Commission and Ronin Films.

MACKNIGHT, Emeritus Prof C: Examiner, PhD thesis, Faculty of Arts, Northern Territory University.

MEI, H-Y, Produced a book about the history of the Wu-der Temple, Anping, Taiwan, with L Xiao-yu, Anping, Taiwan.

ORAM, N: Presented 250 cassette tapes to the Oral History Section of the National Library of Australia. The tapes contain oral histories and linguistic material recorded by Oram in several Motu and Hula communities (Papua New Guinea) during the 1960s.

ROBINSON, Dr K: Management of mangrove forests, with Anthropology Department, University of Indonesia, Jakarta; The beginning of the twentieth century:

endorsing regional autonomy, understanding local cultures, strengthening national integration, with Anthropology Department, University of Indonesia, Jakarta.

ROSE, Dr D: Continued collaboration with the American photographer Sharon D'Amico; Indigenous relationships between people and place, with members of the Mak Mak clan, North Australia; located PhD field sites, with Department of Anthropology, University of Washington; organised a Canadian Anthropology Society Meeting session and publication, with Dr E Furniss, University of Calgary.

VISCHER, Dr M: Co-authored *What Makes a Champion?*, with Prof A Snyder, Center of the Mind, ANU, and Sydney University.

WEINER, Dr J F: Edited *Indigenous Land Tenure and Registration: Problems and Perspectives*, with Dr L Goldman, University of Queensland.

YOUNG, Dr M: *The Photography of F E Williams 1922–1939*, with Dr J Clark, Port Arthur Historic Site, Tasmania.

Department of Archaeology and Natural History

AMBROSE, W: Obsidian dating, temperature monitoring, in the *Archaeology of West New Britain*, Papua New Guinea, with Dr R Torrence, The Australian Museum, Sydney; Natural freeze-drying technology for the preservation of historic Antarctic buildings, with Dr I Godfrey, WA Maritime Museum; Secondary Ion Mass Spectrometry (SIMS) analysis of short-term obsidian hydration reactions, with Dr L Riciputi, Oak Ridge National Laboratory, USA, Dr C Stevenson, Virginia Department of Historic Resources, USA, and Dr I Abdelrehin, Evans East, New Jersey, USA.

ANDERSON, Prof A J: Kiritimati Island Project, with Dr P Wallin and Dr H. Martinsson-Wallin, Kon-Tiki Museum, Norway; Prehistory of Palau Project, with Dr S Wickler, Tromsø University Museum, Norway; Southern Margins Project, with G O'Regan, Ngai Tahu Development Corporation, New Zealand; Central Pacific Pottery Sourcing Project, with Dr D Kennett, California State University, USA; Fijian Prehistory Project with T Sorovi-Vunidilo, Fiji Museum; Norfolk Island Prehistory Project, with Dr J P White, University of Sydney.

BLAU, Dr S: An investigation of archaeological human tooth samples using synchrotron radiation and electron microprobe analysis, with Dr B Kennedy and E Warnes, School of Chemistry, University of Sydney.

CAMERON, J: *Origins of Rice Project (SAJOR)*, with Prof R MacNeish, Andover Foundation for Archaeological Research, Andover, USA; *Origins of Angkor Project*, with Dr R Thosarat, Fine Arts Department, Bangkok, and Prof C Higham, Department of Archaeology, University of Otago; *Origins of Complex Society in South Sulawesi*, with Dr D Bulbeck, Archaeology

and Natural History, The Faculties, and Dr B Prasetyo, Bidang Prasejarah, Pusat Penelitian Arkeologi Nasional; Craft specialisation in the prehistoric period in Vietnam, with N K Dung, Institute of Archaeology, Hanoi.

GOLSON, Emeritus Prof J: Uranium–helium dating of a fragment of a stone bowl recovered at the Kuk archaeological site, Western Highlands Province, Papua New Guinea, in order to help with the sourcing of its parent rock, with Dr B McInnes and Dr N Evans, CSIRO Exploration and Mining, Sydney.

HOPE, Prof G S: Reconstruction of global environments BIOME300, with Dr S Mooney, University of NSW; Reconstruction of global environments BIOME6000, with Prof S Harrison, Max Planck Institute of Geocology, Jena, Germany; Glacial environments of New Guinea, with Dr Peterson, Dr Haberle, Monash University, Dr Prentice, University of New Hampshire, UNSW, Dr Hantoro, LIPI Geoteknologi, Bandung; Peatlands of montane New South Wales, with Dr P Kodela, Royal Botanical Gardens, Sydney, and Dr R Good, New South Wales National Parks; Island change in the Holocene, with Prof P Nunn, University of the South Pacific, Fiji; Sphagnum and Australasian peatlands, with Dr J Whinam, Tasmanian National Parks and Wildlife.

JONES, Prof R M: Early human settlement chronologies at Lake Eyre, with Dr J Magee, Geology, The Faculties, and Dr G Miller, University of Colorado; Application of luminescence methods for the dating of rock art in tropical Australia, with Dr R Roberts, La Trobe University; Fundamental research into the formation and dating of mineral skins overlying rock art in tropical Australia, with Dr A Watchman, James Cook University; Luminescent methods to date the last phase of the Australian marsupial megafauna, with Dr R Roberts, La Trobe University, and Dr T Flannery, South Australian Museum.

O'CONNOR, Dr S: *Bridging Sunda and Sahul: the archaeology of the border area between Asia, Australia and Melanesia in East Timor*, with Prof M Spriggs, Archaeology and Anthropology, The Faculties, and Dr P Veth, Archaeology and Anthropology, James Cook University.

SWADLING, Dr P L: *Stone bowls and pestles of Papua New Guinea: a stylistic and distributional study*, Visiting Collection Fellowship with Dr J Specht, The Australian Museum, Sydney.

Department of Human Geography

ALLEN, Dr B J: Maintenance of biodiversity, with J Sowe, Papua New Guinea National Research Institute, Port Moresby; Agricultural systems and land degradation, with Dr G Humphries, Macquarie University, Sydney; Papua New Guinea district profiles, with M Dillon and Dr R Ferraris, Australian Agency for International Development; planning for agricultural development and sustainable land management in Pa-

pua New Guinea, with P Vovola and S Ivahupa, Papua New Guinea National Agricultural Research Institute; Research Management Information System for the Papua New Guinea Agricultural Institute, with Dr R D Ghodake, Papua New Guinea National Agricultural Research Institute.

BOURKE, Dr R M: Accessing past research, with Dr G Wiles, Papua New Guinea National Agricultural Research Institute; planning for agricultural development and sustainable land management in Papua New Guinea, with P Vovola and S Ivahupa, Papua New Guinea National Agricultural Research Institute; improving the food situation in Ogea, Papua New Guinea, with Dr P W G Sale, La Trobe University; Papua New Guinea District Profiles, with M Dillon and Dr R Ferraris, Australian Agency for International Development; presenter at the Geography Department, Australian Defence Force Academy, Canberra, on Issues of Governance within Papua New Guinea.

GIBSON, Dr K D: Building sustainable regions: testing new models of community and council partnership, with Dr J Cameron, Monash University.

McKAY, Dr D: Filipina identities, with N Alcuitas-Imperial, Philippine Women's Center, Vancouver, Canada.

PRETES, M: Comparative natural resource management, with Prof M Berman, University of Alaska-Anchorage; Globalisation and regionalisation in the Pacific, with Prof C Smith, Stanford University; Ecotourism in Queensland, with C Pettit, University of Queensland.

RIMMER, Prof P J: The challenge of globalization for second city-regions: rejuvenation of Japan's Osaka-Kansai region and implications for Melbourne, Victoria, with Assoc Prof John Benson and Assoc Prof Howard Dick, University of Melbourne; Cities, transport and communications: the integration of modern Southeast Asia, with Assoc Prof Howard Dick, University of Melbourne; Re-imagining the Southeast Asian City, with Assoc Prof Howard Dick, University of Melbourne; subject coordinator, Maritime Transport 1: International Shipping, MA (Maritime Policy), with Assoc Prof J McQuilton, University of Wollongong; Masters course on globalization, urbanization and economic development, with Assoc Prof K Wellham, University of Canberra.

Department of Linguistics

BOWDEN, Dr J: Three-place Predicates, with Prof P Austin, University of Melbourne, Assoc Prof N Evans, University of Melbourne, Dr A Margetts, Melbourne University, and Max Planck Institute for Psycholinguistics.

PAWLEY, Prof A: Kalam ethnobiology, with Dr R Gardner, Auckland Museum, and Dr I Majnep, Simbai, Madang Province, Papua New Guinea.

PAWLEY, Prof A and Dr M ROSS: Papuan comparative linguistics project, with Prof W A Foley, University of Sydney.

TRYON, Dr D: Mission Language Project, with Prof P Mühlhäusler, Adelaide University.

Contemporary China Centre

VAN NESS, Dr P: Redressing history, with Prof D Blaney, Macalester College, Minnesota, Prof R Falk, Princeton University, Prof K-I Tuneishi, Macalester College, Minnesota, Prof W Sun, ANU, Prof D Wessner, Mennonite University, Winnipeg, Canada, Prof O Yasuaki, Tokyo University, Prof E Seymour, Denver, USA; How the world understands missile defense, with Prof R Tanter, Kyoto Seika University, Japan, Prof Shen Dingli, Fudan University, Shanghai, China, Prof E Katahara, Kobe Gakuin University, Japan, Prof J Schell, Wesleyan University, USA, Prof T Delpesch, Atomic Energy Commission, Paris.

Gender Relations Centre

BYFORD, Dr J: The gendered nature of the impact of mining on the health and well-being of a Misiman community, PNG, for Community Aid Abroad.

JOLLY, Prof M: Advisor to Prof Lenore Manderson and Linda Bennet, Key Centre for Women's Health, University of Melbourne, for World Health Organization Conference on Women and Violence, Melbourne; Borders of Being, with Dr K Ram, Macquarie University; examiner, PhD thesis, Department of Geography, University of Waikato, NZ; member, Review of Women's Studies, University of Auckland.

LAW, Dr L: Alter/Asians: Asian-Australian identities in art, media and popular culture, with Prof I Ang, Dr M Thomas and Dr S Chalmers, University of Western Sydney, Nepean; Contested landscapes, Asian cities, with Dr L Kong, National University of Singapore.

LUKERE, Dr V: Race in Oceania, with Department of History, James Cook University, Department of History, La Trobe University, Pacific and Asian History, RSPAS, and the Centre for Cross-Cultural Research, The Faculties, ANU.

Non-Divisional Groups

Director's Section

FOX, Prof J J: Various seminar presentations on East Timor: Australian Institute for International Affairs, Monash University, Wollongong University, Centre for Maritime Policy and Manning Clark House; Independent Study of Security and Defence in East Timor, King's College, London; Islam in Indonesia, McGill University/ IAIN, Jakarta; examiner, two PhD theses, Northern Territory University.

Internet Publications Bureau

CIOLEK, Dr T M: Geography and chronology of Eurasian trade routes, with Prof L Lancaster, University of California, Berkeley, USA; gazetteer of nodal points of the Silk Route, with Dr S Whitfield and C Chinnery, International Dunhuang Project, British Library, London; coordination of activities of the Asian Studies WWW Virtual Library, with 50 scholars and librarians from Australian and overseas universities; input into methodological activities of the Electronic Cultural Atlas Initiative (ECAI) [www.ecai.org], an international research project grouping over 300 Asian Studies' scholars from North America, Asia, Australia and Europe.

Pacific Manuscripts Bureau

MAIDMENT, E W: Archival projects at the Divine Word University Madang, Michael Somare Library University of Papua New Guinea, the Hawaiian Mission Children's Society Library Honolulu, the College of the Marshall Islands Library, La Trobe Library, and the State Library of Victoria.

MAIDMENT, E W and G E RAWLINGS: Joint copying projects, with National Library of Australia, Mitchell Library, Alexander Turnbull Library, University of Auckland Library, University of Hawaii Library, University of California Library San Diego, and Yale University Library.

Resource Management in the Asia-Pacific Project

BALLARD, Dr C: See entry under Pacific and Asian History.

McWILLIAM, Dr A: Affiliated Fellow, with Universitas Atha wacana (Kristen) in Nusa Tenggara Province, Eastern Indonesia.

Strategic and Defence Studies Centre

BALL, Prof D: Regional security, with Department of Foreign Affairs and Trade; Regional security, with Department of Defence.

BELL, Dr C: The Kosovo Crisis, member of a study group project organised by the United Nations University, Tokyo; lectured on strategic change at the Australian Defence College.

DIBB, Prof P: Regional Security Policy, with Department of Foreign Affairs and Trade; chair, security discussions with China; Australian Defence Policy and Regional Security, with Department of Defence; co-chair, the America's Asian Alliances project, with Harvard University's John F Kennedy School of Government.

Research School of Physical Sciences and Engineering

Applied Mathematics

Polytypism, Short-Range Order and the Origin of Long-Range Order in Natural Khmaralite and Natural and Synthetic Beryllian Sapphirine by Dr A.G. CHRISTY with Prof E.S. Grew, University of Maine, USA; Dr A. Hölscher and Prof W. Schreyer, University of Bochum, Germany; Dr Y. Tabira, Research School of Chemistry, ANU

Surfactant Adsorption Kinetics by Dr V.S.J. CRAIG with Dr S. Biggs, University of Newcastle

Formation Mechanism of Single-walled Carbon Nanotubes in a Gas Phase by Dr V.S.J. CRAIG with Drs W. Maser, E. Mu-oz, A.M. Benito, M.T. Martinez and G.F. de la Fuente, CSIC, Spain

Deposition of Diamond-like Films by Powerful UV Femtosecond and Nanosecond Laser Ablation by Dr V.S.J. CRAIG with Prof A. Perrone and Dr A. Zocco, University of Lecce, Italy; Prof C. Fotakis, Heraklion, Crete, Greece.

Excitation of Solids by Femtosecond Lasers: Non Equilibrium Phenomena, Phase Transitions and Ablation of Metals and Dielectrics by Dr V.S.J. CRAIG with Dr A.V. Rode and Prof B. Luther-Davies, (Laser Physics Centre); Profs V.T. Tikhonchuk and P.N. Lebedev, Physical Institute, Moscow, Russia

Polycontinuous Mesophases in Copolymer Melts by Prof S.T. HYDE with Prof T. Hashimoto and Prof H. Hasegawa, Kyoto University, Japan

Microemulsions and Cubic Phases in Hydrogenated and Perfluorinated Systems by Prof S.T. HYDE with Prof M. Monduzzi, Cagliari University, Italy

Mesoporous Inorganic Materials by Prof S.T. HYDE with Prof O. Terasaki, Kyushu University, Japan

Differential Geometry of Attractors by Prof S.T. HYDE with Dr Y. Nagai, Kokusikan University, Japan

Ultrastructured Inorganic Colloids by Prof S.T. HYDE with Prof J-M. Garcia Ruiz, University of Granada, Spain

Electrical Double Layers in Aqueous Solvent by Prof S. MARCELJA with Prof D. Andelman, Tel Aviv University, Israel

Co-ion Dependence of DNA Nuclease Activity suggests Hydrophobic Cavitation as a Potential Source of Activation Energy by Prof B.W. NINHAM with Prof B. Norden, Dr E. Tuite and H-K Kim, Chalmers University, Sweden

Observation of Conformational Changes of DNA Under Different Ionic Strength and Types of Ion by using Atomic Force Microscopy by Prof B.W. NINHAM

with Dr V. Craig and H-K Kim, Chalmers University, Sweden

Nanomechanical Work on Small Molecular Assemblies by Dr T.J. SENDEN with Prof J.-M. di Meglio, Institut Charles Sadron, France

Novel Particulate Radiotherapeutics by Dr T.J. SENDEN with Dr B. Burch, Australian Nuclear Science and Technology Organisation

Mechanochemical Processing of Coal by Dr N.J. WELHAM with Dr P. Chapman, Curtin University of Technology

Disposal Options for Ferrous and Arsenical Solutions from Mineral Processing Operations by Dr N.J. WELHAM with Dr K. Malatt, Gold Mines of Sardinia; Dr S.Vukcevic, Anaconda Nickel

Electrochemistry of Pyrite and its Application to Gold Recovery by Dr N.J. WELHAM with Dr G.H. Kelsall, UBC, Canada and Imperial College, London, UK

Mechanical Enhancement of the Formation of Lithium Ferrites by Dr N.J. WELHAM with Dr V. Berbenni and Dr A. Marini, University of Pavia, Italy

Effect of Mechanical Activation on Self-propagating High-temperature Reactions by Dr N.J. WELHAM with Dr U. Anselmi-Tamburini, University of Pavia, Italy

Folding Dynamics of DNA Condensates by Dr D.R.M. WILLIAMS with B. Schnurr and Dr F.C. MacKintosh, University of Michigan, USA

Dynamic Hydrophobic Transitions by Dr Y.Y. YAMINSKY with Dr K. Thuresson and Dr T. Nylander, Lund University, Sweden

Ensembles of Nanoparticles Dr Y.Y. YAMINSKY with Dr S. Ohnishi and Dr K. Abe, National Institute of Materials and Chemical Research, Tsukuba, Japan

Atomic and Molecular Physics Laboratories

Low Energy Electron Molecule Scattering by Prof S.J. BUCKMAN with Dr M.J. Brunger and Prof P.J.O. Teubner, Flinders University

Electron Scattering from Molecular Radicals by Prof S.J. BUCKMAN with Dr M.J. Brunger and Prof W. Lawrance, Flinders University

Electron Scattering from CO₂ by Prof S.J. BUCKMAN with Prof M.A. Morrison, University of Oklahoma, USA; Dr S.F. Mazevet, Los Alamos National Laboratory, USA

Electron Scattering from Metal Vapours by Prof S.J. BUCKMAN with Prof P.D. Burrow, University of Nebraska, USA; Prof K. Bartschat, Drake University, USA

Electron Molecule Scattering by Prof S.J. BUCKMAN with Prof H. Tanaka, Sophia University, Japan; Prof H. Cho, Chungnam National University, Korea

Phase Changes in Transition Metal Dichalcogenides due to GeV Heavy Ion, and MeV Fullerene Ion Bombardments — Transmission Electron Microscopy and Surface Force Microscopy by Prof L.T. CHADDERTON with Dr A. Dunlop, SESI, École Polytechnique, Paliseaux, France

Radiation Effects on Polymers; Semiconductors by Prof L.T. CHADDERTON with Dr D. Fink, Hahn-Meitner Institute, Berlin, Germany

Theory and Practice of Organic Radical Formation and Motion in GeV Ion Irradiated Polymers by Prof L.T. CHADDERTON with Prof S.A. Cruz, Autonomous Metropolitan University of Mexico, Mexico

(e,2e) Primary Current Electron Spectroscopy and Other Surface Technical Investigations of the Graphite/Fullerene Radiation Induced Phase Change by Prof L.T. CHADDERTON with Prof P.B. Möller, Niels Bohr Institute, Copenhagen, Denmark

Quantum Statistics and Boltzmann's Equation by Prof R.W. CROMPTON and Dr K. KUMAR (Theoretical Physics) with Dr R.E. Robson, James Cook University; Prof M.A. Morrison, University of Oklahoma, USA

Ultracold Atomic Collisions by Dr M.D. HOOGERLAND with Dr I. Whittingham, James Cook University

Convergent Close-coupling Theory of Double Ionization by Photon and Electron Impact by Dr A.S. KHEIFETS with Dr I. Bray, Flinders University

Electron Impact Double Ionization of the Helium Atom by Dr A.S. KHEIFETS with Prof A. Lahmam-Bennani, University of Paris – Orsay, France; Dr A. Dorn, University of Freiburg, Germany

Multiple Atomic Photoionization by Dr A.S. KHEIFETS with Prof Y. Azuma, Photon Factory, High Energy Accelerator Research Organization, Japan

Coincident Compton Scattering from Solids by Dr A.S. KHEIFETS and Dr M. VOS with Prof F. Bell, University of Munich, Germany

Comparison of Modern Many-body Theories with the Measured Energy-resolved Momentum Densities of Aluminium by Dr A.S. KHEIFETS and Dr M. VOS with Dr B. Holm, Chambers University, Sweden; Dr F. Aryasetiawan, Joint Research Center for Atom Technology, Angstrom Technology Partnership, Japan

Analysis of EEL Spectra by Dr B.R. LEWIS and Dr S.T. GIBSON with Dr M.J. Brunger, Flinders University; Dr M. Allan, University of Fribourg, Switzerland

Rydberg-valence Interactions in O₂ by Dr B.R. LEWIS and Dr S.T. GIBSON with Prof H. Lefebvre-Brion, Université de Paris-Sud, Orsay, France

Analysis of REMPI Spectra by Dr B.R. LEWIS and Dr S.T. GIBSON with Prof M.L. Ginter, University of Maryland, USA; Dr J.S. Morrill, Naval Research Labo-

ratory, Washington DC, USA; Dr R.A. Copeland, SRI International, Menlo Park CA, USA

Anomalous Intensities in REMPI Spectra by Dr B.R. LEWIS and Dr S.T. GIBSON with Dr R.A. Copeland, Dr R. Robertson and A. Tucay, SRI International, Menlo Park CA, USA

Coupled-channel Calculations for Atmospheric Photochemical Models by Dr B.R. LEWIS and Dr S.T. GIBSON with Dr L.W. Torop and Dr F.T. Hawes, University of Adelaide

Development of Ultra-high Resolution VUV Laser Sources by Dr B.R. LEWIS and Dr K.G.H. BALDWIN (LPC) with Prof B.J. Orr, Macquarie University

Electron Momentum Spectroscopy of Atoms and Molecules by Prof E. WEIGOLD with Dr M.J. Brunger and Prof I.E. McCarthy, Flinders University

Electron Momentum Spectroscopy of Large Molecules by Prof E. WEIGOLD with Prof I.E. McCarthy, Dr M.J. Brunger and Dr W. Adcock, Flinders University; Dr M.T. Michalewicz, CSIRO Division of Information Technology; Dr D. Winkler, CSIRO Division of Chemicals and Physics

Electron Momentum Spectroscopy of Solids by Prof E. WEIGOLD, Dr A. KHEIFETS and Dr M. VOS with Prof I.E. McCarthy and Dr M. Ford, Flinders University

(e,2e) Processes with Polarized Electrons and Targets by Prof E. WEIGOLD and Dr J. LOWER with Dr J. Barakdar, Max-Planck-Institut für Mikrostruktur Physik, Halle, Germany; Dr S. Mazevet, Los Alamos Laboratory, USA

National Facility for Spin Polarisation Studies of Atoms and Molecules by Prof E. WEIGOLD and Dr J. LOWER with Prof J.F. Williams, University of Western Australia

Electronic Materials Engineering

Growth and Characterisation of Long Wavelength in GaAsN Layers by Dr M. BUDA with Prof J. Wolter and Dr M. Leys, Eindhoven University of Technology, The Netherlands

Design, Fabrication and Testing of High Power Lasers by Dr M. BUDA, L. FU, J. HAY, Dr H.H. TAN and Prof C. JAGADISH with Prof G. Acket and Dr T. Van De Roer, Eindhoven University of Technology, The Netherlands

Self-assembled Monolayers for Passivation of Semiconductor Surfaces by C. CARMODY, Dr H.H. TAN and Prof C. JAGADISH with Dr V. Braach-Maksvytis and Dr B. Ragner, CSIRO-TIP

Formation Mechanism of Nanotubes by Dr Y. CHEN with Prof L. Chadderton (AMPL)

Synthesis of BN Nanotubes using Ball Milling by Dr Y. CHEN with Dr L. Chaffron, Saclay Research Center, France

Synthesis and Application of Carbon Nanotubes by Dr Y. CHEN with Prof H.M. Cheng, Chinese Academy of Science, China

Mossbauer Analysis of Nanotube Materials by Dr Y. CHEN with Prof S. Campbell, University of New South Wales

Microscopy and Microanalysis of Nanotubes by Dr Y. CHEN with Dr J. Zou, University of Sydney

Novel Processing of Vertical Cavity Surface Emitting Lasers by M.I. COHEN, Dr H. BOUDINOV, Dr H.H. TAN and Prof C. JAGADISH with Dr A. Allerman and Dr K. Choquette, Sandia National Laboratories, USA

XPS Studies of Anodic Oxides of Gallium Arsenide by P.N.K. DEENAPANRAY, L. FU, Dr M. PETRAVIC and Prof C. JAGADISH with Prof R.N. Lamb, University of New South Wales

Morphological Instability in Ion Irradiated Germanium by Dr R.G. ELLIMAN with Prof B. Stritzker, University of Augsburg, Germany

Electrical and Optical Properties of Dielectric Layers containing Metallic or Semiconducting Nanocrystals by Dr R.G. ELLIMAN with Prof S-H. Choi, Kyung Hee University, Korea

Light Emission from the Er: Si Nanocrystal System by Dr R.G. ELLIMAN with Dr G. Ross, INRS –Energie et Matériaux, Quebec, Canada

Energy Loss and Straggling of Heavy Ions by Dr R.G. ELLIMAN, Dr H. TIMMERS and T.D.M. WEIJERS with Prof H. Whitlow, Lund University, Sweden and Dr D.J. O'Connor, University of Newcastle

Heavy Ion Elastic Recoil Analysis of Silicon Oxynitride Layers by Dr R.G. ELLIMAN, Dr H. TIMMERS and T.D.M. WEIJERS with Prof H. Whitlow and J. Uribasterra, University of Lund, Sweden

Pulse Height Deficits in Surface Barrier Detectors by Dr R.G. ELLIMAN, Dr H. TIMMERS and T.D.M. WEIJERS with Prof J.A. Davies, McMaster University, Canada

Ion Beam Analysis of GaN Thin Films by Dr R.G. ELLIMAN, Dr H. TIMMERS and T.D.M. WEIJERS with Dr K.S.A. Butcher, Macquarie University

Ion Beam Analysis of Plasma Treated Steel by Dr R.G. ELLIMAN, Dr H. TIMMERS and T.D.M. WEIJERS with Dr M.P. Fewell, University of New England

Fabrication and Characterization of Quantum Well Infrared Photodetectors by L. FU, Dr H.H. TAN and Prof C. JAGADISH with Prof S.C. Shen, Prof W. Lu and Dr N. Li, Shanghai Institute of Technical Physics, Chinese Academy of Sciences, China

Reactive Ion Etching of Gallium Nitride by J. HAY, Dr H.H. TAN and Prof C. JAGADISH with Dr F. Karouta, Eindhoven University of Technology, The Netherlands

Optical Spectroscopy Studies on Semiconductor Quantum Wires and Dots by Prof C. JAGADISH, Dr H.H. TAN and L. FU with Prof S.C. Shen, Prof Wei Lu, Dr Xingquan Liu, Dr Li Na, Dr Z. Chen, Li Ning, Dr Yong Chang and H.F. Dou, Shanghai Institute of Technical Physics, Chinese Academy of Sciences, China

Electrical and Optical Characterization of Self-assembled Quantum Dots by Prof C. JAGADISH, Dr H.H. TAN and C. LOBO with Dr A. Babinski, Dr A. Wysmolek, T. Tomaszewicz and Prof J. Baranowski, Warsaw University, Poland

Processing of GaN Based Optoelectronic Devices for Blue Light Emission by S.O. KUCHEYEV, Prof C. JAGADISH and Prof J.S. WILLIAMS with Dr A.G. Li, Ledex Corporation, Taiwan

Cathodoluminescence and Environmental SEM Studies of Ion Implanted GaN by S.O. KUCHEYEV, Prof J.S. WILLIAMS and Prof C. JAGADISH with M. Toth and Dr M. Phillips, University of Technology, Sydney

Electron Microscopy of GaN by S.O. KUCHEYEV, Prof J.S. WILLIAMS and Prof C. JAGADISH with Dr J. Zou, University of Sydney

Ion Implanted GaN by S.O. KUCHEYEV, Prof J.S. WILLIAMS and Prof C. JAGADISH with Prof S.J. Pearton, University of Florida, USA

Cathodoluminescence Imaging of Quantum Wires and Dots by P. LEVER, C. LOBO, Dr H.H. TAN and Prof C. JAGADISH with Dr M.R. Phillips and M.A. Stevens Kalceff, University of Technology Sydney

Characterisation of Standards for Surface Composition and Sputter Depth Profiling by Dr M. PETRAVIC with Dr D.W. Moon, Korean Research Institute of Standards and Science, Korea

Surface Analysis Using a Free Electron Laser by Dr M. PETRAVIC with A/Prof B.V. King, University of Newcastle; Prof R. Clark, University of New South Wales; Dr M.J. Pelin, Argonne National University, USA

Photon Stimulated Desorption of Hydrogen from Semiconductor Surfaces by Dr M. PETRAVIC and P.N.K. DEENAPANRAY with Dr G. Dujardin, Dr G. Comtet and Dr L. Hellner, University Paris-Sud, Orsay, France; Prof A. Hoffman, Technion, Israel; Dr B. Usher, LaTrobe University

Roughening of Si Surface under Oxygen and Nitrogen Ion Bombardment by Dr M. PETRAVIC and P.N.K. DEENAPANRAY with Dr D.W. Moon, Korean Research Institute of Standards and Science, Korea

Selective Photon Stimulated Desorption of Hydrogen from GaAs Surfaces by Dr M. PETRAVIC and P.N.K. DEENAPANRAY with Dr B. Usher, LaTrobe University; Dr J.M. Chen, Synchrotron Radiation Research Center, Hsinchu, Taiwan

EXAFS Measurements of Implantation-induced Disorder in Compound Semiconductors by Dr M.C. RIDGWAY, C.J. GLOVER and Dr G. AZEVEDO with Dr K.M. Yu, Lawrence Berkeley National Laboratory, USA; Dr G. Foran, Photon Factory, Japan

Perturbed Angular Correlation Measurements of Implantation-induced Disorder in Semiconductors by Dr M.C. RIDGWAY, C.J. GLOVER and Dr A.P. BYRNE with Dr R. Vianden, Universität Bonn, Germany

In-situ Transmission Electron Microscopy of Implantation-induced Nano-cavity Evolution in Si by Dr M.C. RIDGWAY, Prof J.S. WILLIAMS and X. ZHU with Dr H. Bernas, Dr F. Fortuna and Dr M.-O. Ruault, Centre National Research Scientifique, Orsay, France

EXAFS Characterisation of Implantation-induced Disorder in Ge and $\text{Ge}_x\text{Si}_{1-x}$ Alloys by Dr M.C. RIDGWAY and C.J. GLOVER with Dr A. Nylandsted-Larsen and J. Hansen, Aarhus University, Denmark

Optical Spectroscopy of Semiconductor Quantum Structures and Devices by Dr H.H. TAN, L. FU, P. LEVER, Q. GAO, P.N.K. DEENAPANRAY, C. CARMODY and Prof C. JAGADISH with Dr L.V. Dao, S. Ilyas and Prof M. Gal, University of New South Wales

Passive Mode-locking of Solid State Lasers using Semiconductor Saturable Absorbers by Dr H.H. TAN, Prof C. JAGADISH, Dr M.J. LEDERER, M. V. KOLEV and Prof B. LUTHER-DAVIES with M. Haiml, Dr U. Seigner and Prof U. Keller, ETH-Zurich, Switzerland

Ultrafast Optical Spectroscopy Studies of Non-stoichiometric GaAs by Dr H.H. TAN and Prof C. JAGADISH with Prof A. Krotkus, Semiconductor Physics Institute, Vilnius, Lithuania; Dr S. Marcinkevicius, Royal Institute of Technology, Stockholm, Sweden

Mechanochemical Processing of Coal by Dr N.J. WELHAM with Dr P. Chapman, Curtin University of Technology

Disposal Options for Ferrous and Arsenical Solutions from Mineral Processing Operations by Dr N.J. WELHAM with Dr K. Malatt, Gold Mines of Sardinia; Dr S. Vukcevic, Anaconda Nickel

Electrochemistry of Pyrite and its Application to Gold Recovery by Dr N.J. WELHAM with Dr G.H. Kelsall, UBC, Canada and Imperial College, London, UK

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Ion Implantation of MgO and Sapphire by Prof J.S. WILLIAMS and M.C. CONWAY with Dr V. Gurarie, University of Melbourne

Microindentation of Semiconductors by Prof J.S. WILLIAMS and J.E. BRADBY with Prof M.V. Swain and Dr P. Munroe, University of Sydney

Metal Gettering to Cavities by Prof J.S. WILLIAMS, Dr J. WONG-LEUNG, Dr M. PETRAVIC and M.J. CONWAY with Dr A. Kinomura, ONRI, Japan

Open Volume Defects in Silicon by Prof J.S. WILLIAMS, Dr J. WONG-LEUNG, Dr M. PETRAVIC and M.J. CONWAY with Prof B. Stritzker and Dr J. Lindner, University of Augsburg, Germany

Rp/2 Defects in Silicon by Prof J.S. WILLIAMS and Dr G. de MEDEIROS AZEVEDO with Dr M. Behar, Instituto de Fisica, Porto Alegre, Brazil

Electron Microscopy Study of Defects in Ion Implanted Semiconductors by Dr J. WONG-LEUNG, Dr H.H. TAN, S. FATIMA and Prof C. JAGADISH with Prof D.J.H. Cockayne, University of Oxford, UK; Dr J. Zou, University of Sydney; Dr J. Fitz Gerald, Research School of Earth Sciences, ANU

Defect Characterization in Ion Implanted Semiconductors by Dr J. WONG-LEUNG, P.N.K. DEENAPANRAY, S.O. KUCHEYEV and Prof C. JAGADISH with Prof B.G. Svensson and Dr A. Kuznetsov, Royal Institute of Technology, Kista-Stockholm, Sweden and University of Oslo, Norway

Laser Physics Centre

Measurement of He 1s – 2s Transition by Dr K.G.H. BALDWIN with Dr T. Lucatorto, NIST, Maryland, USA; Prof T.J. McIlrath, University of Maryland, USA; Prof E. Eyer, University of Connecticut, USA

High Resolution XUV Laser Spectroscopy by Dr K.G.H. BALDWIN with Dr W. Ubachs and Prof W. Hogervorst, Vrije Universiteit, The Netherlands

Ultracold Atomic Collisions by Dr K.G.H. BALDWIN and Dr M.D. HOOGERLAND (AMPL) with Dr I. Whittingham, James Cook University

Development of Ultra-high Resolution VUV Laser Sources by Dr K.G.H. BALDWIN and Dr B.R. LEWIS (AMPL) with Prof B.J. Orr, Macquarie University

Vector Solitons by Dr W. KROLIKOWSKI with Prof T. Tschudi and Dr C. Denz, Darmstadt University of Technology, Germany

Incoherent Solitons by Dr W. KROLIKOWSKI with Dr O. Bang, Technical University Denmark, Copenhagen, Denmark

Photorefractive Solitons by Dr W. KROLIKOWSKI with Prof F. Agullo-Lopez, Universidad Autonoma de Madrid, Spain; Dr A. Bledowski, Polish Academy of Sciences, Warsaw, Poland

Non-local Nonlinear Media by Dr W. KROLIKOWSKI with Dr J. Wyller, Agricultural University of Norway

Ultrafast Nonlinear Optical Absorption in Ion-implanted GaAs by Dr M. LEDERER with M. Haiml, U. Siegner and U. Keller, Swiss Federal Institute of Technology, ETH Zürich, Switzerland

Ultrabroadband Output Coupling Mirrors for 5 Femtosecond Pulse Generation in a Kerr-lens Mode-locked Titanium Sapphire Laser Dr M. LEDERER with U. Morgner and F.X. Kärtner, Universität Karlsruhe, Germany

Off-centre Ions by Dr N.B. MANSON with Dr H. Reisen, ADFA, University of New South Wales

Chromophores in Amorphous Materials by Dr N.B. MANSON and Dr M.J. SELLARS with Dr E. Krausz and Dr R. Purchase, Research School of Chemistry, ANU

Origin of Raman Heterodyne Signals by Dr N.B. MANSON, Dr J.P.D. MARTIN, Dr M.J. SELLARS and E.A. WILSON with R. Neuhaus, Universität Dortmund, Germany; Prof D.C. Doetschman, Bingham University, NY, USA

Light Induced Structural Phase Transitions in Gallium Films Produced by Ultrafast Laser Ablation and their Optoelectronic Applications by Dr A. RODE, Prof B. LUTHER-DAVIES, Prof E. GAMALY and Dr M. SAMOC with Prof N.I. Zheludev, University of Southampton, UK

Growth Mechanism of Carbon Nanotubes Produced in Laser Plumes by Dr A. RODE and Prof E. GAMALY with Dr W. Maser, Instituto de Carboquímica, Spain

Nonlinear Optical Properties of Substituted Poly(phenylenevinylenes) by Dr A. SAMOC, Dr M. SAMOC and Prof B. LUTHER-DAVIES with Prof H-H. Hoerhold and Dr R. Stockmann, University of Jena, Germany

Third-order Nonlinear Optical Properties of Conjugated Polyenes by Dr A. SAMOC, Dr M. SAMOC and Prof B. LUTHER-DAVIES with Dr Ch. Andraud, Ecole Normale Supérieure de Lyon, France

Organometallics for Nonlinear Optics by Dr M. SAMOC and Prof B. LUTHER-DAVIES with Dr M.G. Humphrey, Department of Chemistry, ANU

Nuclear Physics

Intrinsic and Rotational Bands in ^{180}Ta by Dr R.A. BARK and Prof G.D. DRACOU LIS with G. Sletten, University of Copenhagen, Denmark and Euroball Collaboration, Strasbourg, France

Very High Spin States in ^{174}Os Populated with Cold Symmetric Reactions by Dr R.A. BARK and Prof G.D. DRACOU LIS with H. Hübel, University of Bonn, Germany; R. Julin, University of Jyväskylä, Finland

Development of an Ion Implanter for Radioisotopes by Dr A.P. BYRNE with A/Prof D.H. Chaplin, ADFA, University of New South Wales

Production of Isotopes for Cancer Therapy by Dr A.P. BYRNE with Prof B. Allen and Dr G. Goozee, St. George Cancer Care Centre, NSW

Spectroscopy of Neutron Rich Nuclei near and above ^{208}Pb Studied using Deep Inelastic Reactions by Dr A.P. BYRNE and Prof G.D. DRACOU LIS with Dr G.J. Lane, Lawrence Berkeley Laboratory, California, USA; Prof R. Broda, INP, Krakow, Poland; Dr R.V.F. Janssens, Argonne National Laboratory, Illinois, USA

Spectroscopy of Neutron Deficient Lead and Thallium Nuclei by Dr A.P. BYRNE, Dr A.M. BAXTER (Faculties), Prof G.D. DRACOU LIS and Dr G.J. LANE with Prof R. Julin, University of Jyväskylä, Finland

Fusion and Breakup of Light Ions Near the Fusion Barrier by Dr M. DASGUPTA and Dr D.J. HINDE with Prof P.R.S. Gomes, University of Fluminense, Niterói, Brazil

High-K Isomers by Prof G.D. DRACOU LIS with Prof P.M. Walker, University of Surrey, UK; Dr D.M. Cullen, University of Liverpool, UK

High-K Isomers in Hafnium by Prof G.D. DRACOU LIS with Dr F.G. Kondev and Dr R. Janssens, Argonne National Laboratory, USA

Spectroscopy of Very Heavy Nuclei by Prof G.D. DRACOU LIS with Prof J.F. Sharpey-Schafer, National Accelerator Centre, South Africa; Prof P.A. Butler, University of Liverpool, UK

Systematics of Isomer Structure in the $N = 74$ Region by Prof G.D. DRACOU LIS with Dr A.M. Bruce, University of Brighton, UK

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Deep-inelastic Excitation of High-K States by Prof G.D. DRACOU LIS, Dr R.A. BARK and Dr A.P.

BYRNE with Dr. S.M. Mullins, National Accelerator Centre, Faure, South Africa

A Glaciation Chronology of the Snowy Mountains and Tasmania Determined from in-situ Produced ^{10}Be and ^{36}Cl by Dr L.K. FIFIELD with T. Barrows, Research School of Earth Sciences, ANU (with Dr J. Stone, now University of Washington, USA)

Tracing Releases of Plutonium from the Mayak Production Plant, Southern Urals, Russia by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Dr D. Oughton, Agricultural University of Norway

Uptake by Humans of Plutonium Following Inhalation by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Prof N.D. Priest, Middlesex University, UK, Dr N. Stradling and Dr G. Etherington, National Radiation Protection Board, UK

Long-term Retention and Excretion of Plutonium by the Human Female by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Dr D. Newton and Dr R.J. Talbot, AEA Technology, Harwell, UK

Measurements of ^{59}Ni , ^{36}Cl , ^{26}Al and ^{41}Ca in Fragments of the Canyon Diablo Meteorite by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Prof G. Herzog, Rutgers University, USA; Dr C. Schnabel, ETH, Zurich, Switzerland

Measurements of ^{59}Ni , ^{36}Cl , ^{10}Be , ^{26}Al and ^{41}Ca in a Fragment of the Campo del Cielo Meteorite from Argentina by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Dr J. Fernandes-Niello and R. Liberman, Tandem Laboratory, Buenos Aires, Argentina

Retreat Rate of the Drakensberg Escarpment, SE Africa, Using ^{36}Cl Produced In Situ by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Prof M. Summerfield, University of Edinburgh, Scotland

Dating of Ice in Temperate-region Glaciers with ^{32}Si by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Dr U. Morgenstern and Dr A. Zondervan, Geological and Nuclear Sciences, Lower Hutt, New Zealand

Groundwater Flow and Recharge Processes on the Western Margin of the Great Artesian Basin by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Dr A. Love, South Australian Department of Primary Industry and Resources

The History of Mercury Deposition in the Amazon during the Holocene by Dr L.K. FIFIELD and Dr P.A. HAUSLADEN with Prof P.R. Gomes, Universidade Federal Fluminense, Niterói, Brazil

Neutron Multiplicities in Heavy-ion Collisions by Dr D.J. HINDE with Prof Y. El-Masri and J. Cabrera, Université Libre de Louvain, Belgium; Prof R.J. Charity, Washington University, USA

Modelling Fission using the Langevin Approach by Dr D.J. HINDE, Dr M. DASGUPTA and Dr C.R. MORTON with Prof Y. Abe, Kyoto University, Japan

Fusion with a High-spin ^{178}Hf Isomeric Target by Dr D.J. HINDE, Dr M. DASGUPTA and Dr C.R. MORTON with Dr C. Briançon, Orsay, France; Prof N. Rowley, IRES, Strasbourg, France

Measurement of Nuclear g-factors and Investigation of Transient Magnetic Fields by Dr A.E. STUCHBERY with Prof H.H. Bolotin, University of Melbourne

Nuclear Moments and Structure Changes in Exotic Nuclei by Dr A.E. STUCHBERY with Dr P.F. Mantica, Michigan State University, USA

Nuclear Structure through Measurements of g-factors in even Xe Isotopes by Projectile Excitation by Dr A.E. STUCHBERY with Prof N. Benczer-Koller, Rutgers University, USA; Prof K.-H. Speidel, University of Bonn, Germany; Dr A. Pakou, Ioannina, Greece; Dr A. Macchiavelli, Lawrence Berkeley Laboratory, USA

In-beam Studies of Local Magnetism using Recoil Implantation by Dr A.E. STUCHBERY with Dr A.A. Tulapurkar and Dr S.N. Mishra, Tata Institute, India

Evaluation of the Quadrupole Moment of ^{59}Fe and Applications to Solid-state Physics by Dr A.E. STUCHBERY with A/Prof D.H. Chaplin and Dr W.D. Hutchinson, ADFA, University of New South Wales

Single Particle Degrees of Freedom in Transitional Nd Nuclei from Projectile-excitation g-factor Measurements by Dr A.E. STUCHBERY with Prof N. Benczer-Koller, Rutgers University, USA; Prof K.-H. Speidel, University of Bonn, Germany; Dr A. Macchiavelli, Lawrence Berkeley Laboratory, USA; Dr W. Rogers, Westmont College, USA

Compositional Depth-profiling of Nitrided Stainless Steel with Elastic Recoil Detection Analysis by Dr H. TIMMERS with A/Prof M. Fewell, University of New England, Armidale

Stopping and Energy Straggling of Heavy Ions in Technologically Relevant Materials by Dr H. TIMMERS with Prof H. Whitlow, Lund Institute of Technology, Lund University, Sweden; A/Prof J. O'Connor, University of Newcastle

Elastic Recoil Detection Analysis of GaN Films by Dr H. TIMMERS with Dr Scott, Macquarie University, Sydney

Optical Sciences Centre

Simultaneous Existence of a Multiplicity of Stable and Unstable Solitons in Dissipative Systems by Prof N. AKHMEDIEV with Prof K.S. Chiang, City University of Hong Kong; Dr J.M. Soto-Crespo, Instituto de Optica, Madrid, Spain

Two-parameter Two-component Solitons in Nonlinear Directional Coupler with Intermodal Dispersion by Prof N. AKHMEDIEV with Dr V. Rastogi and Prof K.S. Chiang, City University of Hong Kong

Pulsating Solitons, Chaotic Solitons, Period Doubling, and Pulse Coexistence in Mode-locked Lasers: CGLE Approach by Prof N. AKHMEDIEV with Dr J.M. Soto-Crespo, Instituto de Optica, Madrid, Spain; Dr G. Town, University of Sydney

Soliton Interactions in Perturbed Nonlinear Schrödinger Equations by Prof N. AKHMEDIEV with Dr J.A. Besley, Racal Research Ltd, Berkshire, UK; Dr P.D. Miller, Monash University

Linear Guidance Properties of Solitonic Y-junction Waveguides by Prof N. AKHMEDIEV with Dr J.A. Besley, Racal Research Ltd, Berkshire, UK; Dr P.D. Miller, Monash University

Pulse-pulse Interaction in Dispersion-managed Fibre Systems with Nonlinear Amplifiers by Prof N. AKHMEDIEV with Dr F. Zen, Institute of Technology, Bandung, Indonesia; Prof Pak Chu, University of New South Wales

Pulsating, Creeping and Erupting Solitons in Dissipative Systems by Prof N. AKHMEDIEV and Dr A. ANKIEWICZ with Dr J.M. Soto-Crespo, Instituto de Optica, Madrid, Spain

Cascaded Nonlinearities and Parametric Optical Solitons by Prof Y. KIVSHAR with Prof P.L. Christiansen and Dr O. Bang, Technical University of Denmark, Lyngby, Denmark

Parametric Optical Conversion in Photonic Crystals by Prof Y. KIVSHAR with Prof S. Saltiel, Sofia University, Bulgaria

A Book for Academic Press: Optical Solitons: From Waveguides to Photonic Crystals by Prof Y. KIVSHAR with Prof G. Agrawal, University of Rochester, USA

Spatial Optical Solitons in Photorefractive Media by Prof Y. KIVSHAR with Prof M. Segev and Dr Z. Chen, Princeton University, USA; Prof D. Christodoulides, Lehigh University, USA

Intrinsic Localised Modes in Nonlinear Discrete Models by Prof Y. KIVSHAR with Prof S. Takeno, Osaka Institute of Technology, Japan

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Planar Lightwave Circuits Program by Prof J.D. LOVE & Dr. A ANKIEWICZ with University of New South Wales; RMIT University; University of Sydney; Royal Institute of Technology, Stockholm; Redfern Integrated Optics, Sydney; Ericsson Australia Pty Ltd, Melbourne

Add/Drop Optical Wavelength Filters by Prof J.D. LOVE with Dr G. Meltz, OFT Associates, USA; Department of Communications, Canada

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Hybrid Silica-Polymer Devices by Prof J.D. LOVE with Lightwave Microsystems Corporation, USA

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Undergraduate Book on Optical Communications by Prof J.D. LOVE with Dr F. Payne, University of Cambridge, UK

Thin, Flat-Panel Video Screen by Prof J.D. LOVE with Dr S. Huntington, Melbourne University; D. Thorncraft, Redfern Photonics Pty Ltd; I. Maxwell, Redfern Polymer Optics Pty Ltd

Plasma Research Laboratory

Soft X-ray Measurements on H-1NF by Dr B.D. BLACKWELL and Dr J. HOWARD with A/Prof A.D. Cheetham, University of Canberra

RF Plasma Wave Studies in H-1NF by Dr G.G. BORG, Dr I.V. KAMENSKI and Dr D.G. MILJAK with Dr T. Seki, National Institute for Fusion Science, Japan

Plasma Antenna Concept Demonstrator by Dr G.G. BORG and Prof J.H. HARRIS with Dr N.M. Martin, Defence, Science and Technology Organisation

Plasma Switches for Mobile Phones by Dr G.G. Borg and P. Linardakis with Dr R. Scheer, Motorola, Harvard, Illinois, USA

Stereo Digital Video by Prof R.W. BOSWELL and SP3 Group with Compucat

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Measurement of Electric Field in H-1NF Using Laser Induced Fluorescence Techniques by Dr J. HOWARD with P. Feng and A/Prof B.W. James, University of Sydney

Electron Cyclotron Heating of Plasma in Stellarators by Dr M.G. SHATS with Dr K. Nagasaki, Kyoto University, Japan

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Application of Novel Signal Analysis Techniques to the Plasma Turbulence by Dr M.G. SHATS with Dr X.H. Shi, Central Queensland University

Theoretical Physics

Bistability and hysteresis in self-assembling micelle systems: A micellar switch by Dr Rowena BALL with A. D. J. Haymet, University of Houston, Texas, USA

The ${}^7\text{Be}(p, g){}^8\text{B}$ S-factor by Prof F.C. BARKER with Prof A.M. Mukhamedzhanov, Texas A&M University, USA

Proton Reactions on ${}^9\text{Be}$ by Prof F.C. BARKER with Prof Y. Kondo, Kyoto Women's University, Japan

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Coincident Compton Scattering from Solids by Dr A.S. KHEIFETS with Prof F. Bell, University of Munich, Germany

Multiple Atomic Photoionization by Dr A.S. KHEIFETS with Prof Y. Azuma, High Energy Accelerator Research Organization, Japan

Quantum-classical Correspondence in Microscopic and Mesoscopic Complex Collisions by Dr S.Yu. KUN with Prof W. Greiner, University of Frankfurt, Germany; Dr A.V. Vagov, University of Sheffield, UK

Magnetic Dipole Properties in Collective Nuclei by Dr S. KUYUCAK with Prof B.R. Barrett, University of Arizona, USA

Antiproton Scattering by Dr B.A. ROBSON with Prof Zhang Yu-shun, Institute of High Energy Physics, Beijing, P.R. China

High Energy Deuteron-Deuteron Elastic Scattering by Dr B.A. ROBSON with Prof Zhang Yu-shun, Institute of High Energy Physics, Beijing, P.R. China

A Scenario for the Formation of the Universe by the Fragmentation of Macroscopic Superstrings by Dr L.J. TASSIE with Prof P. Brosche, Bonn University, Germany

Electromagnetic Corrections to Hadronic Processes by Dr W.S. WOOLCOCK with Dr A. Gashi, Dr E. Matsinos and Prof G. Rasche, University of Zürich, Switzerland; Prof G.C. Oades, University of Aarhus, Denmark

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- Shanghai Institute of Technical Physics (SITP), Chinese Academy of Sciences
- The Physics Department, University of Pretoria
- Institute of Advanced Energy, Kyoto, Japan
- Tsinghua University, Beijing, China
- The European Union-Australia Science & Technology Agreement, DIST
- Deutscher Akademischer Austauschdienst (DAAD) Exchange Service
- ANU-Engineering & Physical Sciences Research Council Agreement (ANU-EPSRC), UK (The ANU-EPSRC agreement in effect covers a range of UK universities)
- Beijing University, China
- National Institute for Fusion Science, Nagoya, Japan
- Lockheed Martin Energy Research Corporation, Oak Ridge National Laboratory, USA
- L'Ecole Polytechnique, Paris, France
- Royal Institute of Technology, Stockholm, Sweden
- Ericsson Components AB, Stockholm, Sweden
- British Telecom Laboratories, UK
- Cambridge University, UK
- Telecom Korea, Seoul
- OFT Associates, USA
- Department of Communications, Ottawa, Canada
- ATLAS Accelerator Facility, Argonne National Laboratory, USA
- Physics Division, Lawrence Berkeley Laboratory, USA
- HHRIF, Oak Ridge National Laboratory, USA
- Physics Department, University of Jyväskylä, Finland
- National Accelerator Facility and FRD, South Africa
- GANIL IN2P3, France
- Hahn-Meitner Institute, Berlin, Germany
- RCNP, Osaka, Japan
- Institute of Nuclear Physics, Leuven, Belgium
- Ericsson Fibre Optic Research Centre, Stockholm, Sweden

- British Telecom Research Laboratories, UK
- Bell Laboratories, USA
- Lucent Technologies (an offshoot of Bell Labs), USA
- Princeton Plasma Physics Laboratory, Princeton University, USA
- Stanford Linear Accelerator Center, Stanford Synchrotron Radiation Laboratory, USA
- Institute of Mathematics Modelling, Technical University of Denmark
- COBRA Inter-University Research Institute on Communication Technology, Eindhoven UTech, The Netherlands
- National Laboratory for Infrared Physics, Shanghai Institute of Technical Physics, Chinese Academy of Sciences
- Lightwave Microsystems Corporation, USA
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- Macquarie University
- La Trobe University
- University of Newcastle
- The University of Canberra
- The University of Wollongong, NSW
- University of Queensland
- The University of South Australia
- Griffith University
- Curtin University of Technology, Western Australia
- University of New England
- University College, Canberra, University of New South Wales
- Monash University, Victoria
- James Cook University, Queensland
- University of Melbourne
- University of New South Wales
- University of Sydney
- Central Queensland University
- Flinders University of South Australia
- University of Western Australia
- Faculty of Business and Technology, University of Western Sydney
- AGEN Pty Ltd
- Ericsson Australia Pty Ltd, Melbourne
- ADC Australia, Canberra (AOFR Pty Ltd)
- Siemens Ltd, Sydney
- Photonic Technologies Pty Ltd, Sydney
- Hypatia Analytic Thought Pty Ltd, Melbourne
- The Powerhouse, Museum of Applied Arts & Sciences, Sydney
- JDS/Uniphase, Sydney

Research School of Social Sciences

Centre for Democratic Institutions

What makes a champion? By R. RICH with Prof Allan Snyder and colleagues, Centre for the Mind, University of Sydney and ANU.

Centre for Economic Policy Research

The effects of training programs on the unemployed; credit constraints and government unemployment policy by Prof B.J. CHAPMAN with Dr T. Crossley, York University, Canada and Dr T. Kim, McMaster University.

Evaluating training programs by Prof B.J. CHAPMAN with Dr T. Crossley, York University, Canada, Dr D. Cobb-Clark, ANU and S. Kennedy, Australian Bureau of Statistics.

Avoiding recessions and long term unemployment; labour supply and demography 2000-2030 by Prof B.J. CHAPMAN with Dr C. Kapuscinski, Australian Bureau of Statistics.

Towards a cross-sectoral funding system for education and training by Prof B.J. CHAPMAN with L. Doughney, Victoria University of Technology and L. Watson, University of Canberra.

Youth unemployment and crime by Prof B.J. CHAPMAN with Dr D. Weatherburn, New South Wales Institute of Criminology and Dr C. Kapuscinski, Australian Bureau of Statistics.

Reforming Rwandan education financing policy by Prof B.J. CHAPMAN with B. Fraser, UK Department for International Development.

Ethiopian higher education financing reform by Prof B.J. CHAPMAN with N. Bennett, World Bank.

Cross-section and cohort estimates of rates of return to education by Prof B.J. CHAPMAN with Dr Y. Tseng, University of Melbourne.

International comparisons of student loans by Prof B.J. CHAPMAN with Dr S. Maani, University of Auckland.

The impact of unemployment on youth by Prof B.J. CHAPMAN with Dr M. Gray, Australian Institute of Family Studies.

The foregone earnings from child-rearing revisited by Prof B.J. CHAPMAN with Dr M. Gray (Australian Institute of Family Studies), and Y. Dunlop, Dr A. Lui and Dr D. Mitchell (ANU).

Unemployment, consumption smoothing and the demand for durables; the long run costs of job loss by Dr T. CROSSLEY with Dr M. Browning, University of Copenhagen.

Testing hyperbolic absolute risk aversion preferences by Dr T. CROSSLEY with Dr M. Browning and Dr M. Erjnaes, University of Copenhagen.

A model of search and consumption by Dr T. CROSSLEY with Dr M. Browning, University of Copenhagen and Dr E. Smith, University of Essex.

Specification and testing of immigrant assimilation profiles by Dr T. CROSSLEY with Dr C. Worswick, University of Melbourne.

Trends in consumption inequality in Australia by Dr T. CROSSLEY with Dr C. Worswick, University of Melbourne, and Dr G. Barrett, University of New South Wales.

Uptake of benefit payments by immigrants to Canada by Dr T. CROSSLEY with Dr C. Worswick, University of Melbourne and Dr T. McDonald, University of Tasmania.

A distributional analysis of prescription drug subsidies by Dr T. CROSSLEY with Dr M. Veall, Dr P. Grootendorst and S. Korkmaz, McMaster University.

The impact of the 1987 tax reform on charitable giving by Dr T. CROSSLEY with Dr M. Veall, McMaster University and T. Kim, York University, Canada.

Statistical models for repeated short panels by Dr T. CROSSLEY with Dr V. Hildebrand, York University, Canada.

Physician responses to Billings caps: evidence from three provinces by Dr T. CROSSLEY with Dr J. Hurley and Dr P. Grootendorst, McMaster University.

Progress on child poverty in Canada? by Dr T. CROSSLEY with Dr L. Curtis, Dalhousie University.

Demand for training among the unemployed by Dr T. CROSSLEY with Dr B. Chapman, ANU and Dr Taejong Kim, York University, Canada.

Job starts and job finds by Dr T. CROSSLEY with Prof P. Kuhn, University of California, Santa Barbara.

Centre for Tax System Integrity

Evaluating bullying in schools in British Colombia, Canada by Dr B. MORRISON with J. Hopkins, Canadian Ministry of Education and V. Stancato, Safe School Centre and British Columbia Attorney General's Department.

Demography Program

Revolution, war and modernisation: population policy and fertility changes in Iran by Prof G.W. JONES, Prof P. McDONALD and Dr M.J. ABBASI-SHAVAZI with Prof A. Mehryar, Institute for Research on Population and Development, Iran.

Collaboration in curriculum development for population research by Dr T.H. HULL, Prof G.W. JONES,

Prof P.F. McDONALD and Dr H. BOOTH with Dr S.M. Adioetomo and others, Demographic Institute, Faculty of Economics, University of Indonesia.

Immigrant adjustment: the role of work and family factors by Dr S-E. KHOO with Dr A. Mak, University of Canberra.

Islam, the state and population policy by Prof G.W. JONES with colleagues in Egypt, Iran, Pakistan, Turkey, Indonesia, Bangladesh.

The extended metropolitan regions of seven large Indonesian cities by Prof G.W. JONES with colleagues at the Central Statistical Board, Indonesia.

Branch migration by Dr D. LUCAS with Dr N. Parr, Macquarie University.

Female labour force participation in South Africa; immigration to South Africa by Dr D. LUCAS with Prof Kalule-Sabiti, Population Unit, University of the North West and Prof Amoateng, Institute for Child and Family Development, University of the Western Cape, South Africa.

Negotiating the life course by Prof P. McDONALD with Dr J. Baxter, University of Queensland.

Fertility decline in Iran by Prof P. McDONALD with colleagues at the University of Tehran.

Demographic transition in the Balkans and Eastern Mediterranean 1950-2000 by Dr C. WILSON with Dr A. Gjonca, London School of Economics.

Fundamental issues in demographic methodology by Dr C. WILSON with Dr J. Oeppen, Cambridge University.

Caste and class in Kerala's fertility transition by Dr C. WILSON with Dr S. Pallikadavath, National Centre for Applied Economic Research, New Delhi.

Director

Australian electoral change by Prof I. McALLISTER with Dr C. Bean, Queensland University of Technology and Dr D. Gow, University of Queensland.

Russian politics in the post-communist era by Prof I. McALLISTER with Prof S. White, University of Glasgow.

The Northern Ireland peace process by Prof I. McALLISTER with Prof B. Hayes, Queen's University, Belfast.

Economics Program

Sexual harrasment in the US military by Dr D. COBB-CLARK with Dr H. Antecol, Illinois State University.

Assessing the family investment hypothesis in immigrant families by Dr D. COBB-CLARK with Dr T. Crossley, York University, Canada.

Post-migration human capital investment in immigrant families by Dr D. COBB-CLARK with Dr C. Worswick, Carleton University and Dr M. Connolly, Chatham College, Pittsburgh.

Sources of old-age support in Indonesia by Dr D. COBB-CLARK with Dr L. Cameron, University of Melbourne.

Understanding the parenting payment population by Dr D. COBB-CLARK with Dr G. Barrett, University of New South Wales.

Empirical analysis of the determinants of vote share in US House elections by Dr D. DHARMAPALA with Dr K.F. Palda, University of Quebec.

The Condorcet jury theorem and the expressive function of law: a theory of informative law by Dr D. DHARMAPALA with Dr R. McAdams, University of Illinois.

A general model of judicial decision making by Dr D. DHARMAPALA with Dr E. Schwartz, Harvard University.

Penalty enhancement for hate crimes: efficiency and fairness considerations by Dr D. DHARMAPALA with Dr N. Garoupa, Universitat Pompeu Fabra.

Jobs, gender and inequality: a comparative study by Prof R.G. GREGORY with Dr J. Borland, University of Melbourne and Prof P. Sheehan, Victoria University of Technology.

The future governance of Australia by Dr M. KEATING with Prof P. Weller and Prof J. Wanna, Griffith University and Dr G. Davis, Queensland Premiers Department.

Negotiating the life course by Dr D. MITCHELL with Prof P. McDonald, ANU and Dr J. Baxter, University of Queensland.

Private lives and public bodies: a study of women and institutions in Australia by Dr D. MITCHELL with Prof M. Gatens, University of Sydney and Dr V. Braithwaite, ANU.

Methods for cycle analysis by Prof A.R. PAGAN with Dr D. Harding, Melbourne Institute.

A VAR representation of the FPS model by Prof A.R. PAGAN with Dr J. McDermott, Reserve Bank of New Zealand.

Inventory models and the business cycle by Prof A.R. PAGAN with Prof L. Maccini, Johns Hopkins University.

Testing for duration dependence by Prof A.R. PAGAN with Prof L. Taylor, Lehigh University.

History Program

South Seas project by C. BLACKALL with Assoc Prof Paul Turnbull, James Cook University and others.

Inflows: the channel country by Dr T. GRIFFITHS with Dr J. Carruthers, University of South Africa, G. Fitzhardinge, University of West Sydney, and M. Martin, ANU.

Forests of ash by Dr T. GRIFFITHS with Dr A. Yen and others, Museum Victoria.

Australians in Antarctica by Dr T. GRIFFITHS with Dr B. Hains, Monash University.

Theoretical and methodological comparisons of oral and written sources in the historical study of domestic service in Australia in the twentieth century by Prof B.W. HIGMAN with Dr P. Hamilton, University of Technology, Sydney.

Law Program

Information feudalism by Prof J. BRAITHWAITE with Dr P. Drahos, University of London.

Shame management through reintegration by Prof J. BRAITHWAITE, Dr E. AHMED and Dr V. BRAITHWAITE with Dr N. Harris, Leuven University.

Aggressive tax planning by Prof J. BRAITHWAITE and T. MURPHY with K. Fitzpatrick and M. Bersten, Australian Taxation Office.

Risk indicators for tax compliance by high wealth individuals by Prof J. BRAITHWAITE and Y. PITTELKOW with R. Williams, Australian Taxation Office.

Reintegrative shaming experiments by Prof J. BRAITHWAITE and Dr H. STRANG with Prof L. Sherman, University of Pennsylvania.

An empirical study of new forms of conflict resolution and the prevention of repeated delinquency by Dr H. STRANG and Prof J. BRAITHWAITE with Prof H. Nishimura and Prof Y. Hosoi, Tokyo University.

Political Science Program

A comparative study of women's constitutional activism by Prof M. SAWER with Prof J. Vickers, Carleton University, Canada.

Motivating ministerial ethics and ethics and organisation theory by Dr J. UHR with Profs C. Sampford and N. Preston, Griffith University.

Multiculturalism and democracy by Dr J. UHR with Prof H.D. Forbes, University of Toronto.

Rethinking parliamentary government by Dr J. UHR with Prof J. Wanna, Griffith University.

Social and Political Theory Program

Welfare state regimes and pillars by Prof R. GOODIN with Prof M. Rein, Massachusetts Institute of Technol-

ogy/Hanse-Wissenschaftskolleg, Delmenhorst, Germany

Revealing altruism by Prof R. GOODIN with Prof N. Folbre, University of Massachusetts, Amherst.

Epistemic democracy by Prof R. GOODIN with C. List, Harvard University/Massachusetts Institute of Technology.

The de-casualisation of care by Prof R. GOODIN with Dr D. Gibson, Australian Institute of Health and Welfare.

Democratic institutional design by Prof H.G. BRENNAN with Prof A. Hamlin, University of Southampton.

The analytics of trust and courts by Prof H.G. BRENNAN with Prof H. Kliemt, Georg Mercator University, Duisburg.

The collected works of James Buchanan by Prof H.G. BRENNAN with Prof H. Kliemt, Georg Mercator University, Duisburg and Prof R. Tollison, Mississippi University.

Ethics and economics by Prof H.G. BRENNAN with Prof L. Lomasky, Bowling Green State University.

Fiscal constitutions by Prof H.G. BRENNAN with Prof G. Eusepi, University of Rome La Sapienza.

The aggregation of reason: an impossibility theorem by Prof P. PETTIT with C. List, Harvard University/Massachusetts Institute of Technology.

Municipal Association of Victoria local government project by J. PARKINSON with Dr R. Kiss, Centre for Public Policy, University of Melbourne.

Sociology Program

Social and other correlates of adolescent idiopathic scoliosis by Prof F. L. JONES with Prof T. Taylor, University of Sydney.

Diversity, identity and active citizenship by Prof F. L. JONES with Dr P. Smith and others, University of Queensland.

Negotiating the lifecourse by Prof F. L. JONES with Dr D. Mitchell and Prof P. McDonald, ANU and Dr J. Baxter, University of Queensland.

Integrated public use microdata series international (IPUMSI): A National Science Foundation project for integrating international census microdata by Prof F. L. JONES with Prof R. McCaa and Prof S. Ruggles, University of Minnesota.

Issues for rural practice by Dr J. McMILLAN with Prof J.S. Western and K. Dwan, University of Queensland and Dr T. Makkai, Australia Institute of Criminology.

The nature and characteristics of professionals by Dr J. McMILLAN with Prof J.S. Western and K. Dwan, University of Queensland.

Managers, experts and organisations: contemporary careers and organisational change by Prof J. WAJCMAN with Assoc Prof B. Martin, Flinders University of South Australia.

Centre for Resource and Environmental Studies

Trade and environment by Dr Sali BACHE and Dr Stephen DOVERS with Dr Marcus Haward, University of Tasmania.

Assessment of water quality in the Belmore River for better management by Dr Sara BEAVIS with Kempsey Shire Council, NSW DLWC, NSW Department of Agriculture, Macleay Acid Sulphate Soils Action Group (MASSLAG)

Community science: improving theory, policy and practice by Dr Anna CARR with Murdoch University's Dr Laura Stocker on a paper called 'What is this thing called community science?' and with CRES staff Libby Robin and Deborah Rose on a panel presentation to a conference in Oregon, USA.

A biophysical profile of the Snowy Catchment, NSW: summer research scholarship report by Jane CATFORD, Katherine MINTO and Katherine MITCHELL with Integrated Catchment Assessment and Management Report for the Snowy Catchment Action Plan (SnoCAP) in collaboration with: Snowy Genoa Catchment Management Committee (CMC); Snowy River Shire Council; Landcare; National Parks and Wildlife; Department of Urban Affairs & Planning; Department of Land & Water Conservation; Supervisor: Dr Bill Watson of iCAM at CRES.

Straddling boundaries: inter-governmental arrangements for managing natural resources by Dr Peter CRABB with Dr Stephen Dovers as leader of the Land and Water Australia project

Basin-wide mapping of sediment and nutrient exports in dryland regions by Dr Barry CROKE, Prof Tony JAKEMAN and Lachlan NEWHAM with Dr C. Moran, Dr J. Olley, Dr I. Prosser, Dr H. Lu, CSIRO Land and Water

Australian forest history by Dr John DARGAVEL with Macquarie University and Australian Forest History Society Inc.

Seasonal habitat use, food resources and Aboriginal perceptions of the feral pig *Sus scrofa* in the Arafura wetlands, Northern Territory by Anthea DEE with Ramingining Community and Wanga Djakamirr Ranger Unit; NLC Caring for Country Unit; Parks and Wildlife Commission of the Northern Territory; CSIRO Wildlife and Ecology.

Risk and community safety research initiative by Dr Stephen DOVERS; Prof John Handmer, Middlesex University; Prof Tony Norton, RMIT University, Melbourne with Emergency Management Australia, Australian Institute of Emergency Management.

Policy processes and institutions for sustainability by Dr Stephen DOVERS with various Australian researchers and practitioners

Strategic environmental assessment by Dr Stephen DOVERS with Dr Simon Marsden of the University of Essex

Modelling climate-surface hydrology interactions in data sparse areas by Dr Jason EVANS with Prof Tony JAKEMAN, CRES; Prof Bob Oglesby, Purdue University, USA; Dr Bill Lapenta, ASA, USA.

Land and water resources: availability and limitations of water and soil resources of the Mekong Delta with respect to rice-shrimp farming by Dr Fereidoun GHASSEMI and Dr Donna BRENNAN (ACIAR) with Dr Donna Brennan, Research Program Manager, Agricultural Development Policy, Australian Centre for International Agricultural Research (ACIAR), Canberra; Dr Nguyen Tat Duc, Institute of Applied Mechanics, Ho Chi Minh City; Dr Do Tien Hung, Geological Survey of Vietnam, Ho Chi Minh City; Nguyen Hong Bang, Geological Survey of Vietnam, Ho Chi Minh City; Pham Van Giang, Geological Survey of Vietnam, Ho Chi Minh City; Vo Quang Minh, Department of Soil Science, Can Tho University; Luong Van Than, Southern Institute of Water Resources Research, Ho Chi Minh City; Nguyen Than Tin, Sub-Institute for Water Resources Planning and Management, Ho Chi Minh City

Spatial interpolation of rainfall data using fast numerical approximations of minimum generalised cross validation thin plate smoothing splines by Penny HANCOCK with Dr Michael HUTCHINSON, CRES; Dr Frank deHoog, CSIRO Division of Mathematics and Information Sciences.

APEC Virtual Centre for Environmental Technology Exchange by Lance HEATH with the Japanese APEC VC Secretariat, Indonesian Ministry of Industry and Trade, Vietnamese Ministry of Trade and the Environment, Thailand's Department of Environment, Policy and Planning, Australia's Department of Industry, Science and Resources and AusAID.

BioRAP: Tools for rapid assessment of biodiversity by Dr Michael HUTCHINSON (with Prof Henry Nix, Janet Stein, Dr Jennifer Kesteven) with CSIRO Division of Wildlife and Ecology, Centre for Plant Biodiversity Research, Bishop Museum of Hawaii, Department of Environment and Conservation of Papua New Guinea.

Spatio-temporal modelling of rainfall and temperature by Dr Michael HUTCHINSON with Dr Lelys Guen-

ni, Simon Bolivar University, Caracas; Dr D. McKenney, Canadian Forest Service.

Integrated catchment management system (ICMS) by Prof Tony JAKEMAN, Dr Barry Croke, Juliet Gilmore, Rebecca Letcher, Lachlan Newham and Chris Buller with Sue Cuddy and Michael Reed, CSIRO Land and Water

Groundwater modelling: modelling of the Jemalong and Wyldes Plains Irrigation District and Lake Cowal aquifer system by Ruben LAMPAYAN, Dr Fereidoun GHASSEMI, Prof Ian WHITE and Prof Tony JAKEMAN with NSW Department of Land and Water Conservation (Forbes and Dubbo offices).

Issues in integrated modelling and assessment (case study on off-allocation access in the Namoi) by Rebecca LETCHER with assistance and data provided by NSW Department of Land and Water Conservation, NSW Department of Agriculture and Australian Cotton Research Institute (ACRI) staff.

CHESS — The Central Highlands Environmental Systems Study by Dr David LINDENMAYER with Dr Brendan Mackey, CRES, ANU; Dr Michael McCarthy, University of Melbourne; Dr Malcolm Gill, CSIRO Plant Industry, Ryan Incoll, CRES; Dr Ross Cunningham, Statistics, ANU; C Donnelly, Statistics, ANU; Dr Janette Lindesay, Geography, ANU.

Tree hollows and wildlife conservation: a textbook by Dr David LINDENMAYER with Dr P. Gibbons, NSW National Parks and Wildlife Service, Queanbeyan NSW

The Tumut fragmentation experiment by Dr David LINDENMAYER with Dr Ross CUNNINGHAM, Statistics, ANU; David RAWLINGS, Landscape Ecology; C. MacGREGOR, CRES; M. POPE, CRES; Dr Michael McCarthy, Department of Botany, University of Melbourne; Prof Henry NIX, CRES; Prof Hugh Possingham, Adelaide; Dr R Lacy, Brookfield Zoo, Chicago; C DONNELLY, Statistics, ANU; Dr R. PEAKALL, Botany and Zoology, ANU; Prof C. Moritz, Department of Zoology, University of Qld; Dr D. Patkeau, Department of Zoology, University of Qld; Prof H. Tyndale-Biscoe, RSBS, ANU; Dr A. Taylor, Department of Biological Science, Monash University

A new textbook on the importance of off-reserve lands and matrix management for biodiversity conservation by Dr David LINDENMAYER with Dr J.F. Franklin, University of Washington, Seattle.

Biophysical considerations in integrated catchment management: a modelling system for Northern Thailand by Wendy MERRITT which forms part of the Integrated Water Resources Assessment and Management (IWRAM) project, a collaborative project involving the Royal Project Foundation of Thailand, the Australian Centre for International Agricultural Research (ACIAR), the Department of Land

Development in Thailand, the Australian National University and university departments from Chiang Mai, Maijo, and Kasetstart Universities.

Linking catchment characteristics to sediment and nutrient generation in the Upper Murrumbidgee catchment by Lachlan NEWHAM with Strategic Partnerships with Industry — Research and Training (SPIRT)

Long-term environmental change and landform evolution by Prof C.D. OLLIER with Prof Karna Lichnar-Bergstrom Department of Physical Geographer University of Stockholm Sweden; Dr C.F. Pain, Australian Geological Survey Organisation, Canberra; Dr J.P. Terry Department of Geography, University of the South Pacific Fiji; Prof M. Coltorti Dipartimento di Scienze della Terra Università di Siena Italy; Prof J. Rabassa, Rector Comahue University Neuquen Argentina.; Prof R. Bourman, University of South Australia.

Ecological-economic modelling by Dr Jack PEZZEY with Marty Anderies, CSIRO Division of Wildlife and Ecology, Canberra

Reviews of economics of sustainability by Dr Jack PEZZEY with Mike Toman, Resources for the Future, Washington DC (co-author)

Encyclopedia of Religion and Nature entries dealing with Aboriginal Australia by Dr Deborah Bird ROSE, a member of the Oceania Task Force, with general editor, Bron Taylor, Director of Environmental Studies, and Oshkosh Foundation Professor of Religion and Social Ethics, the University of Wisconsin, Oshkosh.

A book of collected essays on frontier landscapes by Dr Deborah Bird ROSE co-edited with Dr Richard Davis, Australian Institute of Aboriginal and Torres Strait Islander Studies.

Dreaming ecology, Victoria River Region, Northern Territory by Dr Deborah Bird ROSE with the Ngarinman, Bilinara, Ngaliwurru, Mudbura, Gurindji, Malngin, and other Victoria River peoples.

Indigenous ecological knowledge in the northern floodplains by Dr Deborah Bird ROSE with the Whitebellied Sea Eagle clan (Rak Mak Mak), and the eco-photographer Sharon D'Amico.

A rainfall-runoff modelling workshop centred around the use of the model IHACRES conducted by Sergei SCHREIDER and Jason EVANS for the Thai Department of Land Development (DLD) in Bangkok, Thailand.

Streamflow modelling in the Island Bend Catchment, Snowy River by Dr Sergei SCHREIDER and Prof Tony JAKEMAN with Geoffrey Adams, Snowy Mountains Hydro-electric Authority (SMHEA)

Ecological economics theory by Dr David STERN with Robert Kaufmann, Boston and Cutler Cleveland, Bos-

ton University, Robert Costanza, University of Maryland; Mike Young, CSIRO; Steve Dovers, ANU

Global Climate Change by Dr David STERN with Dr Robert Kaufmann, Boston University

Environmental Kuznets Curve by Dr David STERN with Dr Roger Perman, University of Strathclyde; Mick Common, University of Strathclyde

Resilience and resource depletion by Dr David STERN with Dr Charles Perrings, University of York; Dr Cutler Cleveland, Boston University

Hydrological analysis for the integration of agroforestry into Australia's farming systems by Jenny TICEHURST with CSIRO and the MDBC, as part of the 'Heartlands' Initiative. There is particularly a strong link with CSIRO Land and Water due to supervision by Dr Hamish Cresswell and Dr Neil McKenzie.

The vulnerability of the city: urban environment, infrastructure investment by Prof Patrick TROY with University of Western Sydney, Campbelltown and Warren Centre, University of Sydney.

Catchment response to land use and climate change by Prof R.J. WASSON with Kalgan case study (WA): Agriculture WA, UWA; Ord case study (WA): Agriculture WA, Rivers and Waters Commission, CSIRO, Aarhus University; Herbert Case Study (Qld): CSIRO, DNR, AIMS; Murrumbidgee case study (NSW): CSIRO, Starr Consulting.

Futures in natural resource and environmental management: postgraduate student think-tank by Su WILD RIVER with assistance from Arcadian Solutions, consulting agency.

Case studies of local government attempts to deliver environmental outcomes by Su WILD RIVER with about 45 individuals around Australia, mostly from local government.

Hydrogeology of the Pilliga Sandstone Aquifer in the Western Coonamble Embayment and its implications for water resource management by Carolann WOLFGANG with DLWC Parramatta and Dubbo offices

The Faculties

Faculty of Arts

Archaeology and Anthropology

Planning for project on Clines and Boundaries by Dr R. ATTENBOROUGH with Prof M. SPRIGGS, ANU and Prof R. Ward and Dr C. Gosden, Oxford University.

The Land of Iron: The Historical Archaeology of Luwu and the Cenrana Valley. Results of the Origin of Complex Society in South Sulawesi Project (OXIS) by Dr

BULBECK with Dr Ian Caldwell, University of Hull's Centre for South-East Asian Studies.

Cataloguing and research on the P-M Heude collection in Beijing and Shanghai by Prof GROVES with Dr Peter Grubb, London; Ms Anja Braun, University of Erlangen, Germany; and Dr Yang Qisen and Ms Xia Lin, Institute of Zoology, Beijing.

Joint Large ARC 'Hominid evolution and extinctions during the Miocene in the Siwaliks of Indo-Pakistan' by Prof GROVES with Dr David Cameron, University of Sydney; Dr B. Pilans, RSES, ANU; and Prof M. Williams, University of Adelaide.

Collaborative project to reanalyse Capertee 3' by Dr HISCOCK with Dr Val Attenbrow, Australian Museum.

Joint research project on the ethnicity of former hunters and gatherers by Dr KEEN with the National Museum of Ethnology in Osaka, Japan.

A marine shell correction factor for radiocarbon dating in the Admiralty Islands, Papua New Guinea by Prof SPRIGGS with W. Ambrose, ANH, RSPAS, ANU and M. Phelan, Waikato University, New Zealand.

Bridging Sunda and Sahul: the archaeology of the border area between Asia, Australia and Melanesia in East Timor by Prof SPRIGGS with Dr S. O'CONNOR, ANH, RSPAS, ANU and Dr P. Veth, James Cook University.

Pacific pottery sourcing project by Dr SUMMERHAYES with Prof A. ANDERSON, ANH, RSPAS, ANU and Dr D. Kennett, California State University.

Centre for Arab and Islamic Studies

Peace and Democracy in the Middle East, by Amin SAIKAL, co-director of the project as part of the Peace and Governance Programme, United Nations University, Tokyo; continued as member, UN Institute for Disarmament's panel on 'Biological Disarmament' (volume forthcoming), and the International Commission for Peace and Security in West Asia.

Historical memories and interpretations in Central Asia, collaborative research by Kirill NOURZHANOV with the Department of History, Macquarie University.

Issues of comparative parliamentarism in Central Asia by Kirill NOURZHANOV with the Contemporary Europe Research Centre, University of Melbourne.

English

Asian influences in Australian theatre by Jaqueline LO with Helen Gilbert (UQ).

Romantic Sociability: British Social and Literary Networks, 1770-1840, a collection of essays by Gillian RUSSELL edited with Dr Clara Tuite, University of Melbourne submitted to Cambridge University Press.

Philosophy

A new approach to intractable issues in metaphysics by Richard CAMPBELL, with Mark Bickhard, Lehigh University.

The interface between philosophy and theology and more particularly with the notion of 'truth' in contemporary Christian apologetics by Winifred LAMB with the School of Theology, Charles Sturt University.

School of Social Sciences

The Centenary of Federation volume on the Australian Public Service being produced under the auspices of the Public Sector and Merit Protection Commission and partially funded by the Centenary of Federation Foundation by Mr ADAMS with a number of scholars and public servants, including Emeritus Professor Roger Wettenhall, U Can; Professor Richard MULGAN, Mr John McMILLAN (ANU).

Concord Hospital Colorectal Project by Dr DENT with Associate Professors P.H. Chapuis & R.C. Newland and Professor E.L. Bokey of The University of Sydney and Concord Hospital.

Sydney Older Persons Project by Dr DENT with Professor G.A. Broe and others at the Centre for Education and Research on Ageing, The University of Sydney and Concord Hospital.

Local recurrence after resection of rectal carcinoma by Dr DENT with Dr M. Killingback of Sydney Adventist Hospital.

Workforce in internal medicine and paediatrics in Australia by Dr DENT with the Royal Australasian College of Physicians.

The prognostic significance of microsatellite instability and related factors in colorectal cancer by Dr DENT with Dr M. Walsh and others at the Department of Pathology, University of Queensland Medical School.

The structure of the clothing industry by Dr GREIG with Prof J. F. Marceau and colleagues, Australian Expert Group in Industrial Studies, University of Western Sydney.

Houston Tuberculosis Initiative by Dr KLOVDAHL with James M. Musser, Laboratory of Human Bacterial Pathogenesis, Rocky Mountain Laboratories, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, Montana, Edward A. Graviss, MPH Institute for the Study of Human Bacterial Pathogenesis, Department of Pathology, Baylor College of Medicine, Houston, Texas; Michael W. Ross, School of Public Health, University of Texas; Audrey Wanger, Department of Pathology, University of Texas Medical School.

Sexually Transmitted Diseases, Gonorrhea, Chlamydia by Dr KLOVDAHL with Carl Latin, Johns Hopkins

School of Public Health, Baltimore; and Ray Viscidi, Johns Hopkins Medical School, Baltimore.

Sexually Transmitted Diseases, Syphilis, by Dr KLOV-DAHL with Ann Jolly and John Wylie.

Social Networks and Adolescent Risk Behavior by Dr KLOVDAHL with Edward Liebow, Seattle, WA; Gene McGrady, Atlanta GA; Mildred Vera, San Juan Puerto Rico.

Statistical Inference in Large Networks by Dr KLOV-DAHL with Marinus Spreen, Department of Statistics, University of Maastricht, the Netherlands.

Research knowledge and decision-making among American and Australian school principals by Dr SAHA with Professor Bruce J. Biddle, University of Missouri-Columbia

Interest groups and the environment by Dr SIMMS with Professors Ted Lowi, Cornell University and Aynsley Kellow, University of Tasmania.

UNESCO project on Globalisation, Democratisation and Gender by Dr SIMMS with Professors R.M. Kelly, University of Texas at Dallas and Jane Bayes, California State University, Northridge.

1901 Australian Election by Dr SIMMS with colleagues from the Universities of Melbourne, New England, New South Wales, Wollongong & ANU.

The Republic Referendum by Professor Warhurst with Assoc Prof M. Mackerras, Australian Defence Forces Academy, University College, University of New South Wales.

The social and political context of the development of evidence based medicine by Dr WHITE with Assoc Prof Evan Willis, La Trobe University.

Medicine in the Nineteenth Century by Dr WHITE with Assoc Prof Ray Jureidini, American University, Beirut.

Women's Studies

Dr Rosanne KENNEDY co-wrote the introduction to an anthology entitled: *World Memory: Cultural Trajectories in Global Time*, which she is co-editing with Jill Bennett UNSW.

Faculty of Asian Studies

Organising the "Australian Mekong Research Network" by Dr CHAPMAN with Monash University.

Major conference; *Islam Perspectives on the New Millennium*, led by Professor HOOKER, with the Department of Foreign Affairs and Trade, the Australian Institute of International Affairs and other areas within the ANU.

A project by Dr ILETO on nation building in Southeast Asia based in the Institute of Southeast Asian Studies in Singapore, and led by Professor Wang Gungwu.

Dr KUMAR, Affiliated Research Professor, Nordic Institute of Asian Studies.

An ARC SPIRT project on Asian Accounts of Australia by Faculty staff including Professor MILNER, Ms BROINOWSKI and Mr IKEDA with the National Library of Australia. In 2000 a seminar was held with the title "Asian Accounts of Australia: Change, Comparison and Analysis".

The nation state in Southeast Asia, a five-day research meeting of the Australia-Japan Southeast Asia Research Project, participants: Professor MILNER, Dr ILETO and Dr KUMAR, funded by the Australian Research Council and the Japan Society for the Promotion of Science.

An ARC-funded project on Vietnamese business culture by Professor MILNER and Dr LOCKHART with the St James Ethics Centre, Sydney, and the Vietnamese Ministry of Culture.

The National Thai Studies Centre is prominent in the Faculty's cooperation with other institutions in Australia. In 2000 it cooperated with the University of Melbourne in holding a Thai Update; it also established an agreement with the Department of Defence to hold a Thai Update in 2001 focussed on security issues.

Faculty of Economics and Commerce

Department of Economics

Globalisation and Convergence by S DOWRICK with Bradford De Long, University of California, Berkeley.

Public Capital and Economic Growth by S DOWRICK with Sau-Him Lau, Hong Kong Baptist University and Tom Kompas and Matthew Ryan, ANU.

The non-linear dynamics of the Solow Growth Model by S DOWRICK with A. Swan, Australian Bureau of Agricultural and Resource Economics.

Bargaining Theory with Non-Expected Utility by S GRANT with A. Kajii, Tsukuba University and A. Burgos, Universidad Carlos III.

Social Choice by S GRANT with A. Kajii, Tsukuba University and B. Polak, Yale University.

Games and Equilibria without Probabilistically Sophisticated Beliefs by S GRANT with A. Kajii, Tsukuba University, and B. Polak Yale University.

Quantifiable Beliefs by S GRANT with E. Karni, Johns Hopkins University.

Ambiguity and Risk by S GRANT with J. Eichberger, Saarbruecken University).

State-Contingent Production by J QUIGGIN with R.G. Chambers, University of Maryland.

Health and Generalized Expected Utility Theory by J QUIGGIN with H. Bleichrodt, Erasmus University.

Wage Profiles and Poverty Traps by J QUIGGIN with B. Chapman.

Globalization and Labour Markets by R TYERS with Yongzheng Yang, APSEM and Rod Falvey, University of Nottingham.

Department of Economic History

External collaboration activities continue to be an important aspect of the department's research activities with joint work being conducted with members of the Universities of Melbourne and Hitotsubashi (Japan), the National Research Institute of Papua New Guinea and the Centre for Population Studies and Information, Hanoi.

Faculty of Law

A project on relocation decision-making by Dr J A BEHRENS with Dr P Eastaugh Law Faculty, ANU and L Young, Murdoch University.

Project on the impact of norm form on legal negotiation by Prof S C BOTTOMLEY with Profs S Parker, Monash University, J Dewar, Griffith University and the Justice Research Centre.

Principles of Criminal Law, a text book co-authored by S BRONITT with B McSherry, Monash University.

Project on judicial activism and the rule of law in Australia by Prof T D CAMPBELL with Professor J Goldsworthy, Monash University.

Projects on women and international dispute resolution by Prof H C CHARLESWORTH with Prof C M Chinkin, London School of Economics; and extra-territoriality in Australian law with R McCorquodale, Law Faculty.

Project on leaders and laggards by Prof N A GUNNINGHAM with Prof R Kagan, Law and Political Science, University of California, Berkeley.

Project on national survey of lawyers' work implications by H SELBY with Dr P Reddy, PLT.

The Australian Federal Judicial System by Dr F D WHEELER, joint editor with Dr B Opekin, Faculty of Law, University of Sydney.

University Schools and Centres

Asia Pacific School of Economics and Management

Australia-Japan Research Centre (AJRC)

The AJRC received a grant from the Rural Industries Research and Development Corporation (RIRDC) to undertake research on the market impact of Japanese agricultural policy and reform in collaboration with Japanese experts.

Research continued on a three-year project to develop regional initiatives for economic cooperation with the Research Institute for Economics and Business Administration, Kobe University.

China's Emerging Private Enterprises: Prospects for the New Century, a report published by International Finance Corporation (IFC) based on the technical report from the China Economy and Business Program, ANU, with Peking University's China Centre for Economic Research (CCER).

Prof Gordon de BROUWER, Dr Tony WARREN, and Prof Christopher FINDLAY with The Department of Foreign Affairs and the Network Economics Consulting Group to write a major report on Australia-Japan economic relations, with particular emphasis on the business opportunities provided by the new economy.

Financial Markets and Policies in East Asia by Peter DRYSDALE with Gordon de BROUWER, ANU; Richard Gibbs, Macquarie Bank, Sydney; Dominic Wilson, Goldman Sachs, Hong Kong; Hae Wang Chung, Korea Institute of Finance, Seoul; Ramskisen Rajan, University of Adelaide; Eisuke Sakakibara, Keio University, Tokyo; Ross GARNAUT, ANU; Stephen Grenville, Reserve Bank of Australia, Canberra; Masahiro Kawai, World Bank, Washington DC; Kengo Inoue, Kobe University, Tokyo; Reza Y. Siregar, National University of Singapore; Warwick McKIBBIN, ANU; Prema-Chandra ATHUKORALA, ANU; Mari Pangestu, Centre for Strategic and International Studies, Jakarta; Manggi Habir, PEFINDO, Jakarta; Hal HILL, ANU; David Nellor, IMF Tokyo; Ken Henry, The Treasury, Canberra; Guy Debelle, Reserve Bank of Australia, Sydney; Chen-min Hsu, National Taiwan University, Taipei; Bob McCauley, Bank of International Settlements, Hong Kong; Arthur Grimes, Institute of Policy Studies, Wellington; Fan Gang, National Economic Research Institute, Beijing; Bhanupong Nidhiprabha, Thammasat University, Bangkok; Reuven Glick, Federal Reserve Bank, San Francisco; Ngiam Kee Jin, National University of Singapore; Jong-Wha Lee, Korea University, Seoul; Mark Crosby, University of Melbourne, Melbourne; Murray Sherwin, Reserve Bank of NZ, Wellington; Mario Ble-

jer, IMF, Washington, DC; Hadi Soesastro, Centre for Strategic and International Studies, Jakarta.

Achieving High Growth: Experience of Transitional Economies in East Asia by Peter DRYSDALE with Yiping Huang, Saloman Smith Barney, Hong Kong; Masahiro Kawai, World Bank, Tokyo; Dwight Perkins, Harvard, Boston; Ross GARNAUT, ANU; Wing Thyee Woo, University of California; John Bonin, Wesleyan University, Connecticut; Will Martin, World Bank, Washington, DC; Yongzheng YANG, ANU; Monty Graham, Institute for International Economics, Washington, DC; Shujiro Urata, Waseda University, Tokyo; Leonard Harkim, World Bank, Washington, DC; Hai Wen, Peking University, Beijing; Laixiang Sun, International Institute for Applied Systems Analysis, Laxenburg; Christopher FINDLAY, ANU; Fang Cai, Academy of Social Sciences, Beijing; Albert Keidel, World Bank, Beijing; Suiwah LEUNG, ANU; Jim Riedel, Johns Hopkins University, Washington, DC; Le Dang Doanh, Central Institute of Economic Management, Hanoi; Kazi M Matin, World Bank, Hanoi; Peter WARR, ANU; Rattanatay Luanglatbandith, National Statistical Care, Laos; Soh Hach, Cambodia Development Research Institute, Phnom Penh; Jay Menon, Asian Development Bank, Manila; Barry Hitchcock, Asian Development Bank, Manila; C. Kenneth Quinones, Mercy Corps International, Washington DC; Bradley Babson, World Bank, Washington DC; Mya Than, Institute of South East Asian Studies, Singapore; Ric SHAND, ANU; Ikuko Okamoto, Institute of Developing Economies, Tokyo; Bertil Lintner, Far Eastern Economic Review, Hong Kong.

Future Arrangements in East by Peter DRYSDALE with Gordon de BROUWER, ANU; Haruhiko Kuroda, Ministry of Finance, Tokyo; Takatoshi Ito, Ministry of Finance, Tokyo; Junichi Goto, Kobe University, Kobe; Eiji Ogawa, Hitotsubashi University, Tokyo; Naoyuki Yoshino, Keio University, Tokyo; Ric Battellino, Reserve Bank of Australia, Sydney; David Gruen, Reserve Bank of Australia, Sydney; Ken Henry, The Treasury, Canberra; Peta Furnell, The Treasury, Canberra; Warwick McKIBBIN, Prema-Chandra ATHUKORALA, Suiwah LEUNG, and Mardi DUNGEY, ANU; Ramkishan Rajan, University of Adelaide.

Outlook for Indonesia by Peter DRYSDALE with Graham Evans and Mike Waller, BHP, Melbourne; Ross Babbage, Centre for Intelligence Strategic Analysis, Perth; Bassim Blazey and Brendan Berne, Department of Foreign Affairs and Trade, Canberra; Greg FEALY, ANU; Farid Harianto, Indonesian Debt Restructuring Agency, Jakarta; Bob Lowry, Australian Defence Force Academy, Canberra; Ken Ward, Office of National Assessments, Canberra; Ross McLEOD and Chris MANNING, ANU.

Perspectives on East Asian Development by Peter DRYSDALE with Yuzaburo Mogi, Keidanren/Kik-

oman Corp, Tokyo; Mari Pangestu, Centre for Strategic and International Studies, Jakarta; Peter Petri, Brandeis University, Waltham; Ippei Yamazawa, Inst. of Developing Economies, Tokyo; Shujiro Urata, Waseda University, Tokyo; Prof Masayoshi HONMA, Seikei University/ANU, Tokyo/Canberra.

Japanese Agriculture by Peter DRYSDALE with Ray TREWIN, ANU; Keiji Ohga, University of Tokyo, Tokyo; Masayoshi Honma, Seikei University, Tokyo; Shinji Hattori, Tokyo University, Tokyo; Yoshihisa Godo, Meiji Gakuin University, Tokyo; Yujiro Hayami, GRIPS/FASID, Tokyo.

Rescue Packages in Japan and Asia by Peter DRYSDALE with Jenny Corbett, Nissan Institute, Oxford University; Eisuke Sakakibara, Keio University, Tokyo; Gordon de BROUWER, Peter WARR and Prema-Chandra ATHUKORALA, ANU.

Regionalism in the Asia Pacific and its Implications for Australia and the World Trading System by Peter DRYSDALE with Gordon de BROUWER, Christopher FINDLAY, Ron DUNCAN and Ligang SONG, ANU; David Vines, Oxford University, Oxford; Philippa Dee, Productivity Commission, Canberra; Richard Snape, Productivity Commission, Melbourne.

Key Issues for East Asian Food Sector by Peter DRYSDALE with Ray TREWIN, Jennifer AMYX and Jeff BENNETT, ANU; Masayoshi HONMA, Seikei University/ANU, Tokyo/Canberra; Randy Stringer, University of Adelaide, Adelaide; Deborah Peterson, Supermarket to Asia, Canberra; Jim Kennedy, Productivity Commission, Canberra; Jeff Davis, RIRDC, Canberra.

APEC Agenda for 2001 Summit by Peter DRYSDALE with Yunling Zhang, Lu Jianren and Zhou Xiaobing, Chinese Academy of Social Sciences (CASS), Beijing; Chen Luzhi, China Institute for International Studies, Beijing; Li Rong, Nankai University, Tianjin; Ligang SONG, Christopher FINDLAY, Gordon de BROUWER and Andrew ELEK, ANU.

China's grain marketing system by Christopher FINDLAY with Chunlai Chen, University of Adelaide.

Prof Christopher FINDLAY and Dr Jong-Soon KANG with Steven Kemp, Department of Economics, Curtin University assisted by MOON, Kyoung-Hee and staff of ANU's International Economic Data Bank managed and prepared a report on a project coordinated by The Australian and the New Zealand Ministries of Foreign Affairs and Trade and Education to identify measures affecting trade and investment in education services in the APEC region - this project being within one of APEC's committees - the Group on Services (GOS); the project also studied the impact of further liberalising trade and investment in this sector.

China: APEC Agenda in 2001 by Ligang SONG with Zhang Yunling, APEC Policy Research Centre CASS, Beijing.

Private enterprise development in China: a study report by Ligang SONG with Yang Yao, China Centre for Economic Research, Peking University.

Asian agri-food demand trends by Ray TREWIN with Mark Rosegrant, International Food Policy Research Institute, Washington, DC.

Improving Japanese agricultural trade policies by Ray TREWIN with Masayoshi HONMA, Seikei University, Tokyo; Alan Rae, Massey University, New Zealand; Randy Stringer, Adelaide University; Yoshihisa Godo, Meiji University, Tokyo.

Review of the survey of regional trade and investment impediments by Ray TREWIN with Rob Scollay, Auckland University; Shujiro Urata, Waseda University, Tokyo; Mari Pangestu, CSIS, Jakarta.

Integration of social development into economic planning by Ray TREWIN with Tran Tho Dat, Hanoi Economics University; Orbeta Aniceto, PIDS, Manila.

Economics

Capital Mobility, Crisis and Adjustment in Malaysia by Prema-Chandra ATHUKORALA with Michael Yap, Malaysian Institute of Economic Research, Malaysia; Ashok Gulati, Institute of Economic Growth, Delhi.

Processed Food Exports from Developing Countries by Prema-Chandra ATHUKORALA with Bhanupong Nidhiprobha, Thamassat University, Thailand; Hansheng Wang, Beijing University, China.

Liberalisation of exchange controls in Bangladesh by George FANE with Helal Ahammad, Economic Research Centre, University of Western Australia.

Analysis of welfare changes in computable general equilibrium models by George FANE with Helal Ahammad, Economic Research Centre, University of Western Australia.

Philippine economy project by Hal HILL with A. Balisacan, University of the Philippines.

Project on East Timor: an economic policy framework for rapid growth by Hal HILL with Joao Saldanha, University of California, San Diego.

Global dimensions of demographic change by Warwick McKIBBIN with Ralph Bryant, Brookings Institution, USA.

Economics for an integrated world by Warwick McKIBBIN with Peter Wilcoxon, University of Texas at Austin, USA.

Monetary and fiscal policy rules in the European Union by Warwick McKIBBIN with Reinhard Neck, University of

Klagenfurt, Austria; Gottfried Haber, University of Klagenfurt, Austria.

The need for both intertemporal optimization and stickiness in real world policy model by Warwick McKIBBIN with David Vines, Oxford University.

The gains from trade liberalisation with endogenous productivity and risk premia effects by Warwick McKIBBIN with Andrew Stoeckel, Centre for International Economics, Canberra.

Greenhouse gas policy in Australia by Warwick McKIBBIN with David Pearce, Centre for International Economics, Canberra; K.K. Tang, University of Queensland, QLD.

Global costs of policies to reduce greenhouse gas emissions by Warwick McKIBBIN with Philip Bagnoli, Department of Finance, Canada; Robert Shackleton, US Environmental Protection Agency, USA.

Labour market integration in urban China by Xin MENG with Margaret Maurer-Fazio, Bates College, USA; Hansheng Wang, Beijing University, China.

Two-tier labour markets in urban China: occupational segregation and wage differentials between urban residents and rural migrants by Xin MENG with Junsen Zhang, Chinese University of Hong Kong.

The gender earnings gap: effects of institutions and firms — a comparative study of French and Australian private firms by Xin MENG with Dominique Meurs, University of Paris II, Paris.

Ownership and technical efficiency — a cross section study on the third industrial census of China by Mei WEN with Dong Li, Texas A&M University, Texas; Peter Lloyd and Stephen King, University of Melbourne, Melbourne.

Excess capacity investment: government vs private firms by Mei WEN with Dan Sasaki, University of Exeter, Exeter.

Spatial distribution of manufacturing in China by Mei WEN with Mary Amiti, University of Melbourne.

Japanese legal historiography by Leon WOLFF with P. Schmidt, Centre for Asian and Pacific Legal Systems, Faculty of Law, University of Sydney.

Japanese legal abbreviations by Leon WOLFF with L. Nottage, Faculty of Law, Kyushu University, Japan.

Comparative corporate compliance by Leon WOLFF with C. Parker, School of Law, The University of New South Wales; S.K. Jayasuriya, Latrobe University, Melbourne.

Graduate Program in Public Policy

Technological change in the knowledge-based economy by Donald LAMBERTON with G. Madden, Curtin University, Perth.

Industry Policy, Department of Political Science by Glenn WITHERS with J. Wanna, Griffith University, Brisbane.

National Centre for Development Studies

Impact of National Competition Policy in Social Policy Areas by Michael HESS with David Adams, Department of Premier and Cabinet, Victoria.

Country Study Human Resource Management Practices in PNG by Michael HESS with Benedict Imbun, University of Papua, New Guinea, Port Moresby.

Fiji Sugar Industry: assessing international sugar market reforms and their impacts and defining appropriate responses by Padma LAL with Jenny Bellamy, CSIRO Brisbane; Kalio Tavola, Sugar Commission of Fiji, Lautoka, Fiji; Mahendra Reddy, University of the South Pacific, Suva, Fiji; Inoke Ratukalou, Ministry of Agriculture, Forestry and Fisheries, Fiji; Keshwa Reddy, Ministry of Planning, Mark Williams, Ministry of Lands, Fiji.

Corruption in Australia by Peter LARMOUR with Peter Grabosky, Australian Institute of Criminology, Canberra.

Public Policy in Vietnam by Peter LARMOUR with Dr Tranh, Ho Chi Minh Political Academy, Hanoi.

Financial Sector Reform in Vietnam by Suiwah LE-UNG with Ngo Huy Duc, Ho Chi Min National Political Army, Vietnam.

Asia Pacific Press by Maree TAIT with Linda Crawl, University of the South Pacific, Suva; University of Hawaii Press, Honolulu; Oxford University Press, Oxford; Edward Elgar, Cheltenham; ADB, Philippines; Federation Press, Sydney; Conservation Melanesia Inc., Boroko; Mike Manning, Institute of National Affairs, Port Moresby.

Short course training by Maree TAIT with Greg Bauer, Macquarie University, Sydney

Sustainable development planning for Aboriginal communities by Elspeth YOUNG with H. Ross, CRES, ANU; J. Davies, University of Adelaide.

Centre for Aboriginal Economic Policy Research

Opportunity Costs of Indigenous Disadvantage by Jon ALTMAN with Human Rights and Equal Opportunity Commission

Native Title Representative Bodies: Re-Determination Processes by Julie FINLAYSON and David MARTIN with ATSIC Central Office

The History of Aboriginal Rights by Robert LEVITUS with National Museum of Australia:

Baseline Indigenous Comparative Social and Economic Study by Kate ROSS and John TAYLOR with the ATSIC State Office in New South Wales

Mediation of the Ngunawal Regional Agreement agreement with the Australian Capital Territory Government by Diane SMITH with NNTT

Mutitjulu Project by John TAYLOR with Parks Australia North division of Environment Australia

Structural Barriers to Improved Nutrition Among Aboriginal People in the Katherine Region by John TAYLOR and Neil WESTBURY with Fred Hollows Foundation and the Jawoyn Association

Involvement of ATSIC Murdi Paaki Regional Council in Proposed Barwon Darling Alliance Credit Union by Neil WESTBURY with ATSIC State Office in New South Wales

Centre for Educational Development and Academic Methods

The use of self managed tutorial groups in undergraduate teaching and learning by Malcolm PETTIGROVE with Linda Glassop, Research Fellow in the Euro-Australian Co-operation Centre, University of Melbourne.

Centre for Mental Health Research

Collaborators in Program Research:

Anstey, Dr K., Prince of Wales Medical Research Institute, Randwick NSW

Easteal, Dr S., John Curtin School of Medical Research, The Australian National University.

Grayson, Dr D., CERA, Concord Hospital, Sydney, NSW.

Hofer, Dr S., Dept of Human Development and Family Studies and Centre for Developmental and Health Genetics, The Pennsylvania State University, USA.

Lynskey, Dr M., Lecturer National Drug & Alcohol Research Centre, University of New South Wales, Sydney.

Marshall, Dr R., Manager, Information and Performance Evaluation, Department of Human Services, Melbourne.

O'Toole, Dr B., Research Fellow, Department of Public Health, UNSW.

Prior, Prof M., Department of Psychology, University of Melbourne.

Pritchard, Z., Department of Botanical and Zoological Sciences, ANU.

Sanson, Dr A., Department of Psychology, University of Melbourne.

Smart, D., Department of Psychology, University of Melbourne.

Zhang, Dr M., Chair, Chinese Association of Psychiatry, Shanghai Mental Health Center, Shanghai Second Medical University, Shanghai.

Centre for Cross-Cultural Research

The South Seas Project: Cook's Pacific Voyages, a joint project with NLA: digital transcript of Cook's holograph Endeavour Journal; Paul TURNBULL with Christine WINTER and Katie RUSSELL, completed a transcript of volumes two and three of John Hawkesworth's 1773 Narrative Account of Cook's first voyage, and the full text of the 1780 edition of William Falconer's Dictionary of the Marine; Christine WINTER also undertook extensive computer-based analysis of the content of Hawkesworth's Narrative and the Endeavour Journal.

Gold: Forgotten Histories and Lost Objects of Australia, edited by Iain McCALMAN and Alexander COOK with Andrew REEVES produced by the CCR and HRC with the NMA and Cambridge University Press; includes contributions from CCR staff members Anita CALLAWAY, Ian COATES, Kim MCKENZIE and Paul PICKERING (HRC)

Iain McCALMAN and Alexander COOK continued as part of the curatorium in the development of 'Gold and Civilisation', the NMA's major inaugural exhibition.

"When does writing, performing or painting in the name of another become a problem?", conference co-convoked by Julie Marcus, The Centre for Cultural Risk Research, Charles Sturt University, and Christine WINTER of the CCR.

National Centre for Epidemiology and Population Health

Improving water in Indigenous communities through technology transfer by Dr Gabriele BAMMER with Dr Bruce Walker, Centre for Appropriate Technology, Alice Springs; Dr Tony Priestley, CRC for Water Quality and Treatment

National evaluation of pharmacotherapies for opioid dependence by Dr Gabriele BAMMER with A/Prof Richard P. Mattick, Dr Erol Diguisto, Jo Kimber and Dr Chris Doran from The National Drug and Alcohol Research Centre, University of New South Wales

New pharmacotherapies clinical trials by Dr Gabriele BAMMER with Dr Alison Ritter, Dr Nicholas Lintzeris and the Turning Point New Pharmacotherapies Research Team from Turning Point Alcohol and Drug Centre Inc, Melbourne

Withdrawal from heroin using buprenorphine followed by naltrexone maintenance — an inpatient study to determine effective dosing regimens by Dr Gabriele

BAMMER with Dr Nicholas Lintzeris, Prof Greg Whelan, Dr Alison Ritter and Louise Rushworth from Turning Point Alcohol and Drug Centre Inc, Melbourne

A pilot study of accelerated detoxification from methadone maintenance treatment using naltrexone by Dr Gabriele BAMMER with A/Prof Nicholas Glasgow, Canberra Clinical School of the University of Sydney; Jo Taylor, ACT Community Care Alcohol and Drug Program; Dr James Bell and Malcolm Young from The Langton Centre, Sydney

Estimating the demand for new pharmacotherapies within the heroin dependent population in Australia by Dr Gabriele BAMMER with Dr Greg Rumbold, Dr Paul Dietze and Jozica Kutin, from Turning Point Alcohol and Drug Centre Inc, Melbourne; Dr Robert Ali, Drug and Alcohol Services Council, Adelaide; Dr Campbell Aitken and Dr Nick Crofts from The Centre for Harm Reduction, Macfarlane Burnet Centre for Medical Research, Melbourne; Prof Wayne Hall, National Drug and Alcohol Research Centre, University of New South Wales; A/Prof Damien Jolley, School of Health Sciences, Deakin University

Identification and examination of the risk factors for non-fatal heroin overdose: A case-crossover study by Dr Gabriele BAMMER with Dr Paul Dietze, Dr Greg Rumbold and Craig Fry from Turning Point Alcohol and Drug Centre Inc, Melbourne; Assoc Prof Damien Jolley, School of Health Sciences, Deakin University

The personal, social and health needs of women living with Hepatitis C by Dr Gabriele BAMMER, Dr Cathy BANWELL and Mary BEERS with Prof Sandra Gifford, School of Health Sciences, Deakin University

Methadone injection in NSW by Dr Gabriele BAMMER and Dr Geetha ISAAC-TOUA with Prof Sue Kippax, Erica Southgate, Clive Aspin and Max Hopwood from The National Centre in HIV Social Research, University of New South Wales; Margaret Macdonald, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales

Advances in medical statistics arising from the AIDS epidemic by Prof Niels BECKER with Dr Ian Marschner, NHMRC Clinical Trials Centre, University of Sydney

Analyses of infectious disease data from household outbreaks by Markov chain Monte Carlo methods epidemic by Prof Niels BECKER with Dr Philip O'Neill, University of Nottingham, U.K.

Design issues for studies of infectious diseases epidemic by Prof Niels BECKER with Dr Tom Britton, Uppsala University, Sweden

Estimating the immunity coverage required to prevent epidemics in a community of households epidemic by Prof Niels BECKER with Dr Tom Britton, Uppsala University, Sweden

Gender, diabetes and health by Dr Dorothy BROOM with Dr Julia Byford, RSPAS, ANU; Anne Hirst, Burnside Family Centre

Lessons from the Alternative Birthing Services Program by Dr Dorothy BROOM with Susan Andrew, ACT Department of the Chief Minister

Working conditions and the transmission of health inequalities to young children by Dr Dorothy BROOM with Dr Julie McMillan, Australian Council for Educational Research; Dr Bryan Rodgers, Centre for Mental Health Research; Dr Stephen Campbell, Campbell Health Monitor

Work-related determinants of health, safety and well-being of New Zealanders by Dr Dorothy BROOM with A/Prof Anne-Marie Feyer, University of Otago; Dr Chris Cunningham, Massey University; Dr Peter Crampton, University of Otago; Prof Tord Kjellstrom, University of Auckland; Prof Neil Pearce, Massey University; Peter Herbison, University of Otago; Rebecca Lilley, University of Otago

An economic and epidemiological simulation model of cancer and cardiovascular disease by Dr James BUTLER with Dr Erich Kliever, Department of Preventive Oncology and Epidemiology, CancerCare, Manitoba, Canada

Cost-effectiveness analysis of conjugate pneumococcal vaccine in Australian children by Dr James BUTLER with Prof Peter McIntyre and Dr Raina MacIntyre, National Centre for Immunisation Research and Surveillance, University of Sydney

Workforce modelling project by Dr James BUTLER with Dr Michele Clark, Australian Centre for Prehospital Research, Queensland Ambulance Service.

Accessibility of health and reproductive health assistance in Dhaka slums by Prof John CALDWELL, Dr Bruce CALDWELL and Pat CALDWELL with Dr Indrani Pieris, Australian Institute of Health and Welfare, Canberra, Australia; Prof Barkat-e-Khuda, International Centre for Diarrhoeal Disease Research, Bangladesh; S.N. Mitra, Mitra and Associates, Bangladesh

National family planning programs in the 21st century by Prof John CALDWELL, Dr Bruce CALDWELL and Pat CALDWELL with Prof Barkat-e-Khuda, International Centre for Diarrhoeal Disease Research, Bangladesh; Dr James Phillips, The Population Council, New York, United States of America

National household and tubewell surveys of arsenic contamination in Bangladesh drinking water by Prof John CALDWELL, Dr Bruce CALDWELL and Pat CALDWELL with S.N. Mitra, Mitra and Associates, Dhaka, Bangladesh

The fertility decline in Bangladesh by Prof John CALDWELL, Dr Bruce CALDWELL and Pat CALDWELL with Prof Barkat-e-Khuda, International Centre for Di-

arrhoeal Disease Research, Bangladesh; Dr Indrani Pieris, Australian Institute of Health and Welfare, Canberra, Australia

The population of Australasia and the Pacific by Prof John CALDWELL, Dr Bruce CALDWELL and Pat CALDWELL with Dr Jeff Marck, Des Moines University, Des Moines, United States of America

Effecting declines in female circumcision Prof John CALDWELL and Pat CALDWELL with Prof Israel O. Orubuloye, Ekiti State University, Ado-Ekiti, Nigeria

The sub-Saharan AIDS epidemic by Prof John CALDWELL, Pat CALDWELL, and Dr Christine VARGA with Prof Israel O. Orubuloye, Ekiti State University, Ado-Ekiti, Nigeria; Prof James Ntozi, Makerere University, Uganda; Prof Kofi Awusabo-Asare, Cape Coast University, Cape Coast, Ghana; Dr John Anarfi, University of Ghana, Accra; Dr Jacob Malungo, Demography Program, RSSS, ANU/University of Zambia, Lusaka

Optimal duration of neoadjuvant androgen deprivation therapy in localised prostate cancer (NHMRC-funded multi-centre randomised controlled clinical trial) by Dr Keith DEAR with Prof J. Denham and others, Trans-Tasman Radiation Oncology Group

Estimation of cure rate in cancer clinical trials by Dr Keith DEAR with Dr Yingwei Peng, Memorial University of Newfoundland, Canada

The familial incidence of symptoms of scotopic sensitivity/Irlen syndrome by Dr Keith DEAR with Dr Greg L. Robinson and A/Prof Philip J. Foreman, University of Newcastle Special Education Unit

Pneumococcal antibiotic resistance by Prof Bob DOUGLAS with A/Prof Peter Collignon, The Canberra Hospital

Surveillance of acute flaccid paralysis by Dr Rennie M. D'SOUZA with Dr Heath Kelly, Epidemiology and Public Health Division, Victorian Infectious Diseases Reference Laboratory; Margery Kennett, Senior Scientist, National Polio Reference Laboratory, Epidemiology and Public Health Division, Victorian Infectious Diseases Reference Laboratory; Dr Jayne Antony, Paediatric Neurologist, Royal Alexandra Hospital for Children (New Children's Hospital) Westmead; Dr Helen Longbottom, Department of Social and Preventive Medicine University of Queensland; Dr Elizabeth Elliott, Director, Australian Paediatric Surveillance Unit, Senior Lecturer, University of Sydney, Consultant Paediatrician, New Children's Hospital Sydney

A national index of subjective well-being by Richard ECKERSLEY with Prof Bob Cummins, School of Psychology, Deakin University, Burwood, Victoria, Australia

Oxford Handbook of Public Health Practice by Dr Charles GUEST with Dr D. Pencheon and Dr D.

Melzer, Institute for Public Health, University of Cambridge, England; Dr M. Gray, Institute of Health Sciences, University of Oxford, England

QOL Cohort Study by Dr Lynette LIM with Prof Richard F. Heller, University of Newcastle

Changing patterns in the management of acute myocardial infarction by Dr Lynette LIM with Prof Richard F. Heller, University of Newcastle

Assessment of measles related morbidity and mortality following the mass measles vaccination campaign in Jinja District by Dr Mahomed PATEL with Dr Adoke Yeka, Prof T. Kakitahi and Prof D. Serrwada, Institute of Public Health, Makerere University, Kampala, Uganda

A training needs assessment for implementing WHO's Integrated Disease Surveillance Program in Uganda by Dr Mahomed PATEL with Luswa Lukwago, Institute of Public Health, Makerere University, Kampala, Uganda

The role and contribution of external consultants in the establishment of Field Epidemiology Training Programs around the world. 1980-1999 by Dr Mahomed PATEL with Dr Carmen Sanchez Vargas, International Health Division, Centre for Disease Control, Atlanta, Georgia, USA

Acute skin irritant effects of cyanobacteria (bluegreen algae) in healthy volunteers by Dr Geetha RANMUTHUGALA and Dr Wayne SMITH with Michael Burch, Australian Water Quality Centre, Adelaide, Australia; Prof Louis Pilotto, Flinders Medical School, Adelaide, Australia; Dr Warren Weightman, Queen Elizabeth Hospital, Adelaide, Australia; Dr Titus Vimiiasiri, ACTEW, Canberra

An intervention trial to assess the contribution of food chain to total arsenic exposure by Dr Geetha RANMUTHUGALA and Dr Wayne SMITH with A/Prof Malcolm Sim, The Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Victoria, Australia; Dr Jack Ng, The National Research Centre for Environmental Toxicology, University of Queensland, Australia; Dr Abul Hasnat Milton, NGO Forum for Drinking Water and Sanitation, Bangladesh

Epidemiological transition and re-emergence of infectious diseases by Dr Len SMITH with S.J. Olshanky, Public Health, University of Illinois, Chicago; B. Carnes, Centre on Ageing, University of Chicago; R. Rogers, University of Colorado, Boulder

Future of the Australian mortality transition by Dr Len SMITH with Dr Heather Booth and Rajesh Kumar Chauhan, Demography, Research School of Social Sciences, ANU; John Maindonald, Statistical Consulting Unit, Graduate School, ANU

Inequalities in self reported health by Dr Len SMITH with P. Clarke and C. Jenkinson, Public Health, Ox-

ford; U-G. Gerdtham, M. Johannesson and K. Bingeors, Stockholm School of Economics

Limits of the epidemiological transition by Dr Len SMITH with S.J. Olshanky, Public Health, University of Illinois, Chicago; B. Carnes, Centre on Ageing, University of Chicago; N. Gavrilova, Centre on Ageing, University of Chicago

Care continuum and quality of life study by Dr Wayne SMITH with Dr Paul Craft, Department of Oncology, The Canberra Hospital; Kate Burns, Social Work Department, The Canberra Hospital; Dr Bruce Shadbolt, Epidemiology, The Canberra Hospital; A/Prof Norelle Lickiss, Palliative Medicine, Royal Prince Alfred Hospital, Sydney; Dr Jenny Phillip, Palliative Medicine, The Alfred Hospital, Melbourne; Prof John McCallum, University of Western Sydney

Blue Mountains eye study; Blue Mountains hearing study; Three continent ophthalmic pooling study by Dr Wayne SMITH with A/Prof Paul Mitchell and Dr Jie Jin Wang, Department of Ophthalmology, University of Sydney; A/Prof Bob Cumming, Department of Public Health and Community Medicine, University of Sydney; Prof Stephen Leeder, A/Prof Phillip Newall, Prof Ron & A/Prof Barbara Klein, Department of Ophthalmology & Visual Science, University of Wisconsin, Madison, Wisconsin, USA; Prof Paulus De Jong, Department of Ophthalmology, Erasmus University, Rotterdam & Department of Ophthalmology, Academic Medical Centre, Amsterdam

School of Mathematical Sciences

Centre for Mathematics and its Applications

Convergence of discrete gradient descent algorithms for analytic cost functions by B H ANDREWS with R Mahony (Monash)

Clifford Algebras and the Dirac equation by H S BOOTH with P Jarvis and G Legg (Tasmania)

Hand-in traffic in mobile phone systems by D J DALEY with L D Servi (GTE Laboratories Inc., Waltham, USA)

Long rang dependence properties of point processes by D J DALEY with R Vesilo (Macquarie University)

Sub-exponentiality properties of network systems by D J DALEY with Prof C Kluppelberg (Technical University Munich) and A Baltrūnas (Math Institute, Vilnius, Lithuania)

On anomalous asymptotics of heat kernels on groups of polynomial growth by N DUNGEY with D Robinson and T ter Elst (Eindhoven University of Technology)

Minimal surfaces theory by Dr Y FANG with J-F Hwang (Academia Sinica, Taipei)

Epidemic models by J M GANI with D J Daley and S B Barnes (ADFA)

On patterns in sequences in random events by J M GANI with A Irle (Kiel)

Skewing methods by P G HALL with M-Y Cheng (National University of Taiwan) and J Fan (UCLA)

Stereology by P G HALL with A Feuerverger, (Toronto)

Testing for monotonicity by P G HALL with I Gijbels (Université Catholique de Louvain), N E Heckmann (University of British Columbia) M C Jones (Open University, UK) and I Koch (Newcastle, NSW)

Confidence intervals by P G HALL with S M S Lee (Hong Kong)

Biased bootstrap by P G HALL with Y Maesono (Kyushu, Japan) and B Presnell (Florida)

Periodic function estimation by P G HALL with Rice (Berkeley)

Methods for extreme values by P G HALL with N Tajvidi (Lund, Sweden)

Confidence intervals by P G HALL with A Young (Cambridge, UK)

Legendrian distributions on manifolds with corners by A W HASSELL with R Melrose and Dr A Vasy (MIT, Cambridge, USA)

Schrödinger kernel by A W HASSELL with J Wunsch (Columbia)

Ergodicity of eigenvalues by A W HASSELL with S Zelditch (Johns Hopkins University)

History of Statistics by C C HEYDE with E Seneta (Sydney)

Risky asset modelling by C C HEYDE with R Gay (Monash) and A Lim (Columbia) University, USA.

Long-range dependence by C C HEYDE with V V Anh (QUT)

Heavy tails by C C HEYDE with V V Anh (QUT)

Intermittency by C C HEYDE with V V Anh (QUT)

Discrimination between non-nested families of models by C C HEYDE with M Markatou (Columbia)

Quasi-likelihood by C C HEYDE with R Morton (CSIRO, Canberra)

Partial regularity of minimizers in the calculus of variations by M-C HONG with M Giaquinta (Pisa)

Spatial statistics by F HUANG with Y Ogata (The Institute of Statistical Mathematics, Tokyo)

Actions of the unitary group on complex manifolds by biholomorphic transformations by A V ISAEV with N G Kruzhilin (Steklov Mathematical Institute, Moscow)

Module structure of free Lie rings and free Lie algebras by L G KOVÁCS with R M Bryant and Dr R Stöhr (UMIST, UK)

Minimal faithful permutation representations of finite groups by L G KOVÁCS with C E Praeger (Western Australia)

Some exact results for the three-layer Zamolodchikov model by V V MANGAZEEV with H Boos (Institute for High Energy Physics, Protvino, Russia)

Square root problem of Kao by A G R McINTOSH with P Auscher (Université de Picardie Jules Verne, Amiens), S Hofmann (Missouri, Columbia) and P Tchamitchian (Faculté des Science, Marseille)

Spectral Theory and Functional Calculus by A G R McINTOSH with X-T Duong (Macquarie) and P Auscher (Université de Picardie Jules Verne, Amiens)

Lie rings with maximal class by M F NEWMAN with A Caranti (Trento)

Testing finite presentations for finiteness by M F NEWMAN with G Havas (Queensland) and D F Holt (Warwick)

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Groups defined by powers by M F NEWMAN with D F Holt (Warwick)

Minimal presentations by M F NEWMAN with G Havas (Queensland) and E A O'Brien (Auckland)

Operator algebras and mathematical physics by D W ROBINSON with O Bratteli (Oslo)

Elliptic and subelliptic operators on Lie groups by D W ROBINSON with A F M ter Elst (Technical University, Eindhoven)

Operator algebras and wavelets by D W ROBINSON with P E T Jørgensen (Iowa)

A spectral multiplier theorem for a sublaplacian on $SU(2)$ by A SIKORA with M Cowling (New South Wales)

Plancherel type estimates and sharp spectral multipliers by A SIKORA with X-T Duong (Macquarie) and E-M Ouhabaz (Université de Bordeaux)

Inverse scattering by T TRAN with R Kress (Göttingen, Germany)

Sinc quadrature methods for Symm's equation by T TRAN with R Kress (Göttingen, Germany)

Tolerant qualocation methods by T TRAN with I Sloan (New South Wales)

Multiplicative Schwarz methods for boundary integral equations in two dimensions by T TRAN with E Stephan (Hannover)

Discrete schemes for elliptic and parabolic equations by N S TRUDINGER with H-J Kuo (National Chung-Hsing University, Taiwan)

Degenerate Hessian equations by N S TRUDINGER and X-J WANG with N N Ivchikina (St Petersburg Institute of Civil Engineering)

Distance sampling by A H WELSH with S Barry (Bureau of Resource Science, NSW)

Canonical correlation analysis by A H WELSH with J Robinson, (Sydney)

Robust estimation for finite populations by A H Welsh with A Y C Kuk (Singapore)

Robust fitting of a binomial model by A H WELSH with A F Ruckstuhl (Winterthur, Switzerland)

One stop estimation by A H WELSH with E Ronchetti (Geneva)

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Marginal longitudinal nonparametric regression by A H WELSH with X Lin and R J Carroll (Texas)

Testing for linearity by A H WELSH with A Azzalini (Padua)

Nonlinear, heteroscedastic data with extra zeros by A H WELSH with A Zhou (Indiana)

Analysis of HIV/AIDS surveillance data by S R WILSON with P J Solomon (Adelaide)

Analysis of methadone retention by S R WILSON with G Bammer (NCEPH, ANU)

On determining the genes for susceptibility to multiple sclerosis by S R WILSON with G Stewart and B Bennetts (Westmead Hospital, Sydney)

Determining the genetic basis of Crohn's disease by S R WILSON with J Cavanaugh and P Pavli (The Canberra Hospital) and D Callen (Women's and Children's Hospital, North Adelaide)

The effects of compositional heterogeneity on phylogenetic analyses and subsequent estimates of sequence divergence by S R WILSON with L Jermini (Sydney) and S Easteal, (JCSMR, ANU)

Bioinformation science by S R WILSON with S Easteal and G Huttley (JCSMR, ANU)

Development of statistical methodology for analysing population genetic variation at the molecular level by S R WILSON with G Huttley (JCSMR, ANU)

Department of Mathematics

The frame of a finite group by R A BRYCE with T Hawkes (Warwick, UK)

Covering groups with subgroups by R A BRYCE with L Serena (Florence)

Nilpotent groups by P J COSSEY with S Stonehewer (Warwick) and O Kegel (Freiburg, Germany)

Arithmetic of finite groups by P J COSSEY with T Hawkes (Warwick)

Properties of finite soluble groups by P J COSSEY with A Ballester-Bolinches (Uni Valencia) and K Doerk (Mainz)

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Finite Element Approximations to Solutions of Geometric Variational Problems by J E HUTCHINSON with G Dziuk (Freiburg, Germany)

Random Fractals by J E HUTCHINSON with L Ruschendorf (Freiburg, Germany)

Numerical modelling of rapidly varying flood flow by S G ROBERTS with C Zoppou (ACTEW)

Geophysical computational methods by S G ROBERTS with S Matthai (ETH)

Smoothing Methods applied to Data Mining by S G ROBERTS with I Altas (Charles Sturt Wagga), M Hegland (RSISE) and C Zoppou (ACTEW)

Observations with NASA's Chandra X-ray satellite and Far Ultraviolet Explorer by S VENNES with J Dupuis (Berkeley) and P Chayer (John Hopkins)

Possible progenitors of Type Ia Supernovae by D T WICKRAMASINGHE with C Tout and E Regos (Cambridge)

Principal Grants and Donations

The University is indebted to those organisations and individuals who make grants, research contracts, consultancies and donations for use in research and other activities. Such funds play an important role in the ongoing activities of the University. The following list includes grants and donations reported to Council during 2000.

Grants

Donor	Purpose	Amount
Aboriginal and Torres Strait Islander Commission	Murdi Paaki Socio Economic Profile	46,562
	Oxford Companion to Art and Culture	25,000
	Aboriginal and Torres Strait Islander Commission	267,447
	Feasibility Study of Amalgamating Existing CDEP Organisation in the West MacDonnell Region	49,850
Accounting Association of Australia and New Zealand	CDEP Benefits in the Port Augusta Area	8,432
	PhD Scholarship	7,500
ACIL Australia Pty Ltd	Mozambique Australia Capacity Building Program — Konzo Workshop	33,450
	China Capacity Building Program	308,841
ACT Chief Minister's Department	<i>ACT Research and Development Grants Scheme</i> Robust Solar Receiver for Linear Concentrator Systems	224,000
ACT Department of Health and Community Care	Centre for Mental Health Research Websites: Orchid and Moodgym	50,000
ACT Electricity and Water	Combined heat and power solar concentrator system	75,000
American Orchid Society	Diversity of Chemical Communication Systems in Australian Sexually Deceptive Orchids	27,640
Anglogold Limited	Consultancy: Predictive Guides to Cu and Au Mineralization at Circum-Pacific Convergent Plate Margins	64,492
Antarctic Science Advisory Committee	Risk Assessment of Collebolan Introduction to Subantarctic Islands	22,000
Asia Foundation, The	Consultancy: Islam and Civil Society Program	11,056
Association of Universities for Research in Astronomy Inc	Consultancy: Gemini Near Infrared Integral Field Spectrograph (NIFS) — Project 2	4,348,065
Australia and Pacific Science Foundation	Human and Climatic Controls on the Environment of Wallis Island, West Polynesia	15,835
Australia-India Council	Science Education Workshop and Seminar for Teachers	6,600
Australia-Indonesia Institute	Consultancy: Public Broadcasting for Indonesia Media Managers	20,000
	Consultancy: Policy Analysis and Leadership Training for Indonesian NGO Leaders	24,000
Australian Agency for International Development	State, Society and Governance in Melanesia Project	236,269
	<i>International Seminars Support Scheme</i>	
	Achieving High Growth: Experience of Transitional Economies in East Asia	17,507
	<i>Small Activities Scheme</i>	
	Developing Effective Interventions for Arsenic Mitigation	100,000
	Reviewing Poverty Reductions Strategy in Indonesia	5,030
	<i>Consultancies</i>	36,864
	Serial Publications and Outreach Activities for PNG and the Pacific Region	
	Serial Publications and Outreach Activities for PNG and the Pacific Region	28,777
	Ho Chi Minh National Political Academy Public Policy Training And Research Project	240,000
	Seminar on Parliamentary Democracy for Pacific Island States	60,000
	Short Course Training for Sovaia Momo of Fiji in Trade Policy Skills	8,490
	Provision Of Maps, Notes And Tables For The Rural Development Study For Papua New Guinea	10,900
	Economic Training DPRK Students	186,500
	Project Design Study for Australia's Social Protection Facility	66,000
	The Demographic Impact of HIV/AIDS in PNG and the Pacific	7,552
	Technical Assistance and Advisory Services to PNG Government	200,000
	Serial Publications and Outreach Activities for PNG and the Pacific Region	728,952

	<i>Grants</i>	125,780
	Post-Doctoral Fellowships for Research on Economic and Public Administration Issues in Papua New Guinea	
	Support for the Indonesia Project	414,335
Australian Brewers Foundation	<i>Alcohol Related Medical Research Grant Scheme</i>	20,000
	Depression and Anxiety Association with Non-drinking, Moderate Drinking and Hazardous/harmful Drinking	
Australian Centre for International Agricultural Research	Consultancy: Fiji Sugar Industry: Assessing International Sugar Market Reforms and their Impacts And Defining Appropriate Responses	898,484
	Consultancy: Achieving Food Security in China — implications of likely WTO accession	725,246
	<i>Grants Program</i>	310,678
	Planning for Agricultural Development and Sustainable Land Management in Papua New Guinea	
	Improving Productivity of the Small Holder Oil Palm Sector in PNG	16,170
	Manufacture of Low Cost Wood-Cement Composites in the Philippines Using Plantation Grown Australian Tree Species	474,022
	Improving Productivity of the Small Holder Oil Palm Sector in PNG	133,764
	Manufacture of Low Cost Wood-Cement Composites in the Philippines Using Plantation Grown Australian Tree Species	101,494
	<i>Small Project</i>	117,826
	Cassava Safety: Development and Evaluation of Simple Tests of the Cyanogenic Potential of Cassava Flour and Cassava Tubers	
Australian Competition and Consumer Commission	An Analysis of Access Pricing Issues	15,000
Australian Customs Service	Consultancy: Customs International Executive Management Program (CIEMP)	66,355
Australian Greenhouse Office	<i>Consultancies</i>	15,000
	Services for: National Carbon Accounting System Audit and Analysis of Forest Inventories	
	National Carbon Accounting System Audit and Analysis of Forest Inventories	768,000
	Review of the 1990 to 1998 Land Use Change and Forestry Sector Inventory	17,897
	<i>Experts Funding Program</i>	
	Intergovernmental Panel on Climate Change (IPCC) — Methodological Issues Relating to greenhouse Gas Inventories and Emissions projections, Including IPCC Special Report on Land Use, Land Use Change, Forestry and Carbon Emissions	41,932
	<i>Renewable Energy Commercialisation Program Grants</i>	790,000
	Validation of Hot Dry Rock Resources In The Hunter Valley, NSW — Stage One of Australia's First Hot Rock Power Station	
Australian Housing and Urban Research Institute Limited	<i>Consultancies</i>	11,280
	Outcomes of Home Ownership Aspirations and Their Determinants	
	Medium and Long Term Projections of Housing Needs in Australia	255,033
	Housing and its Association with Other Life Outcomes	8,760
Australian Institute of Aboriginal and Torres Strait Islander Studies	<i>Research Grants</i>	39,375
	The Sir Edward Pellew Group Project, Gulf of Carpentaria — Stage One, Vanderlin Island	
	Before the Fences: Early Contact Between Aboriginal People and Europeans in the Central Murray	12,391
	1840 Wiradjury Grammar	11,578
	Technological Changes In The Eastern Victoria River Region, Northern Australia	6,250
	Queensland Materials in Russia	7,400
	Type 2 Diabetes in an Aboriginal Community	9,481
Australian Nuclear Science and Technology Organisation	<i>Access to Major Research Facilities Program</i>	10,140
	Visit to ISIS, Rutherford laboratory, UK — March 2000 — Surfactant Chain Length at Air/Water Interface Effect in PIB Structure	
	Visit the 88 inch Cyclotron, Lawrence Berkeley Laboratory, USA — Characterising Shape Coexistence in Pb-188 and Tl-187	12,000
	Visit France and Finland, 14 days, Intrinsic and Rotational Bands in 180Ta Very High Spin States in 174Os Populated in a Cold Near Symmetric Reaction	9,200
	Visit ISIS, UK, Off-Spacular Scattering from Surfactants at the Solid/Liquid and Air/Liquid Interface	9,741
	Visit ANL, A Study of Changes in the Diffraction Patterns of Human and Transgenic Mouse Hair with Disease	11,700
	Visit ANBF, Photon Factory, Japan — In-Situ Determination of Transition Metal Oxidation States in Silicate Melts as a Function of Temperature to 1400 C	6,680
	XANES Spectroscopy of Cr, Ti, V, and W in Minerals, Glasses, and Melts at Temperatures up to 1700 K	6,870
	EXAFS Measurements of Amorphised Semiconductors	6,400

	Visit IPNS, Argonne National Laboratory and National Institute of Standards and Technology USA — August 2000 — Structuring of High Internal Phase Emulsions by Planar Surfaces	9,024
Australian Orchid Foundation	Chemistry and Behavioural Significance of Floral Odours in the Sexually Deceptive Orchid Genus, <i>Chiloglottis</i>	5,000
Australian Photonics Pty Ltd	Australian Photonics CRC	64,250
Australian Rotary Health Research Fund	Malarial Disease Pathogenesis: Immunohistochemical Studies on Autopsy Samples	10,100
	Are There Benefits of Improving the Mental Health Literacy of Depressed People?	40,950
Australian Synchrotron Research Program	Visit to ANBF, Photon Factory, Japan, Synchrotron X-ray Determination of Structure of Silicate Films Grown at the Air-Water Interface	6,530
	Visit the SRI-CAT Advanced Photon Source, Intercalated Silicate Films	6,600
	Visit SRI-CAT, Advanced Photon Source, High-Energy Diffuse Scattering from Disordered Crystals	6,900
Australian Vinyls Corporation Ltd.	Electrophilic chlorination: New Products, Improved Processes, and their Toxicological and Environmental Implications	15,000
Australian Water Technologies — Environment, Science and Technology Pty Ltd	Surface Characterisation of Cryptosporidium Oocysts for the Development of Novel Filtration Systems for Commercial Applications	23,000
Barrick Gold Corporation	Consultancy: Predictive Guides to Cu and Au Mineralization at Circum-Pacific Convergent Plate Margins	55,279
Biota Holdings	Chemoenzymatic Synthesis of Novel Sialic Acid Analogues Related to the Potent Anti-Influenza Drug Relenza	15,000
Care Plus (ACT) Pty Limited	Consultancy: The ACT Coordinated Care Trial, Live Phase	56,000
CEA Technologies Pty Limited	The application of plasma antennas to communications and radar	15,000
Centre for Accident Research and Road Safety-Queensland (CARRS-Q)	<i>Road Accident Prevention and Road Safety Research Grants Scheme</i> Automated Management of Driver Fatigue	50,000
Centre for Research on Ageing	Dept of Veterans Affairs Project	25,000
Chemonics International Inc	Consultancy: The Civil Society Support And Strengthening Program (CSSP)	13,543
Chiang Ching-Kuo Foundation for International Scholarly Exchange	<i>Grants Program</i> The Secret History of the Mongols	47,909
Christian-Albrecht Universitat	Language Documentation Project	63,925
Clive and Vera Ramaciotti Foundations	<i>Equipment Grants</i> Calcium Measurement in Arteries and Arterioles Using Viral Vectors	10,000
Commonwealth Scientific Industrial Research Organisation	Consultancy: Virtual Environment Display for CSIRO Discovery	50,000
	Scholarship: A Transcription Factor Involved in Induction of the Low Oxygen Response	15,000
Compania De Minas Buenaventura SAA	Consultancy: Predictive Guides to Cu and Au Mineralization at Circum-Pacific Convergent Plate Margins	55,279
Craft ACT	Rings of History: Contemporary Craft from Historical Timbers	9,000
CRC for Freshwater Ecology	Consultancy:- Calculation of River Disturbance Indices for Sydney	5,000
	Physical and Nutrient Factors Controlling Algal Succession and Biomass in Burrinjuck Reservoir	6,000
CRC for Sustainable Development of Tropical Savannas	<i>Scholarship Grants</i> PhD Scholarship	8,636
CRC for Sustainable Production Forestry	<i>Scholarship Grants</i> PhD Scholarship Top Up	43,608
	Biology and Ecology of <i>Mnesampela Privata</i> (Lepidoptera: Geometridae) Scholarship	62,466
	Identity and Efficacy of Hymenopteran Parasitoids of the Autumn Gum Moth	72,699
CRC for Sustainable Rice Production	<i>Scholarship Grants</i> Investigation of Molecular Mechanisms Causing Cold-Induced Sterility in Rice	27,000
	Characterisation of the Developmental Pathway of Pollen Maturation in Rice Anthers	107,640
CRC for Tropical Plant Protection	<i>Grant for CRC core projects</i> Avirulence and Pathogenicity Genes in Phytophthora	286,825
	Isolation of the Tomato I-3 Gene for Resistance to <i>Fusarium oxysporum</i> pv <i>Lycopersici</i>	156,494
CRC for Water Quality and Treatment	Technology Transfer Officer to Deal with Water Quality and Treatment in Indigenous Communities	140,000
CSIRO	Collaborative Research Agreement to Develop ICMS Software	15,000
	The Systematics of the Rhodanthine Lindley	15,000
	Scholarship: The Manipulation of Sulfur Content in Transgenic Rice Grains	15,000
	<i>Consultancies</i> New Applications for Boron Technologies	22,000
	Advice to install the Wedge at CSIRO Discovery theatre	12,500

	<i>Scholarship</i>	10,000
	Measuring Carbon Input and Turnover Rates as a Function of Depth in a Soil Profile	
CSIRO Land and Water	<i>Scholarships</i>	15,000
	Issues in Integrated Modelling and Assessment	
	Integrated Biophysical and Economic Modelling — Top Up of Scholarship	15,000
	<i>Land and Water Collaborative Project</i>	77,000
	Basin-Wide Mapping of Sediment and Nutrient Exports	
Dairy Research and Development Corporation	The Nanaoscale Structure of Milk: Stability Implications for Milk Products	180,000
Deakin University	<i>Joint NHMRC Strategic Reserve Fund Grant</i>	15,000
	Identifying the Social, Personal and Health Needs of Women Living with Hepatitis C	
Defence Corporate Support	Plasma Lens for Antenna Applications	38,000
Department of Defence	Analysis of Radar Data	130,000
	Auditory Language Identification	10,000
Department of Education, Training and Youth Affairs	Research Fellowship in Indigenous Education	76,845
	Provision of Services Under the Aboriginal Tutorial Assistance Scheme (ATAS)	44,011
	<i>2000 Australian Research Council — Queen Elizabeth II Fellowship</i>	373,580
	Proof Theoretical Investigations of Computer Science Logics	
	An Experimental and Comparative Study of the Evolution of Phenotypic Plasticity in Unpredictable Environments	128,834
	A Sceptical Democracy: The Idea of the People in Australian Politics 1788–2001	352,390
	Are Dilute Alkali Gas Bose Einstein Condensates Superfluid?	373,315
	Democratic voices: the impact of British democrats on colonial political, social and cultural development c. 1840–1901	352,390
	<i>2000 Australian Research Council — Senior Research Fellowship</i>	394,050
	The Sacralisation of Ordinary Space	
	The History and Repercussions of Western Desert Art	453,325
	Nonlinear Partial Differential Equations	394,050
	Economic Growth: Its processes, causes and consequences for national welfare	530,045
	<i>2000 Australian Research Council — Postdoctoral Fellowship</i>	166,131
	Development of a useful theory of ion channel conductance	
	A Genealogy of Paedophilia: Age, Sexuality and Subjectivity	177,009
	Control of Sound Fields Using Loudspeaker Arrays	177,009
	Turbulence and Anomalous Transport in Magnetically Confined Plasmas: a Theoretical and Computational study of Transport Barrier Bifurcations	177,009
	Asymptotics of Heat Kernels	166,131
	Mechanisms for Formation of Heavy Elements	179,769
	Some Wheels of One's Own: Women construct nation, modernity, and self	65,003
	<i>2000 — International Researcher Exchange Program (IREX)</i>	10,500
	Functional Genomics of Photo-Oxidative Damage	
	The impact of the Internet on Australian parties, their members, and the electorate, the growth of anti-immigrant politics in Australia	56,392
	Transport and storage of iron in nitrogen fixing legume nodules	13,500
	Fabrication of Photonic Devices using Semiconductor Nanostructures	79,478
	Elliptical Galaxies as Tools for Observational Cosmology	81,641
	ACIGA/LIGO Collaboration on Gravitational Wave Detection Centre	11,100
	Optical Quantum Information Experiments	12,800
	Quantification of the transfer of water from the Pacific Ocean into the Indian Ocean through time	81,960
	<i>2000 Research Infrastructure Equipment and Facilities Program</i>	140,000
	Optical Entangler for Quantum Communication	
	High-Resolution X-ray CT Facility: Characterising Morphology of Complex Materials and Visualising Multiple Fluid Phases in Porous Materials	250,000
	ANDES — Probing the Formation of Galaxies in the Early Universe	243,000
	A High-Power Tunable Femtosecond Light Source for Testing Advanced Nonlinear Optical Materials	270,000
	<i>2000 Small Research Grants</i>	14,200
	A History of Australian Woman Cartoonists	
	Australian Piano Music of the Twentieth Century: A Critical Perspective	16,550
	Aborigines in Early Twentieth Century Popular Photography	7,530

Inside the Lapita Village — An Intra-site Analysis of Spatial Instructions within Kamgot, a 3,000 Year Old Lapita Site on the Anir Island Group, New Ireland Province, Papua New Guinea	10,870
The Etymology of Australian Words and Idioms	18,600
Gathering and Studying of Recently Declassified Material on North Korean History to be Found Only in Russian Archives	5,780
The Public: The Discourse on Public Opinion and the Public Radio in Japan in 1925-52	13,370
Public Policy-Making in the Private Domain: Japan's New System of Privatised Public Administration	14,200
Measurement Error and Panel Data: A Non-Parametric Approach	8,360
A Non-Linear Forecasting System Using Computer Intensive Statistical and Econometric Methods Applied to Australian Financial Markets	13,800
Studies in Orientalism, Gender and Nineteenth-Century Visual Culture	14,200
Establishing a Pilot Second-Order Research and Development System for Forest Policy and Management	7,360
The True and Fake in Propaganda and Record Photography During the Great War The Theoretical Ramifications of These Historical Issues Today	5,600
Thin Slicing of Silicon Wafers for Solar Cells	24,220
Accountability of Governments and Public Service Providers in a Changing Public Sector	8,350
A Firsthand Survey of Fifteenth Century Flemish Painting Focussed on Aspects of Materiality and Spatiality as They Relate to Allegory	7,100
Interlingua Based Machine Translation System for Sanskrit	8,000
Ingested Technologies: Substance Use, Sport and Embodiment	5,500
Density Functional Study of Dinitrogen Activation in Transition Metal Dimers	8,054
Thwarting Predators or Hailing Enemies? Vocalizations and Predation in Scrubwrens	8,362
The Thermal Niche of Enteric Bacteria from Australian Mammals	5,571
Phylogenetic Analysis of the Australian Shrub Legume Genus <i>Mirabilia</i> (Fabaceae: <i>Mirbelieae</i>)	8,048
Polymer Supported Organocobalt Dienes: Novel Routes to the Efficient Synthesis of Cyclic Amino Acids and Derivatives	6,199
Enhanced Particle Detector System for Spectroscopy of Actinide Nuclei	6,199
Human and Environmental History in the Tempe Lowlands, South Sulawesi	5,885
Polymer Supported Organocobalt Dienes: Novel Routes to the Efficient Synthesis of Cyclic Amino Acids and Derivatives	13,000
Effects of Semantic Radical Variable on Chinese Character Naming and Identification	14,200
A Novel Synthesis Method for Boron Nitride Nanotubes: Reactive Ball Milling	18,370
Tests of Continuum Theories as Models of Ion Channels: Comparison with Brownian Dynamics Simulations	22,140
Long Term Cultures of Dendritic Cells are a Ready Source of Immunostimulatory Exosomes	7,746
The Career and Travel Writings of British Colonial Administrator Everard im Thurn (1852–1932)	6,690
New Bio-Active Lichen Pigments	20,050
Sulfide Melting: A Theoretical and Experimental Study with Application to Broken Hill	12,530
Excavations at Quilla Rumiyoq: An Inka Ritual Complex in the Valley of Jaquijahuana, Cusco, Peru	15,880
Infrared Spectral and Structural Studies of Dipeptides	24,230
Algorithms for Graphs Imbedded in Surfaces	11,200
Development of an Asymmetric Nazarov Reaction	23,380
Line and Continuum Emission from Black Hole Accretion Discs	12,540
Amino Acid Transporters in the Malaria Parasite	20,890
Comparative Behavioural and Molecular Ecology of an Australian and a South African Lizard: Territoriality and Mating Systems	20,880
An Anthropological Investigation into the Diversity of Aboriginal Economy and Society at the Threshold of British Colonisation	19,500
Phylogenetic Analysis of the Australian Shrub Legume Genus <i>Mirabilia</i> (Fabaceae: <i>Mirbelieae</i>)	16,900
Contemplating Zola's Navel: Masculinity and the Male Body in the Dreyfus Affair	15,880
Investigation of Hydrothermally Active Submarine Island Arc Volcanoes in the Tabar-Lihir-Tanga-Feni Group and Solomon Islands	24,000
Optical Temperature Measurements of Ultra-Cold Atoms	27,000
Lead Discovery: Antibiotics and Anti-Virals from Entomogenous Fungi	20,050

Development of an Assessment Instrument for Challenging Behaviour Associated with Dementia	11,700
Inhibition of the Expression of Enzymes of Trehalose Metabolism in <i>Caenorhabditis Elegans</i>	18,400
Human and Environmental History in the Tempe Lowlands, South Sulawesi	12,350
Enhanced Particle Detector System for Spectroscopy of Actinide Nuclei	13,000
Occupational Structure, Job Stress and the Type A Behaviour Pattern	19,000
Perception of Shape from Relative Motion of the Components of a Visual Scene: Physiological Bases	11,700
Selection, Replacement and Refreshment of Materialised Views in Dynamic Warehousing Environments	21,720
Gender, Sexuality, and Class as Represented in the Literature Associated with Adultery Trials in Britain c.1750-1820	18,500
Quick Methods for Isolating Configural Face Processing in Adults and Children	13,370
Performance Modelling of Solar Thermal Power Plants	20,880
A Study of Southern Hemisphere Magnetic White Dwarfs	11,700
Amino Acids in the Nutritional Ecology of Arboreal Folivores	12,550
An Attenuated Strain of <i>Shigella</i> as a Potential Vector of Rotavirus Antigens for Inducing Anti-Rotavirus Immunity	21,720
Bremer Support Bootstrap Tests for Monophyly and Non-Monophyly	13,370
Structural and Biochemical Analysis of Soluble Extracellular Domains of the Nicotinic Acetylcholine Receptor	20,890
Density Functional Study of Dinitrogen Activation in Transition Metal Dimers	16,900
Cuckoo Parasitism and Host Defences: Coevolution of Evolutionary Equilibrium?	24,220
Sexuality and Political Thought Pilot Project	12,530
Post-Lapita Archeology of the Western Pacific: Laboratory Analysis of the Mangaasi Type-Site, Efate, Vanuatu	19,900
Unsupervised Learning with Kernels — Feature Generative and Data Descriptive Methods	20,000
Bioactive Metabolites From Cyanobacteria	15,060
High Sensitivity Optical Interferometer Control and Readout Using Spatial Mode Interference	23,970
Elucidation of the Roles of Carotenoids in Photoprotection and Photosynthesis by Generating Genetically Modified <i>Arabidopsis</i> Plants Lacking Key Carotenoids	20,890
Religious Identity in China	15,040
Fine Scale Genetic Structure of Bush Rats in Fragmented and Continuous Habitats: Insights Into the Genetic Consequences of Habitat Fragmentation	21,710
High Field Electron Paramagnetic Resonance Studies of the Mn Containing Water Oxidising Centre in Photosystem II of Plants	21,720
Long Core MD 982167: A Paleooceanographic Study of the Western Pacific Warm Pool and its Interactions with Quarternary Tropical Australia	16,700
Long Term Cultures of Dendritic Cells are a Ready Source of Immunostimulatory Exosomes	16,250
Catalogue and Study of the Heude Collection of Asian Mammals	15,800
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Role of Visual Attention in the Asynchronous Development of Sleep in Different Neocortical Areas of the Primate	24,230
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Playing Colonial: Cowgirls, Cowboys and Indians in Australia, 1930–1970	9,750
Thwarting Predators or Hailing Enemies? Vocalizations and Predation in Scrubwrens	17,550
High Voltage, High Efficiency Silicon Solar Cells	21,720
<i>Large Research Grants 2000</i>	181,000
Fully Nonlinear Geometric Evolution Equations and Global Differential Geometry	

The State-Contingent Approach to the Economics of Uncertainty: Agricultural and General Applications	165,000
A Density Functional Study of Oxomanganese Enzymes	173,622
Sexual Differentiation and the Evolution of the Dioecious Breeding System — A Comparative Study	146,000
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Sexual Selection in a Large Dasyurid Marsupial	103,000
New Lichen Metabolites: The Isolation, Synthesis and Biological Activities of Scabrosin Esters and Related Compounds	185,197
Evolutionary History and Biogeography of the Australian Bitter-peas (Daviesia: Fabaceae)	97,100
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Genesis of a Calcalkaline Picrite-to-dacite Suite, New Georgia Group, Solomon Islands, and Implications Regarding Ore Genesis in Volcanic Arcs	155,000
Economic Growth and Convergence: Testing Theories of Decreasing Returns Versus Theories of Technological Transfer	140,500
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A Study of the Yarluyandi and Yardiylawara Languages and Associated Oral Traditions	14,586
Osmoregulation in Parasitic Protozoa	59,406
Australian Performing Arts: Asian Context and Influences	12,000
<i>Consultancies</i>	66,935
Identification of Measures Affecting Trade and Investment in Education Services in the Asia-Pacific Region	
Identification of Measures Affecting Trade and Investment in Education Services	13,890
<i>Disability Initiatives Programme</i>	45,000
Assistive Technology in Universities — Independent Assessment, Advice and Training	
<i>Higher Education Innovation Program</i>	19,200
The Place of Universities Today and the Structures to Carry Out Their Roles	
The Uniche Project	1,350,000
eScience: Applications and Technology	900,000
<i>Special Research Initiatives Scheme 2000</i>	22,750
The Nation-State and its Rivals in Southeast Asia	
<i>Strategic Partnerships with Industry — Research and Training Scheme 2000</i>	63,240
Identification and characterisation of Phytophthora pathogenicity and sporulation genes: potential targets for the development of novel control strategies	
Combined heat and power solar concentrator system	423,240

	Chemoenzymatic Synthesis of Novel Sialic Acid Analogues Related to the Potent Anti-Influenza Drug Relenza	63,240
	Security aspects of JAVA Smart Cards in JINI	63,240
	Measuring Technical and Regulatory Impediments to Trade in Services	319,396
	The endeavour Project: Creating and implementing scholarly standards for the preparation and publication of historical editions in digital form	338,441
	Asian Accounts of Australia: change, comparison, and Analysis	121,535
	Surface Characterisation of Cryptosporidium Oocysts for the Development of Novel Filtration Systems for Commercial Applications	140,000
	The application of plasma antennas to communications and radar	62,466
	Indigenous Marine Tenure and Resource use at Blue Mud Bay: Ethnographic and Archaeological Perspectives	283,678
	Development and application of powerful new DNA tools for investigative forensics and agricultural utilisation in Cannabis Sativa	150,000
	An Analysis of Access Pricing Issues	63,240
	Conservation genetics and ecology of the vulnerable Resenberg's goanna in NSW and the ACT	63,240
	Electrophilic chlorination: New Products, Improved Processes, and their Toxicological and Environmental Implications	63,240
	<i>University Mobility in Asia and the Pacific Programme Round 2000</i>	9,700
	Student Exchange between the Australian National University and University of Hong Kong	
	Year-in-Asia Program(Japan)	5,700
	Unified Credit Transfer Scheme(Korea)	9,700
Department of Communications, Information Technology and the Arts	<i>Visions of Australia</i>	45,050
	What John Berger Saw Touring Exhibition	
Department of Employment, Workplace Relations and Small Business	Consultancy: APEC Labour Market Information Database and Website	33,005
Department of Family and Community Services	Consultancy: Contribution for Research into Childlessness in Australia	10,000
Department of Foreign Affairs and Trade	Consultancy: Terms of Reference for Consultancy Services to be Provided by the AUSPECC Secretariat	65,850
Department of Health and Aged Care	Consultancy: An Influenza Pandemic Model for Australia	20,049
	Development and Delivery and Coordination of a Degree of Master of Applied Epidemiology (MAEDC)	83,096
	<i>General Practice Evaluation Program Grants</i>	64,670
	Gender Factors in Managing Diabetes	
	Phase 1: Establishment of Australian National Research and Development Collaboration between researchers, practitioners and decision-makers on issues related to Socio-economic Status and Health	221,978
	Phase 2: Establishment of Health Inequalities Research Collaboration between researchers, practitioners and decision-makers on issues related to Socio-economic Status and Health	
	Consultancy: Research Priorities in Mental Health	140,839
Department of Human Services (Victoria)	<i>National Public Health Partnerships Consultancy</i>	48,469
	The Financing of Laboratory Activity of Public Health Significance — Stage 2	
Department of Immigration and Multicultural Affairs	Consultancy: Outcomes of the Second Generation in Australia	41,200
Department of Industry Science and Resources	Consultancy: Bibliometric Analysis of Australia's Biotechnology Research	6,750
	<i>Technology Diffusion Program</i>	8,000
	5th Japan–Australia Plasma Diagnostic Workshop	
	Proterozoic Basin Evolution of Northern Australia	9,400
	Fieldscreen Research Project — International Research and Commercial Alliances (USA and Slovak Republic)	14,900
	Proteome Reference Database, and Access to USA/European Union Networks	130,000
	Harnessing Materials Research and Development Resources	113,000
Department of Land and Water Conservation (NSW)	Consultancy: Geographical Information System Consultancy	18,000
Department of Natural Resources and Environment	Consultancy: Monitoring of Leadbeaters Possums and Other Forest Biodiversity	40,000
Department of Primary Industries, Water and Environment	Modelling of Fire Regimes in Tasmania	18,000
Department of Veterans Affairs	Consultancy: Analysis of Data and Assessment of Effectiveness in Connection with DVA Health Care Plans	100,000
Electric Power Research Institute	Consultancy: Climatic Factors in the Surveillance of Arboviral Disease	118,613

Embassy of Japan	Crossing Borders: Japanese War Brides in Australia	20,000
Environment ACT	Research on Superb Parrot	7,500
Environment Australia	<i>Participatory Program Grants</i> A Revision of the Lichen Genus Buellia in Australia	45,000
	<i>Australian Biological Resources Study Postgraduate Scholarship</i> The Systematics of the Rhodanthe Lindley (Asteraceae: Gnaphalieae: Angianthinae)	18,915
	Report on the Use of the Kyoto Mechanisms, particularly the Clean Development Mechanism, to Support Regional Sustainable Forest Management	14,000
	Consultancy: East Asia/Pacific Regional Consultancies	59,600
Ford Foundation, The	Indonesian Women: The Journey Continues	35,891
	Asian Studies in Asia	175,888
Ford Motor Company of Australia Limited	Consultancy: Sheet Metal Forming Die Design Using Traditional Surface Geometry	276,396
Forestry Tasmania	Consultancy: Audit of Changes to Modelling Systems Used in Land Evaluation by Forestry Tasmania	6,750
Forestry Technical Services Pty Ltd	Consultancy: Sri Lanka Training and Capacity Building Project	45,045
Fox Television Stations, Inc.	Consultancy: Research Programme For Improving DTV Receivers	393,403
G R Davis Pty Ltd	Research and Development Grants: Assessment of Gain from Breeding Blue Mallee	6,000
Gemplus Inc.	Security Aspects of Java Smart Cards in JINI	15,000
Gordon Darling Foundation	Gordon Darling Author Fellowship	110,000
Grains Research and Development Corporation	Australian Centre for Intellectual Property in Agriculture	3,404,660
	Gene Expression Induced By Root Mechanical Impedance In Wheat	1,165,268
Grape and Wine Research and Development Corporation	<i>Research and Development Project Support</i> Assessment Of The Frequency And Impacts Of Severe Advection Frosts In The Canberra Viticulture Region	38,968
Greening Australia Limited	Consultancy: Farm Forestry Support Monitoring and Evaluation	80,000
GRM International Pty Ltd	Consultancy: Technical Assistance: Efficiency to Public Service	36,465
	Consultancy: Trade Negotiations Course In South Africa	20,000
Hawthorn Consulting Group, The	Consultancy: Environmental Economics Courses 4 and 5 In Vietnam	75,900
	Consultancy: Study Tour for Members and Officials of Vietnamese National Assembly	36,656
Helvetas Vietnam Swiss Association for International Cooperation	Consultancy: Social Forestry Support Program	14,327
Henry Luce Foundation, Inc., The	Australian National University Fellowships for Southeast Asian Studies	608,071
Homestake Mining Company	Consultancy: Predictive Guides to Cu and Au Mineralization at Circum-Pacific Convergent Plate Margins	55,279
Horticultural Research and Development Corporation	PhD Scholarship — Regulation of the Morphine Biosynthetic Pathway	30,000
Human Frontier Science Program	<i>Research Grants</i> The Molecular Function of an Essential Histone Variant	317,855
IDP Education Australia Limited	<i>Consultancies</i> Australia-Indonesia Development Scholarship Program — 2000	5,376
	Thai Short Courses Program: Development to Public Policy Analysis for Officials of the Royal Thai Government	122,645
	Design, Delivery and Evaluation of Management and Organisational Change in Thailand Under the Thailand Short Courses Program	134,575
Illumina Inc	Mouse Mutant Analysis Using Random Arrays	55,279
International Centre for the Study of East Asian Development	Japanese Foreign Direct Investment and Trade with ASEAN4 Countries, 1990–2002	26,000
Japan Foundation, The	Bank Rescue Packages in Japan and Asia	18,122
John D and Catherine T MacArthur Foundation	Feminist Analysis of International Dispute Resolution	84,922
Juvenile Diabetes Foundation International	<i>Research Grant Program</i> Regulation of Pig Proislet Xenograft Destruction and Assessment of the Potential for Xenozoonoses	184,264
	The Role of MHC Class I in Initiation and Preparation of IDDM	215,865
Land and Water Resources Research and Development Corporation	Enhancing the Information Base on Participatory Approaches in NRM	50,000
	<i>National Eutrophication Management Program</i> Sources and Delivery of Suspended Sediment and Phosphorus to Australian Rivers: Part B. Nd and Sr Isotopes and Trace Elements	25,000
	<i>Postgraduate Research Scholarships</i> Social and Institutional Implications Of Landscape And Land Use Change	84,000

Lawrence Livermore National Laboratory	Trans-Neptunian Object Search	192,705
Lend Lease Projects Pty Limited	Consultancy: Children's Gallery Virtual Environment Theatre	400,000
Melbourne Enterprises International Ltd	Consultancy: Staff Selection and Appraisal in Samoa	18,709
	Consultancy: Business Planning Training in the Kingdom of Tonga	40,053
	Indonesian Australia Specialised Training Project: Accountability in the Public Sector	115,594
Ministry of Economic Affairs	Review of Domestic Support and Export Subsidy Measures in Australia, New Zealand, United States and the European Union	34,863
Motorola Inc (USA)	Application of Plasma Switches to Mobile Personal Communication Systems	50,512
Museum of Applied Arts and Sciences	Births of a Nation: Women, Childbirth and Federation	27,000
Myer Foundation, The	Australia in Asia: Preparing for a New Regional Order	16,000
	Community Based Monitoring of Victorian Forest Vertebrates	35,000
National Council for the Centenary of Federation	<i>National Council for the Centenary of Federation History and Education Program</i> 1901 General Election Workshop and Book	105,000
National Health and Medical Research Council	<i>Equipment Grants 2000</i> Digital Camera for Microscope and Dual Viewer	10,205
	Benchtop Incubator/Shaker	15,146
	<i>National Illicit Drug Strategy</i> Pathways to Illicit Drug Use: An Analysis of the 1993–98 National Drug Strategy Surveys	50,003
National Heart Foundation of Australia	<i>Grants-In-Aid for Research</i> Anatomical and Functional Variation in the Mesenteric and Iris Arterial Vasculature; Correlation of Myoendothelial Communication and Mechanisms of Endothelium Dependent Relaxation	89,100
National Land and Water Resources Audit	Consultancy: Derivation of Nested Catchments and Sub-Catchments for the Australian Continent	109,000
National Library of Australia	Asian Accounts of Australia: change, comparison, and Analysis	30,000
	The endeavour Project: Creating and implementing scholarly standards for the preparation and publication of historical editions in digital form	75,000
Newmont Mining Corporation	Consultancy: Predictive Guides to Cu and Au Mineralization at Circum-Pacific Convergent Plate Margins	64,492
News Limited	Consultancy: Research Programme For Improving DTV Receivers	240,000
Normandy Exploration Pty Ltd	Consultancy: Predictive Guides to Cu and Au Mineralization at Circum-Pacific Convergent Plate Margins	64,492
Northern Land Council	Indigenous Marine Tenure and Resource use at Blue Mud Bay: Ethnographic and Archaeological Perspectives	60,000
NSW National Parks and Wildlife Service	Habitat Mapping and Distribution for the Giant Dragonfly (<i>Petalura gigantea</i>) in NSW	18,000
	Factors Affecting Soil Physical, Chemical and Biological Properties in Alpine Humus Soils and their Effects on Ecosystem Dynamics in Kosciuszko National Park	5,500
	Consultancy: Modelling Fuel Dynamics in the Northern Directorate of the NSW National Parks and Wildlife Service	128,000
	Arboreal Marsupial and Nocturnal Raptors in Linear Woodland Remnants on the South-West Slopes of New South Wales	5,000
	Habitat Fragmentation in Alpine and Sub Alpine Regions of Australia	15,000
	Research on Superb Parrot	10,000
	Conservation genetics and ecology of the vulnerable Resenberg's goanna in NSW and the ACT	15,000
ODP Australia Secretariat	<i>Ocean Drilling Program Australia Secretariat</i> Biostratigraphic Study of Samples from ODP Leg 189, South of Tasmania	5,000
Office of the Status of Women	Consultancy: Contribution for Research into Childlessness in Australia	10,000
Pacific Biological Foundation	Investigation of the Initial Human Colonisation of Vanuatu	32,670
Pacific Economic Cooperation Council	Measuring Technical and Regulatory Impediments to Trade in Services	105,000
Pest Animal Control CRC	Enhancement of the immunocontraceptive response of rabbits to recombinant MV-ZPB and Australian National University education duties	646,326
Pfizer Pty Ltd	Consultancy: Characterising the capacity of DBP-31/GSTO1-1	158,730
Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization	Consultancy: Testing and Evaluation of the Seismic Station Array Station (PS2) and Infra-sound Array Station (IS07) in Warramunga, Australia	531,997
Private Forestry Council Victoria	<i>Research and Development Grants</i> Australian National University Forestry Market Report, 1999–2000	10,000
Productivity Commission	Consultancy: Analysis of CGE Models to Evaluate Domestic Greenhouse Policies	15,000
Rhône-Poulenc Rural Australia Pty Ltd	Identification and characterisation of Phytophthora pathogenicity and sporulation genes: potential targets for the development of novel control strategies	15,000

Rio Tinto Aboriginal Foundation	<i>Grants Program</i> Master of Applied Epidemiology (Indigenous Health)	80,000
Royal Australasian College of Surgeons	Consultancy: Medical Equipment Maintenance Project in the Pacific	33,360
Rural Industries Research and Development Corporation	<i>Research and Development Grants</i> The Economic Impact of Changing Australian Egg Production Systems	43,424
	Indigenous Participation in Rural Learning for Rangeland Sustainability	36,020
	Transgenic Glasshouse Facilities for Transgenomic Rice Project	300,000
	Assessment of Gain from Breeding Blue Mallee	23,596
	Government Responses To Farm Poverty 1989–1998: The Policy Development Process	50,000
	Defining the Product: Documenting Log Grades and Specifications in Australia	13,885
	Scholarship: Hydrological Analysis of The Spatially Explicit Integration of Agroforestry into Australia's Farming Systems	75,000
Sasakawa Peace Foundation, The	Policy Research on Economic Reform in Korea Peninsula	62,650
Scott, Estate of the Late Winifred Violet	<i>Grants for the Protection and Preservation of Wildlife</i> Conserving Native Animals in Fragmented Habitats	40,000
Snowy River Shire Council	Consultancy: Resource Use and Economic Value in the Snowy Region	25,000
Solahart Industries Pty Ltd	Combined heat and power solar concentrator system	165,000
Southern Area Health Services	Consultancy: Building Community Capacity in Boorowa Project	25,050
Southern Tablelands Farm Forestry Network Inc	Effects of Farm Forestry on Public Roads in the Southern Tablelands	5,250
	Commercial Species Selection for the Southern Tableland NSW	5,000
Tasmanian Alkaloids Pty Ltd	PhD Scholarship: Regulation of the Morphine Biosynthetic Pathway	30,000
Telstra Corporation Limited	Consultancy: Telstra Data Segmentation	120,000
United Nations Educational, Scientific and Cultural Organization	Consultancy: Atlas of the World's Languages in Danger of Disappearing	12,898
United Nations Office for Project Services	Consultancy: Support To The Pacific Regional Conference On Governance For Parliamentarians	6,449
United Nations University, The	Project on Population Growth, Land Transformation and Environmental Change (PLEC)	101,095
United States Air Force Office of Scientific Research	Tbit/s Optical Switches and Logic Gates	45,845
United States Institute of Peace	Constitution Engineering in Divided Societies: Can Incentives-Based Approaches Mitigate Conflict	70,020
University of Adelaide, The	<i>ACIAR Collaborative grants</i> Chinese Grain Market Policy with Special Emphasis on Domestic Grain Trade	75,000
	<i>Major Equipment Awards for Biomedical Research in Australia</i> Multi-Photon Fluorescence Microscopy for Living Cell Applications	627,981
	<i>Research Grant</i> Fertility Transition In The Islamic Republic of Iran: Demographic Similarity Within Socio-Economic Diversity	261,146
University of Pennsylvania	Reintegrative Shaming Experiments	119,772
University of Sydney	Consultancy: Vietnam Institutional Review	6,500
University of Technology, Sydney	Consultancy: Software Tools to Solve Parabolic Equations	7,000
US Department of Defense	Design Methodologies for Robust Adaptive Autonomous Hierarchical Systems	55,279
Volvo Technological Development AB	<i>Technological Development Project Grants</i> Vision based Human–Machine Interface Project — Amendment Agreement II — Driver Behaviour Analysis and Driver System Safety	102,333
Weill Medical College	Molecular Mechanisms of Signal Transduction in Retina	73,706
Wellcome Trust, The	Technical Assistance for Confocal Microscope Facility for Electrophysiological Studies	73,362
Western Australia Aboriginal Affairs Department	Consultancy: Building Capacity Through Improved Management and Administration of Aboriginal Communities	41,300
WMC Exploration	Consultancy: Predictive Guides to Cu and Au Mineralization at Circum-Pacific Convergent Plate Margins	35,000
WMC Resources Limited	Structural and Deformational Controls on Ore Genesis in the Britannia-Sirius-Victory Complex, St Ives Gold Mines, WA	8,000
World Health Organisation	<i>Special Programme for Research and Training in Tropical Diseases</i> Reverse Genetics of <i>Caenorhabditis elegans</i> to Validate New Artificial Drug Targets	73,706
	Establishing Integrated Catchment Assessment and Management Centre's Consultancies Account	105,213
	Fourth Lapita Conference, Suva	10,000
Sub-total	GRANTS \$5,000 and above	47,628,277

Donations

Donor	Purpose	Amount
AFS Reunion 2000 Inc.	M R Jacobs Prize in Silviculture	7,429
Allen, D C K	Cambridge Commonwealth Fellowships (Australian Appeal)	10,000
Al-Maktoum Foundation, The	Al-Maktoum Endowment in Arab and Islamic Studies	1,000,000
Ambruster, J	Bok Honours Scholarship Endowment Fund	17,210
Anonymous	Research School of Physical Sciences & Engineering Endowment Fund	25,000
	Noel Butlin Archives Centre Endowment Fund	50,000
	Drama Fund	44,000
Atkinson, W J	Centre for Resource and Environmental Studies	10,000
Australian Manufacturing Workers Union	Noel Butlin Archives Centre Endowment Fund	10,000
Australian Mathematical Publishing Association Inc.	Mathematics Bridging Course	6,000
Australian Skeptics Science Foundation	Mount Stromlo Exploratory	10,000
Bok, J	Bok Honours Scholarship Endowment Fund	31,516
British High Commission	Oxford Australia Fund	24,000
Clough Engineering Ltd	Fulbright Scholarship Fund	40,000
CSR Sugar	Noel Butlin Archives Centre Endowment Fund	5,000
Department of Education, Training and Youth Affairs	Neville Bonner Indigenous Scholarship Fund	100,000
DePuy Australia Pty Ltd	ACT Orthopaedic & Musculoskeletal Research Foundation	15,000
Dickins, G	Dickins Scholarship, Faculty of Engineering & Information Technology	15,000
Duffield, J D	Duffield Chair in Astronomy	75,000
Eggen, G	Olin J Eggen Scholarship Endowment Fund	33,957
Electro Optic Systems Pty Ltd	Mount Stromlo Exploratory	8,750
Fenner, F	History of John Curtin School of Medical Research	20,000
	Fenner Hall Scholarships	7,000
	Fenner Foundation	5,000
Freilich, H	The Herbert & Valmae Freilich Foundation	160,000
George Weston Foods Limited	Faculty of Law	15,000
Gordon, J M	Mount Stromlo Observatory	5,000
Government of the Islamic Republic of Iran	Lectureship in Persian Language and Iranian Studies	654,940
Government of Turkey	Lectureship in Turkish Language and Culture	403,915
Griffin, P M	Fenner Hall Endowment Fund	7,000
H L & R Pickford Holdings Pty Ltd	Drill Hall Gallery Foundation	5,000
Halkyard, A J	Faculty of Law	5,435
Harvard Club of Australia	Robert Gordon Menzies Scholarship Fund	7,325
Holdsworth, R A	Canberra School of Music	10,000
ISIS	Support for the Australian National Committee of the Council for Security Co-operation in the Asia-Pacific	10,436
Kornfeld, F & Nikolskaia, S	Kornfeld Scholarship Fund	20,000
KPMG	Robert Gordon Menzies Scholarship Fund	29,070
Liu Ts'un-yan	Faculty of Asian Studies	20,000
Mathys Australia Pty Ltd	ACT Orthopaedic & Musculoskeletal Research Foundation	43,750
Meng, X	Research on Unemployment and Poverty	12,000
National Australia Bank	Mount Stromlo Exploratory	5,000
Network Economics Consulting Group	Canberra School of Art Workshop Projects and Activities	22,500
Paterson, M	Mervyn S Paterson Fund	5,000
Pola Nominess Pty Ltd	Fulbright Scholarship Fund	20,000
Poynton, O	Cambridge Commonwealth Fellowships (Australian Appeal)	200,000
Rotary Club of Belconnen	Rotary Club of Belconnen Bursaries	25,000
Schmidt, B	Mount Stromlo Observatory	10,500
Seddon, N C	Law Research, Research School of Social Sciences	28,175

Principal Grants and Donations

Sheu, J H & L L	Bruce Hall Bursary Fund	10,000
Smith & Nephew Surgical Pty Limited	ACT Orthopaedic & Musculoskeletal Research Foundation	20,000
SMS Consulting Group Limited	The Australian National University Public Lectures Series	15,000
Sun Microsystems	Mount Stromlo Exploratory	12,500
Terrell, R D	Terrell Scholarship Fund	10,000
Wilson, J C	Sir Roland Wilson Archival Display	5,000
Woodroffe, Estate of the late Kathleen Nellie	Woodroffe Postgraduate Scholarship Fund	100,000
Sub-total	DONATIONS \$5,000 and above	\$3,467,408
Sub-total	GRANTS and DONATIONS \$5,000 and above	\$51,095,685
Other	Grants and Donations under \$5,000	\$320,786
TOTAL	The Australian National University Grants and Donations (excluding Grants through ANUTECH Pty Ltd)	\$51,416,471

ANU Public Lecture Series

2000

January 27

Almost Absolute Zero: The Story of Laser Cooling and Trapping

Professor WD Phillips (300)

February 15

Knots

Vaughan Jones (250)

February 17

The Revolution in English Universities 1880-2000: Out With the Old; Long Live the New

Professor Maitlis (100)

March 2

Australia and the UN — Challenges in the New Millennium

Penny Wensley UN Ambassador (240)

March 7

The Pamela Denoon Lecture

Julie McCrossin (530)

March 15

Slovakia on the Road to EU

Jan Figel (100)

March 31

Countermeasures

Les Murry (280)

April 31

People of the New World: A Perspective from South America

Professor Tom Dillehay (270)

May 1

Scientists Working for Humanity

Various speakers (560)

May 8

Rings of science

Various speakers (240)

May 16

Thoughts on the Evolution of Corporatism and Globalisation

John Ralston Saul (500)

May 18

Building the New State of East Timor

Jean-Christian Cady (150)

June 9

Different Cultures Different Continents

Jared Diamond (900)

July 31

Scholarly Skywriting and the Knowledge Revolution

Stevan Harnad (120)

August 9

Group Identity and American Constitutionalism

Professor Kathleen M Sullivan (120)

August 24

Jack Smart

Professor Peter Singer (360)

September 19

The Promise of the 21st Century

Mike Milken (160)

October 17

The Health of Australian Rivers

Professor Graham Harris (160)

October 18

The Archaeology of Philosophy

Professor John Camp (110)

October 19

Bradshaw Rock Art

Graham Walsh (165)

October 19

Religion Politics in the 20th Century

Dr Chandra Muzaffar (110)

October 19

Beyond the Pale
Brenda L Croft (200)

November 10

No Distinction of any Kind
Professor Marilyn Lake (120)

November 16

Back in Business with India
Dr Richard Shand (100)

December 5

Politics at the Core
Professor Fredrick Teiwes (120)

December 14

Why Does Laughter Matter to Philosophy?
Quentin Skinner

Freedom of Information Act 1982 Statement

This statement has been prepared in compliance with section 8 of the Freedom of Information Act 1982 and is correct to 31 December 2000.

1. Functions of the University's decision-making Council and Boards are as follows:

Council

In accordance with section 8 of the Australian National University Act 1991(Cth), the Council is the governing authority of the University. Section 9 of the Act provides that, subject to this Act and the Statutes, the Council has the entire control and management of the University and is to act in all matters concerning the University in such manner as appears to be best calculated to promote the interests of the University.

The membership of the Council is set out in section 10 of the Act. It is chaired by the Chancellor and comprises 22 members which include elected officers of the University and other ex-officio members, representatives of both Houses of Parliament, persons appointed by the Governor-General, persons appointed by the Chief Minister of the ACT, representatives of various groups of the University's academic staff, representatives of the general staff, graduate and undergraduate students as well as Convocation, and one other person at the discretion of Council.

Committees of the Council

Council is assisted by the following committees:

- The Standing Committee considers any matter relating to the University referred to it by the Council or, if Council is not sitting, transacts the business of the University except for matters solely within the competence of the Council.
- The Finance Committee makes recommendations and decisions concerning financial and accounting matters of the University.
- Other continuing committees of Council are the Audit Committee, Buildings and Grounds Committee, Committee Against Sexual Harassment, Committee on Conditions and Appointment of the Vice-Chancellor and Deputy Vice-Chancellors, Emergency Appointment (Vice-Chancellor) Committee and the General Services Fee Committee.

Board of the Institute of Advanced Studies

The Board is responsible under the Council for all academic matters relating to the Institute, and may advise the Council on any matter relating to education, learning or research or the academic work of the University.

The Board of the Institute of Advanced Studies comprises a chairperson appointed by the Council from among the professors in the Institute (who is also Director of the Institute of Advanced Studies), the Vice-Chancellor, the Deputy Vice-Chancellor, the Pro Vice-Chancellor (Academic), the head of each research school and centre in the IAS, three members of academic staff from each research school chosen by the respective faculty or faculty board, the Chairperson of the Board of The Faculties, the President, Postgraduate and Research Students' Association Inc., one other post-graduate graduate, and such other persons as the Council appoints. The Institute of Advanced Studies comprises The John Curtin School of Medical Research and the Research Schools of Astronomy and Astrophysics, Biological Sciences, Chemistry, Earth Sciences, Information Sciences and Engineering, Pacific and Asian Studies, Physical Sciences and Engineering, and Social Sciences. It incorporates the Centre for Resource and Environmental Studies and the School of Mathematical Sciences (IAS component) and a number of mainly multidisciplinary academic centres.

The Board is assisted by the following committees:

- Committee on General Policy
- Promotions Committee
- IAS Planning Advisory Committee

Board of The Faculties

The Board, subject to the Statutes, is responsible under the Council for all academic matters relating to The Faculties, and may advise the Council on any matter relating to education, learning or research or the academic work of the University.

The Board of The Faculties comprises a chairperson appointed by the Council from among the professors in The Faculties, the Vice-Chancellor, the Deputy Vice-Chancellor, the Pro Vice-Chancellor (Academic), the Dean of each faculty, the Dean of Students, the President of The Australian National University Students' Association, the Chairperson of the Board of the Institute of Advanced Studies and one other member of the IAS, the Chairperson of the Board of the Institute of the Arts, the Director, School of Art, the Director, School of Music, the heads of departments and divisions, the heads of centres in the Faculty of Asian Studies, three professors of law, other representatives of academic staff and students, and such other persons as the Council appoints from time to time. The Faculties offer undergraduate and graduate courses in arts, Asian studies, economics and commerce, engineering and information technology, law, science, art and music.

The Board is assisted by the following committees:

- Steering Committee of the Board of The Faculties
- Academic Performance Appeals Committee

- Admissions Committee
- Faculties Research Grants Committee
- Postgraduate Scholarships Committee
- Promotions Committee
- Standing Committee of Tenure Committee
- The Faculties' Planning Group
- Committee on Consultation
- Research Management Committee
- Tertiary Degrees Delegation Committee
- Honorary Degrees Delegation Committee

Joint Committees of the Academic Boards

The two academic Boards have the following joint committees:

- Graduate Degrees Committee
- Joint Committee of the Academic Boards
- Joint Committee on Postgraduate Awards
- University Awards Committee
- Board of Management, Centre for Continuing Education

University Schools and Centres

The University has established a number of schools or other academic organisational structures which include bodies, or members of staff, from the IAS and The Faculties, or, in some other way, draw their resources from the IAS and The Faculties. These comprise the Asia Pacific School of Economics and Management (APSEM), School of Mathematical Sciences (SMS), Centre for Cross Cultural Research (CCCR), Humanities Research Centre (HRC), National Centre for Epidemiology and Population Health (NCEPH), Centre for Educational Development and Academic Methods (CEDAM), Centre for Mental Health Research (CMHR) and the Centre for Aboriginal Economic Policy Research (CAEPR). Each is represented on one or both of the Board of the Institute of Advanced Studies and/or the Board of The Faculties.

2. The functions of the University's Statutory Officers are as follows:

Chancellor

The Chancellor presides at all meetings of Council and on all ceremonial occasions when available to do so. The Chancellor and the Vice-Chancellor sign the *Annual Report* of the University to the Governor-General.

Pro-Chancellor

The Pro-Chancellor chairs meetings of the Standing Committee and, in the absence of the Chancellor, presides at meetings of the Council and on ceremonial occasions.

Vice-Chancellor

The Vice-Chancellor is the Chief Executive Officer of the University and has such powers and duties as the Statutes prescribe or, subject to the Statutes as the Council determines. The Vice-Chancellor's role is to control and manage the affairs and concerns of the University including the control and management of real and personal property vested in or acquired by the University. The Vice-Chancellor has, and may exercise, such powers as are necessary or desirable to discharge those duties. The Vice-Chancellor also represents and acts for the University in its relations with the Commonwealth Government and other bodies.

Deputy Vice-Chancellor

The Deputy Vice-Chancellor generally assists in all aspects of the Vice-Chancellor's work, but in particular leads the management of the University's research, teaching and outreach activities and oversees the resource (financial and staffing) management and control of the University and deputises for the Vice-Chancellor in that officer's absence.

3. Powers of the University

The University's powers are based on the *Australian National University Act 1991*. Under this legislation the University has made statutes, rules and orders.

Statutes

Council has made [31] statutes under section 27(1) which are valid at present —

- Board of The Faculties Statute
- Board of the Institute of Advanced Studies Statute
- Chancellorship Statute
- Convocation Statute
- Courses and Degrees Statute
- Default Certificate Statute
- Deputy Vice-Chancellorship Statute
- Discipline Statute
- Faculties and Faculty Boards (Institute of Advanced Studies) Statute
- Faculties (The Faculties) Statute
- Fees Statute
- Information Technology Services Statute
- Institute of the Arts Statute
- Institute of the Arts Liquor Statute
- Interpretation Statute
- Halls of Residence Statute
- Library Statute
- Liquor (Affiliated Colleges) Statute
- Liquor (Halls of Residence and University Union) Statute
- Liquor (University Arts Centre) Statute
- Liquor (University House) Statute
- Membership of the Council Statute
- Parking and Traffic Statute
- Pro-Chancellorship Statute

- Residential Colleges (Affiliation) Statute
- Staff Superannuation Statute
- Superannuation Funds (Investment and Management) Statute
- The Australian National University Endowment for Excellence Statute
- University House Statute
- University Seal Statute
- Vice-Chancellorship Statute

Rules

Rules have been made under the above statutes relating to admission, examinations, fees, discipline, courses and degrees, courses of study, student academic performance, University House, halls of residence, affiliated colleges, membership of Council, the Library, and faculties and faculty boards.

Orders

Orders have been made under the above statutes relating to research schools, the Library, liquor, and Fee paying overseas students fees.

4. Documents or publications produced by the University

Documents available for purchase by the public or otherwise accessible in terms of the *Freedom of Information Act 1982* are —

- Council statutes, rules and orders
- Annual Report of the ANU to Parliament
- Annual reports of schools, faculties, centres and units to the Council
- *Undergraduate Handbook*
- *Graduate School Handbook*
- *Institute of the Arts Handbook*
- Purchasing Policy and Procedures
- Finance and Business Manual (electronic version only)
- Occupational Health and Safety Unit Information

Documents which are customarily made available to the public otherwise than under the Freedom of Information Act 1982, free of charge upon request, are the ANU Reporter, National Graduate, information pamphlets and booklets on courses and academic requirements in various disciplines, leaflets on academic appointments in the Institute of Advanced Studies and in The Faculties, Library Guides, and an accommodation brochure.

Internal working documents include internal user manuals, Financial Authorisations, Personnel and Payroll (General) Manuals and other policy and procedural documents.

Facilities for access

Limited facilities for the perusal of documents applicable to individual areas are available at the Staffing Serv-

ices Branch of the Human Resources Division and/or Student Administration and Support Services.

FOI procedures and initial contact points

Applications for access to documents under the Freedom of Information Act 1982 (Cth) should be lodged in writing to the University Legal Office. The written application should include details of the documents or information sought, the application fee (currently \$30.00) or a request for its remission, an address to which notices may be sent and, to facilitate contact with the applicant, a telephone number effective during normal business hours. Lodged applications for access to documents will be acknowledged and a decision notified to the applicant as quickly as possible in accordance with the statute.

Inquiries regarding freedom of information and access to documents may be made at —

University Legal Office
First Floor
Chancelry, Building No. 10
The Australian National University
CANBERRA ACT 0200

Tel: (02) 6125 8489

Auditor General's Report



INDEPENDENT AUDIT REPORT

To the Minister for Education, Training and Youth Affairs

Scope

I have audited the financial statements of the Australian National University for the year ended 31 December 2000. The financial statements include the consolidated financial statements of the economic entity comprising the Australian National University and the entities it controlled at the year's end or from time to time during the year. The statements comprise:

- Statement by Directors
- Operating Statement
- Balance Sheet
- Statement of Cash Flows
- Schedule of Commitments
- Schedule of Contingencies, and
- Notes to and forming part of the Accounts.

The members of the Council of the University are responsible for the preparation and presentation of the financial statements and the information they contain. I have conducted an independent audit of the financial statements in order to express an opinion on them to you.

The audit has been conducted in accordance with Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards, to provide reasonable assurance as to whether the financial statements are free of material misstatement. Audit procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial statements, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial statements are presented fairly in accordance with Australian Accounting Standards, other mandatory professional reporting requirements and statutory requirements in Australia so as to present a view which is consistent with my understanding of the Australian National University and the economic entity's financial position, the results of their operations and their cash flows.

The audit opinion expressed in this report has been formed on the above basis.

Qualification

The University has stated under Note 1.6.2 that land at Acton campus, Mount Stromlo, Tennant Creek and other sites as disclosed in Note 33 have not been brought to account. The University acknowledges its stewardship and control over the land. These sites are provided free of charge by lease in perpetuity and on restricted use for University activities imposed by the *Australian National University Act 1991* and the site lease purpose clause. The University believes that the value of the land cannot be reliably measured and so does not meet the asset recognition criteria of AAS4.

In my view, the value of the land in question can be reliably measured and should therefore be recognised in the University's and the economic entity's Balance Sheet. The non-recognition of the value of this land is a departure from the provisions of Australian Accounting Standard AAS 4 Depreciation and from Schedule 2 of the Finance Minister's Orders issued under the *Commonwealth Authorities and Companies Act 1997*.

The University has indicated that it is unable to quantify the financial effect of non-recognition of the value of the land on the carrying amount of non-current assets. Accordingly, I am unable to form an opinion on the extent to which non-current assets and accumulated surpluses have been understated as a result of the departure.

Qualified Audit Opinion

In my opinion, except for the effects on the financial statements of the matters referred to in the qualification section:

- (i) the financial statements have been prepared in accordance with Schedule 2 of the Finance Minister's Orders
- (ii) the financial statements give a true and fair view, in accordance with applicable Accounting Standards, other mandatory professional reporting requirements and Schedule 2 of the Finance Minister's Orders, of the financial position of the Australian National University and the economic entity as at 31 December 2000 and the results of their operations and their cash flows for the year then ended.

Australian National Audit Office



Allan M. Thompson
Executive Director

Delegate of the Auditor-General

Canberra
6 April 2000

Financial Statements

THE AUSTRALIAN NATIONAL UNIVERSITY

**CONSOLIDATED FINANCIAL STATEMENTS FOR YEAR ENDED
31 DECEMBER 2000**

STATEMENT BY DIRECTORS

In the opinion of the Council the Financial Statements for the University and the consolidated Financial Statements for the Economic Entity give a true and fair view of the matters required by Schedule 2 to the Finance Minister's Orders made under the Commonwealth Authorities and Companies Act 1997 and the Guidelines for the Preparation of Annual Financial Reports for the 2000 Reporting Period by Australian Higher Education Institutions issued by the Department of Education, Training and Youth Affairs.



.....
P E BAUME
Chancellor



.....
I W CHUBB
Vice-Chancellor

6 April 2001

THE AUSTRALIAN NATIONAL UNIVERSITY

OPERATING STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2000

		Consolidated		University	
	Notes	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
OPERATING REVENUES (before abnormal items)					
Commonwealth Government grants	2, 18	256,084	259,591	256,726	259,627
Higher Education Contribution Scheme					
Student contributions	3	4,103	3,860	4,103	3,860
Commonwealth payments	3	19,483	20,097	19,483	20,097
State Government grants	4	971	947	971	947
Fees and charges	5	21,051	22,432	17,543	18,041
Interest	6	23,316	21,580	23,312	21,564
Dividends	6	17,949	16,581	17,949	16,581
Other investment revenue	6	24,921	16,836	10,380	4,187
Consultancy and contract research		38,325	40,128	24,927	23,921
Sales of goods and services	7	25,119	24,069	20,951	18,952
Other revenue	8	18,863	17,772	20,234	19,970
Total operating revenues		450,787	443,893	416,781	407,747
OPERATING EXPENSES (before abnormal items)					
Employees	9	211,382	214,936	208,301	210,354
Suppliers	10	135,982	134,663	104,358	101,329
Grants	11	22,935	21,408	22,938	21,452
Depreciation and amortisation	12	27,010	31,493	26,666	31,173
Write-down of assets	13	124	51	124	46
Losses from sales of assets	14	243	456	243	455
Interest	15	3	11	3	11
Other	16	44,865	35,861	44,955	35,871
Total operating expenses	17	442,544	438,879	407,808	400,691
Operating surplus before abnormal items		8,243	5,014	8,973	7,056
Abnormal items	18	(1,054)	71,394		73,605
Net surplus		7,189	76,408	8,973	80,661
EQUITY INTERESTS					
Accumulated surpluses at beginning of reporting period		363,354	297,967	364,239	294,605
Aggregate of amounts transferred from reserves	19	11,323	12,694	11,123	12,688
Total available for appropriation		381,866	387,069	384,335	387,954
Aggregate of amounts transferred to reserves	19	9,120	23,715	9,120	23,715
Accumulated surpluses at end of reporting period		\$372,746	\$363,354	\$375,215	\$364,239

The above statement should be read in conjunction with the accompanying notes.

THE AUSTRALIAN NATIONAL UNIVERSITY

BALANCE SHEET
AS AT 31 DECEMBER 2000

AS AT 31 DECEMBER 2000

		Consolidated		University	
	Notes	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
ASSETS					
FINANCIAL ASSETS					
Cash	20	157,490	137,827	157,118	137,592
Receivables	21	25,875	16,404	19,643	12,616
Investments	22	589,466	556,353	596,447	558,334
Other	23	122,048	107,707		
TOTAL FINANCIAL ASSETS		894,879	818,291	773,208	708,542
NON-FINANCIAL ASSETS					
Land, buildings and infrastructure	24	584,389	631,972	577,489	625,600
Plant and equipment	24	118,668	113,610	118,276	113,169
Inventories	25	3,395	4,060	1,122	1,092
Intangibles	26	1,124	908		
Other	27	8,610	10,624	8,590	10,349
TOTAL NON-FINANCIAL ASSETS		716,186	761,174	705,477	750,210
TOTAL ASSETS		1,611,065	1,579,465	1,478,685	1,458,752
LIABILITIES					
PROVISIONS AND PAYABLES					
Employees	28	431,173	393,196	430,581	392,631
Suppliers	29	10,199	10,159	6,637	7,245
Other	30	196,491	183,651	67,916	67,784
TOTAL LIABILITIES		637,863	587,006	505,134	467,660
TOTAL ASSETS AND LIABILITIES		\$973,202	\$992,459	\$973,551	\$991,092
EQUITY					
PARENT ENTITY INTEREST					
Reserves	19	600,456	629,105	598,336	626,853
Accumulated surpluses		372,746	363,354	375,215	364,239
TOTAL EQUITY		\$973,202	\$992,459	\$973,551	\$991,092
CURRENT LIABILITIES					
NON-CURRENT LIABILITIES					
CURRENT ASSETS					
NON-CURRENT ASSETS					

The above statement should be read in conjunction with the accompanying notes.

THE AUSTRALIAN NATIONAL UNIVERSITY

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 DECEMBER 2000

		Consolidated		University	
	Notes	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
OPERATING ACTIVITIES					
Cash received					
Revenues from Government:					
Commonwealth Government grants pursuant to HEF Act		240,013	239,691	240,013	239,691
Other Commonwealth Government grants		15,886	20,135	15,927	20,135
State Government Grants		896	1,037	896	1,037
Higher Education Contribution Scheme :					
Student payments		4,090	3,830	4,090	3,830
Higher Education Trust Fund		19,511	19,931	19,511	19,931
Research grants and other contracts		36,300	48,749	21,664	23,702
Interest and other investment earnings		50,246	37,960	35,901	25,295
Dividends received		5,633	5,104	5,633	5,104
Other receipts		59,536	59,086	58,221	57,734
Total cash received		432,111	435,523	401,856	396,459
Cash used					
Payments to employees and pensioners		(219,499)	(231,778)	(216,618)	(227,282)
Direct investment expenses		(2,053)	(2,474)	(2,053)	(2,474)
Payments to suppliers		(148,019)	(145,483)	(130,996)	(122,175)
Total cash used		(369,571)	(379,735)	(349,667)	(351,931)
NET CASH FROM OPERATING ACTIVITIES	32	62,540	55,788	52,189	44,528
INVESTING ACTIVITIES					
Cash received					
Proceeds from sales of property, plant and equipment		5,121	4,578	5,121	4,537
Loan repayments		263	75	263	75
Proceeds from sale and maturity of investments		119,862	149,192	114,862	149,192
Total cash received		125,246	153,845	120,246	153,804
Cash used					
Acquisition of property, plant and equipment		(38,986)	(39,823)	(38,867)	(39,652)
Acquisition of investments		(128,385)	(172,775)	(114,042)	(160,093)
Total cash used		(167,371)	(212,598)	(152,909)	(199,745)
NET CASH FROM INVESTING ACTIVITIES		(42,125)	(58,753)	(32,663)	(45,941)
NET INCREASE (DECREASE) IN CASH HELD					
Cash at 1 January	20/30	136,980	139,945	137,592	139,005
CASH AT 31 DECEMBER	20/30	\$137,395	\$136,980	\$137,118	\$137,592

The above statement should be read in conjunction with the accompanying notes.

THE AUSTRALIAN NATIONAL UNIVERSITY
**SCHEDULE OF COMMITMENTS
AS AT 31 DECEMBER 2000**

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
BY TYPE				
CAPITAL COMMITMENTS				
Land and buildings	27,904	32,800	27,904	32,800
TOTAL CAPITAL COMMITMENTS	27,904	32,800	27,904	32,800
OTHER COMMITMENTS				
Operating leases	332	1,013	332	1,013
Other commitments	600	1,754	600	1,754
TOTAL OTHER COMMITMENTS	932	2,767	932	2,767
TOTAL COMMITMENTS PAYABLE	\$28,836	\$35,567	\$28,836	\$35,567
BY MATURITY				
One year or less	26,157	23,259	26,157	23,259
From one to two years	2,372	11,242	2,372	11,242
From two to five years	207	1,066	207	1,066
Greater than five years	100		100	
TOTAL COMMITMENTS PAYABLE	\$28,836	\$35,567	\$28,836	\$35,567

SCHEDULE OF CONTINGENCIES AS AT 31 DECEMBER 2000

		Consolidated		University	
	Notes	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
CONTINGENT LOSSES					
Guarantees		2,237	2,159	2,237	2,159
Claims for damages/costs		110	600	110	150
TOTAL CONTINGENT LOSSES	40	\$2,347	\$2,759	\$2,347	\$2,309

The above schedule should be read in conjunction with the accompanying notes.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES TO AND FORMING PART OF THE ACCOUNTS

1. SIGNIFICANT ACCOUNTING POLICIES

1.1 Basis of Accounting

The financial statements are a general purpose financial report and have been prepared in accordance with:

- *Schedule 2 to Orders issued by the Finance Minister under the Commonwealth Authorities and Companies Act 1997* (FMOs) which require that the financial statements are prepared in compliance with Australian Accounting Standards and Accounting Guidance Releases issued by the Australian Accounting Research Foundation, and having regard to Statements of Accounting Concepts;
- the Consensus Views of the Urgent Issues Group; and
- the *Guidelines for the Preparation of Annual Financial Reports for the 2000 Reporting Period by Australian Higher Education Institutions* (the Guidelines) issued by the Department of Education, Training and Youth Affairs (DETYA).

The financial statements have been prepared on an accrual basis and are in accordance with historical cost convention, except for certain assets which, as noted, are at valuation as indicated in Notes 1.4 and 1.6.

The financial report is presented on an economic entity basis. The statements include consolidated reporting for The Australian National University and its wholly and beneficially owned subsidiary company Anutech Pty Limited incorporated in the Australian Capital Territory.

1.2 Change in Accounting Policy

1.2.1 Income in advance

The University records as income in advance any monies received in 2000 pursuant to the *Higher Education Funding Act 1988* (HEFA) that relates to operating expenditure to be incurred in 2001 or future years. The University has an obligation to the Commonwealth Government to use these monies for teaching and research purposes. The figure of \$65,509,000 in Other Current Provisions and Payables (see Note 30) includes \$45,198,000 for HEFA funding in advance (\$18,160,000 is for operating purposes).

The Guidelines issued by DETYA were revised for the 1999 and subsequent years' annual financial statements. Revisions in 1999 included the redefinition and recognition of 'income in advance'. Prior to 1999, funding received under the Higher Education Funding Act 1988 (HEFA) and held conditionally for future years was reported as income in the year of receipt; such funds are now recognised as income in advance for reporting purposes. As a result of this change, an abnormal item was recorded in 1999 for \$26,786,000 (refer Note 18).

1.2.2 Plant and Equipment

In accordance with AAS10 (Accounting for the Revaluation of Non-Current Assets) and the FMOs in 1999 the University changed its method of valuation for its operating plant and equipment from historical cost to valuation using the deprival method of valuation.

1.3 Cash Flows

Cash for the purposes of the Statement of Cash Flows, includes cash on hand, deposits at call with banks and money market investments readily convertible to cash.

NOTES continued

1. SIGNIFICANT ACCOUNTING POLICIES continued

1.4 Investments

University Funds are invested using guidelines approved by the Council of the University in the following categories:

Bank accepted bills
 Convertible notes
 Corporate bonds
 Debentures
 Exchanging instalment notes
 Floating rate notes
 Government and semi-government stocks and bonds
 Managed investment funds
 Negotiable certificates of deposit
 Overseas managed investment funds
 Promissory notes
 Properties
 Property trusts
 Shares and share options
 Short term money market deposits
 Stapled securities
 Term deposits
 Transferable certificates of deposit

Investment assets of the University are stated at market value. Market value in relation to investments has been determined as:

Land and buildings - all valuations are based on the deprival methodology which values investment land and buildings at its current market buying price. The University revalued investment land and buildings as at 31 December 2000;

Shares in public companies, stapled securities and convertible notes - the official market quotation price as listed by the Australian Stock Exchange at the close of business on 31 December 2000;

Fixed interest securities, such as semi government bonds - gross valuation provided by ABN Amro as at 31 December 2000; and

Managed investment funds and Overseas managed investment funds - unit valuation supplied by the fund management groups as at 31 December 2000.

1.5 Inventories

Inventories held for sale are valued at the lower of cost or net realisable value. Costs are assigned to inventories using last purchase cost including costs incurred in bringing each product to its present location and condition. Consumables in store are valued at weighted average unit cost.

1.6 Property, Plant and Equipment

1.6.1 Depreciation and Amortisation

Depreciable property, plant and equipment assets are written off to their estimated residual value over their estimated useful lives to the University using, in all cases, the straight line method of depreciation.

Depreciation and amortisation rates are based on remaining useful lives determined by valuation or as per the following schedule:

	Years
Dwelling and Campus Buildings	40
Plant and equipment	
Motor vehicles	7
Computing equipment	5
Research / teaching equipment	7
Other	10

The aggregate amount of depreciation allocated for each class of assets during the reporting period is disclosed in Note 12.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

1. SIGNIFICANT ACCOUNTING POLICIES continued

1.6.2 Valuation

Property, plant and equipment unless otherwise disclosed, is stated at historical cost.

The land at Acton campus, Mount Stromlo, Tennant Creek and other sites disclosed in Note 33 have not been brought to account. The University acknowledges its stewardship and control over the land. These sites are provided free of charge by lease in perpetuity and on restricted use for University activities imposed by the *Australian National University Act 1991* and the site lease purpose clause. The University believes that the value of the land cannot be reliably measured and so does not meet the asset recognition criteria of AAS4.

All land and buildings gifted to the University are assessed by independent qualified valuers and revalued in the University's books of account. The last independent valuation was performed in December 1998 by Egan National Valuers.

Substantially all of the campus buildings were revalued in 2000. The valuation was completed by an independent valuer, International Valuation Consultants Pty Ltd. The Depreciated Replacement Cost approach was used to establish the Market Value for the Existing Use of the properties. The net revaluation decrement was debited directly to the asset revaluation reserve. Campus buildings completed subsequent to the valuation are disclosed at cost. These assets are revalued every three years.

Land and dwellings managed by University Accommodation Services were valued independently during 1999 at current market prices by Egan National Valuers. All valuations were estimates of the amounts for which the assets could be exchanged between a knowledgeable willing buyer and a knowledgeable willing seller in an arm's length transaction at the valuation date. These assets are revalued every three years.

Plant and equipment excluding current year purchases were assessed by independent qualified valuers and revalued in the University's books of account as at 31 December 1999. This initial independent valuation was performed by the Australian Valuation Office. Non-electronic musical instruments were also included in this revaluation process.

Intangible assets

The costs of developing major administrative systems are currently being captured and recognised within plant and equipment and amortised.

Intellectual property developed internally has not been brought to account.

1.7 Employee Entitlements

The liability for long service leave is recognised and measured at the present value of the estimated future cash flows to be made in respect of all employees at 31 December 2000. In determining the present value of the liability, attrition rates and pay increases through promotion and inflation have been taken into account. The long service leave liability for employees with seven years of service or greater as at 31 December 2000 is \$31,179,000. This additional disclosure increases the long service leave liability by \$3,511,000.

The provision for annual leave reflects the value of total annual leave entitlements of all employees at 31 December 2000 and is recognised at its nominal value.

No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken by employees is less than the annual entitlement for sick leave.

Provision is also made for separation and redundancy payments in circumstances where the University has formally identified positions as excess to requirements and a reliable estimate of the amount of the payments can be determined.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

1. SIGNIFICANT ACCOUNTING POLICIES continued

1.8 Foreign Currency Transactions

Transactions denominated in a foreign currency are converted at the rate of exchange prevailing at the date of the transaction. At balance date, amounts receivable and payable in a foreign currency are translated at the exchange rate prevailing at that date and any exchange differences are brought to account in the Operating Statement.

1.9 Comparative figures

Where necessary, comparative figures have been adjusted to conform with changes in presentation in these financial statements.

1.10 Deferred Research and Development Costs

Anutech Pty Limited's research and development costs are charged against income as incurred, except to the extent that such costs, together with unamortised deferred costs in relation to a project, are expected, beyond any reasonable doubt, to be recoverable.

The deferred costs are amortised over the period in which the corresponding benefits are expected to arise, commencing with the commercial production of the product. The period over which benefits are expected to arise is reviewed regularly to recognise the effects of potential emerging technology and competitive products.

The unamortised balance of research and development costs deferred in previous periods is reviewed regularly and at each reporting date, to ensure the criterion for deferral continues to be met. Where such costs are no longer considered recoverable, they are charged to the profit and loss statement in the financial year.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

2. COMMONWEALTH GOVERNMENT GRANTS

The information provided in this note is only relevant to the University - consolidated figures are not provided.

	University	
	2000 \$'000	1999 \$'000
2.1 SUMMARY OF COMMONWEALTH GOVERNMENT GRANTS		
Grants pursuant to the <i>Higher Education Funding Act 1988</i>, excluding HECS :		
Operating purposes excluding HECS	217,047	214,249
Special research assistance :		
Large research	3,857	4,355
Strategic partnerships with industry	1,256	470
Research fellowships	4,482	4,482
International researcher exchange	98	413
Research centres	756	983
Research infrastructure equipment & facilities	1,196	4,446
Indigenous researchers' development	31	12
Special research initiatives	32	23
International projects		19
High performance computer centres (Australian Partnership for Advanced Computing (APAC)) ¹	412	515
Small research	1,301	1,373
Infrastructure block	2,563	2,692
Australian postgraduate awards	4,533	4,865
International postgraduate research scholarships	1,113	1,056
Sub-total pursuant to the <i>Higher Education Funding Act 1988</i>	238,677	239,953
Other Commonwealth Government Grants:		
Health and Aged Care	6,681	5,444
Industry, Science and Resources	4,029	8,910
Foreign Affairs and Trade	3,860	3,393
Agriculture, Fisheries and Forestry	1,493	1,068
Environment and Heritage	633	262
Defence	260	112
Education, Training and Youth Affairs	183	578
Prime Minister and Cabinet	126	(365)
Communications, Information Technology & the Arts	82	
Transport and Regional Services	80	93
Family and Community Services		18
Other	622	161
Total Other Commonwealth Government Grants	18,049	19,674
TOTAL COMMONWEALTH GOVERNMENT GRANTS	\$256,726	\$259,627

1. The University is the administering institution for an Australian Partnership for Advanced Computing funded in part by DETYA under the High Performance Computing and Communications (HPCC) Centres of Expertise programme. A grant of \$19,500,000 was received in December 1998 representing funding for four years for the project. The \$18,619,000 income in advance carried forward shown in Note 2.3 ("High performance computer centres") is committed in future years under the project.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	University	
	2000	1999
	\$'000	\$'000
2.2 ACQUITTAL OF COMMONWEALTH GOVERNMENT GRANTS - AMOUNTS RECEIVED AND EXPENDED PURSUANT TO THE HIGHER EDUCATION FUNDING ACT 1988 EXCLUDING HECS		
TEACHING AND LEARNING		
Operating grant, excluding HECS		
Grants in advance (paid in the previous reporting period for the current reporting period including Commonwealth superannuation supplementation)	17,325	17,256
Plus Grants received during reporting period (including Commonwealth superannuation supplementation)	217,571	214,143
Less Grants in advance (received in the reporting period for the next reporting period)	(17,723)	(17,325)
Accrual adjustments		
Prior year adjustments	(37)	
Income in advance brought forward	348	523
Income in advance carried forward	(437)	(348)
Revenue attributed to the reporting period	217,047	214,249
Plus Surplus/deficit prior year		
Funds available for the reporting period	217,047	214,249
Less Expenses for the current period	(217,047)	(214,249)
Surplus/deficit for reporting period		
AUSTRALIAN RESEARCH COUNCIL		
Large research		
Grants in advance (paid in the previous reporting period for the current reporting period)	244	244
Plus Grants received during reporting period	4,329	4,330
Less Grants in advance (received in the reporting period for the next reporting period)		(244)
Accrual adjustments		
Prior year adjustments	(4)	
Income in advance brought forward	1,502	1,527
Income in advance carried forward	(2,214)	(1,502)
Revenue attributed to the reporting period	3,857	4,355
Plus Surplus/deficit prior year		
Funds available for the reporting period	3,857	4,355
Less Expenses for the current period	(3,857)	(4,355)
Surplus/deficit for reporting period		
Strategic partnerships with industry		
Grants in advance (paid in the previous reporting period for the current reporting period)	68	71
Plus Grants received during reporting period	1,560	1,009
Less Grants in advance (received in the reporting period for the next reporting period)		(68)
Accrual adjustments		
Prior year adjustments	(13)	(31)
Income in advance brought forward	884	373
Income in advance carried forward	(1,243)	(884)
Revenue attributed to the reporting period	1,256	470
Plus Surplus/deficit prior year		
Funds available for the reporting period	1,256	470
Less Expenses for the current period	(1,256)	(470)
Surplus/deficit for reporting period		

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	University	
	2000 \$'000	1999 \$'000
2.2 ACQUITTAL OF COMMONWEALTH GOVERNMENT GRANTS - AMOUNTS RECEIVED AND EXPENDED PURSUANT TO THE HIGHER EDUCATION FUNDING ACT 1988 EXCLUDING HECS continued		
AUSTRALIAN RESEARCH COUNCIL continued		
Research fellowships		
Grants in advance (paid in the previous reporting period for the current reporting period)	301	306
Plus Grants received during reporting period	4,241	5,008
Less Grants in advance (received in the reporting period for the next reporting period)		(301)
Accrual adjustments		
Prior year adjustments	(204)	(146)
Income in advance brought forward	1,503	1,118
Income in advance carried forward	(1,359)	(1,503)
Revenue attributed to the reporting period	4,482	4,482
Plus Surplus/deficit prior year		
Funds available for the reporting period	4,482	4,482
Less Expenses for the current period	(4,482)	(4,482)
Surplus/deficit for reporting period		
International researcher exchange		
Grants in advance (paid in the previous reporting period for the current reporting period)	21	
Plus Grants received during reporting period	144	403
Less Grants in advance (received in the reporting period for the next reporting period)		(21)
Accrual adjustments		
Prior year adjustments	(67)	
Income in advance brought forward		31
Revenue attributed to the reporting period	98	413
Plus Surplus/deficit prior year		
Funds available for the reporting period	98	413
Less Expenses for the current period	(98)	(413)
Surplus/deficit for reporting period		
Research centres		
Grants in advance (paid in the previous reporting period for the current reporting period)	69	
Plus Grants received during reporting period	797	920
Less Grants in advance (received in the reporting period for the next reporting period)		(69)
Accrual adjustments		
Income in advance brought forward	91	223
Income in advance carried forward	(201)	(91)
Revenue attributed to the reporting period	756	983
Plus Surplus/deficit prior year		
Funds available for the reporting period	756	983
Less Expenses for the current period	(756)	(983)
Surplus/deficit for reporting period		

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	University	
	2000	1999
	\$'000	\$'000
2.2 ACQUITTAL OF COMMONWEALTH GOVERNMENT GRANTS - AMOUNTS RECEIVED AND EXPENDED PURSUANT TO THE HIGHER EDUCATION FUNDING ACT 1988 EXCLUDING HECS continued		
AUSTRALIAN RESEARCH COUNCIL continued		
Research infrastructure equipment & facilities		
Grants in advance (paid in the previous reporting period for the current reporting period)		
Plus Grants received during reporting period	914	4,367
Accrual adjustments		
Income in advance brought forward	2,524	2,603
Income in advance carried forward	(2,242)	(2,524)
Revenue attributed to the reporting period	1,196	4,446
Plus Surplus/deficit prior year		
Funds available for the reporting period	1,196	4,446
Less Expenses for the current period	(1,196)	(4,446)
Surplus/deficit for reporting period		
Indigenous researchers' development		
Grants in advance (paid in the previous reporting period for the current reporting period)	1	
Plus Grants received during reporting period	26	19
Less Grants in advance (received in the reporting period for the next reporting period)		(1)
Accrual adjustments		
Income in advance brought forward	6	
Income in advance carried forward	(2)	(6)
Revenue attributed to the reporting period	31	12
Plus Surplus/deficit prior year		
Funds available for the reporting period	31	12
Less Expenses for the current period	(31)	(12)
Surplus/deficit for reporting period		
Special research initiatives		
Grants in advance (paid in the previous reporting period for the current reporting period)		
Plus Grants received during reporting period	23	
Accrual adjustments		
Income in advance brought forward	22	45
Income in advance carried forward	(13)	(22)
Revenue attributed to the reporting period	32	23
Funds available for the reporting period	32	23
Less Expenses for the current period	(32)	(23)
Surplus/deficit for reporting period		

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	University	
	2000 \$'000	1999 \$'000
2.2 ACQUITTAL OF COMMONWEALTH GOVERNMENT GRANTS - AMOUNTS RECEIVED AND EXPENDED PURSUANT TO THE HIGHER EDUCATION FUNDING ACT 1988 EXCLUDING HECS continued		
AUSTRALIAN RESEARCH COUNCIL continued		
International projects		
Accrual adjustments		
Income in advance brought forward		19
Revenue attributed to the reporting period		19
Plus Surplus/deficit prior year		
Funds available for the reporting period		19
Less Expenses for the current period		(19)
Surplus/deficit for reporting period		
High performance computer centres		
Accrual adjustments		
Income in advance brought forward	19,031	19,546
Income in advance carried forward	(18,619)	(19,031)
Revenue attributed to the reporting period	412	515
Plus Surplus/deficit prior year		
Funds available for the reporting period	412	515
Less Expenses for the current period	(412)	(515)
Surplus/deficit for reporting period		
DETYA RESEARCH GRANTS		
Small research		
Grants in advance (paid in the previous reporting period for the current reporting period)		
Plus Grants received during reporting period	1,449	1,313
Less Grants in advance (received in the reporting period for the next reporting period)	(112)	
Accrual adjustments		
Income in advance brought forward	440	500
Income in advance carried forward	(476)	(440)
Revenue attributed to the reporting period	1,301	1,373
Plus Surplus/deficit prior year		
Funds available for the reporting period	1,301	1,373
Less Expenses for the current period	(1,301)	(1,373)
Surplus/deficit for reporting period		

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	University	
	2000 \$'000	1999 \$'000
2.2 ACQUITTAL OF COMMONWEALTH GOVERNMENT GRANTS - AMOUNTS RECEIVED AND EXPENDED PURSUANT TO THE HIGHER EDUCATION FUNDING ACT 1988 EXCLUDING HECS continued		
DETYA RESEARCH GRANTS continued		
Infrastructure block		
Grants in advance (paid in the previous reporting period for the current reporting period)		214
Plus Grants received during reporting period	2,948	2,457
Less Grants in advance (received in the reporting period for the next reporting period)	(213)	
Accrual adjustments		
Income in advance brought forward	20	41
Income in advance carried forward	(192)	(20)
Revenue attributed to the reporting period	2,563	2,692
Plus Surplus/deficit prior year		
Funds available for the reporting period	2,563	2,692
Less Expenses for the current period	(2,563)	(2,692)
Surplus/deficit for reporting period		
Australian postgraduate awards		
Grants in advance (paid in the previous reporting period for the current reporting period)		
Plus Grants received during reporting period	4,620	4,806
Accrual adjustments		
Income in advance brought forward	(59)	
Income in advance carried forward	(28)	59
Revenue attributed to the reporting period	4,533	4,865
Plus Surplus/deficit prior year		
Funds available for the reporting period	4,533	4,865
Less Expenses for the current period	(4,533)	(4,865)
Surplus/deficit for reporting period		
International postgraduate research scholarships		
Grants in advance (paid in the previous reporting period for the current reporting period)		
Plus Grants received during reporting period	1,284	1,182
Accrual adjustments		
Income in advance brought forward	358	232
Income in advance carried forward	(529)	(358)
Revenue attributed to the reporting period	1,113	1,056
Plus Surplus/deficit prior year		
Funds available for the reporting period	1,113	1,056
Less Expenses for the current period	(1,113)	(1,056)
Surplus/deficit for reporting period		

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

2.3 SUMMARY OF UNSPENT GRANTS

Category of grant

	University 2000 \$'000	University 2000 \$'000	University 2000 \$'000
	Unspent grant	Unspent grant for carry forward ¹	Unspent grant to be recovered ²
Operating purpose, excluding HECS	437	437	
Large research	2,214	2,175	39
Strategic partnerships with industry	1,243	1,243	
Research fellowships	1,339	1,289	70
Research centres	201	201	
Research infrastructure equipment & facilities	2,242	2,242	
Indigenous researchers' development	2	2	
Special research initiatives	13	13	
High performance computer centres	18,619	18,619	
Small research	476	476	
Infrastructure block	192	192	
Australian postgraduate awards	28	28	
International postgraduate research scholarships	529	529	
	\$27,555	\$27,446	\$109

Total unspent grants

1. Amount of unspent grant that it is more likely will be approved by the Commonwealth for carry forward.
2. Amount of unspent grant that it is more likely will be recovered by the Commonwealth.

3. HIGHER EDUCATION CONTRIBUTION SCHEME (HECS)

Grants in advance (paid in the previous reporting period for the current reporting period)
Plus Grants received during reporting period
Less Grants in advance (received in the reporting period for the next reporting period)

Commonwealth payments

Plus Contributions actually received from students

Revenue attributed to the reporting period

Plus Surplus/deficit prior year

Funds available for the reporting period

Less Expenses for the current period

Surplus/deficit for reporting period

	University	
	2000 \$'000	1999 \$'000
	1,561	1,642
	19,512	20,016
	(1,588)	(1,561)
	19,485	20,097
	4,103	3,860
	23,588	23,957
	23,588	23,957
	(23,588)	(23,957)

4. STATE GOVERNMENT GRANTS

ACT Government grants for the following purposes were received by the University during the reporting period:

Contributions for operating purposes
Contributions to research projects
Other contributions

Total state government grants

	826	802
	81	79
	64	66
	\$971	\$947

5. FEES AND CHARGES

Fees and charges collected during the reporting period were:

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
Continuing education	2,694	2,713	2,723	2,733
Full fee paying overseas students	11,393	10,964	11,393	10,964
Fees-approved post graduate award students	3,037	2,872	3,037	2,872
Other fees and charges	5,846	7,611	2,309	3,200
less disbursement of fees to student bodies and refunds	(1,918)	(1,728)	(1,919)	(1,728)
	\$21,051	\$22,432	\$17,543	\$18,041

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000	1999	2000	1999
	\$'000	\$'000	\$'000	\$'000
6. INVESTMENT INCOME				
Interest	23,316	21,580	23,312	21,564
Dividends	17,949	16,581	17,949	16,581
Other investment revenue				
Income on technology licences funds	14,341	12,649		
Rentals from investment properties	4,509	4,450	4,509	4,450
<i>Investments realised during the period</i>				
Corporate bonds	338	(550)	338	(550)
Debentures	(16)	(6)	(16)	(6)
Government and semi-government securities	169	(685)	169	(685)
Overseas managed investment funds	1,365	13	1,365	13
Properties		26		26
Shares and share options	6,297	3,493	6,297	3,493
Transferable certificate of deposits	(33)	(77)	(33)	(77)
	26,970	19,313	12,629	6,664
	(2,049)	(2,477)	(2,049)	(2,477)
Direct investment expenditure				
	24,921	16,836	10,580	4,187
Total other investment income less direct investment expenditure				
	24,921	16,836	10,580	4,187
Total investment income	\$66,186	\$54,997	\$51,841	\$42,332
7. SALE OF GOODS AND SERVICES				
Parking permits	908	865	916	869
Rentals and hire facilities	2,769	2,848	2,743	2,754
Sales	12,134	11,420	7,984	6,393
Tariffs	9,308	8,936	9,308	8,936
Total sale of goods and services	\$25,119	\$24,069	\$20,951	\$18,952
8. OTHER REVENUE				
Sundry income	3,834	3,182	4,115	3,749
Recovery of direct expenditure from outside bodies	9,335	9,095	10,625	10,647
Workers compensation reimbursements	471	543	471	543
Disposal of plant, equipment and motor vehicles	1,169	1,064	1,169	1,064
Scholarships and prizes	184	786	184	786
Donations and bequests	3,670	3,102	3,670	3,181
Total other revenue	\$18,863	\$17,772	\$20,234	\$19,970
9. EMPLOYEES				
Academic staff salaries	75,514	78,232	75,514	78,232
Academic staff salary related costs ¹	20,281	20,690	20,281	20,690
Non-academic staff salaries ²	86,492	88,050	84,221	84,102
Non-academic staff salary related costs ¹	29,095	27,964	28,485	27,330
Total cost of employees	211,382	\$214,936	\$208,501	\$210,354
1. Salary related expenses during the reporting period (including costs for staff separation and redundancy payments) comprise:				
Contributions to superannuation and pension schemes	22,909	22,937	22,585	22,550
Payroll tax	13,264	13,381	13,008	13,085
Workers compensation	2,268	1,348	2,233	1,283
Long service leave expense	4,218	5,072	4,204	5,166
Annual leave expense	6,717	5,916	6,736	5,936
Total salary related expenses	\$49,376	\$48,654	\$48,766	\$48,020
2. Non academic staff salaries comprise:				
Administrative staff	47,476	48,247	45,205	44,299
Technical staff	19,272	19,880	19,272	19,880
Research officers	10,503	10,248	10,503	10,248
Service staff including security	4,832	4,989	4,832	4,989
Librarians	2,365	2,655	2,365	2,655
Trade staff	2,044	2,031	2,044	2,031
Total non academic staff salaries	\$86,492	\$88,050	\$84,221	\$84,102

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
10. SUPPLIERS				
Site maintenance and servicing ¹	26,169	24,921	26,169	24,921
Consumables ²	49,903	50,888	50,937	52,217
Travel, conferences and fieldwork	15,414	13,775	15,284	13,598
Miscellaneous operating expenses ³	44,436	45,079	11,968	10,593
Total supplies of goods and services	\$135,902	\$134,663	\$104,358	\$101,329
1. Site maintenance and servicing includes:				
Building repairs and maintenance	12,794	12,124	12,794	12,124
Electricity and gas	5,401	5,098	5,401	5,098
Cleaning expenses	3,260	3,111	3,260	3,111
Municipality charges	1,193	1,369	1,193	1,369
Grounds maintenance	768	893	768	893
2. Includes research and teaching materials				
3. Miscellaneous operating expenses includes:				
Project expenditure	12,797	14,059		
Research and development interest expense	14,341	12,649		
Cost of goods sold	4,169	5,407		
Advertising	1,674	1,569	1,605	1,434
Appointment expenses	1,101	1,097	1,101	1,097
Management fees	830		830	367
Membership - professional bodies	925	711	920	708
Staff development	811	672	794	619
Audit expenses, internal and external	847	582	759	558
Visiting fellows	703		703	589
Patent applications	453	692	440	607
Legal expenses, settlements	425	592	425	592
11. GRANTS				
Subsidies/grants	2,305	1,169	2,205	1,169
Scholarships	20,730	20,239	20,753	20,283
	\$22,935	\$21,408	\$22,958	\$21,452
12. DEPRECIATION AND AMORTISATION				
Property at cost	716	908	681	874
Property at valuation	13,759	16,556	13,614	16,411
Plant, equipment and motor vehicles at cost	5,409	14,029	5,409	13,888
Plant, equipment and motor vehicles at valuation	7,126		6,962	
Total depreciation and amortisation	\$27,010	\$31,493	\$26,666	\$31,173
13. WRITE-DOWN OF ASSETS				
Financial assets				
Receivables for goods and services - bad debts expense	124	51	124	46
Total write-down of assets	\$124	\$51	\$124	\$46

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

		Consolidated		University	
	Notes	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
14. LOSSES FROM SALES OF ASSETS					
Loss on disposal of plant, equipment and motor vehicles		243	456	243	455
Total losses from sales of assets		\$243	\$456	\$243	\$455
15. INTEREST					
Finance charges on lease liabilities		3	11	3	11
Total interest expense		\$3	\$11	\$3	\$11
16. OTHER EXPENSES					
Doubtful debts expense		\$2	31	142	41
<i>Commonwealth Superannuation Account</i>					
General administrative expenses		45	72	45	72
Pension payments		14,768	16,370	14,768	16,370
Employee superannuation entitlements expense		30,000	19,388	30,000	19,388
Total other expenses		\$44,865	\$35,861	\$44,955	\$35,871
17. EXPENSES ATTRIBUTED TO FUNCTIONS					
17.1 SUMMARY OF EXPENSES ATTRIBUTED TO FUNCTIONS					
Academic activities	17.2	261,363	261,484	243,254	248,586
Libraries	17.3	15,607	16,065	15,607	16,065
Academic support services	17.4	12,073	18,889	9,726	7,766
Student services	17.5	33,093	32,977	33,155	33,022
Public services	17.6	3,233	3,942	3,235	3,945
Buildings and grounds	17.7	24,667	24,744	24,667	24,744
Administration and other general institutional services	17.8	47,273	44,399	32,839	30,180
Other expenses	17.9	45,235	36,379	45,325	36,383
Total operating expenses (before abnormal items)		\$442,544	\$438,879	\$407,808	\$400,691
17.2 ACADEMIC ACTIVITIES					
<i>Salary and related expenses</i>					
Academic staff salaries		75,239	77,954	75,239	77,954
Academic staff salary related costs		20,242	20,652	20,242	20,652
Non-academic staff salaries		49,430	49,475	49,908	49,859
Non-academic staff salary related costs		17,226	16,309	17,226	16,309
<i>Depreciation expense</i>					
Property at cost		167	307	167	307
Property at valuation		9,426	11,283	9,426	11,283
Plant, equipment and motor vehicles		7,726	10,613	7,726	10,613
<i>Other expenses</i>					
Site maintenance and servicing		6,344	5,916	6,344	5,916
Consumables ¹		35,415	35,317	35,897	36,392
Travel, conferences and fieldwork		13,832	12,199	13,832	12,200
Miscellaneous operating expenses		26,316	21,459	7,247	7,101
Total academic activities expenses		\$261,363	\$261,484	\$243,254	\$248,586

1. Includes research and teaching materials.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

Notes	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
17.3 LIBRARIES				
<i>Salary and related expenses</i>				
Non-academic staff salaries	5,462	5,454	5,462	5,454
Non-academic staff salary related costs	2,024	1,810	2,024	1,810
<i>Depreciation expense</i>				
Property at valuation	817	1,025	817	1,025
Plant, equipment and motor vehicles	211	230	211	230
<i>Other expenses</i>				
Site maintenance and servicing	503	472	503	472
Consumables, including library materials ¹	6,404	6,876	6,404	6,876
Travel, conferences and fieldwork	77	77	77	77
Miscellaneous operating expenses	109	121	109	121
Total libraries expenses	\$15,607	\$16,065	\$15,607	\$16,065
1. Includes research and teaching materials.				
17.4 ACADEMIC SUPPORT SERVICES				
<i>Salary and related expenses</i>				
Non-academic staff salaries	4,907	6,395	2,912	2,799
Non-academic staff salary related costs	1,598	1,423	1,071	899
<i>Depreciation expense</i>				
Property at cost	2	2	2	2
Property at valuation	562	752	562	752
Plant, equipment and motor vehicles	1,508	1,681	1,508	1,681
<i>Other expenses</i>				
Site maintenance and servicing	83	63	83	63
Consumables ¹	1,471	599	1,492	606
Travel, conferences and fieldwork	352	307	232	141
Miscellaneous operating expenses	1,590	7,667	1,864	823
Total academic support services expenses	\$12,073	\$18,889	\$9,726	\$7,766
1. Includes research and teaching materials.				
17.5 STUDENT SERVICES				
<i>Salary and related expenses</i>				
Non-academic staff salaries	4,172	3,917	4,172	3,917
Non-academic staff salary related costs	1,101	1,092	1,101	1,092
<i>Depreciation expense</i>				
Property at cost	227	318	227	318
Property at valuation	1,437	1,690	1,437	1,690
Plant, equipment and motor vehicles	210	192	210	192
<i>Other expenses</i>				
Site maintenance and servicing	1,278	1,233	1,278	1,233
Consumables ¹	2,760	3,175	2,763	3,176
Travel, conferences and fieldwork	701	657	701	657
Scholarships	20,730	20,239	20,753	20,283
Miscellaneous operating expenses	477	464	513	464
Total student services expenses	\$33,091	\$32,977	\$33,155	\$33,022
1. Includes research and teaching materials.				

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000	1999	2000	1999
	\$'000	\$'000	\$'000	\$'000
17.6 PUBLIC SERVICES				
<i>Salary and related expenses</i>				
Academic staff salaries	275	278	275	278
Academic staff salary related costs	39	38	39	38
Non-academic staff salaries	980	1,281	980	1,281
Non-academic staff salary related costs	240	263	240	263
<i>Depreciation expense</i>				
Property at cost	26	13	26	13
Property at valuation	148	150	148	150
Plant, equipment and motor vehicles	95	70	95	70
<i>Other expenses</i>				
Site maintenance and servicing	86	73	86	73
Consumables ¹	944	1,122	946	1,125
Travel, conferences and fieldwork	120	318	120	318
Miscellaneous operating expenses	280	336	280	336
Total public services expenses	\$3,233	\$3,942	\$3,235	\$3,945

1. Includes research and teaching materials.

17.7 BUILDINGS AND GROUNDS*Salary and related expenses*

Non-academic staff salaries	5,187	5,274	5,187	5,274
Non-academic staff salary related costs	1,667	1,678	1,667	1,678

Depreciation expense

Property at cost	227	233	227	233
Property at valuation	217	332	217	332
Plant, equipment and motor vehicles	305	388	305	388

Other expenses

Site maintenance and servicing	16,071	15,613	16,071	15,613
Consumables ¹	791	818	791	818
Travel, conferences and fieldwork	22	22	22	22
Miscellaneous operating expenses	180	386	180	386

Total buildings and grounds expenses	\$24,667	\$24,744	\$24,667	\$24,744
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1. Includes research and teaching materials.

17.8 ADMINISTRATION AND OTHER GENERAL INSTITUTIONAL SERVICES*Salary and related expenses*

Non-academic staff salaries	16,354	16,254	15,600	15,518
Non-academic staff salary related costs	5,239	5,389	5,156	5,279

Depreciation expense

Property at cost	67	35	32	1
Property at valuation	1,152	1,324	1,007	1,179
Plant, equipment and motor vehicles	2,480	855	2,316	714

Other expenses

Site maintenance and servicing	1,804	1,551	1,804	1,551
Consumables ¹	2,178	2,981	2,644	3,224
Travel, conferences and fieldwork	310	195	300	183
Miscellaneous operating expenses	17,689	15,815	3,980	2,531

Total administration and other general institutional services expenses	\$47,273	\$44,399	\$32,839	\$30,180
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1. Includes research and teaching materials.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
17.9 OTHER				
Bad debts	124	51	124	46
Doubtful debts expense	52	31	142	41
Interest expense	3	11	3	11
Loss on disposal of plant, equipment and motor vehicles	243	456	243	455
<i>Commonwealth Superannuation Account</i>				
General administrative expenses	45	72	45	72
Pension payments	14,768	16,370	14,768	16,370
Employee superannuation entitlements expense	30,000	19,388	30,000	19,388
Total other expenses	\$45,235	\$36,379	\$45,325	\$36,383

18. ABNORMAL ITEMS

Abnormal items:

Employee superannuation entitlements ¹		100,391		100,391
Commonwealth Government Grants restatement ²		(26,786)		(26,786)
Write off Deferred Research and Development costs		(756)		
Prior year Inventories and Stock adjustment		(281)		
Construction contract loss (per AASB 1009)		(699)		
Costs associated with restructuring subsidiary's entity	(869)			
Prior year Work in progress and Deferred Research expenditure written off	(185)	(475)		
Total abnormal items	(\$1,054)	\$71,394		\$73,605

1. The liability for Employee superannuation entitlements was reduced by \$100,391,000 following an Actuarial review as at 30 June 1999. Refer Note 36.1.

2. Refer Note 1.2.1.

19. RESERVES

Asset revaluation - Property	453,075	505,633	450,955	504,221
Asset revaluation - Investments	54,816	33,582	54,816	33,582
Asset revaluation - Plant & Equipment	53,139	53,139	53,139	53,139
	\$61,030	\$92,354	\$58,910	\$90,942
<i>Special Reserves:</i>				
Building	8,133	4,332	8,133	4,132
Equipment	6,059	7,087	6,059	7,087
Development and Restructuring	20,377	20,500	20,377	20,500
Self insurance of dwellings and buildings	4,857	4,192	4,857	4,192
Research		640		
Total special reserves	39,426	36,751	39,426	35,911
Total reserves	\$600,456	\$629,105	\$598,336	\$626,853

Summary of movements in reserves during the year ended 31 December 2000

Balance at beginning of year	629,105	562,442	626,853	560,184
Transfer from retained surpluses	9,120	23,715	9,120	23,715
Transfer to retained surpluses	(11,323)	(12,694)	(11,123)	(12,688)
Transfer to provisions and payables	(640)			
Increments/(decrements) on revaluation	(25,806)	55,642	(26,514)	55,642
Balance at end of year	\$600,456	\$629,105	\$598,336	\$626,853

Movements in reserves

Asset revaluation - Property

Balance at beginning of year	505,633	506,852	504,221	505,440
Transfer to retained surpluses		(42)		(42)
Increments/(decrements) on revaluation of				
Land	(72)	(620)	(72)	(620)
Buildings	(52,486)	(557)	(53,194)	(557)
Balance at end of year	\$453,075	\$505,633	\$450,955	\$504,221

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000	1999	2000	1999
	\$'000	\$'000	\$'000	\$'000
19. RESERVES continued				
Movements in reserves continued				
<i>Asset revaluation - Plant and Equipment</i>				
Balance at beginning of year	53,139		53,139	
Increments on revaluation		53,139		53,139
Balance at end of year	\$53,139	\$53,139	\$53,139	\$53,139
<i>Asset revaluation - Investments</i>				
Balance at beginning of year	33,582	32,154	33,582	32,154
Transfer to retained surpluses	(5,518)	(2,252)	(5,518)	(2,252)
Increments on revaluation	26,752	3,680	26,752	3,680
Balance at end of year	\$54,816	\$33,582	\$54,816	\$33,582
<i>Building</i>				
Balance at beginning of year	4,332	12,519	4,132	12,319
Transfer from retained surpluses	6,689	802	6,689	802
Transfer to retained surpluses	(2,888)	(8,989)	(2,688)	(8,989)
Balance at end of year	\$8,133	\$4,332	\$8,133	\$4,132
<i>Equipment</i>				
Balance at beginning of year	7,087	6,900	7,087	6,900
Transfer from retained surpluses	607	1,592	607	1,592
Transfer to retained surpluses	(1,635)	(1,405)	(1,635)	(1,405)
Balance at end of year	\$6,059	\$7,087	\$6,059	\$7,087
<i>Development and Restructuring</i>				
Balance at beginning of year	20,500		20,500	
Transfer from retained surpluses	1,082	20,500	1,082	20,500
Transfer to retained surpluses	(1,205)		(1,205)	
Balance at end of year	\$20,377	\$20,500	\$20,377	\$20,500
<i>Self insurance of dwellings and buildings</i>				
Balance at beginning of year	4,192	3,371	4,192	3,371
Transfer from retained surpluses	742	821	742	821
Transfer to retained surpluses	(77)		(77)	
Balance at end of year	\$4,857	\$4,192	\$4,857	\$4,192
<i>Research donations</i>				
Balance at beginning of year	640	646		
Transfer to retained surpluses		(6)		
Transfer to provisions and payables	(640)			
Balance at end of year		\$640		

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
20. CASH				
Cash on hand	52	53	52	53
Bank	3,453	825	3,081	590
Deposits at call	153,985	136,949	153,985	136,949
	<u>\$157,490</u>	<u>\$137,827</u>	<u>\$157,118</u>	<u>\$137,592</u>

The total cash available, includes \$39,426,000 (University \$35,911,000) which has been retained for future expenditure as outlined in the Special Reserves (see Note 19).

21. RECEIVABLES

Current receivables:

Goods and services	18,611	8,749	12,379	4,871
Provision for doubtful debts	(740)	(688)	(740)	(598)
	<u>17,871</u>	<u>8,061</u>	<u>11,639</u>	<u>4,273</u>
Income due	3,395	3,655	3,395	3,655
Interest receivable	4,594	4,677	4,594	4,677
	<u>25,860</u>	<u>16,393</u>	<u>19,628</u>	<u>12,605</u>

Non-current receivables:

Loans	15	11	15	11
	<u>15</u>	<u>11</u>	<u>15</u>	<u>11</u>
Total non-current receivables				
	<u>\$25,875</u>	<u>\$16,404</u>	<u>\$19,643</u>	<u>\$12,616</u>

Ageing of goods and services

Current	12,253	5,393	6,251	2,217
Less than 30 days overdue	2,190	1,416	1,907	1,134
30 to 60 days overdue	764	627	982	280
More than 60 days overdue	3,404	1,313	3,239	1,240
	<u>\$18,611</u>	<u>\$8,749</u>	<u>\$12,379</u>	<u>\$4,871</u>

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
22. INVESTMENTS				
<i>Current investments:</i>				
<i>Investments at valuation (see Note 1.4)</i>				
Corporate bonds	4,038	10,068	4,038	10,068
Debentures		3,016		3,016
Government and semi-government securities	6,870		6,870	
Transferable certificate of deposits		3,548		3,548
Floating rate notes	1,000	5,998	1,000	5,998
Total current investments	11,908	22,630	11,908	22,630

*Non-current investments:**Investments at valuation (see Note 1.4)*

Convertible notes	386	342	386	342
Corporate bonds	110,955	114,274	110,955	114,274
Debentures	1,993	1,943	1,993	1,943
Exchanging instalment notes	4,188	5,320	4,188	5,320
Floating rate notes	21,084	16,497	21,084	16,497
Government and semi-government securities	46,177	51,150	46,177	51,150
Managed investment funds	29,828	29,682	29,828	29,682
Overseas managed investment funds	43,789	40,104	43,789	40,104
Properties	42,800	42,200	42,800	42,200
Property trusts	21,035	16,522	21,035	16,522
Shares and share options	252,787	212,065	252,768	212,046
Shares in subsidiary			7,000	2,000
Stapled securities		3,088		3,088
Transferable certificate of deposits	2,000		2,000	
Other	536	536	536	536
Total non-current investments	577,558	533,723	584,539	535,704
Total investments	\$589,466	\$556,353	\$596,447	\$558,334

23. OTHER FINANCIAL ASSETS

Technology licence fund accrued income	81,264	66,923
Technology licences fund cash investment	40,784	40,784
	\$122,048	\$107,707

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
24. LAND AND BUILDINGS, AND INFRASTRUCTURE, PLANT AND EQUIPMENT				
Work in progress	43,264	25,607	43,264	25,607
Site infrastructure at cost	10,016	10,141	10,016	10,141
Accumulated depreciation	(4,928)	(4,913)	(4,928)	(4,913)
Campus buildings at cost		20,647		20,570
Accumulated depreciation		(651)		(649)
Property at Cost	5,088	25,224	5,088	25,149
Site infrastructure at valuation	454		454	
Accumulated depreciation	(14)		(14)	
Land at valuation	6,048	6,800	6,048	6,800
Dwellings at valuation	6,365	7,719	6,365	7,719
Accumulated depreciation	(288)	(140)	(288)	(140)
Campus buildings at valuation	527,394	651,496	520,494	644,302
Accumulated depreciation	(6,098)	(87,046)	(6,098)	(86,149)
Property at Valuation	533,861	578,829	526,961	572,532
Crown Lease	3,400	3,400	3,400	3,400
Accumulated amortisation	(1,224)	(1,088)	(1,224)	(1,088)
Amortised crown lease	2,176	2,312	2,176	2,312
Total land, buildings and infrastructure	\$584,389	\$631,972	\$577,489	\$625,600
Plant, equipment and motor vehicles at cost	47,915	29,563	46,406	28,157
Accumulated depreciation	(8,298)	(2,938)	(7,181)	(1,973)
Plant, equipment and motor vehicles at valuation	202,381	211,487	202,381	211,487
Accumulated depreciation	(131,898)	(132,846)	(131,898)	(132,846)
	110,100	105,266	109,708	104,825
Works of art at cost	714	505	714	505
Works of art at valuation	5,580	5,580	5,580	5,580
	6,294	6,085	6,294	6,085
Rare library materials at cost	2,274	2,259	2,274	2,259
Total plant and equipment	\$118,668	\$113,610	\$118,276	\$113,169
Total land, buildings, infrastructure, plant and equipment	\$703,057	\$745,582	\$695,765	\$738,769

Assets at cost and valuation

	Land \$'000	Buildings \$'000	Other infrastructure \$'000	Total land and buildings and other infrastructure \$'000	Plant and equipment \$'000	Total \$'000
Gross value						
As at 1 January 2000	6,800	679,862	39,148	725,810	249,394	975,204
Additions	1,020		20,085	21,105	20,063	41,168
Revaluations	(72)	(148,078)	(131)	(148,281)		(148,281)
Disposals	(1,700)	(1,242)		(2,942)	(9,357)	(12,299)
Other movements		3,217	(1,968)	1,249	(1,236)	13
As at 31 December 2000	6,048	533,759	57,134	596,941	258,864	855,805
Accumulated depreciation / amortisation						
As at 1 January 2000		87,837	6,001	93,838	135,784	229,622
Disposals		(67)		(67)	(8,130)	(8,197)
Charge for the reporting period		14,076	399	14,475	12,535	27,010
Revaluations		(95,488)	(235)	(95,723)		(95,723)
Other movements		28	1	29	7	36
As at 31 December 2000		6,386	6,166	12,552	140,196	152,748
Net book value as at 31 December 2000	\$6,048	\$527,373	\$50,968	\$584,389	\$118,668	\$703,057
Net book value as at 1 January 2000	\$6,800	\$592,025	\$33,147	\$631,972	\$113,610	\$745,582

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

24. LAND AND BUILDINGS, AND INFRASTRUCTURE, PLANT AND EQUIPMENT continued

Assets at valuation

Item	Land \$'000	Buildings \$'000	Other infrastructure \$'000	Total land and buildings and other infrastructure \$'000	Plant and equipment \$'000	Total \$'000
Gross value						
As at 1 January 2000	6,800	659,215		666,015	217,067	883,082
Additions	1,020			1,020		1,020
Revaluations	(72)	(124,239)	454	(123,857)		(123,857)
Disposals	(1,700)	(1,242)		(2,942)	(9,106)	(12,048)
Other movements		25		25		25
As at 31 December 2000	6,048	533,759	454	540,261	207,961	748,222
Accumulated depreciation / amortisation						
As at 1 January 2000		87,186		87,186	132,846	220,032
Disposals		(67)		(67)	(7,910)	(7,977)
Charge for the reporting period		13,780	14	13,794	6,962	20,756
Revaluations		(94,540)		(94,540)		(94,540)
Other movements		27		27		27
As at 31 December 2000		6,386	14	6,400	131,898	138,298
Net book value as at 31 December 2000	\$6,048	\$527,373	\$440	\$533,861	\$76,063	\$609,924
Net book value as at 1 January 2000	\$6,800	\$572,029		\$578,829	\$84,221	\$663,050

The information provided has been prepared for consolidated activity only.

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
25. INVENTORIES				
Inventory held for sale	2,449	3,219	176	251
Consumables in store	946	841	946	841
	<u>\$3,395</u>	<u>\$4,060</u>	<u>\$1,122</u>	<u>\$1,092</u>

26. INTANGIBLES

Current assets:

Goodwill on acquisition
Amortisation of goodwill

181	181
(41)	(32)
<u>\$140</u>	<u>149</u>

Total current assets:

Non-current assets:

Deferred research and development costs

984	759
<u>\$984</u>	<u>759</u>

Total non-current assets:

Total intangibles

<u>\$1,124</u>	<u>\$908</u>
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27. OTHER NON-FINANCIAL ASSETS

Advance payments and prepaid expenditure

8,610	10,624	8,590	10,349
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Total other non-financial assets

<u>\$8,610</u>	<u>\$10,624</u>	<u>\$8,590</u>	<u>\$10,349</u>
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THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

	Consolidated		University	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
28. EMPLOYEES				
<i>Current liability:</i>				
Accrued salary and related expenses ¹	5,785	7	5,785	7
Superannuation levy ¹	684		684	
Payroll tax ¹	406		406	
Workers' compensation ¹	52		52	
Accrued pension payments	2,069	2,581	2,069	2,581
Employee superannuation entitlements	13,973	13,466	13,973	13,466
Annual Leave entitlements	8,378	7,952	7,895	7,478
Long Service Leave entitlements	3,263	4,084	3,173	4,019
	<u>34,610</u>	<u>28,090</u>	<u>34,037</u>	<u>27,551</u>
<i>Non-current liability:</i>				
Employee superannuation entitlements	365,027	335,534	365,027	335,534
Long Service Leave entitlements	31,536	29,572	31,517	29,546
	<u>396,563</u>	<u>365,106</u>	<u>396,544</u>	<u>365,080</u>
Total provisions and payables to employees	<u>\$431,173</u>	<u>\$393,196</u>	<u>\$430,581</u>	<u>\$392,631</u>

1. The first pay of 2000 was remitted to staff on 24 December 1999 due to uncertainty about year 2000 compliance. As a result, in 1999 a prepayment was recognised instead of salaries being accrued.

29. SUPPLIERS

Trade creditors	10,199	10,159	6,637	7,245
Total provisions and payables to suppliers	<u>\$10,199</u>	<u>\$10,159</u>	<u>\$6,637</u>	<u>\$7,245</u>

30. OTHER PROVISIONS AND PAYABLES

<i>Other current provisions and payables:</i>				
Income in advance ¹	65,509	65,435	65,162	64,829
Other creditors	2,754	2,955	2,754	2,955
Bank overdraft	95	847		
Intellectual property protection		38		
Research account	615			
Incomplete project revenue	4,720	5,835		
Total other current provisions and payables	<u>73,693</u>	<u>75,110</u>	<u>67,916</u>	<u>67,784</u>
<i>Other non-current provisions and payables:</i>				
Income in advance	750	834		
Licences and royalties	122,048	107,707		
Total other non-current provisions and payables	<u>122,798</u>	<u>108,541</u>		
Total other provisions and payables	<u>\$196,491</u>	<u>\$183,651</u>	<u>\$67,916</u>	<u>\$67,784</u>

1. Refer Note 1.2.1.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

31. FINANCIAL INSTRUMENTS

31.1 TERMS, CONDITIONS AND ACCOUNTING POLICIES

Financial Instrument	Notes	Accounting Policies and Methods	Nature of underlying instrument
Financial assets		Financial assets are recognised when control over future economic benefits is established and the amount of the benefit can be reliably measured.	
Government and semi-government securities (G&SGS) and corporate bonds	22	Commonwealth and State Government Bonds are recognised at market value. Interest is credited to revenue as it accrues.	G&SGS have terms of up to 15 years. G&SGS are guaranteed by the issuing Government and are traded in active markets. Coupons are usually received on the anniversary of the maturity date and six months from the anniversary date. Investment in corporate bonds is restricted to debt securities issued by authorised banks and companies with an A+ credit rating. Terms up to 10 years. Interest is paid half yearly.
Debentures	22	The debentures held are recognised at market value. Interest is recognised as it accrues.	Investment in debentures is restricted to companies with an A+ credit rating and affiliated with an authorised bank. Interest is paid quarterly or half yearly.
Transferable certificates of deposits (TCDs)	22	TCDs are recognised at market value. Interest is accrued as it is earned.	TCDs are purchased from authorised banks. Terms are variable but normally less than 5 years.
Overseas managed investment funds and managed investment funds	22	Managed investment funds are carried at the market value of the underlying asset.	Managed funds comprise assets made up of listed companies on world stock markets, foreign cash balances and cash in Australian dollars. Distributions are reinvested in new units or received in cash.
Convertible notes	22	Convertible notes are quoted on the Australian Stock Exchange and are valued at the last sale price on the day of valuation. Movements in these values between reporting dates are accounted for in accordance with the provisions of AAS 10 "Accounting for the Revaluation of non-Current Assets".	Convertible notes convert to ordinary shares on a predetermined date.
Exchanging instalment notes (EINs)	22	EINs are quoted on the Australian Stock Exchange and are valued at the last sale price on the day of valuation.	EINs are a form of debt security and convert to ordinary shares on a one for one basis at a predetermined date. Interest payments are made half yearly.
Properties	22	Physical properties held in the investment portfolio are carried at market value. Formal independent valuations are obtained every three years and internal valuations based on market research are used for interim years.	Physical property held for investment purposes.
Property trusts	22	Property trusts held by the University are quoted on the Australian Stock Exchange and are valued at the last sale price.	Listed property trusts have underlying assets comprising physical properties and cash balances. Distributions are received in cash.
Shares in listed companies	22	These shares are carried at their quoted last sale price. Movements in these values between reporting dates are accounted for in accordance with the provisions of AAS 10 "Accounting for the Revaluation of non-Current Assets". Dividend income is recognised when dividends are declared.	The shares held are ordinary shares.
Cash at bank and deposits at call	20	Cash at bank and deposits are recognised at their nominal amounts. Interest is credited to revenue as it accrues.	Temporarily surplus funds, mainly from fortnightly drawdowns of funding payments and surplus investment funds, are placed on deposit at call with authorised banks. Interest is earned on the daily balance at the prevailing daily rate for money on call and is paid at month end.
Floating rate notes (FRNs)	22	Carried at face value plus accrued interest from last coupon payment date.	Income quarterly. Coupon set quarterly at a premium to 90 day Bank Bill Swap Reference Rate. Fixed term. Investment is restricted to FRNs issued by authorised banks or companies with A+ credit ratings.
Receivables for goods & services	21	Receivables are recognised at the nominal amounts due less any provision for bad and doubtful debts. Provisions are made when collection of the debt is judged to be less rather than more likely.	The University's credit terms are net 30 days. Settlement periods for entities consolidated range from 14-60 days.
Technology Licence Fund	23	The Technology Licence Fund represents long term deposits and accrued interest. Interest is credited annually.	The fund and any accrued interest will be applied in settling the corresponding liability in Licences and Royalties.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

31.1 TERMS, CONDITIONS AND ACCOUNTING POLICIES (continued)

Financial Instrument	Notes	Accounting Policies and Methods	Nature of underlying instrument
<i>Financial liabilities</i>		Financial liabilities are recognised when a present obligation to another party is entered into and the amount of the liability can be reliably measured.	
Bank overdraft	30	The bank overdraft of the subsidiary is recognised at the principal amount. Interest is expensed as it accrues.	The facility is of a variable amount up to a maximum of \$1,500,000. Interest accrues daily at the prevailing market rate.
Trade creditors	29	Creditors and accruals are recognised at their nominal amounts, being the amounts at which the liabilities will be settled. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).	Settlement is usually made net 30 days.
Licences and royalties	30	The licence fees and royalties accrue interest annually.	The liability is matched to the corresponding asset, Technology Licence Fund.

31.2 INTEREST, CURRENCY, MARKET, CASH FLOW AND CREDIT RISK

	Less than 1 year \$'000	Between 1 and 5 years \$'000	Greater than 5 years \$'000	Total carrying amount \$'000	Fair Value \$'000	Weighted average interest rate %
FINANCIAL ASSETS						
<i>Interest Rate Risk</i>						
Corporate bonds	4,038	88,202	22,753	114,993	114,993	6.11
Debentures		1,993		1,993	1,993	6.40
Government and semi-government bonds	6,870	12,379	33,798	53,047	53,047	5.36
Transferable certificates of deposit		2,000		2,000	2,000	7.20
<i>Currency Risk</i>						
Overseas managed investment funds			43,789	43,789	43,789	
<i>Market Risk</i>						
Convertible notes			386	386	386	7.75
Exchanging instalment notes			4,188	4,188	4,188	8.00
Managed investment funds			29,828	29,828	29,828	
Properties			42,800	42,800	42,800	
Property trusts			21,035	21,035	21,035	
Shares and share options			252,787	252,787	252,787	
<i>Cash Flow Risk</i>						
Cash	157,490			157,490	157,490	6.34
Floating rate notes	1,000	17,122	3,962	22,084	22,084	6.93
Other		536		536	536	
<i>Credit Risk</i>						
Receivables	25,860	15		25,875	25,875	
Technology licences fund			122,048	122,048	122,048	11.64
Total Financial Assets	\$195,258	\$122,247	\$577,374	\$894,879	\$894,879	
FINANCIAL LIABILITIES						
<i>Cash Flow Risk</i>						
Bank overdraft	95			95	95	10.10
<i>Credit Risk</i>						
Trade creditors	10,199			10,199	10,199	
Licences and royalties			122,048	122,048	122,048	11.64
Total Financial Liabilities	\$10,294	\$122,048	\$132,342	\$132,342	\$132,342	

The information provided has been prepared for consolidated activity only.

Interest rate risk is the risk that the realisable value of a financial instrument will fluctuate due to changes in market interest rates.

Currency risk is the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates.

Market risk is the risk that the value of a financial instrument will fluctuate as a result of changes in market prices.

Cash flow risk is the risk that realisable future cash flows associated with a monetary financial instrument will fluctuate in amount.

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

NOTES continued

		Consolidated		University	
	Notes	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
32. RECONCILIATION OF OPERATING RESULT TO NET CASH FLOWS FROM OPERATIONS					
Reported Surplus of operating revenues over expenses (before abnormal items)		8,243	5,014	8,973	7,056
Depreciation and amortisation of property, plant and equipment		27,010	31,493	26,666	31,173
Gain on disposal of assets		(926)	(608)	(926)	(609)
Provision for doubtful debts		142	33	142	33
Provision for Intellectual Property Protection		(37)	7		
Net gain from the sale of investments			(2,214)		(2,214)
Dividend reinvestment		(12,316)	(11,477)	(12,316)	(11,477)
Employee superannuation entitlements	16, 17.9, 18		100,391		100,391
Commonwealth Government grants restatement	1.2.1		(26,786)		(26,786)
<i>(Increase)/Decrease in operating assets</i>					
Receivables		(11,402)	6,929	(7,477)	4,235
Advance payments and prepaid expenditure		921	(7,361)	666	(7,237)
Inventories		665	(457)	(30)	143
Other		(225)	(35)		
<i>Increase/(Decrease) in operating liabilities</i>					
Provision for employee entitlements		31,569	(80,059)	31,543	(79,949)
Employee related liabilities		6,408	(2,886)	6,408	(2,886)
Trade Creditors		(505)	2,669	(1,592)	3,626
Other provisions and payables		132	29,029	132	29,029
Other		12,861	12,106		
Net cash flows from operating activities		\$62,540	\$55,788	\$52,189	\$44,528

33. LAND**Australian Capital Territory**

The major teaching and research facilities of the University are located on the Acton Campus site of 141 hectares and the Mt Stromlo site of 81 hectares. These sites are provided free of charge and held on lease in perpetuity. The use of this land is restricted to Australian National University activities. The value has not been assessed nor been brought to account as the University believes that the value of the land cannot be reliably measured (Note 1.6.2).

The University occupies other sites of 226 hectares within the Australian Capital Territory on varying leasehold terms and conditions. Of these other sites, 2 hectares has been brought to account at cost. The remaining 224 hectares has not been assessed nor brought to account as the University believes the value of the land cannot be reliably measured.

New South Wales

The University owns 148 hectares of freehold land at Coonabarabran on which is located the Siding Spring Observatory and a further 3 hectares is held by the University at Coonabarabran under permissive occupancy. The value of this land has been brought to account.

The University owns 349 hectares of freehold land at Kioloa. The value of this land has been assessed and brought to account.

Northern Territory

The University occupies 26,500 hectares near Tennant Creek held on lease in perpetuity on which is located the Warramunga Seismic Station. The value has not been assessed nor been brought to account.

The University owns 4 hectares of freehold land at Darwin on which is located field research headquarters. The value of this land has been brought to account.

Fiji

The University occupies 1 hectare at Suva held on a 75 year lease from November 1965 which is used for field research purposes. The value of this site has not been assessed nor brought to account.

Papua New Guinea

The University occupies 4 hectares within Papua New Guinea held on varying leasehold arrangements for field research purposes. The value has not been assessed nor brought to account.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

34. REMUNERATION OF OFFICERS

	Consolidated		University	
	2000 \$	1999 \$	2000 \$	1999 \$
Income received or due and receivable by officers ¹	\$26,153,915	\$24,774,100	\$25,674,137	\$24,581,296

1. Aggregate remuneration disclosed relates only to those officers captured within the \$10,000 bands above \$100,000. An 'officer' is defined as a person who is concerned in, or takes part in, the management of the agency. Any University staff member whose total remuneration cost to the entity is in excess of \$100,000 is considered to take part in the management of the entity. The directors of entities consolidated are considered officers of the consolidated entity.

The number of officers included in these figures are shown below in the relevant income bands

	Consolidated		University	
	2000 Number	1999 Number	2000 Number	1999 Number
\$100,000 - \$109,999	87	91	86	91
\$110,000 - \$119,999	62	63	62	63
\$120,000 - \$129,999	23	26	23	26
\$130,000 - \$139,999	17	9	16	9
\$140,000 - \$149,999	5	6	5	6
\$150,000 - \$159,999	3	6	3	6
\$160,000 - \$169,999	7	1	7	1
\$170,000 - \$179,999	4	1	4	1
\$180,000 - \$189,999	1	3	1	3
\$190,000 - \$199,999	2	1	2	
\$200,000 - \$209,999		1		1
\$210,000 - \$219,999	1		1	
\$220,000 - \$229,999		1		1
\$240,000 - \$249,999	1			
\$250,000 - \$259,999	1		1	
\$300,000 - \$309,999		1		1
\$320,000 - \$329,999	1		1	
	215	210	212	209

Fees are not payable to members of Council. Employees of the University who are members of Council do not receive remuneration for Council service other than their salaries.

Members of Council during the year were:

The Hon Emeritus Professor P E Baume AO
 Dr A C Bennett SC
 Emeritus Professor R D Terrell (to 31 December 2000)
 Professor F C Jackson
 Professor R M Pashley
 Dr M S Keating AC AO (to 14 August 2000 and from 13 December 2000)
 Mr I F Grigg AM (to 14 August 2000 and from 13 December 2000)
 Senator B Mason (from 25 October 2000)
 Senator J W Tierney (to 17 July 2000)
 Senator K Carr
 Justice M M Finn
 Mr M Delaney
 Ms B Arndt
 Dr D H Solomon
 Professor D J Evans (to 29 September 2000)
 Professor A Milner (from 19 July to 17 August and from 30 September 2000)
 Professor J White (from 30 September 2000)
 Professor D Robinson (to 29 September 2000)
 Dr M Green
 Mr K J Lonsdale
 Mr O Jepps (to 31 May 2000)
 Ms R Ennor (from 1 June 2000)
 Mr R Egan (to 31 November 2000)
 Mr M Wasilewicz (from 1 December 2000)
 Mr J F Muir AO

35. REMUNERATION OF AUDITORS

	Consolidated		University	
	2000 \$	1999 \$	2000 \$	1999 \$
Remuneration to the Auditor-General for auditing the financial statements for the reporting period ¹	212,589	206,000	179,069	182,000
Other services ¹	3,360	1,000	3,264	
Total remuneration paid to the Auditor-General	\$215,949	\$207,000	\$182,333	\$182,000

1. Amounts shown exclude GST paid on these services.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

36. SUPERANNUATION COMMITMENTS**36.1 Commonwealth Superannuation Account**

Since 1949, the University has maintained an account, on conditions approved by the Treasurer of the Commonwealth, to meet the emerging costs of the employer's liability to the Commonwealth Superannuation Scheme. The Commonwealth Government has now closed this Scheme.

Transfers are made to the account each fortnight in accordance with a predetermined formula approved by Council and based on advice from the Commonwealth Actuary. The University's contribution rate in 2000 was 14 per cent of eligible employee superannuable salaries (equivalent to the contribution rate the University is required to make for all employees who are members of UniSuper, formerly known as the Superannuation Scheme for Australian Universities). The University's 2000 contribution was \$2,841,431 (1999 \$3,067,000). Pensions are met on an emerging cost basis and paid to the Commonwealth Superannuation Administration. Pension payments amounted to \$14,768,000 for 2000 (1999 \$16,370,000).

Following a triennial review undertaken by the Commonwealth Actuary as at 30 June 1999, it was determined that the liability that had been accrued by the University for employees in the Commonwealth Superannuation Scheme was overstated by \$100,391,000. As a result the liability was reduced to the actuarial assessment of \$349,000,000 (refer Note 28), through recognition of an abnormal item of \$100,391,000 (refer Note 18). Following the reduction in the liability, assets backing the liability of \$67,500,000 were reapplied by the University to: improve staff development programs (\$5,500,000); information technology infrastructure (\$11,000,000); reduce debt (\$5,000,000); increase the ANU Endowment for Excellence for scholarships and the attraction/retention of outstanding staff (\$19,000,000); and the construction of buildings (\$5,000,000). Some funds were also used to establish the ANU Commercialisation (Venture Capital) Fund (\$13,000,000), and a proportion was set aside in contingency accounts (\$9,000,000). An estimated liability as at 30 June 2000 of \$379,000,000 has been provided by the Commonwealth Actuary. The next actuarial assessment is due to be undertaken as at 30 June 2001.

The financial transactions and balances of the Commonwealth Superannuation Account have been included with the accounts of the University.

36.2 Superannuation Scheme for Australian Universities

New continuing staff members employed by the University since 1 April 1983 have been required to join the Superannuation Scheme for Australian Universities (SSAU) until 30 September 2000. From 1 October 2000, SSAU and the Tertiary Education Superannuation Scheme merged to become a single scheme, UniSuper. This merged scheme continues to have a defined benefits component which is managed independently of the University. The University contributes to the Scheme at the rate equivalent to 14 per cent of members' salaries. The University's contributions in 2000 were \$17,061,000 (1999 \$16,859,000).

UniSuper has advised that as at 31 December 2000, the amount of UniSuper vested and accrued benefits applicable to the University was \$227,480,000 (1999 \$197,820,000). The estimated market value of assets of UniSuper for current members at 31 December 2000 available to pay UniSuper superannuation liabilities of the University was \$248,375,000 (1999 \$231,214,000). Thus the difference between the estimated net market value of UniSuper assets and accrued benefits at 31 December 2000 apportioned to the current members of the University is a surplus of \$20,895,000 (1999 \$33,394,000).

36.3 Public Sector Superannuation Scheme

The University has a small number of employees who are members of the Public Sector Superannuation Scheme to which the University contributes at the rate of 12.4 per cent of members salaries. During 2000, the University's contributions amounted to \$133,000 (1999 \$170,000). The Commonwealth Government has now closed this Scheme.

36.4 Employee Non Contributory Productivity Superannuation Schemes

The University's contributions for employees who are contributors to the Commonwealth Superannuation and Public Sector Superannuation Schemes are paid to the Commonwealth Superannuation Administration. The University contributes to the Schemes between 2 to 3 per cent of members' salaries. During 2000, the University's contributions were \$492,000 (1999 \$533,000) and \$30,000 (1999 \$40,000) respectively.

The University paid contributions for eligible employees, other than employees who are contributors to the Commonwealth Superannuation and Public Sector Superannuation Schemes, to the Tertiary Education Superannuation Scheme until 30 September 2000, and since then to the newly established UniSuper. The new scheme continues to offer a cash accumulation component. The University contributes to the Scheme at a rate of 3 per cent of members' salaries for full-time University employees. The University's contributions in 2000 were \$5,159,000 (1999 \$5,475,000).

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

37. COOPERATIVE RESEARCH CENTRES

The University received Commonwealth Funding under the Cooperative Research Centres Program for the establishment of the following Cooperative Research Centres:

Australian Photonics - an unincorporated collaborative venture established in 1992. The current partners include the University, The University of Melbourne, The University of New South Wales, The University of Sydney, RMIT University, TAFE NSW, DSTO and 20 industry partners. The Centre's area of research, development and commercialisation is telecommunications - new and improved hardware components to facilitate more efficient and effective telecommunications services. The objectives of the CRC include to be a centre of excellence in photonics with internationally recognised, commercially relevant research programs; to improve the international competitiveness of Australian industry through transfer of photonic technology; and to provide industry with knowledge and skills in photonics through educational programs with emphasis on high quality postgraduate training. The University's contribution (representing 13.47 per cent of the total of the partners' contributions) in the form of staff and equipment resources and cash from 1992 to 30 June 1999 (latest available annual report) has an approximate value of \$10,482,000. The Centre is administered by Australian Photonics Pty Ltd.

Biological Control of Pest Animals - a cooperative research centre which began operations on 1 July 1999 that will continue through to June 2006. The Centre's core participants are CSIRO, the University, Agricultural Protection Board, Western Australia, the Department of Conservation and Land Management, Western Australia, the University of Adelaide, the University of Western Australia and the University of Sydney. The Centre is developing biological control agents that will reduce the birth rate of feral pests. The University's in kind contribution (representing 13 per cent of the total partners' contributions) will be \$5,495,000 over the life of the Centre. The Centre Agent is CSIRO.

Advanced Computational Systems - an unincorporated collaborative joint venture with CSIRO, Compaq Computer Australia, Fujitsu Australia, SGI Australia, Storage Technology of Australia and Sun Microsystems Australia. The Centre was established on 1 October 1993 and ceased operations on 30 September 2000. The mission of the centre was to establish an internationally competitive research capability in the area of high performance advanced computational systems. The University's contribution (representing 33 per cent of the total of the partners' contributions) in the form of staff and equipment resources totalled \$11,631,740 over the life of the Centre. The Centre was administered by the University.

Landscape Evolution and Mineral Exploration - a cooperative research centre with the core participants being the CSIRO, the University, the Australian Geological Survey Organisation, and the University of Canberra. The Centre is developing a framework to increase the understanding of the evolution of the Australian Landscape to improve the ability to recognise major new mineral deposits. The University's in-kind contribution (representing 15 per cent of the total of the partners' contributions) will be \$6,498,000 over seven years from 1995; the University's involvement will cease on 30 June 2002. The Centre is administered by the CSIRO.

Sustainable Development of Tropical Savannas - a cooperative research centre with the core participants being the University, Northern Territory University, James Cook University, two Western Australian government departments (Conservation and Land Management, and Agriculture), the Queensland and the Northern Territory CSIRO, and Environment Australia. The goal of the Centre is to integrate research across a wide range of disciplines to ensure the optimal sustainable development of Australia's tropical savannas. The ANU's involvement formally came to an end on 30 June 2000. Over the 5 years of the project, the ANU's cash contribution amounted to \$904,200, and the in kind contribution totalled \$1,236,500. The cash contribution was in the form of dedicated salaries and support costs of staff based at its North Australia Research Unit in Darwin.

Greenhouse Accounting - a cooperative research centre with the core participants being the Australian Greenhouse Office, the University, the Bureau of Rural Sciences, the CSIRO, the Department of Conservation and Land Management (WA), the Departments of Natural Resources and Primary Industries (QLD) and State Forests (NSW). The Centre is developing methods of accounting for carbon emissions and sinks in Australian landscapes and for reducing greenhouse gases through responsible management of Australian ecosystems. The University's in kind contribution, (representing 45 per cent of the total of the partners' contributions) will be \$23,878,000 over seven years from 1999. The University acts as the Centre Agent.

Costs for all Cooperative Research Centres are expensed as incurred except where future benefits are expected beyond reasonable doubt to exceed these costs. In 2000 all costs were expensed.

THE AUSTRALIAN NATIONAL UNIVERSITY

NOTES continued

38. SYNDICATED RESEARCH AND DEVELOPMENT

In December 1990 Anutech Pty Limited entered into agreements with two syndicated research and development partnerships worth a total of \$50,000,000.

Under the terms of the agreements the partnerships agreed to:
provide funds for research for three years 1991-1993;
acquire technology licences from Anutech Pty Limited for \$34,600,000.

Funds received from the sale of the technology licences have been placed into a technology sinking fund (Note 23) along with accrued income earned (Note 23) and the profit component from the research and development for the duration of the agreements.

The agreements with each partnership contain a put option which gives each partnership the option of selling the technology licences back to Anutech Pty Limited for a consideration equal to the accumulated balance of the technology sinking fund. A provision to purchase the technology licences has therefore been recorded (Note 30).

The partnerships are able to exercise their options during the period 31 January 1998 to 31 January 2003.

Anutech Pty Limited has entered into agreements with two indemnifiers who have agreed to meet any shortfall on the put option payment should either of the partnerships exercise their option.

39. RELATED PARTY DISCLOSURES

The University enters into a number of transactions for the provision of goods and services under normal commercial terms and conditions with student organisations based on campus.

40. CONTINGENT LIABILITIES

Guarantees of \$67,000 have been given to The Credit Union of Canberra Ltd for loans made to needy students. Guarantees of \$366,000 have been given to the National Australia Bank for the balances of loans provided pursuant to the Legal Workshop Loan Scheme.

The University is currently involved in three legal matters. The total maximum liability of the University in respect of these matters is estimated to be \$110,000.

The University has given a guarantee of \$1,500,000 for Anutech Pty Limited's overdraft facility.

The University has given a guarantee, on behalf of Anutech Pty Limited, for \$304,000 of funds held in trust by Anutech Pty Limited for prepaid course fees which are subject to the Education Services for Overseas Student Act and the associated Tuition Assurance Scheme regulations. No liability is expected to arise.

Anutech Pty Limited is involved in two legal actions arising out of the one transaction in 1994, which was within Anutech Pty Limited's normal course of business. Anutech Pty Limited's professional indemnity insurers have denied liability in respect of the transaction.

41. SEGMENT INFORMATION

The Economic Entity operates predominantly in the Australian Capital Territory for the purpose of teaching and research.

42. ECONOMIC DEPENDENCY

The University is to a significant extent dependant on monies received pursuant to the Higher Education Funding Act 1988 to fund its operations. In 2000, funding from the Act (\$238,677,000) represented 57 per cent (1999 59 per cent) of the total operating revenues (before abnormal items).

ANUTECH Pty Limited

A.C.N. 008 548 650
and Australian Scientific Instruments Pty Ltd
A.C.N. 008 644 273

Financial Report for the year ended 31 December 2000

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ANUTECH PTY LIMITED

DIRECTORS' REPORT

The directors of Anutech Pty Limited present their report on the Company and its controlled entity Australian Scientific Instruments Pty Ltd for the financial year ended 31 December 2000.

DIRECTORS

The names of the directors of the Company during or since the end of the financial year are:

Dr Richard William Henley
Dr John Donald Bell
Professor John Hearn
Mr David Simon Karpin
Mr James Fulton Muir
Professor John Alan Richards
Professor Brian David Outram Anderson

The above named directors held office during and since the end of the financial year except for:

Professor Brian David Outram Anderson – resigned 7 April 2000
Dr John Donald Bell – resigned 29 February 2000
Dr Richard William Henley – resigned 9 August 2000

PRINCIPAL ACTIVITIES

The principal activities of the economic entity during the year were to undertake the marketing of the research and skills of The Australian National University, and there was no significant change in the nature of these activities during that period.

REVIEW OF OPERATIONS

Total consolidated operating revenue for the year was \$39.469 million compared with \$43.011 million in the previous year. The consolidated operating loss after abnormal items for the year ended 31 December 2000 was \$1.522 million (loss of \$4.480 million in 1999).

DIVIDENDS

Under its constitution, the Company is precluded from paying a dividend to the members.

CHANGES IN THE STATE OF AFFAIRS

During the financial year, there were no significant changes in the state of affairs of the economic entity, other than that referred to in the financial statements or notes thereto.

SIGNIFICANT EVENTS AFTER BALANCE DATE

The Company has completed the sale of a loss making non-core business. This sale, which was concluded in February 2001, did not have an impact on the projected profits of the Company in 2001. There are no other matters or circumstances that have arisen since the end of the financial year that have significantly affected or which may significantly affect the operations of the economic entity, the results of those operations, or the state of affairs of the economic entity in future years.

ANUTECH PTY LIMITED**DIRECTORS' REPORT** (continued)**LIKELY DEVELOPMENTS AND EXPECTED RESULTS**

Disclosure of information regarding likely developments in the operations of the economic entity in future financial years and the expected results of those operations is likely to result in unreasonable prejudice to the economic entity. Accordingly, this information has not been disclosed in this report.

ENVIRONMENTAL FACTORS

The activities of the economic entity are not regulated by any significant environmental regulation under a law of the Commonwealth or of a State or Territory.

INDEMNIFICATION OF OFFICERS AND AUDITORS

During or since the financial year, the Australian National University paid a premium in respect of a contract insuring all the directors of Anutech Pty Ltd and Australian Scientific Instruments Pty Ltd against costs incurred in defending:

- (a) conduct involving a wilful breach of duty; or
- (b) contravention of Sections 232(5) or (6) of the Corporations Law.

The Company has not otherwise, during or since the financial year, indemnified or agreed to indemnify an officer or auditor of the Company or of any related body corporate against a liability incurred as such an officer or auditor.

ROUNDING OFF OF AMOUNTS

The Company is a company of the kind referred to in ASIC Class Order 98/0100, dated 10 July 1998, and in accordance with that Class Order, amounts in the directors' report and the financial report have been rounded off to the nearest thousand dollars.

Signed in accordance with a resolution of the directors made pursuant to Section 298(2) of the Corporation Law.

On behalf of the Directors



David Karpin
Director

Dated at Canberra, on 20 March, 2001



INDEPENDENT AUDIT REPORT

To the members of ANUTECH Pty Limited

Scope

I have audited the financial report of ANUTECH Pty Limited for the financial year ended 31 December 2000. The financial report comprises:

- Directors' Declaration;
- Profit and Loss Statement;
- Balance Sheet;
- Statement of Cash Flows; and
- Notes to and forming part of the Financial Statements.

The financial report includes the consolidated accounts of the economic entity comprising the Company and the entities it controlled at year's end or from time to time during the financial year. The Company's directors are responsible for the financial report. I have conducted an independent audit of the financial report in order to express an opinion on it to the members of the Company.

The audit has been conducted in accordance with Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards, to provide reasonable assurance whether the financial report is free of material misstatement. Audit procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial report is presented fairly in accordance with Accounting Standards, other mandatory professional reporting requirements and statutory requirements in Australia so as to present a view which is consistent with my understanding of the Company's and the economic entity's financial position, and performance as represented by the results of their operations and their cash flows.

The audit opinion expressed in this report has been formed on the above basis.

Audit Opinion

In my opinion, the financial report of ANUTECH Pty Limited is in accordance with:

- (a) the Corporations Law, including:
 - (i) giving a true and fair view of the Company's and consolidated entity's financial position as at 31 December 2000 and of their performance for the year ended on that date; and
 - (ii) complying with Accounting Standards and the Corporations Regulations; and
- (b) other mandatory professional reporting requirements.

Australian National Audit Office

A handwritten signature in black ink, appearing to read 'AM Thompson', is written over the printed name.

Allan M. Thompson
Executive Director

For the Auditor-General

Canberra
26 March 2001

ANUTECH PTY LIMITED

DIRECTORS' DECLARATION

The directors of Anutech Pty Limited declare that:

- a) The attached financial statements and notes thereto comply with accounting standards;
- b) The attached financial statements and notes thereto give a true and fair view of the financial position and performance of the Company and the economic entity;
- c) In the directors' opinion, the attached financial statements and notes thereto are in accordance with the Corporations Law; and
- d) In the directors' opinion, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable, subject to the continuing financial support of its shareholder.

Signed in accordance with a resolution of the directors made pursuant to Section 295(5) of the Corporations Law.

On behalf of the Directors

A handwritten signature in black ink, appearing to read 'David Karpin', with a long horizontal flourish extending to the right.

David Karpin
Director

Dated at Canberra, on 20 March, 2001

ANUTECH PTY LIMITED
PROFIT AND LOSS STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2000

	Notes	CONSOLIDATED		ANUTECH PTY LTD	
		2000	1999	2000	1999
		\$'000	\$'000	\$'000	\$'000
Operating revenue	2	<u>39,469</u>	<u>43,011</u>	<u>36,419</u>	<u>42,690</u>
Operating loss before abnormal items and income tax	2	(468)	(2,269)	(708)	(2,066)
Abnormal items before income tax	4	(1,054)	(2,211)	(1,054)	(2,211)
Operating loss before income tax		<u>(1,522)</u>	<u>(4,480)</u>	<u>(1,762)</u>	<u>(4,277)</u>
Income tax attributable to operating profit	1	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Operating loss after income tax		(1,522)	(4,480)	(1,762)	(4,277)
Retained profits (accumulated losses) at the beginning of the financial year		<u>(1,145)</u>	<u>3,363</u>	<u>(874)</u>	<u>3,431</u>
Total available for appropriation		<u>(2,667)</u>	<u>(1,117)</u>	<u>(2,636)</u>	<u>(846)</u>
Donation paid to The Australian National University	1	0	(33)	0	(33)
Aggregate amounts transferred from reserves	19	<u>200</u>	<u>5</u>	<u>200</u>	<u>5</u>
Accumulated losses at the end of the financial year		<u>(2,467)</u>	<u>(1,145)</u>	<u>(2,436)</u>	<u>(874)</u>

The accompanying notes form part of these financial statements.

ANUTECH PTY LIMITED
BALANCE SHEET
AS AT 31 DECEMBER 2000

		CONSOLIDATED		ANUTECH PTY LTD	
	Notes	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
CURRENT ASSETS					
Cash	5	372	235	368	235
Receivables	6	7,884	4,341	6,999	4,731
Inventories	7	2,273	2,968	1,607	2,968
TOTAL CURRENT ASSETS		<u>10,529</u>	<u>7,544</u>	<u>8,974</u>	<u>7,934</u>
NON-CURRENT ASSETS					
Investments	8	19	17	20	18
Property, plant and equipment	9	7,293	6,813	7,293	6,813
Intangibles	10	140	149	0	0
Other	11	123,032	108,466	123,027	108,495
TOTAL NON-CURRENT ASSETS		<u>130,484</u>	<u>115,445</u>	<u>130,340</u>	<u>115,326</u>
TOTAL ASSETS		<u>141,013</u>	<u>122,989</u>	<u>139,314</u>	<u>123,260</u>
CURRENT LIABILITIES					
Accounts payable	12	5,194	3,451	4,454	3,451
Borrowing	13	95	847	95	847
Provisions	14	573	577	418	577
Other	15	5,682	6,441	4,854	6,441
TOTAL CURRENT LIABILITIES		<u>11,544</u>	<u>11,316</u>	<u>9,821</u>	<u>11,316</u>
NON-CURRENT LIABILITIES					
Provisions	16	19	26	12	26
Other	17	122,798	108,541	122,798	108,541
TOTAL NON-CURRENT LIABILITIES		<u>122,817</u>	<u>108,567</u>	<u>122,810</u>	<u>108,567</u>
TOTAL LIABILITIES		<u>134,361</u>	<u>119,883</u>	<u>132,631</u>	<u>119,883</u>
NET ASSETS		<u>6,652</u>	<u>3,106</u>	<u>6,683</u>	<u>3,377</u>
SHAREHOLDERS' EQUITY					
Issued capital	18	7,000	2,000	7,000	2,000
Reserves	19	2,119	2,251	2,119	2,251
Accumulated losses		(2,467)	(1,145)	(2,436)	(874)
TOTAL SHAREHOLDERS' EQUITY		<u>6,652</u>	<u>3,106</u>	<u>6,683</u>	<u>3,377</u>

The accompanying notes form part of these financial statements.

ANUTECH PTY LIMITED
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 DECEMBER 2000

		CONSOLIDATED		ANUTECH PTY LTD	
		2000	1999	2000	1999
	Notes	\$'000	\$'000	\$'000	\$'000
CASH FLOWS FROM OPERATING ACTIVITIES					
Project and sales revenue		17,232	28,225	15,457	27,692
Other income and recoveries		4,180	4,536	4,180	4,748
Interest received		4	16	4	16
Interest on technology licence funds		14,341	12,649	14,341	12,648
Rent received		85	152	85	152
Payments to suppliers and employees		(25,491)	(34,318)	(23,720)	(33,996)
Net cash provided by operating activities	21	<u>10,351</u>	<u>11,260</u>	<u>10,347</u>	<u>11,260</u>
CASH FLOWS FROM INVESTING ACTIVITIES					
Acquisition of building and equipment		(119)	(171)	(119)	(171)
Investments at market value		(2)	0	(2)	0
Proceeds from sale of equipment		0	41	0	41
Cash outflow for technology licence term deposits		<u>(14,341)</u>	<u>(12,649)</u>	<u>(14,341)</u>	<u>(12,649)</u>
Net cash used in investing activities		<u>(14,462)</u>	<u>(12,779)</u>	<u>(14,462)</u>	<u>(12,779)</u>
CASH FLOWS FROM FINANCING ACTIVITIES					
Proceeds from the Issue of Shares		5,000	0	5,000	0
Donation to the Australian National University		<u>0</u>	<u>(33)</u>	<u>0</u>	<u>(33)</u>
Net cash provided by (used in) financing activities		<u>5,000</u>	<u>(33)</u>	<u>5,000</u>	<u>(33)</u>
NET INCREASE (DECREASE) IN CASH HELD					
		889	(1,552)	885	(1,552)
Cash held at beginning of year		<u>(612)</u>	<u>940</u>	<u>(612)</u>	<u>940</u>
Cash held at end of year	21	<u>277</u>	<u>(612)</u>	<u>273</u>	<u>(612)</u>

The accompanying notes form part of these financial statements.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

Financial Reporting Framework

The financial report is a general purpose financial report which has been prepared in accordance with the Corporations Law, applicable Accounting Standards and Urgent Issues Group Consensus Views and other pronouncements of the Australian Accounting Standards Board.

The financial report has been prepared on an accrual basis and is based on historical cost except where stated. The report does not take into account changing money values or, except where stated, current valuations of non-current assets. Cost is based on the fair values of the consideration given in exchange for assets.

Significant Accounting Policies

Accounting policies are selected and applied in a manner which ensures that the resultant financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions and other events is reported.

The following significant accounting policies have been adopted in the preparation and presentation of the financial report:

(A) Principles of consolidation

The consolidated financial statements have been prepared by combining the economic financial statements of all the entities that comprise the economic entity, being the company (Anutech Pty Ltd) and its controlled entity. Details of the controlled entity appear in note 8 to the financial statements. Consistent accounting policies have been employed in the preparation and presentation of the consolidated financial statements.

The consolidated financial statements include the information and results of each controlled entity from the date on which the company obtains control and until such time as the company ceases to control such entity. In preparing the consolidated financial statements, all intercompany balances and transactions, and unrealised profits arising within the economic entity are eliminated in full.

(B) Property, plant and equipment

Cost and valuation

Property, plant and equipment are carried at cost or at independent valuation less, where applicable, any accumulated depreciation or amortisation. Any surplus on revaluation is credited directly to the asset revaluation reserve and excluded from the profit and loss statement.

The carrying amount of property, plant and equipment has been reviewed to ensure it is not in excess of the recoverable amount of those assets. Non-current assets are written down to their recoverable amount where the carrying value of the non-current asset exceeds the recoverable amount. In determining the recoverable amount of non-current assets, the expected net cash flows have not been discounted to their present value.

Any gain or loss on the disposal of revalued assets is determined as the difference between the carrying value of the asset at the time of disposal and the proceeds from disposal, and is included in the result of the company in the year of disposal.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

(C) Depreciation

Depreciation is provided on all property, plant and equipment, including freehold buildings but excluding land. Depreciation is calculated on a straight line basis so as to write off the net cost of each asset over its expected useful life. The following estimated useful lives are used in the calculation of depreciation:

- Building 40 years
- Plant and equipment, including computers 3 to 10 years
- Motor vehicles 6 to 10 years
- Office furniture and equipment 3 to 10 years

(D) Leases

Lease payments for operating leases, where substantially all the risks and benefits remain with the lessor, are charged in the periods in which they are incurred.

(E) Goodwill

Goodwill, representing the excess of the cost of acquisition over the fair value of the identifiable net assets acquired, is amortised by the straight-line method over the period of 20 years.

(F) Cash

For the purposes of the Statement of Cash Flows, cash includes cash on hand and in the bank, cash management trusts, commercial bills and term deposits.

(G) Investments

Non current investments are carried at cost or at directors' valuation. The carrying amount is reviewed annually to ensure it is not in excess of the recoverable amount of these investments. Investments in associates have been accounted for under the equity method in the consolidated financial statements and the cost method in the company financial statements. Other investments are recorded at cost.

(H) Projects – project revenue and expenditure

The balance of funds available to meet expenditure in future years is carried forward as incomplete project revenues. Provision is made in the current year for any anticipated future losses on the projects.

This will either be represented as the aggregate deficit value expressed as Work in Progress (Inventories – current asset) or the aggregate surplus expressed as Incomplete Project Revenue (Other – current liability).

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

(I) Inventories

Inventories are valued at the lower of cost and net realisable value.

Costs incurred in bringing each product to its present location and condition are accounted for as cost of direct material and labour.

Construction Work in Progress, relating to the manufacturing of scientific instruments, is stated at the aggregate of contract costs incurred to date plus recognised profits less recognised losses and progress billings. Where progress billings for contracts exceed the aggregate costs incurred plus profits less losses, the net amounts are presented under other liabilities.

Contract costs include all costs directly related to specific contracts, costs that are specifically chargeable to the customer under the terms of the contract and an allocation of overhead expenses incurred in connection with the economic entity's construction activities in general.

Contract revenue and expenses are recognised in accordance with the percentage of completion method. The method of completion is measured by surveying work performed.

(J) Receivables

Trade receivables and other receivables are recorded at amounts due less any provision for doubtful debts.

(K) Employee entitlements

Provision is made for benefits accruing to employees in respect of wages and salaries, annual leave and long service leave when it is probable that settlement will be required and is capable of being measured reliably.

Provisions made in respect of wages and salaries, annual leave, and other employee entitlements expected to be settled within 12 months, are measured at their nominal values.

Provisions made in respect of other employee entitlements which are not expected to be settled within 12 months are measured as the present value of the estimated future cash outflows to be made by the economic entity in respect of services provided by employees up to the reporting date.

(L) Foreign currency

All foreign currency transactions during the financial year have been brought to account using the exchange rate in effect at the date of the transaction. Foreign currency monetary items at reporting date are translated at the exchange rate existing at that date.

Exchange differences are brought to account in the profit and loss statement in the period in which they arise.

Costs or gains arising at the time of entering hedged transactions for the purchase and sale of goods and services and exchange differences that occur up to the date of purchase or sale are deferred and included in the measurement of the purchase or sale.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

(M) Income tax

In respect of Anutech Pty Ltd no provision for income tax has been made as the Company is exempt under Section 50-5 of the Income Tax Assessment Act 1997. The controlled entity adopts the liability method of tax effect accounting whereby the income tax expense is based on the operating profit adjusted for any permanent differences.

(N) Donations and gifts to the Australian National University

Under the Company's Constitution, the Company is precluded from the payment of dividends to its shareholders. The Constitution provides for donations and gifts and these are considered an appropriation of profits rather than an expense of the Company.

(O) Deferred income – Rental received in advance

Under the conditions of the lease agreement with the CSIRO dated 13 July 1990, rent was not to be charged for the first two years of the twenty-year term. As a result the rental income received in advance is brought to account as income from 1 January 1995 on an annual straight-line basis for the remaining 16 years.

(P) Deferred research and development costs

Research and development costs are charged against income as incurred, except to the extent that such costs, together with unamortised deferred costs in relation to a project, are expected, beyond any reasonable doubt, to be recoverable.

The deferred costs are amortised over the period in which the corresponding benefits are expected to arise, commencing with the commercial production of the product. The period over which benefits are expected to arise is reviewed regularly to recognise the effects of potential emerging technology and competitive products.

The unamortised balance of research and development costs deferred in previous periods is reviewed regularly and at each reporting date, to ensure the criterion for deferral continues to be met. Where such costs are no longer considered recoverable, they are charged to the profit and loss statement in the financial year.

(Q) Going concern

The financial statements have been prepared on a going concern basis that contemplates continuity of business activities and the realisation of assets and settlement of liabilities in the ordinary course of business.

The ability of the Company to pay its debts as and when they become due and payable is dependent upon the continuing financial support of its shareholder. The shareholder has provided a \$1.5m loan facility to the Company. At the balance date the Company has not drawn on this facility. In addition the shareholder has provided a letter of undertaking guaranteeing the Company's \$1.5m bank overdraft facility. (Note 13)

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

(R) Comparative figures

Comparative figures are, where appropriate, reclassified so as to be comparable with the figures presented for the current financial year.

(S) Research reserve – Change of accounting policy

The Research reserve comprised of funds donated to the Company by staff of The Australian National University. In 1999 and prior years these funds have been recognised as income in determining the profit for the year. The company directed these funds to research activities within The Australian National University and such amounts were reflected in the profit and loss statement.

In 2000 the Company changed the accounting policy regarding the treatment of this reserve. The reserve was transferred to current liabilities to recognise that Anutech now has limited control over the use of these funds. The income of \$60,079, and expenditure of \$85,153 in the year has not been recognised in determining the profit for the year.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

		CONSOLIDATED		ANUTECH PTY LTD	
		2000	1999	2000	1999
	Notes	\$'000	\$'000	\$'000	\$'000

NOTE 2:

(1) OPERATING LOSS

Operating loss before abnormal items and income tax has been determined after:

(i) Charging as expense:

Provision for employee entitlements		26	(110)	(136)	(110)
Depreciation on building		180	179	180	179
Depreciation on property, plant and equipment		164	141	164	141
Amortisation of goodwill		9	9	-	-
Amortisation of deferred research and development		106	-	106	-
Write off of research and development costs		259	-	259	-
Rental – operating lease		82	47	82	47
Provision to purchase technology licences and royalties	3	14,341	12,649	14,341	12,649
Loss on sale of property, plant and equipment		0	(1)	0	(1)

(ii) Crediting as income:

The value of share investments		18	0	18	0
Foreign currency exchange gains		19	0	19	0

The amortisation of deferred research and development relates specifically to Company's investment in Solar Thermal Technology that has been on going since 1992.

The write off of deferred research expenses relates to projects undertaken by the Company in prior years that are not expected to provide any future benefit to the Company.

(2) REVENUE

Revenue from projects		12,864	18,562	12,864	18,562
Construction contract revenue		3,130	788	80	788
Accrued income on technology licences investment	3	14,341	12,649	14,341	12,649
Sale of goods		4,817	6,267	4,817	5,734
Project management fees and recoveries		4,228	4,536	4,228	4,748
		<u>39,380</u>	<u>42,802</u>	<u>36,330</u>	<u>42,481</u>
Interest from unrelated corporations		4	16	4	16
Proceeds on sale of property, plant and equipment		0	41	0	41
Rental revenue		85	152	85	152
Total operating revenue		<u>39,469</u>	<u>43,011</u>	<u>36,419</u>	<u>42,690</u>

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

NOTE 3: SYNDICATED RESEARCH AND DEVELOPMENT

Syndicates 1 & 2

In December 1990 Anutech Pty Limited entered into agreements with two syndicated research and development partnerships worth a total of \$50m.

Under the terms of the agreements the partnerships agreed to:

- (a) Provide funds for research for three years 1991-1993; and
- (b) Acquire technology licences from the Company for \$34.600m.

Funds received from the sale of the technology licences have been placed into a technology sinking fund (Note 11) along with accrued income earned (Note 11) and the profit component from the research and development for the duration of the agreements.

The agreements with each partnership contain a "put option" which gives each partnership the option of selling the technology licences back to the Company for a consideration equal to the accumulated balance of the "technology sinking fund". A provision to purchase the technology licences has therefore been recorded (Note 17).

The partnerships are able to exercise their options during the period 31 January 1998 to 31 January 2003.

The Company has entered into agreements with two indemnifiers who have agreed to meet any shortfall on the put option payment should either of the partnerships exercise their option.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

	CONSOLIDATED		ANUTECH PTY LTD	
	2000	1999	2000	1999
	\$'000	\$'000	\$'000	\$'000
NOTE 4: ABNORMAL ITEMS:				
Abnormal expenses				
Costs associated with write offs relating to Work in Progress and Deferred Research & Development costs for the period 1994 to 1999	185	475	185	475
Write off required to correct 1999 Stock and Debtor balances	0	281	0	281
Write off of Deferred Research & Development costs to their recoverable amount	0	756	0	756
Construction contract loss in accordance with AASB 1009	0	699	0	699
Costs associated with the restructuring of the Economic entity	869	0	869	0
Abnormal items before tax	<u>1,054</u>	<u>2,211</u>	<u>1,054</u>	<u>2,211</u>
Applicable income tax	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	<u>1,054</u>	<u>2,211</u>	<u>1,054</u>	<u>2,211</u>

NOTE 5: CASH

Cash at bank and on hand	<u>372</u>	<u>235</u>	<u>368</u>	<u>235</u>
	<u>372</u>	<u>235</u>	<u>368</u>	<u>235</u>

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

CONSOLIDATED		ANUTECH PTY LTD	
2000	1999	2000	1999
\$'000	\$'000	\$'000	\$'000

NOTE 6: RECEIVABLES

Trade debtors	7,243	4,019	4,441	4,019
Provision for doubtful debts	0	(90)	0	(90)
Prepayment	20	275	20	275
	<u>7,263</u>	<u>4,204</u>	<u>4,461</u>	<u>4,204</u>
Amounts receivable from controlled entity	0	0	1,917	390
Amounts receivable from The Australian National University	621	137	621	137
	<u>7,884</u>	<u>4,341</u>	<u>6,999</u>	<u>4,731</u>

NOTE 7: INVENTORIES

Construction Work-in-progress – at cost	666	5	0	5
Work-in-progress - at cost	1,371	2,507	1,371	2,507
Finished goods – at cost	236	456	236	456
	<u>2,273</u>	<u>2,968</u>	<u>1,607</u>	<u>2,968</u>

NOTE 8: INVESTMENTS (NON-CURRENT)

(A) Not quoted on a prescribed stock exchange, at cost:				
(i) Shares in Australian Scientific Instruments Pty Limited (formerly Paterson Instruments Pty Ltd). The investment by ANUTECH represents 100% (100% 1998) of the issued ordinary shares	0	0	1	1
(ii) Shares in Asia Pacific Economics Group Pty Ltd. The investment by the Company represents 33% of the issued ordinary shares.	0	7	0	7
(B) Not quoted on a prescribed stock exchange, at cost	1	10	1	10
(C) Shares traded on a prescribed stock exchange, at market value as of 31 December 2000	18	0	18	0
	<u>19</u>	<u>17</u>	<u>20</u>	<u>18</u>

In January 2001, Anutech was nominally allocated 1,500,000 shares in Biotron Limited by The Australian National University. The shares of Biotron Limited were quoted on the Australian Stock Exchange on 24 January 2001.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

		CONSOLIDATED		ANUTECH PTY LTD	
		2000	1999	2000	1999
	Notes	\$'000	\$'000	\$'000	\$'000
NOTE 9: PROPERTY, PLANT AND EQUIPMENT					
Office furniture, fittings and equipment – at cost		1,209	1,164	1,209	1,152
Accumulated depreciation		(947)	(837)	(947)	(825)
		<u>262</u>	<u>327</u>	<u>262</u>	<u>327</u>
Motor vehicles – at cost	9(b)	130	72	130	72
Accumulated depreciation		(41)	(22)	(41)	(22)
		<u>89</u>	<u>50</u>	<u>89</u>	<u>50</u>
Plant and equipment – at cost		170	170	170	170
Accumulated depreciation		(128)	(106)	(128)	(106)
		<u>42</u>	<u>64</u>	<u>42</u>	<u>64</u>
Building and leasehold land – at independent valuation 2000 (Fyshwick)	9(a)	900	1,444	900	1,444
Building – at independent valuation 2000 (ANUTECH Court)	9(a)	6,000	5,750	6,000	5,750
Building – at cost (ANUTECH Court)		0	77	0	77
Accumulated Depreciation		0	(899)	0	(899)
		<u>6,900</u>	<u>6,372</u>	<u>6,900</u>	<u>6,372</u>
		<u>7,293</u>	<u>6,813</u>	<u>7,293</u>	<u>6,813</u>

(a) Revaluation

The ANUTECH Court building owned by the Company at 31 December 2000 is restated to a valuation determined by Mr G Sirel of Ray L Davis Pty Ltd as at 31 December 2000. The valuation is an estimate of the amount for which the asset could be exchanged between a knowledgeable willing buyer and a knowledgeable willing seller in an arm's length transaction.

Land and buildings at Fyshwick owned by the Company at 31 December 2000 are restated to a valuation determined by Mr G Sirel, as at 31 December 2000. The valuation is an estimate of the amount for which the assets could be exchanged between a knowledgeable willing buyer and a knowledgeable willing seller in an arm's length transaction.

(b) Motor Vehicles

The cost of motor vehicles has increased from the previous year due to the purchase of two vehicles.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

		CONSOLIDATED		ANUTECH PTY LTD	
		2000	1999	2000	1999
Notes		\$'000	\$'000	\$'000	\$'000

NOTE 10: INTANGIBLES					
		181	181	0	0
	Goodwill at cost				
	Less: Amortisation of Goodwill	(41)	(32)	0	0
		<u>140</u>	<u>149</u>	<u>0</u>	<u>0</u>

NOTE 11: OTHER ASSETS (NON-CURRENT)					
		984	759	979	788
	Deferred research and development costs				
	Research and Development Syndicate:				
	Technology licence fund – cash investment	3	40,784	40,784	40,784
	Technology licence fund accrued income	3	81,264	81,264	66,923
			<u>123,032</u>	<u>123,027</u>	<u>108,495</u>
			<u>108,466</u>		

NOTE 12: ACCOUNTS PAYABLE (CURRENT)					
		3,697	2,914	2,957	2,914
	Trade creditors and accruals (unsecured)				
	Amounts payable to				
	The Australian National University (unsecured)		1,497	1,497	537
			<u>5,194</u>	<u>4,454</u>	<u>3,451</u>
			<u>3,451</u>		

NOTE 13: BORROWINGS (CURRENT)					
		95	847	95	847
	Bank overdraft (i)				
		<u>95</u>	<u>847</u>	<u>95</u>	<u>847</u>

(i) secured by a negative pledge from the Company together with a letter of undertaking from The Australian National University.					
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NOTE 14: PROVISIONS (CURRENT)					
		573	539	418	539
	Provision for employee entitlements				
	Provision for Intellectual Property protection		0	0	38
		<u>573</u>	<u>577</u>	<u>418</u>	<u>577</u>

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

		CONSOLIDATED		ANUTECH PTY LTD	
		2000	1999	2000	1999
	Notes	\$'000	\$'000	\$'000	\$'000
NOTE 15: OTHER LIABILITIES (CURRENT)					
Incomplete project revenue		4,029	5,835	4,029	5,835
Construction project liability		691	0	0	0
Research Account Liability	1	615	0	615	0
Deferred income – rental & sales received in advance		347	606	210	606
		<u>5,682</u>	<u>6,441</u>	<u>4,854</u>	<u>6,441</u>

NOTE 16: PROVISIONS (NON-CURRENT)

Provision for employee entitlements		<u>19</u>	<u>26</u>	<u>12</u>	<u>26</u>
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NOTE 17: OTHER LIABILITIES (NON-CURRENT)

Deferred income – rental & sales received in advance		750	834	750	834
Research and Development Syndicate:					
Provision to purchase technology licences and royalties	3	<u>122,048</u>	<u>107,707</u>	<u>122,048</u>	<u>107,707</u>
		<u>122,798</u>	<u>108,541</u>	<u>122,798</u>	<u>108,541</u>

NOTE 18: ISSUED CAPITAL

Issued:					
7,000,000 fully paid ordinary shares		<u>7,000</u>	<u>2,000</u>	<u>7,000</u>	<u>2,000</u>

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

	CONSOLIDATED		ANUTECH PTY LTD	
	2000 \$'000	1999 \$'000	2000 \$'000	1999 \$'000
NOTE 19: RESERVES				
(a) Building fund reserve				
Balance 1 January	200	200	200	200
Transfer to retained profits	(200)	0	(200)	0
Balance 31 December	<u>0</u>	<u>200</u>	<u>0</u>	<u>200</u>
(c) Asset revaluation reserve				
Balance 1 January	1,411	1,411	1,411	1,411
Surplus/(loss) on revaluation of non-current assets	708	0	708	0
Balance 31 December	<u>2,119</u>	<u>1,411</u>	<u>2,119</u>	<u>1,411</u>
(d) Research reserve				
Balance 1 January	640	645	640	645
Transfer to Current Liabilities	(640)	0	(640)	0
Donations received during the year	0	116	0	116
Expenditure on research during the year	0	(121)	0	(121)
Net movement transferred (to)/from retained profits	0	(5)	0	(5)
Balance 31 December	<u>0</u>	<u>640</u>	<u>0</u>	<u>640</u>
Total Reserves	<u>2,119</u>	<u>2,251</u>	<u>2,119</u>	<u>2,251</u>

NOTE 20: CAPITAL & LEASING COMMITMENTS

Leasing expenditure contracted for but not otherwise provided for in these financial statements, payable:

Not later than one year	103	48	97	48
Later than one year and not later than five years	228	193	221	193
Later than five years	530	530	482	530
	<u>861</u>	<u>771</u>	<u>800</u>	<u>771</u>

The lease expenditure commitments are predominantly owed to The Australian National University for the building site. The annual base lease payments are subject to CPI.

The lease expenditure commitments as of 31 December 2000 include Goods and Services Tax (GST) of \$61,000. The commitments as of 31 December 1999 have not been restated to include the GST.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

CONSOLIDATED		ANUTECH PTY LTD	
2000	1999	2000	1999
\$'000	\$'000	\$'000	\$'000

NOTE 21: STATEMENT OF CASH FLOWS

(a) Reconciliation of cash				
Cash balance comprises:				
Cash at bank and on hand	372	235	368	235
Bank overdraft	(95)	(847)	(95)	(847)
	<u>277</u>	<u>(612)</u>	<u>273</u>	<u>(612)</u>
(b) Reconciliation of the operating profit to the net cash flows from operations				
Operating (loss) / profit	(1,522)	(4,480)	(1,762)	(4,277)
Depreciation	347	320	347	320
Loss on Sale of Fixed Assets	0	1	0	1
Provision for employee entitlements	26	(110)	(136)	(110)
Amortisation of goodwill	9	9	0	0
Provision for Intellectual Property protection	(37)	7	(37)	7
<i>Changes in assets and liabilities</i>				
Trade debtors	(3,798)	2,608	(2,523)	2,608
Prepayments	255	(124)	255	(124)
Inventory	695	189	1,361	(162)
Subsidiary loan	0	0	0	193
Deferred expenditure	(225)	1,163	(191)	1,127
Trade creditors	1,743	(429)	1,003	(429)
Other liabilities/ incomplete projects	(1,399)	(459)	(2,227)	(459)
Non current deferred income	(84)	(83)	(84)	(83)
Provision for purchase of technology licence	14,341	12,648	14,341	12,648
Net cash flow from operating activities	<u>10,351</u>	<u>11,260</u>	<u>10,347</u>	<u>11,260</u>
(c) Financing Facilities				
Secured bank overdraft facility, reviewed annually:				
amount used	95	847	95	847
amount unused	1,405	653	1,405	653
	<u>1,500</u>	<u>1,500</u>	<u>1,500</u>	<u>1,500</u>

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

CONSOLIDATED		ANUTECH PTY LTD	
2000	1999	2000	1999
\$'000	\$'000	\$'000	\$'000

**NOTE 22: EMPLOYEE ENTITLEMENTS AND
SUPERANNUATION COMMITMENTS**

Employee Entitlements

The aggregate employee entitlement liability comprises:

Accrued wages, salaries and on costs (Note 12)
Provisions (current) (Note 14)
Provisions (non-current) (Note 16)

148	109	52	109
573	539	418	539
19	26	12	26
<u>740</u>	<u>674</u>	<u>482</u>	<u>674</u>

NOTE 23: SEGMENT INFORMATION

The Company operates predominantly in the technical and research industry in Australia.

NOTE 24: FINANCIAL INSTRUMENTS

In accordance with AASB 1033 "Presentation and Disclosure of Financial Instruments", information is disclosed hereunder in respect of the interest risk of the financial instruments. All such amounts are carried in the financial statements at cost.

(a) Interest Rate Risk Exposures	Less Than 1 Year \$'000	Between 1 & 5 Years \$'000	Total \$'000	Weighted Average Interest Rate %	1999 \$'000
FINANCIAL ASSETS					
<i>Cash Flow Risk</i>					
Cash	372	0	372	3.40	235
<i>Credit Risk</i>					
Receivables	7,864	0	7,864	N/a	4,066
Technology Licences Fund	0	122,048	122,048	11.64	107,707
Total Financial Assets	<u>8,236</u>	<u>122,048</u>	<u>130,284</u>		<u>112,008</u>

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

	Less Than 1 Year \$'000	Between 1 & 5 Years \$'000	Total \$'000	Weighted Average Interest Rate %	1999 \$'000
FINANCIAL LIABILITIES					
<i>Cash Flow Risk</i>					
Bank overdraft	95	0	95	10.1	847
<i>Credit Risk</i>					
Trade Creditors	5,194	0	5,194	N/a	3,451
Licences and Royalties	0	122,048	122,048	11.64	107,707
Total Financial Liabilities	<u>5,289</u>	<u>122,048</u>	<u>127,337</u>		<u>112,005</u>
Net Financial Assets	<u>2,947</u>	<u>0</u>	<u>2,947</u>		<u>3</u>

Interest rate risk is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates.
Cash flow risk is the risk that future cash flows associated with a monetary financial instrument will fluctuate in amount.
Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss.
The credit risk on financial assets which have been recognised on the balance sheet, is generally the carrying amount, net of any provisions for doubtful debts.

(b) Reconciliation of Net Financial Assets to Net Assets

	2000 \$'000	1999 \$'000
Net Financial assets as above	2,947	3
<i>Non Financial assets and liabilities</i>		
Prepayments	20	275
Inventories & WP	2,273	2,968
Investments	19	17
Property, Plant & Equipment	7,293	6,813
Other Assets	1,124	908
Provisions	(592)	(603)
Other Liabilities	(6,432)	(7,275)
Net Assets as per Balance Sheet	<u>6,652</u>	<u>3,106</u>

ANUTECH PTY LIMITED**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000****(c) Financial Instruments – Terms, conditions and accounting policies**

FINANCIAL INSTRUMENT	NOTE	ACCOUNTING POLICIES AND METHODS	NATURE OF UNDERLYING INSTRUMENT
FINANCIAL ASSETS			
Cash at bank and on hand	5	Deposits are recognised at their nominal amounts. Interest is credited to revenue as it accrues.	Temporary surplus funds from trading activities and foreign currency deposits held for future procurement.
Receivables	6	These receivables are recognised at nominal value less any provision for bad and doubtful debts. Provision is made when collection of the debt is judged to be less rather than more likely.	Credit terms vary, according to the specific terms of contract, between 30 days and 365 days.
Licences and Royalties	17 & 3	The licence fees and royalties accrue interest annually.	The liability is matched to the corresponding asset, Technology Licence Fund.
FINANCIAL LIABILITIES			
Accounts payable	12	Creditors and accruals are recognised at their nominal amount. Liabilities are recognised to the extent that goods or services have been received.	Settlement periods range from 14 – 60 days.
Bank overdraft	13	The bank overdraft is recognised at the principal amount. Interest is expensed as it accrues.	The facility is of a variable amount up to a maximum of \$1.5m. Interest accrues daily at the prevailing market rate.
Technology Licence Fund	11 & 3	The Technology Licence Fund represents long term deposits and accrued interest. Interest is credited annually. This fund will be used to meet corresponding liabilities in Licences and Royalties.	The fund and any accrued interest will be applied in settling the corresponding liability.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

CONSOLIDATED		ANUTECH PTY LTD	
2000	1999	2000	1999
\$'000	\$'000	\$'000	\$'000

NOTE 25: REMUNERATION OF DIRECTORS

Amounts paid or payable or otherwise made
available to directors

<u>545,680</u>	<u>334,528</u>	<u>479,778</u>	<u>258,934</u>
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Number of directors whose remuneration was
within the following bands:

\$0 - \$ 9,999	4	6	4	6
\$10,000 - \$ 19,999	2	3	-	1
\$20,000 - \$ 29,999	-	1	-	1
\$30,000 - \$ 39,999	-	1	-	1
\$100,000 - \$109,999	1	-	1	-
\$130,000 - \$139,999	1	-	1	-
\$190,000 - \$199,999	-	1	-	1
\$240,000 - \$249,999	1	-	1	-

NOTE 26: REMUNERATION OF AUDITORS

Amounts received or due and receivable
by the auditors for:

- auditing the financial report
- other services

33,000	24,000	33,000	24,000
<u>0</u>	<u>1,000</u>	<u>0</u>	<u>1,000</u>
<u>33,000</u>	<u>25,000</u>	<u>33,000</u>	<u>25,000</u>

NOTE 27: CONTINGENT LIABILITIES

Business undertaking

Legal Actions

The Company is involved in two legal actions arising out of the one transaction in 1994, which was within The Company's normal course of business. One action is in the Federal Court of Australia and the other in the Supreme Court of the Australian Capital Territory. Both sets of proceedings had been dormant since 1996. The Federal Court proceedings were relisted by the Court for directions in late 1999 of its own motion and have been stood over pending the outcome of settlement negotiations.

The Company and the other parties to the proceedings have since held discussions with a view to negotiating a settlement. The amount of the claim against the Company is approximately \$5.8 million plus interest and costs. The Company's professional indemnity insurers have denied liability in respect of the transaction.

ANUTECH PTY LIMITED
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2000

NOTE 28: CONTROLLING ENTITY

The Australian National University is the shareholder of Anutech Pty Limited.

NOTE 29: RELATED PARTY DISCLOSURES

The names of the Directors of the Company during the financial year were:

Dr Richard William Henley
Dr John Donald Bell
Professor John Hearn
Mr David Simon Karpin
Mr James Fulton Muir
Professor John Alan Richards
Professor Brian David Outram Anderson

The Company provided a range of services to its controlling entity The Australian National University totalling \$1.725 million (1999: \$2.153 million). These transactions take place on normal commercial terms and conditions.

The Company received a range of services from its controlling entity The Australian National University totalling \$3.580 million (1999: \$3.552 million). These transactions take place on normal commercial terms and conditions.

In 2000, the Company paid \$100,000 to Epithermex Pty Ltd for strategic planning services. At the time of the payment Dr Richard Henley was a Director of Epithermex Pty Ltd. Consequently this payment has been included in the Remuneration of Directors (note 25).

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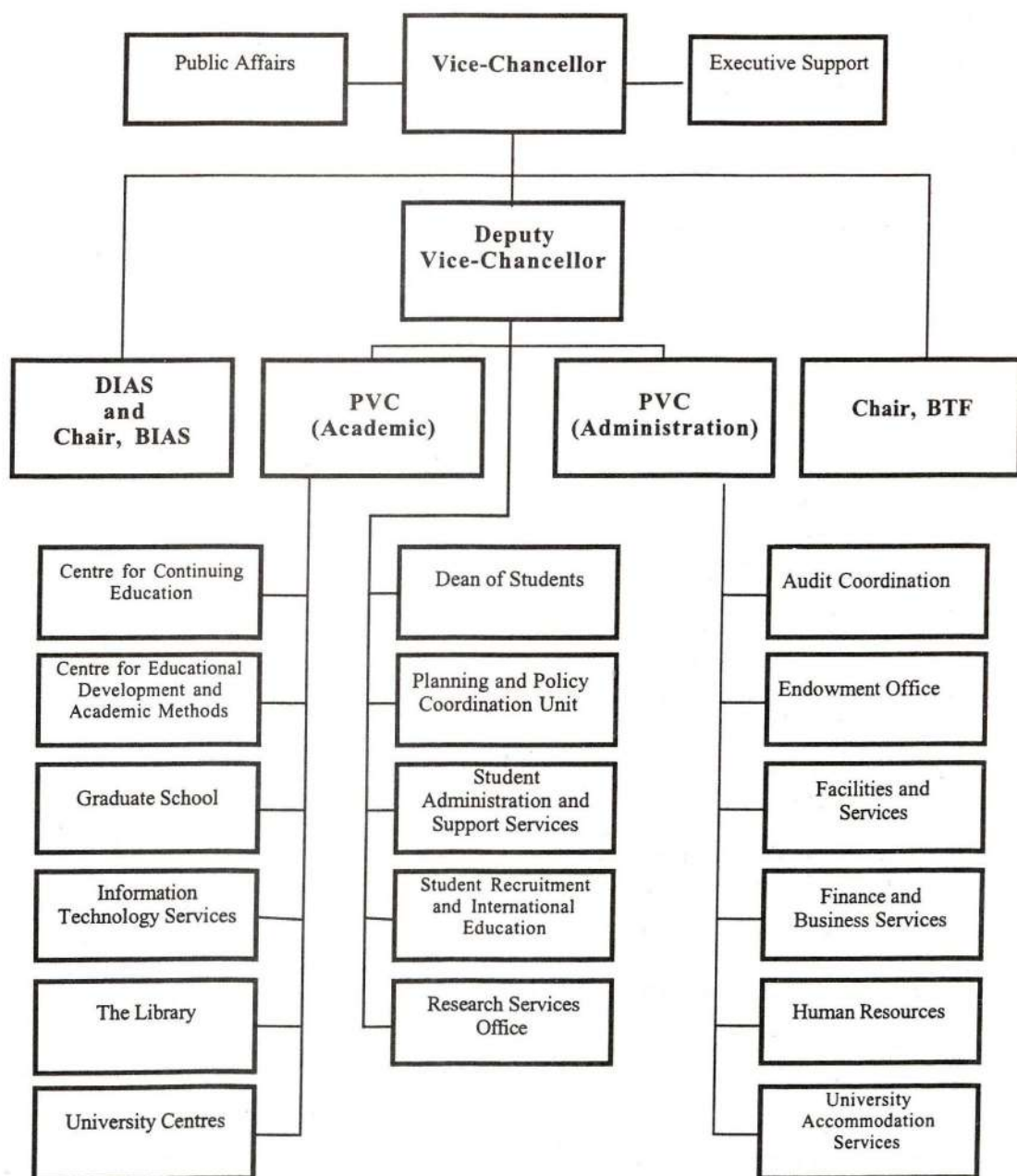
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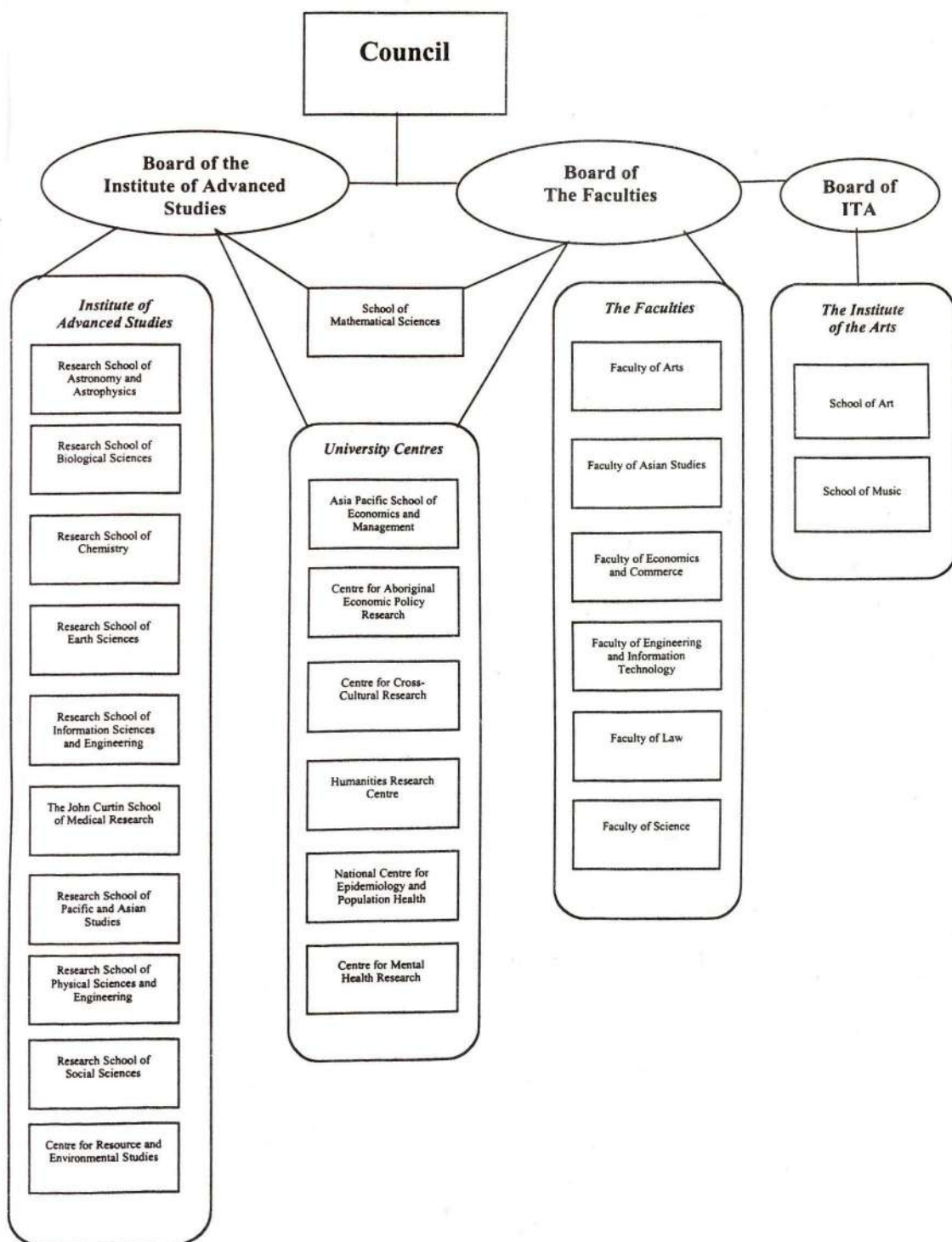
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THE AUSTRALIAN NATIONAL UNIVERSITY
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