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ANNUAL REPORT 1995
RESEARCH SCHOOL OF BIOLOGICAL SCIENCES

Director's presentation to Council 11 October, 1996

Thank you, Chancellor, for this opportunity to report on research and other activities in RSBS during 1995. I usually enjoy being first off the rank with this report, and apologise that production difficulties this year have conspired so that the first shall be last. Being last, at this time of year, I'll not be able to avoid some overlap in my report, so far as actions in 1995 affected events in 1996. Thus, as the Report was "going to bed" so to speak, the ARC tabled its infamous "Review of IAS" in Parliament, so you will note an additional 2-page Stop Press in the Director's introduction. Like the rest of the report, this Stop Press is a fact-based statement intended for our peers. I've been gratified by several responses confirming that these comments in the Annual Report have been valued as such, especially by those peers involved in the review process in 1995. My colleagues and I have been reassured by the strong position taken by this Council in defence of the IAS in the face of ARC.

The introduction to the Annual Report describes a generally warm reception to a very positive review, our pleasure at the election of Professor Farquhar as a Fellow of the Royal Society and of Professor Srinivasan to Fellowship of the Australian Academy of Science. It also records the School's sense of contributing something helpful in support of basic research through the *Nature* Conference, and the back cover highlights our 'best idea of the year', the 50th Anniversary Action Bus, in the capable hands of the Director of the Institute.

The Annual Report also records verbatim the assessment of the School's achievements by the joint ANU/ARC review committee. You just have to look at the photographs on p.19, taken in the midst of a very arduous program, to gauge the reviewers' appreciation of what they found. The Annual Report then goes on to detail many high spots of research. The cover photo belies a very clever mutational analysis of ATPase functions in yeast by Drs Clark-Walker and Chen, which is described more fully in *Biologic*, our magazine for Science Teachers (tabled). The Robertson Symposium, reported on p.89, challenged us to produce a science toy, in the form of a working model of the ATPase, for the 82nd birthday of Bob Robertson, the School's second director. (Bob was back at our most recent Symposium, with his ATPase model, which he demonstrated and updated in a poster session.)

On p.69 you will find an update on our most promising patent, a glaucoma testing program from Dr. Maddess, that goes into production with a major US medical equipment manufacturer in 1997. On p.95, Dr. Stange explains why, now that we understand how *Cactoblastis* finds and contains prickly pear, we should expect this biological control system (based on exquisite CO₂ sensors of the female moth) to be threatened by rising atmospheric CO₂ concentration.

Throughout the report you will find marginal references to research supported by the CRC in Plant Sciences. This remains our single most important source of external funds, in all \$5.4 million. Assuming half of the CRC budget is spent in RSBS, external earnings comprise 23% of our recurrent budget. It cannot be denied that this adds a heavy strain to our recurrent budget and infrastructure, as well as to our research culture. Yet RSBS researchers such as Dr. Williamson have been especially adroit in balancing their basic research programs, and securing significant external funding from industry, through the CRC. These achievements and problems will feature more prominently next year with a report of the fifth year review of the CRC, the outcome of its renewal application, and of a new CRC submission in global change research.

As you can see from the budget sheets, salaries and related expenses total 75.3% of the recurrent budget and 84.3% of special purpose accounts. The School was obliged to cut further into its infrastructure following the partially supplemented wage rises late last year. Six full-time and eleven part-time general staff posts were declared redundant, about 8% of our personnel. My policy has been, and will continue to be, to wring the last dollar's worth of research capability out of our budget. The point was reached last year where psychological and sociological consequences of the thinned budgets precipitated a strong and persistent negative feedback. Although we have been able to meet budgets and pay higher salaries, morale is very low and I believe we are getting much less work value for our higher salaries. This too will become more obvious in next year's report. So much for the myth that enterprise bargaining can be applied in the fundamental research "industry".

So what does it matter that the review found "the Research School of Biological Sciences to be a distinguished, major international centre for outstanding research and teaching in biology". Had the review shown us to be incompetent fools, it would not have changed the ARC agenda, and it might not change much the way in which the enterprise bargaining knife will have to be wielded within the University. The Vice-Chancellor is challenged by the need to protect that which has been proven excellent against that which has not been proven at all.

I suppose it matters if, about a generation from now, it is remembered that there was once a time, about the time of the 50th Anniversary of the IAS in the ANU, when there was a great university research institution in Australia. Perhaps at this future time, vision and circumstances might conspire to try the experiment again. This is as much as I dare to hope for from the review of RSBS and IAS, and perhaps our 1994 and 1995 Annual Reports will provide some insight as to how part of this institution came to be great, and how it came undone.

THE AUSTRALIAN NATIONAL UNVIERSITY

SUMMARY OF ACTUAL EXPENDITURE BY MAJOR COST CATEGORIES FOR 1991 TO 1995

SCHOOL SPECIAL PURPOSE FUNDS
('S' ledger)

SCHOOL/SECTION: RESEARCH SCHOOL OF BIOLOGICAL SCIENCES

Year	Total Expenditure		Salaries		Salary Related		Equipment		Expendable Materials		Movement Expenses		Field and Survey		Scholarship Stipends		Scholarship Expenses		Other		Transfers	
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%
1991	2,255	100.00	1,167	51.75	245	10.86	253	11.22	210	9.31	89	3.95	11	0.49	80	3.55	0	0.00	200	8.87		
1992	3,519	100.00	1,863	52.94	397	11.28	152	4.32	440	12.50	160	4.55	23	0.65	95	2.70	0	0.00	389	11.05		
1993	4,553	100.00	2,506	55.04	533	11.71	113	2.48	489	10.74	193	4.24	12	0.26	82	1.80	36	0.79	589	12.94		
1994	4,793	100.00	2,368	49.41	493	10.29	106	2.21	666	13.90	213	4.44	5	0.10	61	1.27	24	0.50	360	7.51	497	10.37
1995	884	100.00	523	59.16	129	14.59	34	3.85	64	7.24	67	7.58	8	0.90	26	2.94	0	0.00	33	3.73	0	0.00
CRC PLANT SCIENCES CENTRE																						
1995	4,596	100.00	1,893	41.19	383	8.33	113	2.46	587	12.77	162	3.52	3	0.07	66	1.44	1	0.02	423	9.20	965	21.00

SCHOOL PROJECT FUNDS
('Q' ledger)

SCHOOL/SECTION: RESEARCH SCHOOL OF BIOLOGICAL SCIENCES

Year	Total Expenditure		Salaries		Salary Related		Equipment		Expendable Materials		Movement Expenses		Field and Survey		Scholarship Stipends		Scholarship Expenses		Other		Transfers	
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%
1991	945	100.00	3	0.32	0	0.00	8	0.85	2	0.21	6	0.63	0	0.00	5	0.53	0	0.00	921	97.46		
1992	61	100.00	34	55.74	7	11.48	44	72.13	1	1.64	(13)	(21.31)	0	0.00	0	0.00	1	1.64	(13)	(21.31)		
1993	178	100.00	48	26.97	6	3.37	11	6.18	37	20.79	84	47.19	4	2.25	0	0.00	0	0.00	(12)	(6.74)		
1994	210	100.00	20	9.52	4	1.90	15	7.14	53	25.24	21	10.00	0	0.00	0	0.00	0	0.00	82	39.05	15	7.14
1995	156	100.00	0	0.00	0	0.00	23	14.74	38	24.36	62	39.74	0	0.00	0	0.00	0	0.00	25	16.03	8	5.13

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THE AUSTRALIAN NATIONAL UNIVERSITY

SUMMARY OF ACTUAL EXPENDITURE BY MAJOR COST CATEGORIES IN THE YEARS 1991 TO 1995

SCHOOL/SECTION: RESEARCH SCHOOL OF BIOLOGICAL SCIENCES

Year	Total Expenditure		Salaries		Salary Related		Equipment		Expendable Materials		Movement Expenses		Field and Survey		Scholarship Stipends		Scholarship Expenses		Other	
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%
1991	12,158	100.00	6,742	55.45	1,654	13.60	1,558	12.81	898	7.39	303	2.49	30	0.25	192	1.58	31	0.25	750	6.17
1992	14,800	100.00	7,889	53.30	1,745	11.79	1,340	9.05	817	5.52	340	2.30	66	0.45	307	2.07	70	0.47	2,226	15.04
1993	13,002	100.00	7,490	57.61	1,659	12.76	876	6.74	789	6.07	354	2.72	56	0.43	326	2.51	155	1.19	1,297	9.98
1994	14,061	100.00	7,827	55.66	1,716	12.20	1,394	9.91	833	5.92	489	3.48	40	0.28	330	2.35	128	0.91	1,304	9.27
1995	14,119	100.00	7,992	56.60	1,834	12.99	1,503	10.65	861	6.10	379	2.68	76	0.54	284	2.01	142	1.01	1,048	7.42