



1840-1965
125
YEARS
OF
MEDICINE



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As at 1 March 1987

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Contents

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Cover The dissecting room in 1864 showing Halford with first and second year students. From left to right: Octavius Vernon Lawrence, Thomas Ramsden Ashworth, Patrick Moloney, Francis Long, Alexander Mackie, Dr Gerald Henry Fetherston, Professor George Britton Halford, William Carey Rees. Dr Fetherston acted as an unofficial prosector. In the background, the Medical School porter.

<i>Peter Jones</i>	1	Editorial
<i>Harold Attwood</i>	2	Cover Story
<i>Richard Lovell & Davis McCaughey</i>	4	Ethics at the Growing Edge of Medicine
<i>David White</i>	11	AIDS: Its Origin, Future and Implications for Society
<i>Graham Burrows</i>	16	Stress and Stress Management for the Medical Practitioner
<i>Peter Jones</i>	21	Medical Genes
<i>Eric Clarke</i>	27	Publications
<i>UMMS</i>	28	Notice of Annual General Meeting 1987
	29	UMMS B.Med.Sc. Prize 1985
	30	The Class of '46 — 40 years on
	34	Membership as at 1 March 1987
<i>Faculty of Medicine</i>	38	Message from the Dean
	40	Inquiry into Medical Education and the Medical Workforce
	40	Final Year MB.BS 1986
	44	Reports from Clinical Schools
	46	Department of Pharmacology
	49	Obituaries
	55	News, People, Appointments
	60	NH & MRC Grants
	62	The University of Melbourne Library Borrowing Privileges for Graduates of The University
<i>Harold Attwood</i>	63	Medical History Unit
<i>Inside back cover</i>		Dates to Remember

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Editorial

Chiron is five years old this year, a miniscule age when compared with the Medical School which celebrates its one hundred and twenty-fifth anniversary in 1987. The passage of that milestone is to be commemorated at a formal dinner in Wilson Hall on 19 August of this year. *Chiron 1987* is also dedicated to the occasion, with an appreciation of Professor Halford, our founding father, who in 1862 took on the responsibilities of several chairs, the deanship and the role of registrar — a kind of *maître à tout faire*, and we can be proud that he built so well. The 'wrap-around' cover shows the dissecting room in 1864.

We are reminded that it is one hundred years since the famous 'seven women' applied for admission to The University of Melbourne Medical School, were admitted and duly graduated. Two of these students topped the Honours lists in medicine and surgery, and they were the first women medical graduates registered in Australia (the one woman to graduate in South Australia in 1891 did not register until 1892).

It was suggested to this editorial committee that we explore the ancestry of medical 'dynasties' among our medical graduates, and somewhat to our surprise we found that there are two families (Gault and James) with four generations of graduates, covering nearly a century of the faculty's 125 years existence, and six families with three generations (Cordner, Hurley, Smith, Syme, Trinca and

Zwar). Accounts of these families will appear in this and successive issues of *Chiron* and we look forward to hearing from other families whose 'medical genes' have been handed down from generation to generation.

Having acquired a 'cognizance' for UMMS and its journal, perhaps we should now seek suggestions for a motto. It would, of course, be ultimately a decision and choice of the UMMS committee, but to tap your erudition and philosophy, *Chiron* invites suggestions from its readers for a motto — in English, French or Latin — expressing the ideals and/or objectives of the society and its journal. Please address your replies to: Robin Orams, UMMS, Faculty of Medicine, University of Melbourne, Parkville 3052. Telephone (03) 344 5889.

We are again fortunate in being able to publish herein one of the Dean's Lecture Series, a Tram Stop Lecture, and the UMMS Lecture, all delivered in 1986. We hope that their outstanding quality will encourage members of UMMS, and others who have not yet joined, to sign-up, or at least come to some of the interesting lectures arranged for 1987 and listed on the inside back cover of this issue.

May I again, on behalf of JUMMS, express our gratitude to each of the members of the faculty, the Alumni Office, the editorial committee, and others listed, for their willing and essential contributions in putting to bed this fifth issue of *Chiron*.

Peter Jones

STOP PRESS

Our new Vice-Chancellor

On 2 March 1987, it was announced that Professor David Penington has been appointed Vice-Chancellor of The University of Melbourne. He will take up his appointment on 1 January 1988. He replaces Professor David Caro, Vice-Chancellor since 1982, who retires at the end of 1987.

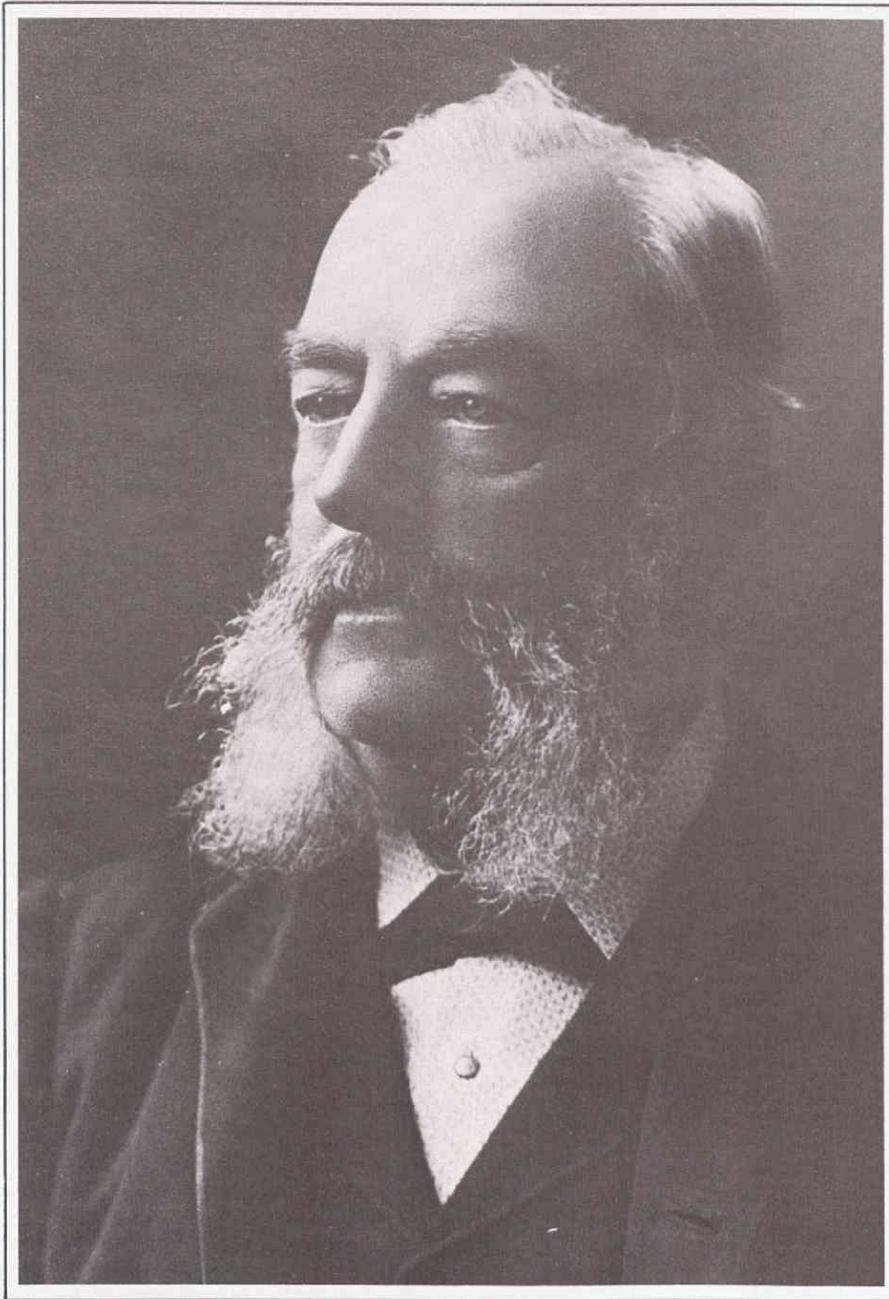
Professor Penington, Dean of the Faculty of Medicine from 1978-85, has been Professor of Medicine at St Vincent's Hospital since 1970. He is Chairman of the National AIDS

Task Force and Chief Adviser on Health Policy and Programs for the Health Department of Victoria.

Among his many outstanding achievements as Dean of Medicine (described in the Minute of Appreciation in last year's issue of *Chiron*), Professor Penington instigated the formation of UMMS and served as Foundation Chairman of the Society.

The Society congratulates Professor Penington on his new appointment. We wish him the greatest of success in this important new phase of his career.

Cover Story



George Britton Halford

George Britton Halford (1824-1910) was the first professor appointed in this medical school. He took office in 1862, the year the medical school was established, and became the first Dean when the Faculty of Medicine was founded in 1876.

Halford was chosen from a short list of five by Professors James Paget and Richard Owen and Paget, in a letter to Redmond Barry, referred to Halford as 'one of the most distinguished physiologists of the day'. With this recommendation and with books and specimens bought with the five

hundred pounds sent to him by the university he could well have hoped to continue his research into the action and sounds of the heart in animals, birds and man. Although appointed Professor of Physiology and Histology he also taught anatomy, general, descriptive and surgical physiology, including histology and pathology. He had to do this in makeshift quarters and with a minimum of help for many years. It was not until 1882 when one of his former students, Harry Brookes Allen (1854-1926), was appointed as Professor of

Descriptive and Surgical Anatomy and Pathology that his burden was shared. Before this he had also become Dean.

In May 1863 Halford gave his first lecture in the mathematics lecture room and set up his dissecting room in some outbuildings in the backyard of his own home in Madeline Street, opposite the future site of the medical school. He had as his first students Patrick Moloney, William Carey Rees and Alexander Mackie. There is no doubt that Halford was an enthusiastic and inspiring teacher.

Probably because of his heavy teaching commitments he never again pursued his experiments into the action of the heart and its valves. He did become deeply involved in an investigation of the toxic effects of snake bite and the treatment thereof. His unshaken belief in his treatment brought antagonism and ridicule. Recent research by Sharon Wallace for her B.Med.Sc. project has given a better appreciation of the reason for Halford's dogmatism.

In London in 1853 while working as house surgeon to Westminster Hospital Halford had successfully treated a man suffering from snake bite. He did this by conventional means with embrocations, fomentations and leeches. Ineffective as these measures may seem to us, they are at any rate less potentially dangerous than the intravenous injection of ammonia which he instituted in Australia and staunchly supported throughout his life.

In 1867 Halford assisted Dr Youl in a post mortem on a Mr Burnstall who died following a bite from a cobra which he was displaying to the curious in the Tankard's Temperance Hotel. Apart from congestion of the lungs and dark blood, there was little of note. Before the end of the examination Halford took a 'little of the blood from the spinal canal'. Exactly how this was done and the number of possible contaminants, is not known, but in this sample he found many large colourless corpuscles. The following day, using the microscope still to be seen in the Medical History Museum, he examined blood from a dog killed by cobra venom. In this sample he found 'nucleated cells of a perfectly circular form with a diameter on the average of 1/1700 inch'. Of particular note was a spot or 'macula' on the circumference of each. On 25 April 1867 Halford recorded these observations in a letter to the *Argus*.

Halford made much of these 'maculated' cells which were, however, only recognized by himself, his collaborators Octavius Lawrence and Thomas Ashworth, and a Dr D.M. Stuart of Sandhurst. Overseas experts such as Dr S. Weir Mitchell in Philadelphia and the English workers Dr C.R. Francis and Sir Joseph Fayrer could not confirm his findings. Halford was a good observer and it is possible that differences in findings may have been due to differences in technique in preparing the blood for examination. Whatever the explanation, Halford built round his maculated cells a hypothesis that such cells were derived from 'germinal matter' contained in the snake bite. Moreover the toxic effect of the bite was considered to be due to rapid multiplication of these cells from the germinal matter depriving the victim's body of oxygen. This surprising hypothesis led him to his unusual therapy — intravenous ammonia.

Ammonia was then a popular remedy for bites and stings. It is likely that Halford was prompted to try intravenous ammonia after receiving a letter from England from Staff Surgeon Lewin who wrote:

'If your theory about the living germs in the blood using up the oxygen is correct, the indication of treatment is to use any deoxygenated volatile agent in enormous doses, so as to deoxygenate the blood as completely as possible, and for that purpose ammonia in its most concentrated form seems most suitable.'

Halford experimented in dogs and recorded his results in the *Argus*, 7 November 1868. One dog was bitten by a tiger snake and another four injected with unspecified amounts of venom. When symptoms of envenomation appeared each dog was injected intravenously with a solution of ammonia — one part of the strongest *Liquor Ammoniae* to two of water. Four of the dogs survived and one, 'a small dog', succumbed despite the ammonia. The amounts of venom, the volumes of ammonia injected and whether the 'small dog' was the one bitten are not recorded.

The press was as powerful then as it is now. Within one week of Halford's letter to the *Argus* the same paper on 17 November recorded the successful treatment of a wood splitter, Seymour Smith, from Beechworth. Smith had been bitten on the leg by a black snake and a Dr Dempster gave intravenous ammonia upon which Smith became 'immediately conscious'. Dempster gave more details of Smith's treatment in a letter to Halford. Smith had sucked and incised the snake bite and reached Dempster one hour later. Dempster gave the usual treatment — brandy and ammonia orally, scarification and ammonia locally. When Smith fell into a stupor Dempster injected *Liquor Ammonia Fort.* into the saphenous vein as well as hypodermically around the wound. Smith had regained consciousness, his pupils were no longer sluggish and his eventual recovery was attributed to the ammonia. Because Smith developed a large slough on his leg Dempster stated that if he were to use the treatment again he would use a weaker solution of ammonia.

Sharon Wallace could find only one case in which Halford gave the treatment himself. On 2 December 1868 John Brown, station-master at Elsternwick, was bitten by a brown snake. Brown drank some brandy and applied a ligature but waited two hours before presenting himself to Dr Arnold. By this time Brown was prostrate with a weak pulse and paralysis of the lower limbs. He was given six ounces of brandy with half an ounce of ammonia and mustard poultices were applied to epigastrium and feet. Brown got worse. Halford was summoned to the comatose patient and injected ammonia. Brown was quickly roused and all were convinced that the ammonia had saved his life.

It is obvious now that ammonia could not have acted as an antivenene. Nor can it be established how many bites were from dangerously venomous snakes. The rapidity of arousal following the injection of ammonia makes it likely that its major effect was to counter the intoxication produced by the brandy — one doctor

advocated as much as 'half a bottle to a bottle of brandy . . . every quarter of an hour till cured' and one nine year old child was given two bottles of brandy!

Controversy, contrary experimental results, and a general turning against Halford and his ideas ensued, but Halford remained convinced of his theory and a staunch supporter of his ammonia treatment. Why?

Among the Halford papers in the University of Melbourne archives are a collection of letters (1868-1876) about the ammonia treatment. Some fifty-four letters deal with snake bite treated by intravenous ammonia in thirty-two cases. Twenty-five people were treated successfully and only seven died — an apparent cure rate of 78%. Even today most people would look on this as evidence of a sovereign remedy.

Halford published little after 1870 and although when Harry Allen was appointed in 1882 his burden of teaching was reduced, he was still Dean. He again became Dean from 1890 until 1896 when he sought permission to be relieved of his duties. Halford's appointment was for life. Council initially exhibited a curious meanness, but eventually granted him indefinite leave on half salary. Worn out by service, he certainly was, but even in his sixties he was an inspiring teacher as Richard Stawell (graduated 1887) attested:

'Though he was then over sixty years of age, there was something exceptional and striking and great about his method of teaching and about the man himself. I venture to say, here, that as regards myself, I know he was the first man among my teachers, either at school or at the University, who awoke in me a real live interest in the work I happened to be doing . . .'

Following a trip to England Halford returned to Victoria and settled at Inverloch where he died on 27 May 1910. The grave cannot be traced in Inverloch cemetery, and no significant obituary was ever written. Fortunately, his memory is retained by the establishment by his family in 1928 of the Halford Oration, and more recently by Ken Russell's article in the *Australian Dictionary of Biography*. It was Halford who established the tradition of good teaching in this school and thereby greatly influenced the calibre of our graduates.

Harold Attwood

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Ethics at the Growing Edge of Medicine

Professor Emeritus Richard Lovell
and
His Excellency Dr Davis McCaughey

Dean's Lecture Series, 6 May 1986

Professor Graeme Ryan

I would like to welcome you to the third in the Dean's Lecture Series for 1986 and as a special treat for us this evening with two quite outstanding speakers who are going to participate in this seminar. I would like to start by introducing the speakers and I think the most appropriate way to do this is to hark back to the year 1941, a very important year for two of the speakers because one of them, Dick Lovell, in London, graduated in Medicine. And in the same year, not that far away in Belfast, Davis McCaughey was ordained into the church. Now what is it in forty-five years that has brought the boy from London and the boy from Belfast to Melbourne this evening?

I think we should try to trace the path of Dick Lovell through these years. Soon after graduating he joined the Navy for the duration of the war and then returned to London to St Mary's Hospital where he joined the Medical School and trained to become a physician, in academic medicine with a particular interest in rheumatic diseases. But in 1955 the key event for us this evening is that he left London to come to Melbourne where he was appointed the foundation James Stewart Professor of Medicine in this University. We know the key role that Sir Sydney Sunderland (who is looking up there and also looking at us a bit more closely) played in the setting up of that clinical school. So Dick Lovell came to the Royal Melbourne Hospital and for nearly thirty years he built up what has turned out to be a model of a clinical/academic department in Australia; people who went through that department have gone on to Chairs and greatness in other parts of the country and overseas. Two years ago he retired and I think that we ought to put that into quotations because since then he has really been busier than ever. He has been very heavily involved with a number of Foundations and in particular the Anti-Cancer Council where he has played a very active role. Of special interest to us tonight is his continuing involvement with the NH&MRC where he has been the Chairman of the Medical Research Ethics Committee. He has played a key role in that body in the formulation of policies of the NH&MRC, and in determining how we deal with ethical issues in treating our patients. That's how he came to us tonight.

Now how did Davis McCaughey come to us tonight, from forty-five years ago in Belfast? Davis held a range of positions in Britain for the next twelve years and the key element in those positions was his particular interest in young people. For example, he was particularly involved with the YMCA and the Student Christian Movement, as well as continuing with his church activities. And then, as with Dick Lovell, the important thing for us is that he came to Melbourne. He actually came two years earlier than Dick Lovell, in 1953, to the Chair of New Testament Studies at the Presbyterian Theological Hall. In 1959 he was appointed Master or Ormond and we all know of his eminence at Ormond College. He became the doyen of Masters of Colleges, certainly in Melbourne, and probably in the whole country. He held that position until 1979, for twenty years, during

which he became very widely known as a church leader with a particular interest in the union of the church. In fact, he became the first President of the Uniting Church of Australia. He also became heavily involved in University matters as a member of Council, and Deputy-Chancellor until very recently. In recent years he also became involved with Dick Lovell on the NH&MRC Ethics Committee, and that again is why he is here tonight. The most recent event is his appointment — we were all delighted to learn — as Governor of Victoria, and we congratulate him on that.

The first speaker tonight will be Dick Lovell and he will be very carefully watched by particular people in this audience; he has got the whole committee with him. The Medical Research Ethics Committee happens to be meeting in Melbourne today and tomorrow, and they have come *en masse* to make sure that he doesn't betray them. *Professor Lovell*: They will be watching Davis too.

Professor Emeritus Richard Lovell

Mr Dean, your Excellency, Mr Chancellor and graduates and many others. Ethics at the growing edge of medicine is a subject which from time to time stimulates very wide general interests and the peaks come when adventurous minds are particularly active in exploring the boundaries of biomedical science. And today we are going through a peak period in which the concerns are many. There are things like privacy and confidentiality in an age of a new technology for data handling, the modification of genes, aspects of research on infertility, and the problems associated with life support systems.

In seeking to define ethical guidelines to help us, we have a duty to recognize first the positive and the negative attitudes that challenging developments like these always evoke. We must acknowledge what history has to tell us: that advances in medical scientific knowledge are liable to induce feelings of disquiet in many people. In the eighteenth century the introduction of vaccination with cowpox to prevent smallpox produced not only enthusiasm but also outrage. Smallpox, it was said, is a visitation from God and originates in man, but cowpox is produced by presumptuous impious men. In the nineteenth century similar concerns were expressed at the development of the science of biochemistry. A misplaced kind of reverence for living phenomena was reflected in an attitude which branded any hope of intellectual understanding of the chemistry of life as presumptuous.

Explosive developments in science provoke deep emotional feelings and because these cannot and should not be ignored, we find western communities reacting in much the same way to today's questions posed by the growing edge of medicine. The need for some sort of regulation is widely advocated and widely acknowledged. With these thoughts in mind and as a prelude to Dr McCaughey's paper, let me speak briefly on the growing edge of regulation in Australia, referring particularly to medical research.

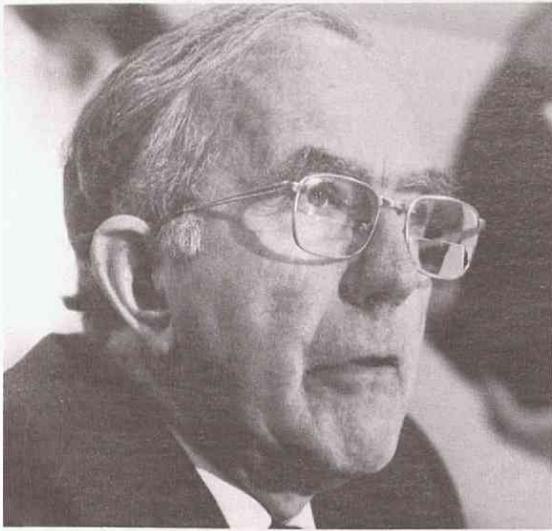


Photo Bob Ivison

Professor Emeritus Richard Lovell

For many years the ethical codes governing the practice of medicine, overseen statutorily by the medical boards and which doctors infringe at their peril, seemed adequate for medical research. This was reasonable. It often was and still is impossible to draw a line and say where medical practice ends and where medical research begins. But in the last twenty years many people, and not least the medical research community itself, have come to believe that more specifically research orientated codes of ethics are needed. The initiative came in Australia over twenty years ago from the NH&MRC; it picked up the ball and has been running with it ever since. The NH&MRC, operating at first with intermittently constituted committees, has in the past four years had a Standing Medical Research Ethics Committee of which Dr McCaughey is a member. Our indebtedness, incidentally, as a profession and as a community to Dr McCaughey in fact extends much further back than this, for he was a key non-medical member of the 1972 Ethics Review Committee, together with Professor Zelman Cowan as he then was, and Mr Arnold Hancock.

The system of ethical oversight which has evolved has two components. The first is the National Medical Research Ethics Committee with a membership of eight, five of whom are not medical graduates. It is charged with recommending ethical principles that should be observed in human experimentation generally, and in special fields, facilitating and keeping under review the working of in-house ethics committees and so-called institutional ethics committees, relating to other bodies and to the community. The second component in the ethical oversight system consists of in-house committees which exist in all institutions where research on humans is undertaken. These are the first arbiters of the ethical aspects of all proposed research projects, and they have to satisfy themselves that projects once started continue to conform ethically. The growing edge here is the move to ensure that these committees will, in the future, all include at least one lay woman and one lay man not associated with the institution, a minister of religion and a lawyer. Many committees already include these people, but the extent to which non-medical views have been represented on ethical committees has varied and they are far too important a matter, we believe, to be left to chance.

Two particular thoughts have led us to promote the in-house committees so strongly. One is the recognition that, to quote from our first report: 'Ethics is not an exact science; there are many issues to which the question right or wrong cannot be given an exact answer and there are some matters that cannot be settled by consensus.' In this situation it

becomes important to ensure that decision-making takes account of local cultural and social attitudes reflected by in-house local committees. The other thought is that in-house ethics committees ensure widespread community involvement in what is going on. There are some 119 institutions undertaking human medical research in Australia. Given that each has at least four non-medical people on its ethics committee, we will soon have well over 400 non-medical people becoming informed at first hand and contributing at first hand to decision-making. This is a far greater community involvement than could be achieved by a central decision-making body. It has incidentally been very interesting in talking, which I have done, to members of all institutional ethics committees around the country to learn that many of them set up to handle ethical questions related to research are now being used to consider ethical problems arising in the day-to-day practice of medicine.

Well, where do we go from here? Surely a major aim must be to achieve for our successors a nationally accepted system. On a non-legislative basis the NH&MRC has gone a long way towards achieving one, but there is still danger that we may end up with regulations and legislation differing from State to State. Given the achievement of interstate agreement on a difficult topic like the definition of brain death, a nationally accepted regulatory system for medical research ethics is a realistic objective, and certainly one worth working towards. And it's very good in this context to be able to note that the Chairman of the NH&MRC, Mr Bernie Mackay, has invited all State Ministers of Health and Attorneys-General to a round table conference in Canberra on 29 July [1986] to examine the possibility of generating a uniform Australian approach to *in vitro* fertilization and related research. The round table will be opened by the Federal Minister of Health and, we hope, the Federal Attorney-General.

Finally, a comment on legislation. I said before that I believe the growing edge of biomedical science should really be a field for legislation. The variation between several State committees in Australia and several committees in the United Kingdom regarding some of the conclusions reached concerning *in vitro* fertilization, are lone warners against over-readiness to enshrine what may or may not be done in statute law. Four years on the Medical Research Ethics Committee has also shown me how our attitudes as individuals may change as the depth of our insight into an ethical problem increases, and as the scientific background of the problem changes. Changes in scientific background can occur very quickly and outmode legislation. In relation to tissue transplantation, Sir Zelman Cowan has described the law as 'in the rear and limping a little'. My comment is that this is perhaps as it should be, and reflects some sort of ultimate wisdom among legislators. I don't suppose anyone would question the need for parliaments to be satisfied that mechanisms to regulate ethical aspects of research are in place. Many people, however, are questioning the desirability of or the need for detailed and specific legislation aimed to determine what may or may not be done in the clinic or the laboratory. Senator Harradine's proposed 'Human Experimentation Bill' with its provisions for punishing doctors for infringements with imprisonment and fines, is an example. This approach is appealing to people who do not understand the extensive regulatory mechanism which already exists, and it also appeals to those who fear what scientists might do. This fear results partly from confusion in people's minds between what is scientific speculation (which is legitimate in a free society) and what is actually being done or is planned, and I believe scientists need to be very sensitive to this confusion when they air their enthusiasms in public. Apart

from the obvious difficulties in trying to frame statutes in ethical areas in which there is no consensus, in which opinions are on the move, in which the scientific base is constantly shifting and scientists on the bases of these shifting situations, scientists can raise another quite basic question about the wisdom of regulating the growing edge of biomedical research by legislation.

In 1933 Wilfred Trotter, a surgeon, philosopher and Fellow of the Royal Society took as the text for a talk, Bacon's aphorism — *De minimis non curat lex*. Mr Dean, I recognize that there is no need to translate that for you, or his Excellency, but for fellow peasants like myself, it means the law pays no attention to little things. I might add that I quoted this recently to two distinguished barristers. One responded by reciting a limerick incorporating the phrase. I am not going to quote it to you, but you will appreciate that there are rather few three-letter words that rhyme with *lex*. The other surmised that what Lord Chancellor Bacon was indicating was that he was open to accepting bribes of fifty sovereigns but not five. But what Wilfred Trotter went on to observe, taking it seriously and as I believe Bacon meant it, he went on to observe that if this gives an authentic glimpse of legal thinking the law pays no attention to little things then that thinking differs sharply from scientific thinking. The fact is that medical research is deeply concerned with little things. The growing edge is made up by notionally very precise little things, which to the non-scientist may appear as distractions, as examples of special cases, or which may be totally overlooked. The exploration of notionally little things, today perhaps not even recognized, could easily be unwittingly trampled on by a deceptively easy 'quick fix' in the form of a new statute.

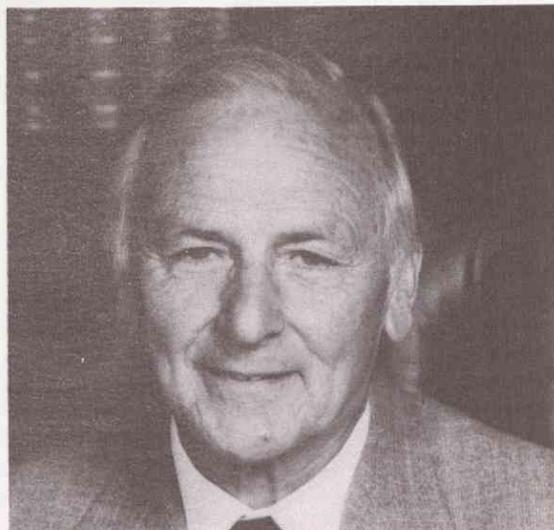
It is in the course of resolving dilemmas of this kind, which doctors, lawyers and the whole community are facing, we can so usefully engage the interest of people like the hard-working members of the Medical Research Ethics Committee, and people like Dr McCaughey who has not only thought deeply of these things but has also been involved in real-life decision-making on institutional ethics committees. We are, I think, as a community, certainly as a profession, deeply indebted to such people. Thank you for inviting me to contribute this evening.

His Excellency, Dr Davis McCaughey

Mr Dean, Mr Chancellor, Professor Lovell, ladies and gentlemen. I cannot refrain from telling the story about Sargeant Sullivan who was taking the case of a plaintiff in an Irish court when the judge interrupted him and said: 'Is the plaintiff not aware of the principle of *de minimis non curat lex*?' to which Sargeant Sullivan replied: 'Believe me, your Honour, in the mountains of McGillicuddy, where my client comes from, they speak of little else.'

Professor Lovell has just been on a few weeks holiday, and he tells me, that during that time he did not have a single ethical thought. Those of us who have worked with him sometimes wonder how he gets time to think about anything other than medical ethics. He seems to think of little else and makes us all work extremely hard, and I will have the agreement of the members of Medical Ethics Committee in saying that.

I assume that the growing edge of medicine means medical research, and experimentation. That, at all events, is the area in which I have been asked to concern myself on that Committee. I want to jump in there and straightaway say something which may be taken for granted by most, perhaps by all of you here this evening, but which should be said by medical scientist or practitioner and layman alike, but which



H.E. Dr Davis McCaughey

may come with some additional force from one who is neither a medical nor any other kind of natural scientist. It is that research and experimentation are inextricably a part of medical practice and there is a moral obligation that this continue to be the case.

Gordon Dunstan, the distinguished English moralist, in a paper read in Melbourne last November, tells a story about William Harvey, the celebrated English physician of the mid-seventeenth century. He read in Galen that 'the treatment of a patient was merely a matter of applying the remedies known to be effective for certain symptoms'. And Harvey wrote in the margin, *Quomodo nisi experimentum?* 'How do you know unless you experiment?'

Dunstan was there defending experimentation upon pre-embryos. Let me quote some sentences from the paragraph which follows:

'The pre-embryo contains, we say, genetic information. This information may be expressed ultimately in organogenesis and full development toward maturity or the information may be read, studied — by chromosomal analysis, gene probes and the rest — and integrated into knowledge; and such knowledge may be used to human benefit. The use of the information can be part of the perennial human contest with chance, random; part of the reordering and minimizing of biological wastage, the mitigation of individual loss thrown up in the lottery from which comes our life.'

I shall come back later, but only briefly, to that particular example which is much discussed among us at the moment. I quote Dunstan's eloquent words to remind myself and you of the aims of medical research when properly understood as part of the reordering and minimizing of biological wastage, the mitigation of individual loss thrown up in the lottery from which comes our life. Indeed we could go so far as to say that it would be immoral, unethical, whichever word you prefer, to pursue certain therapeutic practices were they not continually supported, refined and corrected by research and experimentation. How do you know which remedies will be most effective except by experiment? *Quomodo nisi experimentum?* Modern medicine depends upon having a growing edge and none of us should wish to have it otherwise.

It occurred to me that this is a good place to begin with an affirmation of the value of medical research. Too many discussions of ethical problems begin with a negative presupposition: 'Go find those small boys, see what they are doing, and tell them to stop it'. Too often, we begin our ethical discussions in an atmosphere of suspicion. I know some good

reasons why this should be the case, as do you. With all that came out at Nuremburg and since, and with an extensive knowledge of some practices in totalitarian regimes available to us, they have to be guarded against, and can be guarded against in a free society. But we must begin by believing in the value of our scientific progress. Medical scientists and practitioners can help themselves and the rest of us in two ways. As scientifically trained men and women, you can refuse to join in the clamour against what is sometimes called 'basic' or 'pure' science. If you do not do so, you will be cutting your own throats.

Some of you may have read the Presidential Address to the British Association for the Advancement of Science in 1985, by Sir Hans Kornberg. It is entitled *The Importance of Remaining Curious*. In it he quotes some studies undertaken by the Illinois Institute of Technology in which five major advances were studied (several of them of moment for medical progress). The key papers which led to these were traced. In each case about 70% of such papers were clearly of the 'basic' type, and only 20% were 'applied'. In each case nearly half of this work had been done thirty years or more before the product was achieved.

It is time, I think, that we stopped talking about *idle* curiosity. To begin with, in my experience few of those who are generally curious are idle; and in any case, curiosity is no bad thing since it is normally concerned with the truth. I should expect that medical scientists and practitioners would be among those who refuse to join the clamour of contemporary Luddites who would destroy some of the foundation on which their own activities, let alone our civilization, is based.

But the second thing which those of us who are not medical scientists might well ask of those of you who are, is to avoid indulging in science fiction and to leave that to the writers of fanciful paperbacks and popular journalism. What you are about now, and would wish to investigate tomorrow, will be difficult enough for us to understand. Please distinguish between that, and speculation about matters for the responsibility of which you are never going to have to answer.

My first point then is: that research and experimentation at the growing edge of medicine is, in itself, not an indulgence but an ethical responsibility. This brings me to the second part of my paper. Why this relatively sudden upsurge of interest in medical ethics or the ethics of medical experimentation? I am aware of this, and a number of points I simply underline some of the things that Dick Lovell has already said. The answer is not far to seek. Without going into the matter at length, I would suppose that there are at least three factors at work.

I have already alluded to the first: the abuse of human persons in experimentation in Nazi Germany and elsewhere. Second, partly because of this and partly for other reasons, is that the relationship of confidence between patient and doctor cannot be taken for granted as it once was. In journalistic parlance — the god-doctor is dead. And some of my flippant friends say: 'A multitude of social workers have been raised to take his place.' Certainly, the relation of confidence or simple dependence may not be assumed. Anyone who has thought at all about the problems of 'consent' must have become aware of this. To quote another of Dunstan's essays: 'Ethics has to do with mutual expectations: what members of a profession and those whom they serve may properly expect of one another in their professional relationships.' And a little later he illustrates with some pointed questions: 'Why should a patient act on a doctor's advice — if he should? How far should a doctor expect a patient to act on his advice, and why? What liberty has a patient to reject his doctor's advice? What liberty has

a doctor to decline to meet his patient's wishes?' There is no longer any such thing apparently as 'doctor's orders', only 'doctor's advice'.

The third factor, which raises questions in a new way is, of course, the rapid rate of developments in medicine and the great increase in power over life and death which may be exercised by medical scientists and practitioners. This is particularly apparent in modern medicine's capacity to keep alive those who would otherwise have died whether of old age, as a result of accidents, or of prematurity.

For all these reasons people want to know what is being done to them, in a way in which they rarely questioned before; and, to their credit, members of the medical profession have asked with a new intensity and sometimes with bewilderment, 'What are we doing? What may we do to fellow members of the human race?' In particular, presumably research may not be without limits; in that case, how are the limits to be set, and who is to set them? Hence the Declaration of Helsinki of 1964, revised at Tokyo in 1975. Hence the proposed *International Guidelines for Biomedical Research Involving Human Subjects* published by WHO in 1982. Hence the *Australian NH&MRC Statement of 1976*, revised and issued in 1982 with Supplementary Notes on a number of topics on functions and constitutions: 'Institutional Ethics Committees'; 'Research on Children and Others in Dependant Relationships'; 'Therapeutic Trials'; '*In vitro* Fertilization and Embryo Transfer', the first such guidelines to be issued in the world, and later on 'Research involving the Human Fetus and Human Fetal Tissue'; on 'Epidemiological Research'; and a specific note on 'Embryo Donation by Uterine Flushing'. I recite these because they represent a considerable response, nationally, to the widespread demand for guidelines, a demand heard both from within and without the medical profession. It is a response of which Australia might justly, if modestly, be proud — and the work goes on.

I now ask how such statements are arrived at. What is their character and what is their authority? The first thing to say is that such statements are only reached, and can only be reached, after a long period of patient listening and learning. 'Our discussion', says Aristotle early in *The Nicomachean Ethics*, 'will be adequate if it has as much clearness as the subject matter admits of, for precision is not to be sought for alike in all discussions any more than in all the products of the crafts.' Or again, 'It is the mark of an educated man to look for precision in each class of things just so far as the nature of the subject admits.' He goes on, a little dauntingly, to say that perhaps the young and immature are not fit to enter into the discussion of ethical questions. Few of them would agree. 'To criticize a particular subject', he says, 'a man must have been trained in this subject to be a good critic generally; he must have had an all-round education.'

Consciously or unconsciously, we on the Medical Research Ethics Committee have followed Aristotle in this approach in three respects: One, bioethical questions can only be discerned accurately by those involved in the craft. Two, an adequate critique of these questions can only be undertaken by people looking at it in the perspectives provided by a variety of disciplines. Aristotle's man with an all round education no longer exists; but the multi-disciplinary approach is the equivalent. Three, the exercise on which we are engaged is not an exact science like mathematics; but as we shall see it is still a reasonable and reasoning activity. I shall come back to that third point, but let me here draw attention to a remarkable phenomenon.

By definition, the questions with which we are concerned arise from within medical practice and scientific experimentation. For long it was thought, as Professor Lovell has pointed out, that peer group review was adequate where ethical

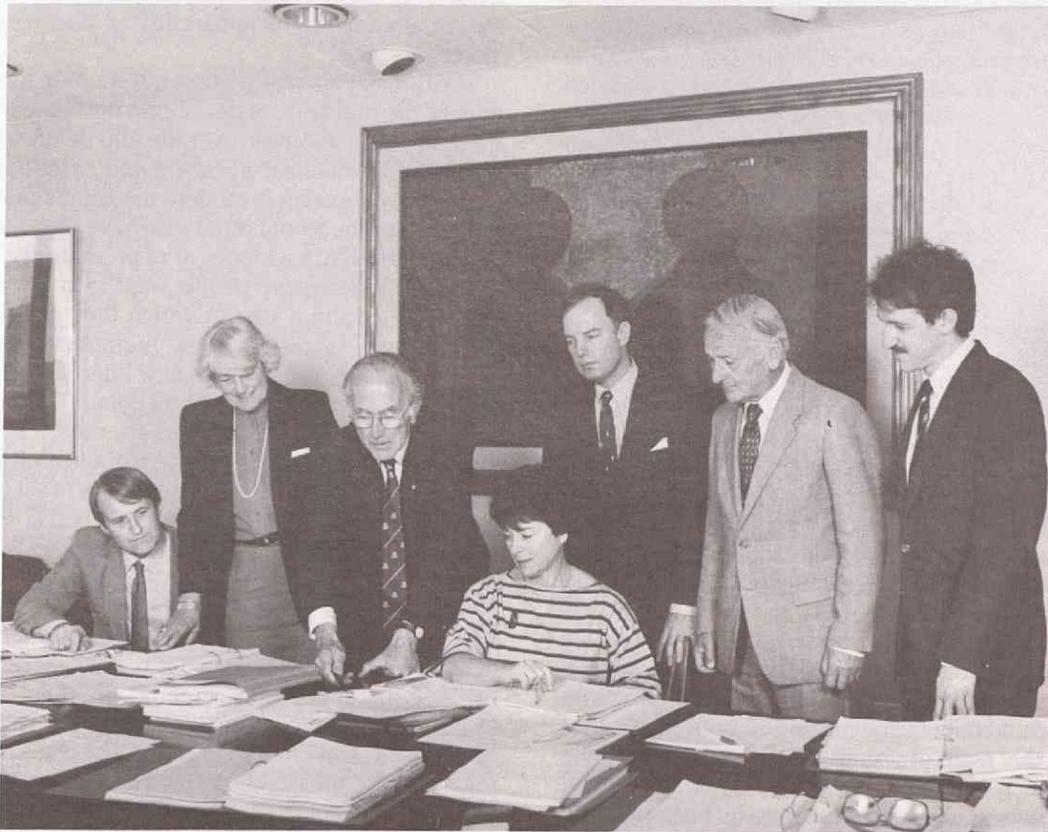


Photo Bob Ivison

Meeting of the Medical Research Ethics Committee of the NH&MRC in the Howard Florey Conference Room, 9 December 1986. Left to right: Mr Russell Scott, Mrs Elizabeth Grant, Professor Emeritus Richard Lovell, Mrs Yalonda Klempfner, Dr Robert Jansen, H.E. Dr Davis McCaughey, Mr Phillip Bates. Absent: Dr Elspeth McLaughlin, Dr Leonard Harrison.

issues were at stake. Ethics, as somebody has said, could be picked up on a ward round. But, as Professor Lovell has also pointed out, we have moved away from that. Now such matters are discussed and guidelines are formulated by groups consisting of medical scientists and others. Indeed, I know of no other profession in Australia, or for that matter elsewhere, which, confronted by rapid change and new questions or old questions in a new form, has said so unequivocally to others: 'Come and help us to understand this, come and help us to see what we should and should not be doing.' It is very impressive. It also lays an obligation on all parties to listen and learn, and to do so quietly and patiently.

Much as we might wish it otherwise, it is not really possible to arrive at guidelines of this sort by starting with a relatively simple ethical principle, or a series of them, and then to apply them in a number of fields. Such an approach would be attractive, I think, for many trained in the natural sciences. W.D. Ross, the distinguished Oxford moral philosopher of a previous generation, pointed out that, 'Ethics reasons not from, but to first principles; it starts not with what is intelligible in itself but with what is familiar to us, that is, with the bare facts, and works back from them to the underlying reasons. Mathematics deals with a subject matter, the first principles of which are acquired by an easy abstraction from sense-data; the substance of mathematics is the deduction of conclusions from these first principles. The first principles of ethics', he writes, 'are too deeply immersed in the detail of conduct to be thus easily picked out, and the substance of ethics consists of picking them out.'

I sometimes get the impression that some medical scientists and practitioners have exaggerated expectations about what moralists or ethicists (as Americans call them) can do for them, and some moralists and ethicists have exaggerated expectations of what they can offer to the medical scientist. The process of becoming deeply immersed

in the detail of conduct so as to be able to pick out, to define the issue accurately, is a patient one. It is a process with which scientists should not be altogether unfamiliar. Remember that on the wall of the staff common room of the Hastings Center for Bioethical Research in the United States of America hangs the legend, 'For every human problem there is a solution which is simple, neat and wrong.' To quote W.D. Ross once more: Ethics is concerned with 'things which are for the most part so', 'things which are capable of being otherwise'; and we must not expect in it the perfect demonstrations that are possible for a science like mathematics which deals with 'things which are of necessity.' I am, incidentally, uncertain whether mathematics is now regarded as anything like an exact science as Ross, and behind him Aristotle, assumed, but the comparison is still illuminating.

That the conclusions which we come to are tentative, have a provisional character, does not, however, mean that they are worthless. Far from it. Such principles as emerge are essential to our ongoing life together. As Professor Dorothy Emmet has put it: 'Without principles we are thrown back on first-hand appraisals under uncertainty in every situation.' And we cannot live alone as individuals in a perpetual draught. We must have a room in which to live.

And so, what in fact we are trying to do — and I think we are trying to do, if I understand it right, through the mechanism of the NH&MRC — is to provide Australian medical scientists with such accommodation within a room that they can live in, with shelter and yet with freedom. To depart from the metaphor, the NH&MRC offers to Australian medical scientists the professional conventions within which we hope they can operate. Without such conventions they themselves as a profession will lack cohesion and will fail to maintain the confidence of the community which they seek to serve.

Let me ask you to pause and consider the important place that conventions play in our society, or in any other society for that matter. Contrary to what many people think, morality is not primarily an individual matter. If I may quote Dunstan once more: 'Conventions lay the emphasis in morals where it ought to be — that morality is first a common possession, a community possession, only secondly, and in the community context, is morality rightly considered an individual choice or decision.' And let me put aside beside that for further illustration some remarks of Gilbert Harman, a contemporary American philosopher: 'Moralities are socially right. They are defined by the conventions of groups. But you belong to more than one group, and different groups have different conventions. Which conventions determine your moral obligations? They all do. Since you belong to a number of different groups, you are subject to a number of different moralities — the morality of your family, perhaps your school, a professional morality (your 'business ethics'), the morality of your neighbourhood, the various moralities of various groups of friends, the morality of your country, and finally, perhaps, a limited morality you share with most of humanity. These moralities will sometimes be in conflict, and give rise to a tragic situation in which you are faced with a conflict of loyalties. In that case, there is no clear moral solution to your problem. You must choose the group which is most important to you and act on its conventions.'

In periods of relative stability and a slow rate of change, society and societies pass on the values by which they would have their members live in a variety of ways, including tacit conventions. In times like our own those conventions have to be re-examined and formulated afresh. New medical technology, for instance, calls for a new professional ethics. As Lord Devlin has argued, the moral cohesion of a society cannot be maintained by the cohesive forces of law alone. It must be maintained by the adherence of members to certain agreed conventions. Such conventions require a degree of trust by members within their profession and trust of the profession by those outside it. The conventions must also be backed by sanctions; it must be costly to break those conventions. Reinhold Niebuhr once said that 'man's capacity for justice makes democracy possible; but man's inclination to injustice makes democracy necessary.' We might adapt that and say that conventions are a possible way of ordering society because men are capable of mutual trust; conventions are necessary because men are not wholly trustworthy.

Conventions, reformulated conventions (and that is, I think, what the guidelines of the NH&MRC are) stand as it were outside and above the medical scientist, exerting an external claim upon him. Their sanction derives in part from the poor reputation which the scientist and his institution will have if he or she violates those conventions, and I understand that the NH&MRC intends to give publicity to such violations. It also derives from the loss of funds to which an institution will be subject should it not adhere to those guidelines. If I understand it aright, what the NH&MRC is suggesting a new professional ethic or a newly perceived ethic. To accept that as a constraint is to accept a moral stance. To quote Gilbert Harman again (somewhat sobering words): 'Without objective external restraints there will be no such thing as morality, as we ordinarily understand it, even if people adhere to their own personal principles. If there were only individual moralities, only sets of personal principles and no group conventions, morality as we normally think of it would not yet exist.'

I have emphasized the *external* constraint involved in any morality, partly because in our individualistic age it is often overlooked, although the existence of binding conventions should not be strange to doctors. For the same reason I have

stressed the *social* character of morality. Of course it is also true and important that the external constraint should be matched by internal acceptance, and that the social conventions of our moralities be reflected in personal decisions. For these things not to be in harmony or balance is highly dangerous. As Professor Lovell has already shown, the institutional device whereby these general conventions are applied in specific circumstances is through the existence of institutional ethics committees which have the responsibility of scrutinizing research protocols where ethical issues are at stake. The conventions are thereby articulated and kept under scrutiny at that very place where decisions must be made: in the hospital, in the research institute, and finally in the operating theatre, the ward or the laboratory.

In Australia there is an additional reason for welcoming this balance between centrally and generally recognized guidelines and their application, or should I not say their applications in differing circumstances. It is that we are a pluralist society, with varying cultural backgrounds. Not all will wish to do that which is permitted and undertaken by some. In an Appendix to its first report the Committee of which I was a member wrote:

'When a judgement is made that a procedure is ethically acceptable that will often mean not that the procedure is clearly right, rather that it is ethically defensible but may still legitimately be controverted. Judgements in these matters must always permit dissent (and the exercise of conscientious objection); they are always subject to revision in the light of new evidence, further thought, or both.'

What is being said here implies a distinction which philosophers sometimes make between a *prima facie* 'ought' and an all-things-considered 'ought'. We must subject many proposals to what, again and again, is sometimes called: 'a good reasons' analysis. There are without a doubt, in medical science and practice, some things which are a *prima facie* 'ought', for instance the investigator must stop or modify the research program or experiment if it becomes apparent during the course of it that continuation will be harmful to the patient. On the other hand, the decision to permit experiments on pre-embryos may be regarded as belonging to the 'all-things-considered' class. But what if the community is seriously divided upon such an issue? How then do we proceed? It is, I think, the responsibility of the NH&MRC to recognize what is ethically reasonable and also to recognize that not all will agree. In those circumstances it would appear that a formula used in the Anglican Church about oral confession might be applied here: 'All can, none must, some should.'

The NH&MRC has, in effect, said it is permissible within certain conditions to conduct experiments upon embryos ('all can'); it is not necessary for any individual or institution to undertake such a programme if it is against their conscience or outside their sphere of interest ('none must'); it is desirable for the sake of better therapy that such experiments should be conducted ('some should'). It will be a test of the tolerance of our society as a whole to see whether we can make such a balance work.

Let me, in conclusion, speak again of the task before us in the formulation afresh of conventions for medical research. It must be undertaken by the profession itself with the kind of assistance from others of which Professor Lovell and I have spoken. If it is not undertaken and recognized there, others will try to impose it upon you, and insofar as they use legislation they will try to use law to do what the law cannot do; make people good. 'Agree with your adversary quickly while he is in the way lest a worse thing befall you.'

If on the other hand, you give even a little of your time to building up adherence to the newly formulated conventions of your profession, you may find yourselves entering a world of some excitement. The conventions which give the profession its coherence derive from many sources: from Greece and Palestine, from a lengthy western tradition, Christian and Jewish, mediaeval, reformed and modern, from Kant and the belief in the autonomy of the human person, from utilitarian insights into the importance of consequences and from deontological convictions (that is fundamental duties) about what a human person may or may not do to his neighbour. A good ethical discussion will range over a wide series of considerations. Old wisdom and new

demands will cast light one upon another until there emerges that consensus on which formulated conventions depend. It is not necessary for medical scientists to be dragged screaming through every page of Aristotle or Kant, any more than it is necessary for lay members of an ethics committee to understand every scientific process involved in the experiment. It is necessary, if conventions are to be formulated, that men and women of different backgrounds and skills should be willing to sit down and talk and listen. And when we have done that, we shall still remember the dictum of John Stuart Mill: 'On all great subjects much remains to be said.' And that certainly suggests to me that this is the time to close my remarks tonight. I thank you.

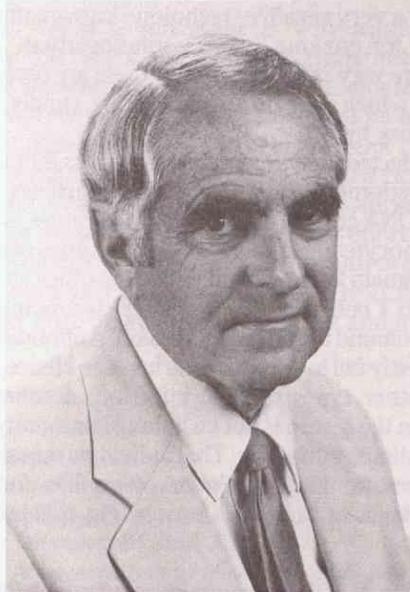


Who are depicted here in a 1948 *Speculum*, and what were they about? Professors Trikojus, Florey, Wright and Rubbo (far right) with Dr Lionel Bull about to fly to Canberra to discuss the 'Biological significance of the John Curtin School of Medical Research'.

AIDS: Its Origin, Future and Implications for Society

Professor David White

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Professor David White

In 1981 a new disease appeared in the male homosexual communities of California and New York. Acquired immune deficiency syndrome, or AIDS for short, was a severe immunosuppressive condition leading inexorably to death within a year from opportunistic infection or cancer. The preponderance of cases among highly promiscuous male homosexuals with a hedonistic lifestyle elicited a predictable backlash against gays — with dark declarations about unnatural habits incurring the wrath of God. The hysteria mounted when it became evident that blood donated by homosexuals was spreading the disease to other members of the community. Five years later, in 1986, over 25,000 people have developed AIDS in the U.S.A. alone, and about a million others are infected with the virus. It is clear that a major epidemic of a frightening new disease is underway and that no means of control is in sight. Indeed, even if some method of stopping completely the spread of AIDS were discovered today and implemented with 100% efficiency forthwith, more than a million of the several million people around the world who already are infected would die of AIDS within the next decade.

Not surprisingly therefore, AIDS has been in the news. Indeed, there was a period when, if World War III had broken out, one would have had to turn to page 2 or 3 of the daily paper to find out about it. In the light of such extraordinary publicity it might surprise you to hear that in Australia, where the epidemic lags some two years behind that in the U.S.A. there have been only 136 deaths from AIDS so far; to place this in perspective, the annual death rate from AIDS in Australia is still only about the number dying every *week* from car accidents, or every *day* from cigarette smoking (which is by far the most important preventable cause of death). On the other hand, the number of new cases of AIDS is increasing markedly each year and the disease will shortly become one of the major causes of death among an

important minority group, the male homosexuals, over one in ten of whom are already infected with the virus (higher in Sydney).

Thus I've chosen to talk today about AIDS, rather than about influenza, viral immunology, vaccines, or any other of the topics with which our own research is more directly concerned, for the following reasons. Firstly, in defiance of the popular belief that the major epidemic diseases have been conquered by vaccines and antibiotics (a belief endorsed by the recent triumph of the global eradication of smallpox by a WHO vaccination campaign, the first infectious disease ever to be completely eliminated by medical science), AIDS, an even more lethal disease than smallpox, has suddenly emerged from nowhere and, if not quickly stopped, will replace smallpox as the great plague of the 21st century. Secondly, the high drama associated with AIDS, the social implications and the political lobbying, have triggered the most concerted scientific effort since Sputnik frightened America a quarter of a century ago. The U.S. Center for Disease Control quickly recognized the import of the new epidemic and the U.S. Government responded promptly by funding a massive research effort throughout the country. AIDS became the most intensively studied disease in the history of medicine. (Fig 1). Within three years of the

Fig. 1 AIDS: A triumph for medical research

- 1981 First case described
- 1982 Epidemiology understood
- 1983 Causative virus discovered
- 1984 Laboratory diagnostic techniques developed
- 1985 Blood transfusion rendered safe
- 1986 Research concentrated on developing:
 - Genetically engineered vaccine for prevention
 - Specific antiviral drug for treatment

first description of the disease, its epidemiology was largely understood, its cause had been identified, and diagnostic tests had been developed. This constitutes impressive testimony to the capability of public health authorities and the medical research fraternity to rise to such challenges when the will is there and the money is provided. This frenetic research activity within a highly competitive climate spawned a sordid public row between the two principal protagonists for fame and fortune, which sullied the name of medical research. This too I shall discuss.

What is AIDS? Acquired immune deficiency syndrome results from an almost total depletion of lymphocytes of the helper T cell class. The patient is left without immunological defences, hence falls victim to a succession of opportunistic infections with microorganisms which rarely cause trouble in fit people. Many patients also develop degenerative changes in the brain, leading to dementia. Death usually occurs within a year of diagnosis, either from pneumonia caused by an unusual parasite or from a rare form of cancer.

In 1983 a Dr Montagnier from the Pasteur Institute in Paris isolated a novel retrovirus, first from a male homosexual suffering from a relatively mild condition, lymphadenopathy,

which commonly precedes AIDS, and later from patients with typical AIDS. He called the new agent LAV, for lymphadenopathy-associated virus and sent a sample on request to a Dr Gallo, the leader of a large American AIDS team working at the National Institute of Health in Washington. The following year Gallo's group published a notable series of papers which described a virus they themselves had recovered from AIDS patients, then proved unequivocally that their agent, designated HTLV-III, is the cause of the disease, and went on to detail methods of growing the virus in cultures of human lymphocytes and of screening blood donors for evidence of infection.

Overnight Gallo became a conspicuous candidate for the Nobel Prize. However, the celebrations were short-lived. Molecular studies revealed that the nucleotide sequences of the RNA genomes of LAV and HTLV-III were virtually identical. Montagnier accused Gallo of stealing his thunder, and perhaps even his virus. This assertion gained some support from a letter published by Gallo and his colleagues admitting that, I quote: 'We recently re-examined the electron micrographs used in our publications in *Science* (4 May 1984) and discovered that the panel labeled HTLV-III was inadvertently composed from photographs of a culture infected with a sample of LAV provided by L. Montagnier's laboratory.' An international committee established to arbitrate on the name of the virus recommended a neutral third alternative, HIV, for human immunodeficiency virus. Meanwhile the Pasteur Institute has challenged the validity of a patent taken out by the U.S. Government on the technique developed in Gallo's laboratory for screening blood.

Whatever one cares to make of this very public and bitter controversy between two fine scientists it does illustrate as dramatically as any other recent example, the extent to which the ambitions of scientists are driven by a desire for recognition by their own lights. Research is a noble endeavour, pursued in the main by honest and humble people, motivated by a creative urge to discover something important, rather than by more worldly desires such as money and public acclaim. But they do seek recognition by their peers and can be fiercely competitive when the stakes are high.

The evidence that HIV causes AIDS is now compelling. (Fig 2). Antibody to this agent is demonstrable in virtually all

Fig. 2 Proof that HIV causes AIDS

- Virus and/or antibody demonstrable in virtually all patients
- Virus destroys helper T cells *in vitro* and *in vivo*
- Laboratory evidence of infection precedes AIDS by 1-5 years
- Post-transfusion AIDS traceable to HIV⁺ donor
- AIDS in newborn babies traceable to HIV⁺ mother

patients and the virus can be isolated from most. HIV has been shown to destroy helper T lymphocytes *in vitro* as well as *in vivo*. The strongest evidence for a causal association comes from two types of prospective epidemiological study. Normal individuals from high-risk groups who develop laboratory evidence of infection have been followed up and found to develop AIDS one to five or more years later. There have even been cases where, following the death of the recipient of a transfusion, the donor of the blood has been traced retrospectively, shown to be seropositive, and subsequently died.

How is infection with the AIDS virus detected? (Fig. 3). At the moment, isolation of the virus by growth in cultured lymphocytes is a specialized, expensive, and potentially dangerous procedure which is therefore employed only by

Fig. 3 Laboratory diagnosis of HIV infection

- Detection of antibody in blood (by ELISA)
- Confirmation of positives by other tests for antibody or by cultivation of virus from blood

accredited National Reference Laboratories such as Fairfield Hospital, for confirmation of a positive result obtained in a simpler screening test. Since all infections elicit an antibody response, blood can quite simply be screened for antibody to HIV, using a very sensitive technique known affectionately as 'ELISA', for enzyme-linked immunosorbent assay. True positives are very rarely missed but there are occasional false positives, which can be eliminated by rigidly controlled confirmatory tests.

Every infected individual carries the virus for the rest of his life. The genome of some of the virus particles — or to be precise, a DNA copy of the virus' RNA genome — can persist in T lymphocytes, and perhaps in other types of cell as well, and thus remain latent indefinitely, while other virus particles replicate in T cells and macrophages, destroying them and causing profound immunosuppression. Antibodies are made but manifestly fail to eliminate the invader. Hence, in contrast to most other types of viral infection, demonstration of antibody in the serum is not an index of immunity but a sure sign of continuing infection. That individual remains a carrier of the virus for the remainder of his life and is highly infectious for sexual contacts forever. (Fig 4). This is not to say

Fig. 4 Consequences of infection with HIV

Lifelong carrier, infectious for sexual contacts	100%
Lymphadenopathy syndrome (non-lethal)	25-35%
AIDS (90% mortality)	10-30%

he will inevitably get AIDS. The probability that an individual will develop AIDS within one to ten years after infection is currently reckoned to be somewhere between one in three, and one in ten (estimates from various series ranging from 10%-30%). About one in three develop a milder disease, known as the lymphadenopathy syndrome.

The overwhelming majority of Australian AIDS cases still occur in male homosexuals — 253 (90%) of the 282 Australian cases reported so far. (Fig 5). The other major risk-

Fig. 5 AIDS: risk groups

Homosexual (or bisexual) males	> 80% of cases
Others:	< 20% of cases
<ul style="list-style-type: none"> Intravenous drug users Haemophiliacs (receiving factor VIII) Blood transfusion recipients Female sexual partners of infected males Babies of infected mothers 	

groups noted among the early U.S. cases were heroin addicts and Haitian immigrants — giving rise to a rather sick joke: 'What's the hardest thing about discovering that you have AIDS?' Answer: 'Convincing your mother that you're Haitian'. Small numbers of cases have also occurred in recipients of blood transfusions, haemophiliacs, female sexual partners of bisexual males, and babies of infected mothers. Although we have so far had very few cases of AIDS in females in Australia (indeed, none in Victoria), recent U.S. experience reveals an alarming extension of AIDS into female prostitutes and partners of bisexual males.

This data carries the clear message that the infection is spread only by transfusion of blood (or blood-products) or by

sexual intercourse (Fig 6). It is *not* spread by casual contact, or even by close long-term association not involving

Fig. 6 Transmission of AIDS

Sexual intercourse (esp. male homosexual)
Injection of blood or blood-products
Mother to baby
Not by casual non-sexual contact

copulation. What is not clear is why homosexuality apparently carries a greater risk than heterosexual intercourse. Promiscuity was certainly a major factor in the original cohort of U.S. patients, many of whom admitted to hundreds of different sexual partners per year.

This brings us to the \$64,000 question: how can the AIDS epidemic be contained before it escalates completely out of control? The main thrust of the research effort should be directed towards the twin goals of an antiviral drug for treatment and a vaccine for prevention. (Fig 7). Meanwhile, we can offer little other than a blood test and a change of lifestyle.

Fig. 7 Control of AIDS

General Public
Education: allay fears, restore faith in blood banks

High risk groups:
Education and counselling
Voluntary testing for serological evidence of infection
Lifestyle changes:
Homosexuals: monogamy, condoms, regulate bath-houses
Heroin addicts: abolish needle-sharing
Haemophiliacs: pasteurization of factor VIII
Transfusion recipients: screening of blood donors
Seropositive women: avoid pregnancy

Vaccine?

Infected persons:
Counselling re prognosis and lifestyle
Non-judgemental support, medical surveillance, treatment
Confidential notification of spouse, doctor, dentist, etc.
Confidential tracing of all sexual contacts for testing
Abstinence, or 'safe' sex; avoid pregnancy
Avoid donation of blood, semen, organs
Chemotherapy?

Irrational fear of AIDS is such that the general public needs to be fully informed of the facts through the media and all other appropriate channels. In particular their concern about the possibility of spread via non-sexual contact must be allayed and faith must be restored in the blood transfusion services. The risk of acquiring AIDS from blood transfusion, or artificial insemination or organ transplantation is exceedingly low, now that high-risk groups such as male homosexuals and heroin addicts have been exhorted not to donate blood, sperm or organs, and every potential donor is required to sign a statutory declaration as well as to authorize screening for HIV antibody. The risk of haemophiliacs has also been greatly reduced by the recent introduction of pasteurization (heat treatment at 56°C for 30 minutes) to inactivate HIV in blood factor VIII — although, unfortunately, a large percentage of haemophiliacs have already been infected.

Male homosexuals still constitute by far the most important risk group. Channels of communication with this population

are available through various gay newspapers, clubs and saunas, as well as through committees specifically established for this purpose. The level of concern is high and most homosexuals are now reasonably well informed. In some countries the more infamous gay-bars and bath-houses (euphemistically known as saunas) are being closed down or regulated, although spokesmen for the gay community generally regard such measures as draconian manifestations of homophobia and point out that saunas and gay-bars are principal points of contact and therefore of dissemination of vital health information to both homosexual and bisexual men. Many promiscuous homosexuals have drastically reduced their encounters with multiple anonymous partners and are using condoms, which constitute the most important steps towards so-called 'safe sex'. A significant minority, however, are not prepared to alter their fast-lane lifestyle.

All seropositive persons require comprehensive clinical and immunological evaluation at regular intervals (see Fig 7). Those who develop AIDS over the ensuing few years will spend much of the last year of their lives in hospital. Those who do not — 'the worried well' — need psychological support, advice about their statistical probability of developing AIDS, and sympathetic non-judgemental counselling about desirable changes in their lifestyle and many other matters.

AIDS brings into sharp focus a dilemma which has been with us for centuries but has never been more controversial. I refer to the problem of balancing the individual's right to privacy against the public's right to protection. Medical practitioners are bound by the Hippocratic Oath to respect their patient's right to privacy and to guard confidential information about his state of health. On the other hand, epidemiologists and public health officers entrusted with the responsibility for protecting the health of the whole community are aware of the doctor's obligation to prevent the spread of disease to somebody else's patient. A single illustration will suffice — the notorious case of Typhoid Mary, a typhoid carrier who shed the bacillus in her faeces for much of her adult life in the U.S.A., during which time she worked as a cook and left a trail of dead and desperately ill victims in her wake as she moved at will through the Land of the Free from one commercial eating establishment to another. It can be argued that there should be limits to the liberty of the individual in a democracy, and I imagine most people would agree that the freedom to knowingly infect another person with a lethal disease should not be promulgated as one of the Top Ten Freedoms.

Health authorities throughout the world are tangling with intractable problems posed by having to balance these considerations while trying to stem the tide of AIDS. For example, the legislation to which I alluded, requiring that all blood donors sign a declaration that they do not belong to any of the listed risk-groups (including male homosexuals and intravenous drug users) nor have ever been, to their knowledge, infected with the AIDS virus, goes some way towards protecting the health of the public and is not generally perceived to be an infringement of civil liberties. At the other end of the spectrum is the current practice of not requiring any AIDS virus carrier to inform any of his sexual companions about his infectious status, nor to change his lifestyle in any way whatever. Most doctors would probably regard it as immoral not to inform the patient's wife, but would stop short of informing known male homosexual partners, or sauna-proprietors. The gay community is, not unnaturally, exquisitely sensitive to the issue of confidentiality, and is particularly fearful of discrimination in the workplace. Assurances that the information will be disclosed only to those whose lives must be protected are not accepted.

Indeed, gay community leaders generally oppose recommendations for serological testing of high-risk groups. Many homosexuals prefer not to discover their infection status. Others are happy enough with a voluntary system of testing but use a pseudonym — Canadian records are said to reveal that Ludwig van Beethoven was seropositive, and Donald Duck has been tested thousands of times! Many of those who do find out that they are carriers refuse to co-operate in the process of contact-tracing which has long been followed for other sexually-transmitted diseases. Virus-positive male prostitutes are a particular menace in this regard.

Doubtless it will surprise most of you to hear that the current Victorian Health Act, in force now for many years, states, and I quote Section 128, paragraph 1:

'Hospitalization of infected persons. On the order of a medical officer of health any person who is suffering from any infectious disease may be removed to a suitable hospital or place of isolation and there detained until such medical officer of health or any medical practitioner (authorized in writing by the Chief General Manager or the council) certifies in writing that such person is free from infection or can be discharged without danger to the public health.'

The Act, and comparable legislation in many other countries has been invoked from time to time to protect the public against infection transmitted by carriers of such diseases as typhoid and tuberculosis who refuse voluntary isolation and treatment, and a recent Proclamation specifically declares 'human retrovirus infection, whether or not manifest as Acquired Immune Deficiency Syndrome, to be an infectious disease' for the purposes of the Act.

Fortunately, in Melbourne as in San Francisco, relationships between the homosexual community and the health authorities have been marked by co-operation based on mutual concern and trust. Extreme measures such as compulsory blood testing or involuntary hospitalization should not become necessary if opinion-makers within the gay community assert leadership on the vital matters of voluntary testing, disclosure to sexual partners, contact-tracing, and monogamous relationships.

Currently, there is no specific treatment for AIDS other than palliative measures to lessen the misery, and antibiotics to delay inevitable death from secondary infections (Fig 8).

Fig. 8 Treatment of AIDS

Currently: supportive only

Future: (1) specific anti-HIV chemotherapeutic agent

- ? inhibitor of reverse transcriptase, e.g. suramin
- ? inhibitor of DNA synthesis, e.g. azido-deoxythymidine (AZT)
- ? inhibitor of tat gene
- (2) immunomodulators?

Application: All seropositive persons, with or without disease would need to receive lifelong chemoprophylaxis with a cheap orally-administered drug.

Research is proceeding on several fronts to try to find or construct a specific anti-HIV agent. In spite of the fact that decades of searching have so far yielded only one or two agents that could be said to be really effective against any given virus, there is some cause for optimism in the case of HIV. The genome of this retrovirus encodes certain unusual proteins which constitute tempting targets for agents that might interrupt viral replication without damaging the host cell. The most obvious such target is the unique enzyme, reverse transcriptase, from which the *Retroviridae* family

takes its name. This is the enzyme on which the virus relies to transcribe a DNA copy from its RNA genome — the reverse of the orthodox direction of transcription, from DNA genome to messenger RNA in all cells.

There are other potential points of attack, such as the product of the mysterious 'tat' gene, and an inhibitor of DNA synthesis known as AZT has recently shown promise in very preliminary clinical trials. Even if an effective antiviral drug does eventually emerge from this research it will almost certainly not be capable of eliminating the infection from cells in which DNA copies of the viral genome are lying dormant. Thus, it will be necessary to commence treatment of all seropositive persons, preferably early in the incubation period, long before they develop disease, and to continue this chemotherapy (or perhaps chemoprophylaxis is a more appropriate term) for life.

The highest priority of all in the control of AIDS is the development of an effective vaccine (Fig 9), initially for the protection of high-risk groups such as male homosexuals and eventually perhaps for universal delivery to infants. A

Fig. 9 AIDS vaccine prospects

HIV envelope protein made by genetic engineering

- i.e. (1) gene 'cloned' in bacteria, yeasts, or mammalian cells which then produce the HIV protein in large amounts; the protein is then purified and injected as a vaccine.
- or (2) gene incorporated into chromosome of vaccinia virus; live vaccinia virus used as vaccine; infected human cells produce HIV protein.

Administer to high-risk groups, e.g. male homosexuals, intravenous drug users

Universal vaccination may one day become necessary

conventional live attenuated vaccine against a retrovirus would probably be unacceptably risky, but an inactivated vaccine would be acceptable. Recombinant DNA technology has recently been exploited to clone the gene for the appropriate viral protein in a suitable prokaryotic or eukaryotic expression system (bacteria, yeasts, or mammalian cells), or in vaccinia virus. These very early prototypes of genetically engineered vaccines elicit rather poor levels of neutralizing antibodies in small laboratory animals and have yet to be tested in chimpanzees. It is not inconceivable that some such vaccine may be ready for human trials in a couple of years but one does not feel sanguine about its prospects of success. The immune response generated by natural infection with HIV is poor and the viral genome displays an alarming propensity to mutate at the drop of a hat.

This rather pessimistic assessment of prospects for an early breakthrough in the control of AIDS by chemotherapy or vaccination looks even bleaker if we turn our attention from the Western world to darkest Africa (Fig 10). The origin of

Fig. 10 AIDS in Africa

More than one AIDS virus present

Evolved originally from simian retrovirus?

Male : female ratio = 1:1 (c.f. 15:1 in U.S.A.)

Transmission via heterosexual intercourse

AIDS is still shrouded in mystery, but evidence is accumulating to suggest that it came out of Africa. Serological data indicates that HIV infection is extremely prevalent in Africa, with well over 10% of the population of

some countries registering as positive. Furthermore, it was discovered a few months ago that there is not just one but a number of distinct HIV-like viruses circulating in Africa. Some of these strains may be less virulent for man than the previous prototypes HAV-I and HTLV-III, and are closely related to a simian virus, STLV-III, which is found in healthy wild African monkeys. This provides the clue as to the probable origin of human AIDS. The smart money is on the hypothesis that the AIDS virus arose by mutation (and/or recombination) from a simian retrovirus, acquiring the capacity to replicate and cause disease in man, and that it was carried to the Americas, perhaps by a Haitian who visited Africa in the 1970s.

One final feature of the epidemiology of AIDS in Africa completes my story. Screening of the human populations has

consistently come up with the finding that as many females as males are infected, suggesting that, on that continent at least, the virus is transmitted by conventional heterosexual intercourse, and from female to male as well as *vice versa*. A high proportion of the female prostitutes are infected in several of the major African cities where male homosexuality is almost unknown. Needless to say, if HIV becomes widely distributed among women in the Western world the epidemic will escalate dramatically, for, as the explosion of genital herpes following the sexual revolution of the 1960s and 1970s so clearly demonstrated, sexually-transmitted diseases are notoriously difficult to control. Perhaps, just as AIDS has set back the gay liberation movement for decades, it will also usher in a 'new (old?) morality' in heterosexual relationships.

272

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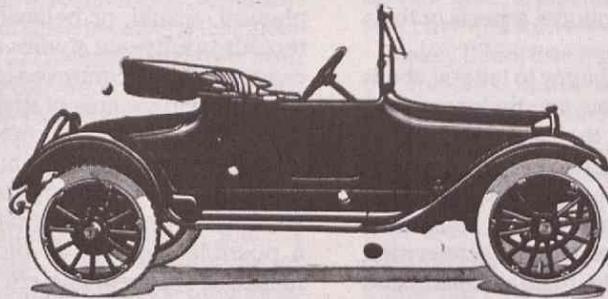
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Stress and Stress Management for the Medical Practitioner

Professor Graham D. Burrows

Dean's Lecture Series, 11 November, 1986

Over the last few years our Department has been doing research into stress and stress management. A number of Ph.D. candidates, including clinical psychologists, a lawyer, and doctors have studied a number of areas; for example, stress in the police force; stress in health care systems; a Melbourne hospital; the top 140 executives in a major retail organization; and a telecommunication group, to mention but a few. When talking about doctors' stress, we are considering a very subjective experience. Coombes (1978) wrote: 'Most of us as medical students have a problem, in that we are not really encouraged to look at the subjective aspects of our education.' I think that is changing, and I hope it is changing here at The University of Melbourne. Professor David Pennington when Dean, was very keen that we should look at communication and communication skills. At the Austin we are currently studying that area with medical students from the fourth, fifth and sixth years.

I have a problem as a psychiatrist, a problem most medical practitioners have. In a social setting when people find out I am a psychiatrist, there are two responses. One is that people walk to the far end of the room and avoid me all night, or occasionally they say, 'Look, I've got a friend who's got this problem', and I have to discuss it. When they find I am interested in hypnosis they may stop looking at my eyes. Medical practitioners are special patients in some ways, and that is partly what I want to discuss.

Stresses

The Mental Health Foundation of Australia, to which many members of our Department belong, has co-operated with the Health Promotion Unit of the Health Department of Victoria to produce a series of brochures and posters to encourage people to look at the emotional aspects of their life.

People in our community are very happy to tell you about their physical illnesses, and even show you their scars, but they will not talk about their anxiety, their depression, their stress or emotional problems. The Mental Health Foundation of Australia is running a community awareness programme, supported by the Federal Government, to do something about this during 1987. You will see on your local television screen a series of issues related to mental health and psychiatry, and the emotional aspects of life. This followed a Mental Health Foundation survey of the general community. The community, much to the surprise of the television company that funded the survey, is very concerned about quality of life issues at this point in time. It is difficult to talk about psychiatric disorders with the community, but 'stress' is a permissible subject for discussion, for everyone thinks they know something about it.

There are over five hundred definitions of stress. Here is just one: A condition in which there is a marked discrepancy between the demands made on the organism and the organism's capacity or *perceived* capacity to respond. I emphasize the *perceived* capacity. In simple terms, stress is lack of 'fit' of an individual with his or her environment. I often say in these talks: 'Is there anyone in this room who was not stressed today?' If somebody puts up their hand, I say:



Professor Graham Burrows

'Perhaps you should lie down, you may be dead but just don't know it, because stress is a normal component of life.' What should be considered is when 'stress' leads to 'strain'. The term should probably be 'strain management'.

Stress management techniques aim at maximum efficiency. Below a certain demand level, we are sub-optimal in our performance, whereas if the demand is too great, we end up 'breaking down'. Stress management attempts to have people cope at their highest level, and not go on to develop pathology. If stress is chronic, it can cause a number of physical, sexual, or behavioural disorders. The literature records twenty-one studies of the relationship of stress to cancer, a very controversial area. There appears to be something in the area of stress associated with a number of physical conditions. It is known that stress has something to do with the limbic system, but the neurophysiology and the neuroanatomy is not very clear. If the stress is large, there is an alteration in the hypothalamic adrenocortical axis, with a possible increase in blood pressure which may be manifested by metabolic effects, blood pressure effects, or in behaviour.

Stress models abound. In brief, an event and the way we perceive it, may lead to 'fright and flight', or to CNS arousal. It may lead on to what is called 'coping behaviour', or struggling to cope, or it may lead to inappropriate behaviour. To the person who is stressed 'coping behaviour' may be smoking, alcohol, over-eating, or avoidance behaviour as seen in phobic or panic disorders. Stress may lead to the development of coronary arteriosclerosis and myocardial infarction. This area too, is very controversial. There is increasing evidence that stress is a major factor, whether primary or secondary, in cardiovascular disease.

However, to move on to the non-physical stresses in our lives we are all familiar with. These may be, for example, major changes in life style. Psychiatrists and clinical psychologists have measured life events and apportioned to

them certain scores which add up to a 'life event scale score'. So by comparing a control group with a pathological group, it has been established that there are certain major changes in our life which may lead to very stressful scores in individuals, such as marriage, or divorce, or children leaving home, or beginning or ending of school, or the end of an academic year for example.

People spend a lot of their lives defending themselves against loss of control. We go to great lengths to protect ourselves against what we are really like, and we do not necessarily show ourselves to others very clearly. An unexpected life event, such as the death of a loved one, sudden loss of a job, a terminal illness, sudden failure in business, a motor accident or so on, can be extremely stressful. The loss may not be a real loss; it may be an imagined loss; it may be loss of self-esteem or loss of face.

There is good evidence that progressively accumulating situational events can lead to a lot of problems of stress and strain. These include job stresses, family problems, love, sex and so on. It is the slow accumulative sort of stress which people do not necessarily notice.

We studied the Young Presidents Organization, a group of people who are less than 40 years of age, earn more than \$5m a year, employ a certain number of people, and are considered to be 'successful'. When asked whether they were stressed, many said: 'No, I'm not stressed; I don't worry about stress; I don't feel it!' On talking to their employees, to their wives and children, they reported a great deal of stress in the executives. There are a lot of people who think they are not stressed, but others around them report that they are really quite stressed, and manifest it in different ways.

To look, for example, at organizational stress, whether in a medical faculty, a health department, a hospital, a general practice setting, or a multi-practice setting, we find that little or no participation in decision-making is most stressful. If we do not have a say in what is happening to us as individuals, we feel very stressed. If there is restriction on our behaviour, by budgets, office politics, lack of effective consultation, poor relationships with the boss, subordinates or colleagues, or if there is particular difficulty in delegating responsibility, then we find 'stress'. It is fascinating going around industry, to see the number of people at the top who have great trouble in delegation, and who suffer a lot of stress because of their poor delegating skills. We have tried to evaluate their stress from different viewpoints, including the environmental factors, organizational factors, personal responses to stresses and whether they are physical or psychological and to personality factors. The important factor in the end is often the individual personality.

In brief, if an individual is stressed too much, there is emotional arousal, the 'fright, flight, fight' type of mechanism. This may lead to mood changes, dysphoria, feelings of anxiety, anger, grief, and eventually depression. That is why psychiatrists are intrigued with the process of stress leading to the professional condition known as 'burn out'. So if the demand and resources do not match, job stress develops to the point of strain. The initial stages are tiredness, going to sleep in lectures such as this, fatigue, irritability and defensive coping mechanisms. The person may become emotionally detached, they may withdraw, they may become the office or class cynic — been there, done that, you people are all wet behind the ears, etc. — and they become much more rigid in their coping mechanisms. The process of 'burn out' may be detected early by the onset of this defensive coping mechanism. How do we recognize 'burn out'? There are health indicators, behavioural indicators, emotional adjustment indicators, relationship indicators and attitude indicators.

The statistics of stress amongst doctors in Australia are very difficult to find; the literature in Australia is dismally short. Davies, Mowbray and Jensen (1968) looked at medical students at The University of Melbourne who had significant neuroses. They found an 11% incidence in males and 23% in females. A summary of the literature on stress amongst doctors varies from 0 to 47% of doctors who were sufficiently stressed to develop a significant neurosis.

Doctors get reported to their colleagues at the Medical Board when they are incompetent, when they develop malicious and unethical behaviour, or when they suffer a major psychiatric disorder. What are the major psychiatric disorders that doctors develop? Well, they are the same as among the general public: alcoholism, drug dependence, depression, suicide and major mental disorders. There is little research and hard data, but the term the Americans use, and has caught on around the world, is 'physician impairment'. There is good evidence to show that alcoholism is much higher amongst the medical profession than many other groups. Drug addiction varies according to the professional group; up to 20% of anaesthetists have mental or drug addiction problems. It would be of interest to know what the Victorian figures are. Most doctors are healthy. Nevertheless, mentally ill doctors have a family history of mental illness. They come from unhappy homes; they make unsatisfactory adult relationships and unhappy marriages and so on. The psychiatric history of doctors with a mental disorder is no different from that of non-doctors.

The question you are asking, I am sure, is whether stress is greater in the medical profession than say, the legal profession, or the engineering profession or any other profession. It is said that doctors make the worst patients; they seek treatment late, they neglect their emotional problems, and they neglect their physical disabilities. Studies throughout the world in many countries, with different cultures, report the same sort of findings in doctors. Of the people who enter a medical career, those with the best academic records are said to go into the basic sciences; those with lesser academic records, who are extrovert and have low anxiety, become surgeons. The more anxious, and those who have failed more examinations during their course, become general practitioners, and those who are much more reflective and tolerate ambiguity, go into psychiatry!

Blakey (1968) investigated doctors' suicides and found that the majority had a serious affective disorder, or mood disorder, that 38% had been in psychiatric treatment, 26% were in treatment at the time of their suicide, 50% of them used alcohol at the time of suicide, and 44% were disdainful of psychiatric treatment.

To look at depressive illness in medical practitioners, doctors who become depressed have certain personality traits. They have compulsive attention to detail, high aspirations, competitive striving, prolonged deferral of gratification, unwillingness to accept help, inability to adjust to loss, have a hypomanic trait, and place a high value on independence and personal dominance. That interesting personality type could be termed the true obsessive compulsive person. To look at the psychological risk factors for cardiovascular disease, these are not universally accepted, but the coronary-prone 'behaviour type A' concept is very similar: excessively competitive, striving diligently towards achievement, more perfectionist, tense and unable to relax, putting more effort into their occupation, active and energetic. But they have a self-induced 'time pressure', they sit at lectures like this wishing it was terminated, and they wonder why they are here, and why they should not be at home, or doing something else.

How would you recognize that a medical colleague was at risk? Well, they have short periods of emotional disability; they have changes in the direction of their career; they have fluctuations in the stability of their personal life. Clinically, they have excessive tension with diagnostic problems, increasing indecisiveness which they did not have before; they may go on to gradual neglect and disorganization of their practice; they have absences from their practice, they become depressed or anxious; they use more drugs and alcohol in their own lives. The sudden awareness of oneself as middle aged or old, may be a precipitating stress for some people. We are all very familiar with the midlife crisis syndrome. The high risk suicide practitioner is 48 years old, graduated near the top of his class, is in a peripheral speciality, deals with chronic problems where 'job satisfaction' is difficult, who is active, aggressive, ambitious, competitive, compulsive, enthusiastic and individualistic, easily frustrated, and uses large amounts of anaesthetic and psycho-active drugs in his practice. That is a caricature, because I am not certain that we have good facts for the Australian high risk suicide doctor, partly because of the way in which statistics are kept. To look at doctors and their stress, the sources of their stress may be personal, the physical environment, or interpersonal. I suggest to you that it is the interpersonal which is the most important.

There are many myths about doctors and they include 'that good doctors do not ever make mistakes', 'good doctors should always appear sure of themselves' and, 'if I make a mistake, that shows I'm inadequate!' At this University, there are some who still believe those myths. The doctors' stresses included exposure to disease and illness in the clinical situation, chronic sleep deprivation particularly during certain phases of the medical career. There are stresses in specialities and in specialization. It is said for example, that it is high in O & G, and surgery, and low in psychiatry and paediatrics. I would question that because of job overload and organizational stress in psychiatry.

It is interesting to watch medical students come into psychiatric wards. They are sometimes anxious. I recall entering a psychiatric ward when a patient approached me shortly thereafter and said, 'We have been talking about you.' I must have shown some stress for he said, 'That's all right; relax, it's OK; we've decided we like you!' I felt quite uncomfortable but I said politely, 'Why is that?' He said, 'Well, we've been talking about you, and we've decided you're one of us.' He was standing there with his hand under his coat. I had read about this and hesitated. I said, again politely, 'Who are you?' He said, 'I'm Napoleon!' I did not know what to say to that, but I said, 'Who said so?' He said, 'God did!' and a voice from the back of the ward said, 'I did not!' That was my first introduction to paranoid schizophrenia. Those people still exist; they are rare, but they do exist.

It is said that some specialties are more stressful than others. It may have something to do with the practitioner's time of life or other factors in their life. It may be related much more to what is going on inside his head than to the specialty itself. There is evidence that many young doctors experience sleep deprivation and a number of studies have shown that they may have cognitive impairment in decision-making, and that they can go on to being depressed and much more irritable. It may be in part the party life they have, the amount of time they are 'off'. Some studies have shown that as many as 30% of doctors in their early hospital years have significant depression.

Recently we held some meetings for general practitioners. Some of their stresses they perceived were: time pressure, too many patients, working for wages, control, competition, manipulative and aggressive patients, drug addicts,

government pressures, death of a loved one, 'doctor bashing', partnership problems, financial problems, demanding or questioning patients. These comments, made only a few weeks ago, are typical of stressed groups and can be easily transposed to other professional groups.

Our research has confirmed that a most important aspect of stress and stress management is attitudes. Stress has to do more with the person's attitude and perceptions than with real life. Although they blame the boss, the budget, the wife, the children, and everything else, it is really to do very much with the way a person perceives his life, and what they do with that perception.

Stress management

This involves many techniques, including cognitive or behavioural restructuring, relaxation therapy, meditation, hypnosis, biofeedback, habit modification, assertive training, changes in life-style, time management, nutrition, exercise, and in a few people, intensive work with a clinical psychologist or a psychiatrist in psychotherapy. It is fascinating to see the number of people who are stressed because their 'time management' is poor. They try to fit 26 hours into a 24 hour day, and then wonder why they are stressed. They have no true perception of time. Studies have shown that the obsessional person has a poor perception of time. Quite the reverse of what many have thought, the obsessional person arrives late for appointments, not early. They arrive late because they cannot give up what it is that they are doing; they think that they have got far more time, and that what they are doing is much more important. Because of the limitation in time, I thought I would talk on just a few techniques of stress management. My repeated message is that it is not events, but the view you take of those events which may be most stressful for you.

A behavioural approach, or cognitive therapy, involves looking at the way a person thinks, and restructuring that process. It involves simple steps such as identification, and self-observation, of irrational thoughts. Having done that, then analysis of the effects of those thoughts on the person's behaviour; and then, thirdly, some verbal dispute on the realistic basis of the ideas, and the development of more rational thoughts and attitudes, such as the earlier example: 'doctors have to always be right'. This is irrational, illogical, and is challenged.

These days psychiatrists frequently combine drugs and behaviour therapy for people who are too stressed. There are many who suffer from 'examination anxiety', and keep failing because of it. Even though they may receive instruction in stress management techniques, the addition of a small dose of a beta-blocker may be very effective. The addition of a small dose of benzodiazepine may be very effective in stress in particular situations, and I have seen both undergraduate and postgraduate candidates in all disciplines who have benefitted from short term pharmacotherapy. But of course, as we all know, we should not treat ourselves, although we may use a psychophysiological method of biofeedback, or other psychological methods including relaxation training and/or hypnosis.

A person who is chronically stressed may end up becoming depressed. It may be a slow, insidious process, in which they begin to show loss of interest, lack of pleasure, and then go on to being depressed, with early waking, and a diurnal swing of mood. Psychiatrists give attention to the sleeping patterns of people when they are stressed. The anxious person has trouble going off to sleep. At night in bed they lie there tossing and turning; they rehearse, they go over what they would have said, etc., and they eventually go off to sleep and the alarm goes. They feel tired and want to stay in bed. That is quite different from the person who goes off to sleep

easily, but who wakes at 2, 3 or 4 o'clock in the morning. It is their worst time of the day; they feel dreadful. They may get up and go to the toilet, or go to the fridge. As the day goes on, they improve, unlike the previous group, who get worse as the day goes on. That early morning waking pattern is of interest because it is common in 'endogenous' or 'major affective disorder' or 'biological depression'. The high risk suicide doctor is 48-50 years, which is also about the age when people develop endogenous depression. The person likely to suffer from this type of depressive premorbidity is an obsessive compulsive individual.

Loss of interest in sex may be one of the first signs of depression. In middle age, that may be the way the person presents, and they might be over- or incorrectly investigated, when they have in reality a major affective disorder.

To look at altered states of consciousness, and techniques of hypnosis, there are many phenomena in hypnosis. In 1971 we formed the Australian Society of Hypnosis; at that time hypnosis was controversial. If you were a psychiatrist you were frowned upon, and if you practiced hypnosis you were in even greater trouble. But these days hypnosis is much more acceptable both here, nationally, and internationally. The International Society of Hypnosis has been centrally organized from the Department of Psychiatry/Austin Hospital, since early 1986.

One phenomenon of hypnosis is time distortion. Subjects during an hypnotic trance state frequently that they experience an acceleration or a slowing of time. Timelessness is also frequently reported. In a stressed person, if they are stressed because they are flying from point A to point B in an international jet, or if they are concerned about a pain, or if they are concerned about 'examination anxiety' or whatever, hypnotic techniques are very helpful.

Another stress management technique is exercise. One of the problems doctors have, is that they are very good at giving others advice on exercise, but often they do not carry it out themselves. There is good evidence to show that if we exercise we can improve our stress levels, and this may have something to do with endorphins. There are some people who have quite marked 'highs' on physical exercise, and that is something people need to consider.

In stress management training, we are really looking at reorientation of an individual's typical stress reaction or habit towards mental health. We try to help people change to a more rational and assertive pattern of problem solving. There is no doubt that the highly stressed are not assertive but aggressive. Mental health is the ability to feel comfortable about yourself, about other people, and about your abilities to cope with the demands of life.

When teaching stress management techniques to doctors, who place so much value on their independence, they often feel very threatened; many will intellectualize or say 'I'm not going to be told what to do.'

To give you an example of relaxation, I would like you to just get as comfortable as you can on those seats and close your eyes, if you want to. I would like you to close your eyes and try to relax and I am just going to give you some suggestions you might be able to carry out. Just relax your toes, let them go loose and floppy; if you are uncomfortable, move and get comfortable. All right, relax your ankles, relax your lower legs, relax your knees, relax your thighs, relax your tummy, relax your breathing, slow your breathing down. Good. Relax your hands, relax your arms, relax your shoulders, relax your head and neck and your facial muscles. Just imagine yourself going really loose and floppy. Use your imagination to help you relax.

I would like you to imagine that you are not here now; you are somewhere else that you find very relaxing. Place

yourself in your mind's eye there now, just imagine that you are actually there, maybe at the beach, in bed, in the country or somewhere. Place yourself there now, feeling really relaxed. Relaxed. Now, without opening your eyes, change the scene. Put a colour inside your head; work at putting a colour there, remember that colour. Changing the scene again without opening your eyes, I would like you to imagine that we are walking in the country now. It is a beautiful warm summer's day, feel the gentle breeze on your face, you are walking through a clearing now, there is a butterfly over to the right. As you walk along, you come across a beautiful white cottage, full of the furniture and furnishings that you like. There is a comfortable couch there, you stretch out as you lie down on the couch and relax. You look around the room; this is your room, your own secret room where you can go anytime you like to relax, you can use a code word and my code word for you to relax is Omega, the Greek letter, Omega. So when you want to relax, you say Omega to yourself, and you relax. You couple the code word to the feeling of being relaxed. Omega, and you relax. You feel quite comfortable now, your breathing has slowed down, you are feeling quite relaxed. After relaxing, whenever you want to wake up, you always wake up slowly by counting backwards from 3 under your breath. 3 — you are waking up, 2 — you are getting lighter, 1 — you are wide awake and relaxed.

Most people doing that feel more relaxed. Some might not; some might find it fairly anxiety provoking. To go through this quickly, there are a number of relaxation techniques, systematic relaxation in which you relax muscle groups progressively throughout your body. There are variations of course; for example, you actually tense the muscle group and then relax it. So you tense your hand, relax it. You tense your shoulders, relax them, etc; these are isometric exercises. I often say to people that instead of driving the car in the morning and sitting at the traffic lights feeling very angry and hostile to the drivers in front of you, sit there and tense and then relax your hands on the steering wheel. A further technique involves using imagination, in which you can take yourself to somewhere you find very relaxing; some go to the beach, some to the country, and so on.

Some people have trouble with visual imagery, and cannot easily imagine a visual scene and sometimes the simple technique of putting a colour in the head is useful. Who thought of greens and the browns? Earthy colours, down to earth. Who thought of the blues? Up in the clouds, away from things. Who thought of blacks and the greys? Depressed, come and see me. Who thought of oranges and reds? Sex and aggression! The psychology of colours is interesting.

I then introduced an idea called 'the secret room' technique, where I got you to go through the countryside into your own private room. Some people who are stressed, or have chronic pain, or are phobic, can find that very helpful. They can take themselves to their own secret room. I showed you another technique — coding, with the code word 'Omega', and this is helpful with highly hypnotizable people.

There are many imagination techniques, but you might like to know some self-hypnotic techniques. There are a lot of myths about hypnosis. Hypnotizability is a genetically predetermined potential or capacity. Identical twins have the same concordance rate; non-identical twins do not. Charcot discovered this many years ago, and discussed the genetic predisposition, and it has taken all these years to prove he was right. If people are tested on, for example, the Stanford hypnotic clinical scale, a five point scale, 20% score 1, 20% 2, 3, 4 or 5. Hypnotic potential is stable throughout life, reached at about 8 or 9 years of age, with only a slight decline in older age. If a person scores 1, even though wanting to be hypnotized and really motivated, it cannot be achieved.

A technique for assessing hypnotizability

If you would like to get comfortable and put your arms straight out in front, in the air. Now with your hands out in front, close your eyes. What I would really like you to do is just to concentrate on your hands; think of your hands at the end of your wrists and think of nothing else. As you concentrate on your hands, you will find that one of them begins to feel heavy, while the other one begins to feel light. Do not worry about it; let the heavy hand move downwards towards the desk; once it goes, it goes on its own. It gets heavier and heavier, while the other one gets lighter and lighter. The light one floats up into the air and goes higher and higher, while the heavy one gets heavier and heavier, and moves easily downwards. Easily down, as it gets heavier and heavier. Without moving your hands, open your eyes and see where your hands are, and then you can look around and see where other people's hands are. All right, you can relax your hands, thank you. That is part of a standard hypnotical clinical scale; some people put their hands out and say to themselves, 'I'm not going to move my hands!' They offer resistance, but some, if you let yourself go, were quite surprised where your hands were. Some of you were not even certain which hand had moved; some people do not know if it was the left hand down or the right hand down. If you moved your hands more than about 3 inches, you are a good hypnotic subject.

These and other techniques can be used in stress management, in situations such as in an aeroplane, a dental chair, to concentrate, to 'switch off' and so on. It is useful to find out people's hypnotic potential. There are many who have that potential and who have never realized it. So if you moved your hands, you are probably a good subject. If you did not move your hands, it does not necessarily mean you are a bad subject, because you may, in fact, have felt quite threatened by the whole environment, and resisted.

There are many stresses working on us at various times in our lives, but the message is that we have to be responsible for ourselves, and we have to do something about it. I have tried to cover, at a gallop, some of the stress management techniques which are available and which may be helpful.

Q: Is there a difference in people's ability to achieve relaxation?

A: People can be divided approximately into the 80% who, when they want to relax, want to be passive, like to sit in front of the TV or read a book or listen to music. The other 20% are active. Those are the joggers of the world, the highly active sort of people. If you take the active people and make them passive, they may be quite stressed, and *vice versa*. The problem with jogging is that people often do it with the wrong shoes, run on concrete when they should run on grass, and so on. There are obvious problems with exercise not carried out correctly.

Q: Are we in an age of greater anxiety for doctors? Does the telephone contribute to this problem?

A: It depends whether you are an optimist or a pessimist. We had a meeting here on 'The Age of Anxiety' about ten years ago and there were about six panelists; somebody asked much the same question, 'Are we more anxious today than we were fifty years ago?' Three of the psychiatrists said 'yes' and three said 'no'. If you looked at the personalities of the psychiatrists, you could find out which were the optimists and which were the pessimists. I do not think there is good evidence to show that the doctor in 1986 is any more stressed than the doctor of 1886, in fact there is probably evidence to show quite the reverse. A telephone may be very stressful to some people. Doctors may be very stressed if they cannot get

to a telephone. They almost live by the telephone, and if a phone goes and they cannot answer it, they can become more stressed. So really it comes back to the concept I repeat: It is how the individual perceives the stressor.

There are of course, people who relish stress. They like to be stressed all the time, and I suppose that is part of the first question. If you deprive them of stress, they might develop minor illnesses.

Q: Would you elaborate on stress and the cardiovascular system?

A: The literature is vast and very controversial. We did a study a number of years ago in which we looked at people who had an acute myocardial infarction. We tried to measure recent life events and scored the matched people for that group. We showed that in the group of people who had the coronary matched for age, education and background, had far greater recent 'life events scores'.

Q: What is the proportion of people stressed in the community, and how do they cope?

A: In studying organizations we have been interested in the number of people who came afterwards for consultations regarding their stress levels. If you take a community, at any one time about 20% of them have significant stress today. If you follow them over the next six months, you find the same figure, but it is not the same people. I think most people cope with their stress; they do not need intervention; they do not need medical practitioners; most people cope with it. We really have to identify those people who cope poorly.

Q: Is exercise always healthy?

A: There is some evidence of the effect of exercise on mental fitness, and generally it is positive. There are some people who are stressed if they do not 'win the race'. An old saying has been 'healthy mind, healthy body', not the reverse 'healthy body, healthy mind'.

Q: Could you recommend a book for further reading?

A: Bibliotherapy and educational material can be quite useful in therapy. I can recommend *The Relaxation and Stress Reduction Workbook* by Davis, Eshelman and McKay. There are many more books which I do not recommend. Some people have to have something to take away and learn and read and follow. The Workbook has a number of different techniques. One patient will say that he likes one particular chapter, but does not like another. Medical practitioners should use such books as aids, but nothing more than an aid. You go over it with them, but it is just too simple to say, 'Here, take this book and go away and read it', and not deal with the problems.

Q: What is the recommendation for diet in stressed people?

A: A well-balanced diet? I have never been really personally convinced that quackery of diets, or that excessive diets of any form, have really contributed.

Q: Does tobacco smoking create stress problems?

A: Nicotine and tars have adverse effects. If a doctor can help another person give up smoking he has made a significant contribution to the health of an individual. The Mental Health Foundation's 'How to give up smoking' programmes have a reasonable amount of success. A review of the data of various techniques for giving up smoking shows a 30% success rate. In hypnosis, in highly hypnotizable or medium hypnotizable people, it is as high as 60%. Hypnosis is a technique which can be helpful.

In therapy, as you know well, if the doctor believes it, and the patient believes it, the result is success.

Medical Genes



'Medicine tends to run in families' it is said, but surely rarely as strongly and over three and four generations in the direct line, as in the family chronicles we have collected.

As a contribution to the 125th anniversary of our Medical School, we sought the help of those we knew were from 'medical families', and the astonishing findings are printed below. Many of us can dredge up an anecdote told by a grandparent about an occasional medical ancestor — in my own case, eleven Charles brothers of Cooktown, Ulster (cousins of my great grandmother). Ten of them became doctors (one was knighted as D.G.I.M.S.), and the eleventh was an (Anglican) Dean of Westminster. These were just 'flashes in the pan' compared with the depth and diversity of the Cordner, Hurley, James and Trinca families. There are more to come: the Gaults, the Smiths (Julian), the Symes and the Zwars and others not yet identified, and we shall continue the series in the 1988 issue of *Chiron*.

Peter Jones

Three Generations

The Cordner Family

Henry (Harry) Cordner	Grad. 1909)	Brothers
Edward Rae (Ted) Cordner	Grad. 1910)	
Edward Pruen (Ted) Cordner	Grad. 1942)	Sons E.R. Cordner
Donald Pruen Cordner	Grad. 1945)	
Stephen Moile Cordner	Grad. 1977)	Son D.P. Cordner



Edward Rae (Ted) Cordner
1887-1963

Five males with the surname Cordner have graduated from the University of Melbourne Medical School this century. All are closely related and three of them represent three generations in the direct line.

It is interesting to note that Henry Cordner, grandfather of Ted and Harry, arrived in Melbourne from Ireland in

November 1852 at the age of 19 on the maiden voyage to Australia of the SS *Great Britain*. In May 1854 he married Martha Diggles Hislop, then aged 18, who had arrived in Melbourne from Liverpool aboard the sailing ship *Fanny* (960 tons), in July 1852. They had eight children, four sons and four daughters, the eldest of whom, Edward James Cordner (1856-1930), married Helen Rae of Bendigo, daughter of John Rae who founded Rae's School, Bendigo. In 1896 they moved to St. Kilda with their then five (subsequently seven) children and their first and second sons, Harry and Ted, went to Melbourne Grammar in 1897. There each of them had outstanding school careers both scholastically and athletically; Harry was dux of the school in 1902 and Ted captain of the school in 1904 and 1905.

After leaving school Harry joined the staff of Dalgety and Co. Melbourne, for two years before starting his medical course in 1905; Ted went straight to the university in 1906 and for the next four years their careers were remarkably parallel. Each had played a few VFL games for Melbourne before starting their medical course; each was resident in Trinity College for three years; each earned both football and cricket blues; each was eventually captain of both the cricket and football teams; each obtained Honours at times during his medical course, and Ted obtained the Surgery Exhibition in his final year.

Harry graduated in 1909 and spent a year as RMO at the Perth General Hospital in 1910, during which time he played interstate football for W.A., and then returned to Victoria, first to the Infectious Diseases Hospital in 1911, the (now Royal) Children's Hospital in 1912, and then to the Bendigo Hospital, 1913-14, as Resident Surgical Officer.

Meanwhile, Ted had spent two years as Junior and Senior RMO at the (now Royal) Melbourne Hospital in 1911 and 1912, and then worked in outpatients at both the Melbourne and St. Vincent's Hospitals, during which time he made two overseas trips as ship's surgeon, one to England and one to China (during which, he used to claim, he took part in the first chess game by wireless between ships at sea). In mid-1914 he settled in general practice in Fitzroy.

Both went to the First World War, Harry as a Lieutenant R.A.M.C. (he enlisted in England) and served in France and Mesopotamia, and Ted as a Captain A.A.M.C., serving in Egypt, Gallipoli and France. By the end of the war each had reached the rank of Major. Harry was mentioned in despatches in 1917.

On his return from the war, Harry worked as a physician in Hobart from 1920 and eventually became Medical Officer to the Electro-Zinc Works in Ridsden. In 1922 he married Ivy Hills and they had four daughters (none of whom studied Medicine) and the whole family became members of the Plymouth Brethren sect. Harry died of cardiac problems in 1943 aged 58.

Ted Cordner married in 1918 an English V.A.D. — Margaret Constance Pruen — he met in France, and they arrived back in Australia aboard the RMS *Osterly* in late 1920. In 1921 they settled in general practice in Diamond Creek and moved to Greensborough in 1933. For all those years Ted was the only G.P. north of Heidelberg, an area which supports over 150 G.P.s today.

Ted and his wife became widely known and respected in the Diamond Valley area. They were heavily involved in local church, sporting and cultural activities, and Ted was primarily responsible for the founding of the Diamond Valley Community Hospital in 1941. He died from carcinoma of the colon in 1963, aged 76.

Ted Cordner had four sons — Edward Pruen (Ted) born in England in 1919, and Donald Pruen (1922), George Denis

(1924) and John Pruen (1929), all born in Diamond Creek. All four of them had distinguished careers at Melbourne Grammar and all graduated from The University of Melbourne where they had outstanding sporting and academic careers; all of them played VFL football as amateurs. Denis served in the R.A.N. during the war, and he and John followed business careers — Denis in Melbourne, where he is well known for his many interests and activities in several spheres (including two and a half years as Australian Consul-General in New York) and John, originally in Melbourne until 1970 when he moved to Sydney and is now Chief Executive of a large company, and serves on many committees and councils.

Ted entered the Melbourne Medical School in 1937 and graduated in 1942 and spent a year as RMO at the Alfred Hospital. He then joined the R.A.N. and served for three years, in the Pacific, then in the U.K., and finally in the Pacific again. He was 'demobbed' in 1946 and spent six months at each of the Royal Children's and Royal Women's Hospitals as an RMO, did some general practice, and was for two years Clinical Supervisor at the Alfred Hospital, during which time he completed his M.D. and M.R.A.C.P. He also completed his M.R.A.C.G.P. in 1968 and has subsequently succeeded to Fellowship of both colleges. He was a Clinical Assistant at both the Alfred and Austin Hospitals for over thirty years. In December 1951 he married Anne Baillieu and they had six children, none of whom has followed a medical career.

In 1952 Ted settled in general practice in Greensborough, where he still lives and works, although he is now 'winding down' a little. He has been closely associated with the community scene in the Diamond Valley area, in church, sporting and social spheres and particularly with the Diamond Valley Community Hospital, where he has been the Medical Representative on the Board for thirty-five years. The recent onset of some musculo-skeletal problems has not diminished in any way his continuing keen and active participation in both royal tennis and tennis.

Donald entered Medicine in 1940 and graduated slightly less than five years later in March 1945 because of the very considerable shortening of the course in war time, and he was for one year RMO at the Royal Melbourne Hospital. He then settled straight into general practice in Diamond Creek as assistant to his father, who was then working in Greensborough.

In October 1947 he married Moyle Dewhurst Stubbs who had just completed her nursing training at the Royal Melbourne Hospital, including a year as Staff Nurse, and where, in 1946, had won the Gold Medal.

They lived at Diamond Creek until 1975 and each became deeply involved in local affairs — church, sporting, hospital, educational, and when their children started to go to school in Melbourne, they became involved in the Melbourne scene also. Like Ted and his wife in Greensborough, they belong to a generation of G.P. families which is now fast disappearing, in which the G.P., usually working on his own, lives in, is associated with, is at all times available to, and is in fact part of, the area and the community in which he works. In 1975 the house and consulting room became surrounded by the district's expanding commercial development, and they went to live in Heidelberg, from where Donald still conducts a practice in Diamond Creek — albeit now with associates of a younger generation. Like his brother Ted he spent three months in the late 1960s working in a civilian hospital in Vietnam. He has been a J.P. since 1952, a Foundation M.R.A.C.G.P. in 1968 (and now a Fellow), and is currently Chairman of the Melbourne Grammar School Council and President of the Melbourne Cricket Club.

Donald and his wife had three children — their eldest daughter, Jenny, born in 1948 attended Lauriston Girls School for nine years, spent three years nursing and one year as a Staff Nurse at the Royal Melbourne Hospital, and then travelled overseas, met and married a Canadian, and subsequently settled at Wolumla in the Bega-Merimbula area of the N.S.W. south coast, where she now has four children and works at the Bega Hospital.

Donald and Moyle also had two sons — Christopher born 1949, and Stephen (1952). Like their sister, they attended the local school for a few years, and each then attended Melbourne Grammar for about nine years, where they both had distinguished academic and sporting careers before proceeding to The University of Melbourne. Christopher graduated B.A.(Hons.) in 1971, obtained a football blue, was appointed Victorian Rhodes Scholar for 1972 and proceeded to Oxford. Here he gained a B.Phil. in 1975 and a D.Phil. a few years later, and won a blue for tennis. He married Merrin Walsh who, like her mother-in-law, had spent three years training and a year as Staff Nurse at the Royal Melbourne Hospital, and had wide experience as a visiting nurse in socially deprived areas. She had also obtained her Midwifery Certificate.

Christopher still pursues an academic life in philosophy and returns to the Melbourne University Philosophy Department this year (1987).

Stephen started his medical course at The University of Melbourne in 1971 and graduated in 1977 — the extra time being explained by the fact that he took a year off, after 4th year, to complete a B.Med.Sc. He had been interested in forensic medicine since his mid-teens, and it was no surprise when, during his course, he decided to concentrate on this aspect of medicine. He spent his B.Med.Sc. year studying tattoos and presented a report 'Tattoos in the Community' which earned him his degree with a special (but unofficial) commendation; he spent that year largely in gaols, brothels, mortuaries, tattoo parlours, police stations and police courts (and even had himself tattooed, without any dye, to see if it hurt!).

In the last two years of his course Stephen completed a Diploma of Criminology (in the Law School) and also set up and ran a Rape Crisis and Advice Centre in the Casualty Department of the Royal Melbourne Hospital, with the close help and assistance of Melinda Schneider, M.A., — a Psychology student whom he married in 1978. Stephen gained Honours in his final year and finished high enough in the list to qualify for an Internship at the Royal Melbourne Hospital, incidentally completing a three-generation association with that hospital which has occurred only very rarely.

After his Intern year he spent two years in the Pathology Department of the Geelong Hospital under the supervision of Dr Vernon Plueckhahn, who directed his tattoo studies, and who he freely acknowledges as guide, philosopher-counsellor and friend to him over the last ten years. He then found a job as lecturer in forensic medicine at Guy's Hospital, London, where he has now worked for six years doing a tremendous amount of police and court work, and in that time, completed a F.R.C.Path., F.R.C.Path. Australia, a D.M.J., and the first year of an L.L.B. at London University. His wife is currently proceeding with a Ph.D. in analytical psychology at London University, and they have one daughter. Earlier this year Stephen was appointed Foundation Professor of Forensic Medicine at Monash University, and also first Director of the Victorian State Institute of Forensic Pathology nearing completion in South Melbourne. He will take up his duties on 5 May 1987.

The Hurley Family

Thomas Ernest Victor Hurley	Grad. 1909)	Brothers
Leslie Hurley	Grad. 1917)	
John Hurley	Grad. 1944)	Victor's sons
Tom Hurley	Grad. 1947)	
Kate Jackson	Grad. 1969)	Victor's grandchildren
David	(W.A.) Grad. 1975)	
Victor Andrew	Grad. 1977)	
James Crowther	Grad. 1981)	
Ian	Grad. 1984)	
Mark	Grad. 1985)	
Robert	(W.A.) Med.Stud.)	



Thomas Ernest Victor Hurley
1888-1958

The eldest of seven children, Thomas Ernest Victor Hurley (always known as Victor) was born on 3 January 1888. His father Thomas was a schoolmaster and later Inspector of State Schools, and his grandfather, John Hurley, a farmer who migrated from England to Victoria in 1861 and settled at Ceres, near Geelong. Victor attended local schools and obtained scholarships to Wesley College and then to Queens College in The University of Melbourne where he graduated in Medicine in 1909. He was resident medical officer and later Medical Superintendent of the Melbourne Hospital and obtained the M.D. and M.S. degrees.

On the outbreak of the First World War, in August 1914 he enlisted in the A.I.F., joined the 2nd Field Ambulance and served in Egypt, in the landing on Gallipoli, and as Assistant Director General of Medical Services in London. On discharge from the A.I.F. he took the F.R.C.S. in London, and was appointed an Honorary Surgeon to The Melbourne Hospital on his return to Australia. In London he met and married Elsie Crowther, daughter of Dr G.H. Crowther, founder and first headmaster of Brighton Grammar School. He remained a member of the Honorary Medical Staff of The Melbourne now Royal Melbourne Hospital until his retirement in 1947. He was a member of the Board of Management and President from 1947 to 1956.

Between the wars he established a successful surgical practice and was active as a teacher of both undergraduates and postgraduates, and as Stewart Lecturer in Surgery, the senior academic post before the creation of Chairs of Medicine and Surgery, from 1941-46. He examined in surgery

for the Universities of Melbourne and Adelaide, and was a foundation Fellow of the Royal Australasian College of Surgeons, and President of the College in 1951. He was knighted in 1950.

In the Second World War he was appointed Director General of Medical Services to the Royal Australian Air Force, with the rank of Air Vice Marshal.

Victor Hurley was a leader in other fields including the Charities Board of Victoria (subsequently superseded by the Hospital and Charities Commission and finally by the Health Commission), the State and Federal Councils of the B.M.A. (later the A.M.A.), the Australian Red Cross Society, and the Medico-Legal Society of Victoria. In his memory the Royal Melbourne Hospital established the Victor Hurley Fund to support Medical Research within the Hospital.

Victor was the first doctor in the family and his brother, Leslie, followed him, graduating in 1917. He later became an Honorary Physician at the Melbourne Hospital and Stewart Lecturer in Medicine. In the next generation, two of Victor's six children, John and Tom, did medicine — John becoming Professor of Pathology at The University of Melbourne, and Tom a Physician at the now Royal Melbourne Hospital. Tom also followed in Victor's steps when he became President of the Board of Management of the Royal Melbourne Hospital in 1985. Three of Leslie's seven children became doctors, and in the next generation seven of Victor's 21 grandchildren graduated in Medicine.

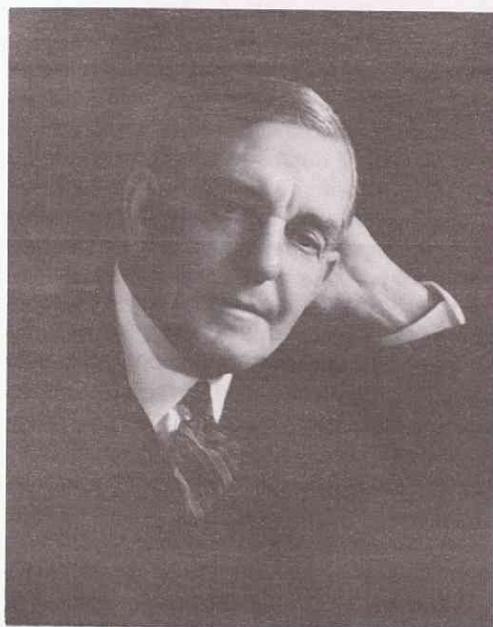
Professor John Hurley graduated in 1944 and after serving in the R.A.A.F. during the Second World War also chose surgery as his career. Early in his surgical training, however, he developed tuberculosis, a hazard facing young doctors and nurses in the era before Streptomycin and, after a number of years of incapacity, decided on a career in Pathology, initially working with Professor E.S.J. King at the Royal Melbourne Hospital, and then in London as a Nuffield Fellow. He returned to the Pathology Department in The University of Melbourne, and in 1982 was appointed Professor.

Tom followed the medical pathway and after a term as Leslie's resident, and a year in the R.A.A.M.C. in the Occupation Force in Japan, he qualified as a physician and worked in London, and in Cleveland, Ohio, where he was a 'Melbourne Fellow'. This exchange position had been established by the 4th United States General Hospital from Cleveland which occupied the Royal Melbourne Hospital in 1942-44. He subsequently became an Honorary Physician at the Royal Melbourne Hospital, and served on a number of bodies including the Council of the Royal Australasian College of Physicians, the National Health and Medical Research Council, as Chairman of its Medical Research Committee, the Anti-Cancer Council of Victoria, the Commonwealth Serum Laboratories Commission and the Medico-Legal Society of Victoria. He became a Professorial Associate of the University and an Examiner in Medicine in the Universities of Melbourne and Western Australia.

The seven medical graduates who are Victor's grandchildren are Kate Jackson, who is Anaesthetist in Charge at the Cancer Institute; David, who graduated in Perth and is now Staff Endocrinologist at Royal Perth Hospital; Bill is completing his training in Anaesthesia at the Royal Melbourne Hospital; Ian plans to become an Ophthalmologist and is also at the Royal Melbourne; James Crowther plans to become a physician and is currently working with Professor Louis at the Austin Hospital on an NH&MRC postgraduate scholarship; Victor Andrew is a gynaecologist on the staff of the Mercy Maternity Hospital and Mark is a resident at Preston and Northcote Community Hospital. Robert is a medical student at the University of Western Australia.

The Trinca Family

Alfred John Trinca	Grad. 1908	Brothers
Frank Trinca	Grad. 1916	
John Collier Trinca	Grad. 1942)	Sons of A.J. Trinca
Gordon Walgrave Trinca	Grad. 1945)	
Allan Tornidor Trinca	Grad. 1946)	
Jennifer Jane Trinca	Grad. 1978)	Daughter G.W. Trinca



Alfred John Trinca
1884-1981

First generation

Alfred John Trinca was born in Warragul on 26 April 1884. He was educated at University High School, commenced his medical course at The University of Melbourne in 1903, and graduated in 1908 following a brilliant course, with first class honours in surgery and gynaecology, the Felix Meyer Prize in Obstetrics, and the Forensic Medicine Prize. He was Beaney Scholar in Pathology in 1909 and 1910 and obtained his M.D. in 1911. He still found time as an undergraduate to win the University Mile Handicap, running in bare feet, and to indulge his interest in collecting butterflies.

After graduation he was resident medical officer, clinical assistant to surgical outpatients, honorary assistant anaesthetist, and honorary assistant pathologist at the Melbourne Hospital (later Royal), as well as honorary clinical pathologist at the Alfred Hospital.

At the outbreak of World War I he enlisted in the Australian Navy and served on the hospital ship *Grantala*, which saw action against the German forces in Rabaul, the first engagement of Australian forces in that war. In April 1915 he enlisted in the Royal Army Medical Corps in response to an appeal from the British Government for doctors for the British forces in France. In this group were such names as A. Birnie, W. Newton, H. Dew, W. Scantlebury and G. Weigall. While serving with the R.A.M.C., Alf Trinca met his future wife, Adela Margaret Collier, a V.A.D. serving with the British forces in Rouen. They married in 1916 and had three sons, all of whom later graduated MB.B.S. at The University of Melbourne.

While in France, A.J. Trinca was threatened with a court-martial for failing to obey a British Army order prohibiting emergency surgical procedures in the front line. At a Casualty

Clearing Station he saw a large number of casualties dying as a result of the long delays in initiating definitive treatment, took a team up to the front, and commenced operating there. Lives were saved, but the authorities, more concerned with obeying orders than saving life, initiated a court-martial. The senior British surgeon, Gordon Gordon-Taylor, intervened and severely castigated the Tribunal for court-martialing one who 'should be honoured for his actions', which resulted in a stay of proceedings and later, new orders permitting emergency procedures at the front. It is interesting to note that some fifty years later, A.J. Trinca's second son, Gordon, became active in advocating and practising the same principles of early effective management of the severely injured, this time in the context of the road crash carnage.

After World War I, A.J. Trinca completed his surgical training at the Middlesex Hospital, London, and came under the influence of such men as Bland Sutton and Gordon Gordon-Taylor. Gordon Gordon-Taylor, regarded as the doyen of British surgery, was Gordon Trinca's godfather, and maintained a close personal friendship with A.J. Trinca until G. G-T's death in a motor vehicle accident in 1960.

In 1920, A.J. Trinca began a close association with his beloved Alfred Hospital which lasted until his death in 1981, and was also consultant pathologist to the Baker Institute from 1930-1947. He was clinical pathologist until 1926, curator of the pathology museum, and the first to develop the technique of frozen section. He had a profound influence on Rupert Willis and E. S.J. King, both of whom achieved world-wide eminence as pathologists. His active surgical career at the Alfred Hospital covered the periods from 1924-33 as outpatient surgeon, and 1932-46 as inpatient surgeon; he had a reputation as a magnificent teacher, endowed with remarkable manual dexterity. Innovative, at times controversial and unconventional, he was a pioneer in promoting the principle of non-drainage in diffuse peritonitis.

He extended dexterity into the field of angling, as a superb fly fisherman, and shared fishing expeditions with artists such as Harold Herbert and Charles Wheeler, often in the beautiful Kiewa Valley where he fished, they painted, and as 'artists', they shared a special fellowship. Some of their activities were of a questionable nature, such as clandestine midnight excursions into forbidden waters, sometimes accompanied by Peter MacCallum, Professor of Pathology. Fish caught in Port Phillip Bay were not infrequently cooked in the autoclave of 'Old Theatre' at the Alfred Hospital, where, on a number of occasions, the Matron contributed to the catch.

Alf Trinca wrote two books: *Sickness Without Sorrow* and *Life With Laughter* under the pseudonym 'G.P.', illustrated by Alex Gurney, creator of the Bluey & Curley cartoons. He wrote articles on breast disease, malignant disease, and inflammatory diseases of the abdomen. He abhorred quackery, and wrote articles and gave many radio broadcasts on the subject.

After he retired from the Alfred he continued his interest in medicine as lecturer in surgery at the Dental College until 1963, and continued into his nineties as a forty-year member of the Repatriation Assessment Appeals Tribunal, and surgical referee to the State Accident Insurance Office.

He was deeply distressed at the death of his brother Frank in 1956. Frank Trinca served in the Australian Army Medical Corps in France where he won the Military Cross for collecting wounded under fire. Frank's son, Geoffrey Trinca, served in the R.A.F. in World War II as a pilot, flying Hurricanes in the Battle of Britain before resuming his interrupted medical course at The University of Melbourne, where he graduated in 1950.

Alfred Trinca died after a short illness in August, 1981 at the age of 97, surviving his wife Margaret by some nine months. He retained his mental faculties to the end, remaining a staunch supporter of the Hawthorn Football Club, and a great lover of cats.

Second generation

John Trinca, born in London on 25 June 1919, was educated at Melbourne Grammar School and graduated MB.B.S., University of Melbourne in 1942. After a term as RMO at the Alfred Hospital, he served as a Flt. Lieut. in the R.A.A.F. in World War II. At Nadzab in New Guinea, he was the first doctor to treat his brother Allan whose thigh had been crushed by a 500 lb. bomb. J.C. Trinca resumed his association with the Alfred Hospital after World War II, until 1948. In 1949, he joined his brother Gordon, Cyrus Jones and Sam Benwell in forming the Clifton Hill Medical Group, one of the first group practices in Melbourne.

In 1958, he joined the Commonwealth Serum Laboratories (CSL) as a Senior Medical Officer, became Medical Director in 1975, and remained in that position until he retired in 1978. He was elected a Fellow of the Australian College of Allergists in 1966, and obtained his Membership of the Royal Australasian College of Physicians in 1975. His work at the CSL and in scientific publications covered tetanus prophylaxis, allergy and hypersensitivity, immunization, and venomous Australian animals. As scientific editor at CSL from 1965-78, he contributed to and edited the CSL medical and veterinary handbooks and the CSL allergens handbook.

With his cousin, G.F. Trinca, he made notable contributions in guidelines for the care of the envenomed patient, improved the understanding of severe allergy, and the treatment of insect bites and stings.

Gordon Walgrave Trinca, born in Melbourne on 7 January 1921, was educated at Melbourne Grammar School and graduated MB.B.S. University of Melbourne in 1945, having obtained first class honours in anatomy and been appointed prosector.

Following resident appointments at the Royal Melbourne and Mooroopna & District Hospitals, he joined his brother John in forming the Clifton Hill Medical Group and remained there until 1962. During that time he pursued his training under Stan Reid at Prince Henry's Hospital, Melbourne, obtaining his F.R.A.C.S. in 1958. He became honorary first assistant to the Reid Unit at Prince Henry's Hospital, and in 1960 spent a year in the United Kingdom as senior surgical registrar at St. George's Hospital, London, and the General Hospital, Birmingham. In 1962, he commenced his twenty-four-year association with Preston & Northcote Community Hospital (PANCH) as honorary relieving surgeon and retired as a senior general surgeon in 1986.

In 1963, Gordon Trinca became closely associated with the R.A.C.S., first with Professor Edward Gault and then with Ian Heinz in establishing the College's pathology department. He was honorary curator of the surgical pathology museum in the new Education Wing, and it is to be regretted that the museum was dismantled to make way for offices and other college requirements. The interest in pathology inherited from his father led to his appointment as part-time demonstrator and tutor in clinical pathology at The University of Melbourne, from 1963 to 1976.

In the mid-1960s he became aware of the increasing significance of road trauma and the need for early management of severe injuries, effective occupant restraint and the control of the drinking driver. As a member of the Road Trauma Committee of the R.A.C.S. since 1971, he became National Chairman in 1975, taking over from E.S.R. Hughes, and still holds that position in 1987. Gordon

Trinca has represented the College on State and National road safety bodies and has written more than seventy articles and addresses on road trauma management and prevention. He holds office in international traffic medicine organizations in Europe and North America, and as a member of the W.H.O. Expert Advisory Panel on Accident Prevention.

He was a member of the Board of Management of the Ambulance Service, Melbourne from 1975-86, President from 1977-82, and his work in road safety and road trauma has been recognized by a number of national and international awards including the O.B.E. in 1980. Gordon Trinca's great grandfather, Richard Andrew Moorman, was fined 30 shillings in 1859 by John Pascoe Fawkner for driving a horse and cart on the footpath in Collins Street.

Gordon's interests outside medicine have been in Lord Somers' Camp, Power House, and the conservation of tropical rainforests.

Allan Tornidor Trinca, born in Melbourne on 20 July 1924, was educated at Melbourne Grammar School, served as an armourer/fitter in the R.A.A.F. in New Guinea and North Borneo before graduating MB.B.S. in 1956. He continued family tradition by completing his internship at the Alfred Hospital, and was then clinical assistant to the otorhinolaryngology department from 1958-85 while training in anaesthesia. He has been in private medical practice in Beaumaris, with a close affiliation with Sandringham Hospital as a visiting medical officer, a member of the hospital anaesthetic panel, and medical officer in charge of the medical marine disaster rescue group. He is an M.R.A.C.G.P., involved in the problems of immersion hypothermia and sea rescue, a member of the Australian Voluntary Coast Guard Association, marine medical co-ordinator of DISPLAN, and medical adviser to the Port Phillip Safety Council. He has also inherited his father's angling skills and frequently catches large schnapper.

Third generation

Jennifer Jane Trinca, born in Melbourne on 22 February 1955, was educated at St. Leonards, graduated MB.B.S. in 1978, and following internship at Repatriation General Hospital, Heidelberg, she entered the R.A.C.S. Training programme in anaesthesia, and worked at Bendigo Hospital, Preston & Northcote Community Hospital, and Repatriation General Hospital.

She obtained her F.F.A.R.A.C.S. in 1985 and is a staff anaesthetist at the Austin Hospital. Her academic interests as an anaesthetist are directed towards pain control and cardiac surgery.

Four Generations

The James Family

William Howard James	Grad. 1888	
Howard Maxwell (Jimmy) James	Grad. 1915	Son W.H. James
Joy Lynsie James	Grad. 1950	Daughter H.M. James
Gillian Louise Farrell	Grad. 1978	Daughter J.L. James

Howard, who was born in Ballarat, graduated in 1888 with such luminaries as Colquhoun, Embley and Gault. After several years of general practice in the Bendigo and Ballarat areas he was converted to the Seventh Day Adventist Faith in 1901 and helped to establish the Sanitaria in Sydney, Adelaide and Warburton, being the first Medical Officer for each. In Warburton he combined a family practice with his Seventh Day Adventist duties. One day each month he travelled to consult in Collins Street.

Howard was an awe-inspiring figure of six feet three inches and a mane of whitening hair. Originally his calls were done on horseback or by buggy, but he eventually owned one of the first cars. A somewhat reckless driver, he had at least one confrontation with a train.

Howard retired from the Sanitarium in 1931, but continued in private practice until his death in 1937. He was the author of at least two medical books: *The Secret of Disease* and *Home Nursing*, and some of the suggested treatments are quite horrific, particularly of 'The Secret Vice'.

In 1890 Howard married Annie Treloar and had a son, Howard Maxwell and daughter, Dorothy. Howard Maxwell (Jimmy to all) did the first year of his course in Adelaide and rapidly distanced himself from the Seventh Day Adventist Movement — he did not appreciate the dietary restrictions. Immediately after graduation from Melbourne in 1915 he



William Howard James
1864-1937

enlisted in the Army Medical Corps and saw service in Egypt and France, and on his return became Officer in Charge of the 5th Australian General Hospital. There he showed surgical promise before becoming interested in the field of tuberculosis, perhaps as a result of the early death of his mother from that disease. After a short time in general practice he was appointed Medical Superintendent of the Red Cross Sanatorium for Tuberculosis, Wentworth Falls, N.S.W. In 1920 he transferred to the Repatriation Sanatorium at MacLeod and in 1928 he was appointed Clinical Tuberculosis Officer to the Central Tuberculosis Bureau, Melbourne, eventually becoming Director of Tuberculosis for Victoria in 1955. From 1918 he was Assistant Honorary Medical Officer for Tuberculosis at the Royal Melbourne Hospital. He was also a member of the Branch Council of the A.M.A. from 1947 until 1954, and deeply involved in the Legacy Club and President in 1942. In 1926 he was honoured by election as a Fellow Emeritus of the American College of Chest Physicians.

Jimmy saw the change from the hopelessness of tuberculosis following the First World War to the amazing reduction in incidence and severity with the introduction of modern methods of diagnosis, treatment, and prevention in the 1930s and 1940s. It was a tremendously satisfying and exciting time. He is remembered by all who knew him, patients, fellow physicians and his many students, as the kindest and most gentle of physicians.

After his retirement in 1957 he continued to work as Chest Consultant at Fairfield Infectious Diseases Hospital. Only he

and his physician, Tom Hurley, knew that he was incurably ill — he had seen a cannon-ball secondary in a routine chest X-Ray he himself had taken. After his death in 1964 there were two pages of admiring and loving tributes in *The Medical Journal of Australia*.

In 1917 Jimmy married Gladys Walker and their only child, Joy, was born in 1918. Joy completed an Arts Course at The University of Melbourne before the Second World War. Fortunately, a first place, with first class honours in Science Zoology prompted Professor Wright to accept her into the medical course. From 1941 until 1945 she was engaged in work with Military and Naval Intelligence. Joy obtained honours in each year of the course — including first place in botany, second place and first class honours and prosector in anatomy. She shared the Exhibition in fourth year pathology with Brian Marks and Shirley Roberts. Her junior residency was at the Royal Melbourne and a highlight of the year was the period in charge of anaesthetics during the illness of Norman James — not one 'death on the table'. There was also some time for published work as a medical artist.

At the beginning of 1952 Joy married Tom Farrell of Telmar Radio Paging fame. She continued as Assistant Honorary Anaesthetist at the Royal Melbourne and Sessional Anaesthetist at the Peter Macallum Institute until morning sickness intervened. Although she continued with part-time work in their practice in Brighton, she was more occupied with their three daughters, two of whom chose a medical career. Belinda, the eldest, was in the fifth year of a most promising course at Monash when she was tragically killed in an accident.

Joy has been Honorary Medical Officer and First Aid Lecturer for the Brighton Red Cross Companies since 1953. From 1970 until 1983 she was Tutor and Role-Playing Examiner for the F.R.A.C.G.P. and obtained her own Fellowship in 1976. She was also tutor and examiner in Behavioural Science at the Monash Medical School, and for a number of years she was Nursery Medical Officer at Allambie, the Reception Centre for Neglected Children. In 1982 she returned to full time general practice.

Gillian Farrell completed an outstanding matriculation year with Special Distinctions in General Excellence and Biology (with 100%). She graduated from The University of Melbourne in 1978 with honours during the course and the Neonatal Paediatrics Prize. She immediately showed a great liking and aptitude for surgery, never having sewn a stitch during her formative years!

Gillian's Intern and Junior Resident Medical Officer years were at the Royal Melbourne, and Senior R.M.O. and Surgical Registrar years at Prince Henry's. While preparing for the first part of the Surgical Fellowship she was a demonstrator in anatomy at The University of Melbourne and she then became Plastic Surgery Registrar at P.A.N.C.H. and later the Royal Melbourne. In 1986 she obtained her F.R.A.C.S. in Plastic Surgery, one of the small band of female plastic surgeons in Australia. In 1986 she was the Monash Fellow in Plastic Surgery, operating at the Alfred, Prince Henry's and Queen Victoria Hospitals. She also operated for three weeks in the Solomon Islands under the Rotary Interplast scheme. The year 1987 will see her operating in India and France. Gillian is interested in continuing her work in underdeveloped countries and with the Australian Aboriginal community, where there is great need for plastic surgery skills. She hopes to continue the family tradition of community service.

(With many thanks to Dr Errol Thrift of the Warburton Health Care Centre and Hospital and to Professor Harold Attwood.)

Publications



Watercolour of 'Weary' Dunlop operating in a jungle hospital, by Jack Chalker.

This is the first of the *Chiron* book reviews, which will become a regular feature in the journal. Contributions are welcome, and should be addressed to the Editor, *Chiron* (UMMS), Faculty of Medicine, University of Melbourne, Parkville 3052.

The War Diaries of Weary Dunlop Java and the Burma-Thailand Railway 1942-1945

by E.E. Dunlop

Nelson, 1986, pp.400, 138 b+w illus.

Recommended retail price \$35.00.

The war diaries of Weary Dunlop have been published in book form. These day-to-day accounts give an intimate view of the experiences of medical personnel among the prisoners of war along the Burma-Thailand railway. In other theatres of the war the aim of the medical services was to bring the sophisticated treatment and care learnt in medical school and hospital to the assistance of the sick and wounded as early as possible. Adequate supplies of equipment and drugs seemed readily available as a rule. In the harsh, callous conditions described in this book, the picture was very different.

The tropical climate, lack of shelter, and complete absence of hygiene in an area where malaria, the dysenteries and cholera were endemic, presented a daunting prospect. Add to this severe malnutrition, almost complete absence of medical supplies and equipment and the cruel attitude of the Japanese, and the situation is hopeless and despairing. This story reflects how one person reacted to that situation, became a leader and an inspiration to his colleagues and his patients, and who would not accept defeat or despair.

It seems that Weary was ideally fitted for the task that challenged him when taken prisoner in Java in February 1942. He came from pioneering stock, inheriting the initiative and industrious habits of that breed. He spent his boyhood on a farm in northern Victoria, and with his older brother rode his pony to the small country school where one young lady teacher taught a handful of pupils. (The story is told by his elder brother in a small book entitled *Little Sticks*.) It was planned by the family that Weary was to stay and help his parents on the farm, and the older lad was to continue secondary education. Weary must have shown exceptional abilities which were noted by the perceptive young teacher, who persuaded the parents that he should be sent on to Benalla High School. After a brilliant course in Pharmacy he decided to train to be a doctor, and entered Ormond College in 1930 in the second year of the course. There he showed the stirring qualities of mind, physique and character which carried him through his subsequent trials: a brilliant academic course, blues in rugby and boxing, and his peers elected him chairman of the students' committee.

Weary graduated from the University of Melbourne in 1934 with three first class honours, and later qualified Master of Surgery. He proceeded to London to take the F.R.C.S. and to gain experience in some of the famous surgical units. He was in London when war broke out in September 1939. He joined the A.I.F. in the Middle East in January of the following year, leaving with the 2/2 Aust. C.C.S. and landing in Sumatra on 15 February 1942. He was soon taken prisoner of war in command of 1 Allied General Hospital.

Here was a completely new situation —

quartered in the local jail, in complete disorganization, uncertain discipline, lack of medical supplies and the ordinary comforts we take for granted, and as background the attitude of the Japanese, often brutal and always unpredictable. The group was able to maintain morale and discipline, organizing lectures and sporting activities, but the squalor and hopelessness were only a foretaste of worse to follow.

During December 1942 and January 1943, after a brief stay in Singapore, the party was moved north by train to the Burma-Thailand railway camps at Kouyu (20 January-March 1943), Hintoek Mountain (March 24-October 1943), Tarsau (October 1943-16 January 1944) and Chunkai (17 January-June 1944). These were camps along the railway under construction. The conditions were appalling — the climate, lack of food, serious medical problems, and lack of facilities with which to counter them. The callous Japanese insisted on hard work, even by those so obviously unfit. The conditions are probably best conveyed by the many fine little sketches, notably by Jack Chalker, Ray Parkin and S. Grimson. They are well reproduced and 'say it all'.

Later, in June 1944, the sick from the Burma and Thailand track seem to have been concentrated at Nakom-Paton, and here Dunlop was associated with Albert Coates, another giant among men. The physical conditions appear slightly improved, compared with the jungle camps, but there was growing tension and stress as the war progressed; the guards were more 'edgy' and unpredictable, and the prisoners felt uncertain of their fate. Finally, at the end of hostilities (16 August 1945) flags, long hidden — the Union Jack, the Australian and Dutch flags — were raised again, and fluttered proudly.

This book is important to us all, especially those of the caring professions. It is an important source for historians. Unfortunately, being a collection of daily entries in a diary with the inevitable repetition, it does not read as a narrative and the general reader may find it difficult to follow. These are the diaries of a doctor working in unimaginable conditions of squalor, with lack of adequate facilities and with heavy responsibilities of leadership in the face of constant danger. They tell a story of great courage and of achievement, revealing amazing qualities of mind, physique and character which triumphed over all — his head 'bloodied but unbowed'.

There is a gripping foreword by Laurens van der Post, in which he states that Weary was 'both the inspiration and main instrument of the physical and spiritual survival of the men under his care'.

I always think of three names when men in the medical service of P.O.W. camps in the Far East are mentioned: Albert Coates, Weary Dunlop and Glyn White, each in his area — Burma, Thailand and Singapore — each a leader, all of them Melbourne graduates, of whom everyone in our profession should be proud.

Eric Clarke



Notice of Annual General Meeting 1987

The Annual General Meeting of the University of Melbourne Medical Society (UMMS) will be held at 6.30 pm in the Sunderland Theatre, ground level, Medical Centre Building, Grattan Street, on Tuesday 5 May 1987. This meeting is preceded by the Dean's Lecture in which Professor Harold Attwood, Department of Pathology and Curator of the Medical History Unit, University of Melbourne, will deliver a lecture entitled 'To Speculate on *Speculum*'.

Business

1. *Minutes of 1986 Annual General Meeting*
2. *Chairman's Report*
3. *Financial Report 1986-87*
4. *Amendment of Constitution:*

Under section 16 of the Constitution, an amendment may be made at any General Meeting of UMMS 'by resolution of which at least fourteen days prior written notice shall have been given if upon a show of hands a majority of not less than two-thirds of those members present and voting is in favour of the amendment'.

Under section 3.1 of the Constitution provision for ordinary membership of UMMS is made as follows: '... Other legally qualified medical practitioners in the State of Victoria will also be considered for ordinary membership on nomination by two members of the Society'.

A number of enquiries have been received from medical practitioners resident outside of the State of Victoria who are interested in UMMS but are otherwise ineligible for membership.

The following resolution to amend the Constitution is proposed so that such persons may be nominated for membership:

Resolution

That section 3.1 of the Constitution be amended so that the last sentence reads:

'Other legally qualified medical practitioners registered or eligible to be registered in the State of Victoria will also be considered for ordinary membership on nomination by two members of the Society'.

Moved: Professor G.J.A. Clunie

Seconded: Dr Jeannine Paton

5. *General Business*

Minutes of Annual General Meeting 1986

The Annual General Meeting of the University of Melbourne Medical Society (UMMS) was held at 6.30 pm in the Sunderland Theatre, Ground Level, Medical Centre Building, Grattan Street, on Tuesday 6 May 1986. This meeting was preceded at 5.30 pm by the Dean's Lecture in which Professor Emeritus Richard Lovell (Chairman, Medical Research Ethics Committee of NH&MRC) and His Excellency Dr Davis McCaughey, Governor of Victoria (and Member, Medical Research Ethics Committee of NH&MRC) led a seminar entitled 'Ethics at the Growing Edge of Medicine'. The Chairman of UMMS, Professor G.B. Ryan, chaired the meeting and opened by welcoming those present.

1. *Minutes of Annual General Meeting 1985*

The minutes of the 1985 meeting were approved.

2. *Chairman's Report*

The current membership of UMMS is approximately 900. Members were reminded that membership renewal forms had been circulated, with the information that financial members of UMMS automatically became members of The University of Melbourne Alumni Association. UMMS members who renewed their membership before 30 June 1986 were given the offer of an Alumni Association tie or scarf at half price. Members were encouraged to take advantage of this offer.

Chiron had been mailed to financial members of UMMS during the week preceding the AGM. Special comment was made as to the excellence of the production of *Chiron*, and the meeting agreed by acclamation to record its thanks to Dr Peter Jones for his outstanding work as Editor of *Chiron*. Mention was made concerning the value of *Chiron* in recording special events and functions of the Faculty and the Society during the past year, and in providing information concerning the Dean's Lecture Series for

1986, the Faculty's Continuing Medical Education programme and information concerning class reunions.

Attention was drawn to the portrait of Sir Sydney Sunderland, that is now hanging in the Sunderland Theatre. It was noted that funding for this portrait was provided largely by donations from members of UMMS. The portrait was unveiled at a ceremony in the Sanderson Room of the Medical Centre Building in October 1985 and, as recorded in the 1986 issue of *Chiron*, the opportunity was taken at the same ceremony to name the major lecture theatres in the Medical Centre Building as the Sunderland Theatre (formerly Theatre 1) and the Wright Theatre (formerly Theatre 2) in honour of Sir Sydney Sunderland and Sir Douglas Wright. On that occasion, Sir Douglas and Lady Wright presented a handsome drawing of Sir Douglas that is now hanging in the Wright Theatre. In each theatre a brass plaque honours the achievements of each man.

A major evening function of the Society was held on 12 November 1985. This was the seminar on AIDS which was presented by Dr Ian Gust and Professor David Penington. It was a very well attended function and generated very active discussion. The transcript of the proceedings is recorded in the 1986 issue of *Chiron*.

The UMMS Bachelor of Medical Science Prize (for medical students who carried out a research project during 1984) was awarded during 1985 to Mr Joseph Torresi for a research report entitled 'The Haemodynamic and Biochemical Mechanisms of Action of Nitroglycerine'.

Special acknowledgement was made of the contributions of Professor David Penington in the formation of the Society during the term of his Deanship. Attention was drawn to the minute of appreciation appearing in the latest issue of *Chiron* recording the outstanding contributions of David Penington on behalf of the Faculty of Medicine, The University of Melbourne and the medical profession. The meeting recorded its appreciation by acclamation.

Notice was given of the intention to hold an evening function later in 1986. This would be considered by the next meeting of the Committee of the Society. A request was made for ideas concerning the format of such a function as well as any ideas concerning how the Faculty and the Society should celebrate in 1987 the 125th Anniversary of the Medical School and the 5th Anniversary of UMMS.

3. *Financial Report 1985/86*

The financial report was presented by the Honorary Treasurer, Dr John MacDonald. This showed at 31 March 1986 an income of \$34,212 in the UMMS account with expenditure of \$8,947 and outstanding debts of \$13,474. The report was received. It was noted that consideration would be given to the annual subscription for 1987 at the meeting of the Committee.

4. *Amendment of Constitution*

The following resolution to amend the Constitution was proposed so that the membership of UMMS can be brought into line with that for the University's Alumni Association and other Faculty Societies:

Resolution

That Section 4.3 of the Constitution be amended by substituting the words '1 May to 30 April' by the words '1 April to 31 March'.

This was moved by Professor David Penington and seconded by Dr Jeannine Paton. The amendment was approved.

5. *Election of Committee 1986-88*

Nominations had been called for the election of six members of the Committee of UMMS for 1986-88. With the retirement of Professor Penington as Dean of the Faculty at the end of 1985, Professor Graeme Ryan became Chairman of the Committee ex-officio, with the Deputy Dean, Professor Gordon Clunie, becoming a member of the Committee ex-officio. Of the current members of the Committee, Mr John Hayward had indicated that he did not wish to stand for re-election. A special tribute was made acknowledging the role of Mr Hayward in the formation of the Society and in triggering the concept of the Dean's Lecture Series while he was a member of the Faculty of Medicine.

The following five retiring members of the Committee were eligible and available for reappointment:

Dr John MacDonald
Dr Jeannine Paton
Professor Emeritus Sir Sydney Sunderland
Mr David Westmore
Mr Michael Wilson

It was agreed to re-elect all of these members of the Committee. To fill the vacancy left by Mr John Hayward, the following member had been proposed for election and consented to his nomination:

Dr Thomas Kay

There being no other nominations, Dr Kay was elected to the Committee.

It was reported that Professor Emeritus Sir Douglas Wright had indicated that he intended to step down as President of the Society at the next meeting of the Committee. Special tribute was paid to the work of Sir Douglas in the formation of the Society and in being its foundation president. This was confirmed by acclamation. The meeting was informed that the Committee would take steps to fill the vacancy of President at its next meeting, as well as filling any casual vacancies to the Committee that may occur before the next Annual General Meeting of the Society.

6. *General Business*

The Chairman informed the meeting that negotiations had taken place with officers of The University of Melbourne Alumni Association, leading to agreement that members of the Society would automatically become members of the Alumni Association on the understanding that a proportion of the Society's annual subscription would be remitted to the Alumni Association. The amount to be remitted would be considered at the next meeting of the Committee in conjunction with considerations concerning the membership donation fee for 1987.

The meeting closed at 6.45 pm.

UMMS B.Med.Sc. Prize 1985 Kenneth George Campbell Smith

Mr Kenneth Smith was enrolled for the Bachelor of Medical Science degree in 1985 through the Department of Surgery, Royal Melbourne Hospital. Research for the degree was carried out in the laboratories of Professor Peter Morris of the Nuffield Department of Surgery, University of Oxford.

Mr Smith's Project was entitled 'T Cell Proliferation Induced by Anti-T3 Antibodies'. T3 is an antigen found on all human peripheral T lymphocytes and functionally mature thymocytes. Mr Smith examined in detail the T cell proliferation resulting from anti-T3 antibody interaction, and more particularly the requirement for Fc receptor-bearing cells for this interaction. The work defined a new polymorphism of the human monocyte Fc receptor for murine IgG2b and demonstrated that the Fc receptor plays a central role in anti-T3 induced T cell mitogenesis, which may be assisted by lymphocyte function-associated antigens.

The examiners were impressed by the high quality of the dissertation describing Mr Smith's research and recommended it for special recognition by Faculty.

Reunions

The UMMS Office, in conjunction with The University of Melbourne Alumni Association Office, will provide assistance to organizers of reunions by supplying the latest known addresses of all graduates in particular years.

Members planning reunions should advise the UMMS office so that details can be included in the 1988 issue of *Chiron* and assistance with address lists provided. This will also enable the office to answer enquiries regarding reunions.

Reunions in 1987

50 Year Class of 1937

Date 24 October 1987
Venue Union House
Private Dining Room
Contact Dr D.R. Leslie
(03) 417 2030

40 Year Class of 1947

Date July-August
Venue To be notified
Contact Professor R. Webster
(03) 344 7195

30 Year Class of 1957

Date End November
Venue To be notified
Contact Dr John McKenzie
(03) 419 7322

25 Year Class of 1962

Date To be notified
Venue To be notified
Contact Dr Ian Rechtman
(h) (03) 527 4515

20 Year Class of 1967

Date 24 & 25 October 1987
(Dinner & Family Day)
Venues To be notified
Contact Dr Diane Wilson
(03) 895 7642

UMMS, Faculty of Medicine
The University of Melbourne
Parkville 3052
Telephone (03) 344 5889



125th Anniversary Dinner Wednesday 19 August 1987 Wilson Hall

To celebrate this important year in the history of our Medical School, a dinner is being planned. The date for this special occasion is Wednesday 19 August 1987 and the venue, Wilson Hall. Numbers will be limited and members are urged to make a note in their diaries. Invitations will be mailed to members, so please check that the UMMS office has your correct, current address.

32nd Halford Oration Tuesday 25 August 1987 Distinguished Visitor

We are especially honoured in our anniversary year that Professor Emeritus Sir Michael Woodruff, formerly Professor of Surgical Science, University of Edinburgh, has accepted our invitation to deliver the 32nd Halford Oration. This is particularly appropriate as Sir Michael has become an Honorary Member of UMMS on the occasion of the 50th anniversary of his MB.BS graduation. The oration entitled 'The Interface between Basic Research and Clinical Medicine', will be delivered on Tuesday 25 August 1987 at 5.30 pm in the Sunderland Theatre.

UMMS Membership 1 April 1987-31 March 1988

A membership application form is being circulated with The University of Melbourne Gazette. If you do not receive this by the end of April, or wish to notify change of address, please contact UMMS, Faculty of Medicine, University of Melbourne, Parkville, 3052. Telephone (03) 344 5889.

To make sure that you are kept informed about the Society and the University, please register your membership as soon as possible. The 1987 membership donation fee is \$30.00. Those who have been graduates for 50 years or more will become honorary members, but need to register their names by completing the membership application form. A special fee of \$10.00 for each of the first three years of membership will apply for first-year graduates who join in their internship year. Besides MB.BS. (Melb.) graduates, persons with a substantial association with the Faculty or the University's affiliated institutions, for example, past and present academic staff members, may become members. In addition, legally qualified medical practitioners in the State of Victoria who do not qualify for automatic membership of UMMS may be considered for membership on nomination by two members of the Society. A motion being put to the Annual General Meeting on 5 May 1987 will widen the eligibility of persons for membership under this category, and if approved will take effect immediately.

We would like to urge members to propose membership of persons who would be interested in being associated with the Society. All that is required is a joint letter together with the consenting signature of the recommended person.

Reunion Dinner

The Class of '46 — 40 years on

On 18 March 1986 the medical graduates of 1946 held their 40th Reunion Dinner.

Originally, approximately ninety were able to convince the examiners that they were safe to let loose on an unsuspecting public. As a result of the need for medicos in the services during the Second World War for the normal six-year medical course was contracted to five years so after starting in 1941 we finished early in 1946.

There was little in the way of pre-requisite subjects to start the course but Latin was required and also, to our astonishment, one had to pass the equivalent of Leaving German before commencing the clinical portion of the course in 4th year. As we were at the time engaged in a deadly contest with the Germans this requirement seemed rather incongruous and some of those who had previously done no German assumed that this requirement would be lifted in the interests of patriotism. We were told that the necessity for skill in reading German was introduced because of the fact that sulphonamide drugs had been described in the German medical literature, and largely overlooked as a result of the inability to read technical German. Finally to our chagrin, and with some three months to the end of 3rd year, we realized that the authorities were serious and Taylor's Coaching College turned on a special course for those of us who had done no German and in some manner ultimately we passed.

In those days the position in the final list was important in order to obtain a job in a teaching hospital; if one had to do one's residency elsewhere, it was difficult to get back into the mainstream in training jobs for senior degrees.

Once through, we found medicine still rather primitive when compared with the present day. Penicillin was in its early days, with 15,000 units given by injection, 3-hourly. This was a great strain on the recipients and many children became demoralized. Thyroid stealing was also in vogue, and crises were common. Kuntscher rods were unknown for long bone fractures and bone plating was not popular.

In was early days for nailing fractured necks of femur and we all had to know how to put up Hamilton Russell-traction. Horse-hair and silkworm gut were still being used for skin sutures, and a split-skin graft was still regarded as a very special procedure and unlikely to succeed except in the hands of a plastic surgeon. Tuberculosis, both pulmonary and osseous, was common as was haematogenous osteomyelitis and there were still a number of cases of acute anterior poliomyelitis.

There were still many home deliveries in those days and during our stay in the Women's Hospital as students we had to attend at least one home delivery under the tuition of a midwife. Some of the home conditions were a revelation, for example, newspapers on the bed in lieu of sheets.

The Class

Most of our group, as happened in those days, went on into general practice and Sheila Hyland achieved fame in Casterton, Victoria, when in 1983 she became the first woman on a National Committee of a national medical body in Australia. She became a member of the Committee of General Practitioners' Society in Australia and edited *The Australian GP* for a year.

Seventeen became surgeons, 3 of them orthopaedic surgeons, 2 ear, nose and throat, 3 obstetrics and gynaecology, 1 ophthalmology, 1 thoracic, 1 plastic and 1 neurosurgeon. Fifteen became physicians, 2 became psychiatrists, 3 radiologists, 2 pathologists, 1 dermatologist and 1 paediatrician. Three of our number have been appointed to university Chairs.

Bryan Hudson became the Foundation Professor of Medicine, Monash University in Prince Henry's Hospital in 1962 and held this chair until 1972. He was appointed the Sims Commonwealth Travelling Professor in 1967 and became the President of the Endocrine Society of Australia. In 1968 he was the John B. Collip Visiting Professor in the Department of Medicine at the University of Alberta, Canada and for four years from 1980-84 was the President of the International Society of Endocrinology. In 1981-82 he was the President of the Royal Australasian College of Physicians.

Lynne Reid, having started the Department of Experimental Pathology at the Cardiothoracic Institute of London University, became the Dean and later the Professor. More recently, she became the Wolbach Professor of Pathology at Harvard University, and Pathologist-in-Chief at the Children's Hospital in Boston in 1975.

Alex Roche, after becoming a Fulbright Scholar to the U.S. in 1952, specialized in growth and maturation of children and in Down's syndrome and unusual statures. He went to the U.S. in 1968 in charge of the Fels Longitudinal Study, the oldest, largest and most productive study of human physical growth in the world, and became Fels Professor of Paediatrics and Obstetrics and Gynaecology. He has been president of two international societies and has published over 300 papers including eight books.

One of our members, Jim Best, became the President of the Victorian Branch of the A.M.A., having founded a general practice in Clayton soon after graduating. Barry Connard, a general practitioner in Hampton, has achieved fame as a member of the Council of the Devon Cattle Breeders Society of Australia and Hon. Vice President in 1978. John Fullagar, now in general practice at Ferntree Gully with his wife Lesley Leask, also in the year of '46, was responsible for inaugurating the Blood Bank at Rockhampton in Queensland.

Rena Ginter left Australia in 1949 for Israel, married a physician, and in 1980 was appointed Associate Professor of Pathology in the Hebrew University Medical School in Jerusalem. Frank Hurley having gone into pathology, became a foundation member of the Royal College of Pathologists of Australia in 1956, and in 1954 founded the Melbourne Pathology Clinic. He was formerly Director of Pathology at Cabrini Hospital, Malvern. Russell Langley became a dermatologist but later became interested in statistics and in 1968 published *Practical Statistics*. He became President of the Victorian Branch of the Statistical Society of Australia and a lecturer in statistics at Melbourne University.

Dick Lefroy was awarded the A.O. recently, and has become Associate Professor in the Department of Medicine at the University of Western Australia, specializing in geriatrics. Ian A. McDonald made gynaecology his speciality and became Chief of the Gynaecology Department of the Royal Melbourne Hospital. He is a member of the Council of the Royal College of Obstetricians and Gynaecologists in London and became Australian President of the R.C.O.G. in 1972 for three years. He is the author of two books and many scientific papers and for long has been a leading light in the Melbourne Scots, being at all times ready to sing a song.

Ian H. McDonald became Senior Anaesthetist at the Children's Hospital and was an outstanding cricketer. He played for Victoria as keeper from 1949-53 and for an Australian XI v. South Africa in 1953. He was on the M.C.C. Committee from 1956-65 and Chairman of the M.C.C. Hockey Club. He has done a number of walks in the high Himalayas.

John Snell became a Plastic Surgeon and founded the Plastic Surgery Unit at the Alfred Hospital in 1955. He was Chairman of the Victorian State Committee of the R.A.C.S. from 1968 for eight years, and a member of the Board of Examiners of the Royal Australasian College of Surgeons. At present he is Chairman of the Medical Advisory Council, Epworth Hospital, Melbourne. He has had four trips to the Himalaya, and one to Adelie Land in Antarctica in 1978 with the French Antarctic team. Alex Venables became a Paediatric Cardiologist and is Director of the Department of the Royal Children's Hospital.

Peter Williams achieved fame as an orthopaedic surgeon and has taken a great interest and played a large part in the training of orthopaedic surgeons. He became Chairman of the Board of Orthopaedic Surgery of the Royal Australian College of Surgeons and Chief Orthopaedic Surgeon at the Royal Children's Hospital. In 1980 he received the Betts Medal of the Australian Orthopaedic Association and the Robert Jones Medal. In 1986 he was made an Officer of the Order of Australia. Bob Withers in general practice in Fitzroy has achieved international fame as a horticulturist specializing in lilies, rhododendrons and camellias and published *Liliums in Australia* in 1967. He was awarded the Gold Medal of the Australian Rhododendron Society in 1985.

Honours

A number of our members have obtained honours down the years:

Noel Colyer, O.B.E. and Knight of Grace of the Order of St. John of Jerusalem; Dick Lefroy, A.O.; Bryan Hudson, A.O.; Peter Williams, A.O.; Frank Hurley, Knight of St. John.

The dinner

Guests: Dr C.B. Bailey, Dr B.H. Barraclough, Dr C.G. Biggs, Dr J.A. Britten; Dr N.H.M. Colyer, Dr A.B. Connard, Mr D.F. Cossar, Dr J. Cossar (nee Towns); Mr W.G. Doig, Dr S.P. Derham; Dr C.A.T. Edwards, Dr I.S. Epstein; Dr M.S. Forrest, Dr J. Fullagar; Dr M. Gooley; Mr N.T. Hamilton, Mr J.K. Henderson, Mr K.E.V. Hinrichsen, Dr B. Hudson, Dr F.X.G. Hurley, Dr S.W. Hyland (Mrs S. Wain); Dr J.E.D. Lane, Dr L.J. Leask (Mrs Fullagar); Dr W.M. Long (Mrs J.E.D. Lane); Dr A.G. Mathew, Dr I.A. McDonald, Dr I.H. McDonald; Dr R.G. Nell; Dr N. Rothfield; Dr R.E. Seal, Dr M.H. Slonim, Dr J.B. Sloss (Proud), Mr J.A. Snell, Dr C.R. Statham, Dr M.J. Strachan, Mr J. Sunderman; Dr A.W. Venables; Dr C.R. Wain, Mr P.F. Williams, Dr R. Withers, Prof. Sir R.D. Wright.

The reunion dinner was held in the Committee Room of the Melbourne Cricket Ground on 18 March 1986. Our guest was Professor Sir Roy Douglas Wright, one of only two of our professors who survive, and still in excellent form in his eighties. Our other surviving professor is Sir Sydney Sunderland who unfortunately was unable to be present as he was attending an international meeting in America.

We had forty to the dinner which proved to be a happy and convivial occasion, and of course much reminiscing was done. Instead of a guest speaker we were entertained by short talks by Ian A. McDonald, Sheila Hyland and Ivan Epstein. Unfortunately, the great reaper prevented more than 17 of our group from attending. We all look forward to our 45th reunion and may perhaps hold it more frequently following that.

John Snell

Insert, Chiron 1987

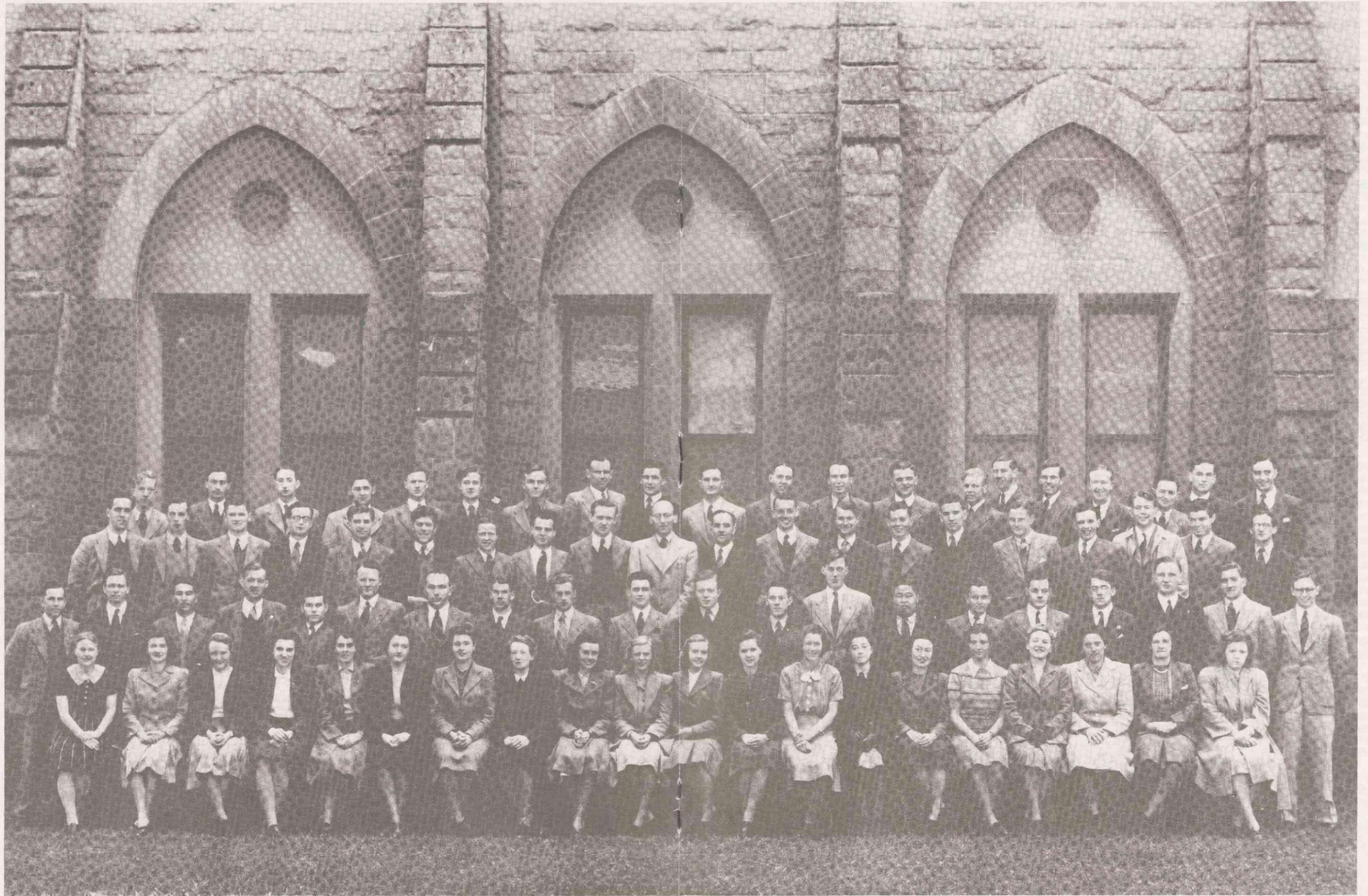
LETTERS TO THE EDITOR

Letters to the Editor are invited for the 1988 edition of 'Chiron'. Letters should be no more than 300 words. Shorter letters will be preferred. All letters must be signed and the writer's name and address clearly written. Telephone numbers should be provided so that letters can be verified. A letter may be edited for reasons of space or clarity unless the writer specifies that, if published, it must be in full. The decision regarding which letters will be published will be made by the Editor.

Erratum: Chiron 1987

The third paragraph on right-hand column of page 5 of the article 'Ethics at the Growing Edge of Medicine' should read:

Finally, a comment on legislation. I have said before that I believe the growing edge of biomedical science should rarely be a field for legislation. The variation between several State committees in Australia and several committees in the United Kingdom in some of the conclusions they have reached on in vitro fertilization alone warn us against over-readiness to enshrine what may or may not be done in statute law.



The Class of '46

A.W. Venables, J.K. Henderson, M.S. Forrest, D. Maginn, F.X. Hurley, R.E. Seal, R.A. Dale, B. Barraclough, H.A. Luke, M.J. May, C.L. Threlfall, G.R. Walpole, I.A. McDonald, C.B. Bailey, R.G. Nell, P.F. Williams, B. Hudson, M.H. Slonim, N.J.H. Rothfield, M.S. Marshall.
 D.C. Cossar, W.G. Doig, J.M. Bell, G. Batten, H.S. Cumming, H.S. Fitzpatrick, O.A. Whitney, S. Fisher, F.S. Crick, N. Ingstser, C. Briggs, J. Fullagar, R.A. Rimington, K. Archer, C.R. Wain, J. Sunderman, I.S. Epstein, J. Egan, J. Flanagan, J.W.A. Arundell.
 I.H. McDonald, R.B. Lefroy, C.D. Rosengarten, J. Best, B. Goldman, N.T. Hamilton, S. Trosky, M.T. Deane, J.E.D. Lane, J.A. Snell, A.G. Mathew, S.O.M. Were, P. Gibson, M. Gooley, G.R. Serpell, S.P. Derham, A.B. Connard, K.W. Hinrichsen, J.A. Britten, R.A. Langley.
 Miss L.B. Biggs, Miss E.J. Hewitt, Miss M. Holder, Miss C.F. Statham, Miss J. Proud, Miss H.S. Turner, Miss L. Reid, Mrs N. Kelso, Miss R. Williams, Miss W.M. Long, Miss J.W. Towns, Miss J.L. Elder, Miss L. Leask, Miss S. Hyland, Mrs R. Ginter, Miss R. Williams, Miss R. Housey, Miss B. Ungar, Miss E. Williams, Miss M.B. Wadds.

UMMS Membership as at 1 March 1987

This listing was assembled from UMMS membership forms and corrections are welcome.

Univ. of Melb. Grad. MB.BS

1921
Dr R L Fulton
Dr R Southby

1923
Dr G B Bearham
Dr J M Blair
Dr J Blewett

1924
Dr A Liebert

1925
Dr B A Baker
Dr F E Browne
Dr P Goodman

1926
Dr W D Counsell
Dr E R Crisp
Dr R J Long
Dr J A McLean
Sir Thomas Travers
Dr L J Westacott

1927
Dr R K Scott

1928
Dr R J Farnbach
Dr E A C Farran
Dr J Heath
Dr R N Howard
Dr E Sandner
Dr W E Williams

1929
Dr T M Gilbert
Dr W W Lempriere
Dr F P Morgan
Dr G H Van Nooten
Prof Em Sir Douglas Wright

1930
Dr T D Hagger
Dr M M Perl
Dr H T Tisdall

1931
Dr R J Cato
Dr E H Green
Dr F J Hayden
Dr J W Johnstone-Need
Dr P T Wedlick

1932
Dr T E Lowe
Mr D P Niall
Dr E P Robinson

1933
Dr D M Gepp
Dr J Hayward
Dr A R Kelly
Dr D A Kidd
Dr L Lloyd-Green
Dr S R Peters
Dr A J Sinclair
Dr D M Sinclair
Dr M Starke
Dr R J D Turnbull

1934
Dr W T Agar
Sir Edward Dunlop
Dr A F Griffiths

1935
Em Prof R R Andrew
Dr G Brosnan
Dr F J Cahill
Dr T R B Courtney
Dr D J M Dunn
Dr E J Gallagher
Dr W R Gayton
Dr A V Jackson
Dr C P Juttner
Dr A J King
Dr G R Kurrle
Dr L Langmore
Dr N Lewis
Dr F R T Mabin
Dr M A Mackie
Dr A D Matheson

Dr R J McAllister
Dr J P Millar
Dr W H Milroy
Dr F J X Mulcahy
Dr H K Pawsey
Dr F E Plarre
Dr R J Riddell
Prof Em K F Russell
Dr R J Salts
Dr R Shatin
Dr D B Skewes
Dr J Smibert
Dr T H Steel
Prof Em Sir Sydney Sunderland
Dr B I Taft
Dr C R Trood
Dr J G White
Dr H E Williams
Dr A M Wright
Dr N V Youngman

1936
Dr C K Churches
Lady Y E Fitts
Dr M Gilchrist

1937
Dr A S Ellis
Dr A Russell Hughes
Dr D R Leslie
Dr L J T Murphy
Dr N F Pescott
Prof Em Sir Michael Woodruff

1938
Dr M M Henderson
Dr J A James
Dr H B Kay
Dr J O Lavarack
Dr R E G MacLean
Dr P J Parsons
Sir W D Refshauge

1939
Dr D A Alexander
Dr A J Barnett
Dr R A Douglas
Dr A N Fraser
Dr C R Laing
Dr R F Lowe
Dr E G Strahan
Dr B Widmer

1940
Mr J L Bignell
Dr J T Cahill
Dr J R F England
Dr F M Moore
Dr E Turner
Dr H N B Wettenhall

1941
Dr W M Barrett
Dr M S Benson
Dr B T Glanville-Hicks
Dr J S Guest
Dr I H McConchie
Dr H S Moroney
Dr A R Parkin
Dr T V Walpole
Dr L H Wilson
Mr A Worcester

1942
Dr R Chenoweth
Dr E P Cordner
Dr R J Fleming
Dr G Hewitt
Dr R A Hill
Dr J Kremer
Mr C S Richards
Dr P Zerman

1943
Dr A Bardsley
Dr G Bennett
Dr P R Brett
Dr P R Bull
Dr R M Charters

Dr T M Cockbill
Dr D C Cowling
Dr S Dimant
Dr F R Fay
Dr O O Logan
Dr W S Rickards
Dr A O Rosenhain
Dr I Tulloch

1944
Dr C J Craig
Dr R K Doig
Dr G A M Donald
Dr J L Howqua
Prof J V Hurley
Dr W J Jamieson
Dr L L Morgenstern
Dr N B Pinkus
Dr R M Porter
Dr E L Ryan
Dr A H Toyne
Dr J F Williams

1945
Mr T E Antonie
Dr J W Barrett
Dr A G Bignell
Mr W Etheridge
Dr D C Foster
Dr G S Gunter
Dr P E Jeffery
Dr P G Jones
Dr M C Levinson
Dr B P McCloskey
Dr G G McCloskey
Dr G S Pestell
Dr T P Rowan
Dr R K Stevenson
Dr G Stillwell
Dr R G Webb

1946
Dr J K Fullagar
Dr L J Fullagar
Dr J K Henderson
Dr S W Hyland
Dr D W Maginn
Dr L M Reid
Dr E M Williams

1947
Dr J K Clarebrough
Dr J L Connell
Dr A M Cuthbertson
Dr T H Hurley
Dr J P Morris
Dr P M Robertson
Prof R W Webster

1948
Dr W C Boake
Dr H D Bredahl
Dr G W Cooper
Dr J A Forbes
Dr F M C Forster
Prof R A Joske
Dr J O Maxwell
Dr P J Ryan
Dr J N Santamaria
Dr C W E Wilson

1949
Dr N P Bell
Dr A G Bond
Dr N M Cass
Dr C Douglas-Smith
Dr J B Fethers
Dr J R E Fraser
Dr G J Groves
Dr J D S Gunter
Dr J Hailes
Dr J A W Kelly
Dr W H Kitchen
Dr C MacDonald
Dr A D MacLean
Mr I L McVey
Dr A F L Neal

1950
Dr R M Aitchison
Dr J M Appleford
Dr R Bennett
Dr E B Collins
Dr R Fowler
Dr H D Irish
Dr J L James
Dr P M McConnachie
Dr H C Newman
Dr B McC O'Brien
Dr B F Stratford
Dr A R Waterhouse

1951
Dr V G Balmer
Dr F I Bishop
Dr G W Briggs
Prof A C L Clark
Dr M W Deerbon
Dr K F Fairley
Dr D N M Fearon
Dr O M Garson
Dr A Goldman
Dr K S Goulston
Dr J J Griffin
Dr A F Hargrave
Dr S C Johnston
Dr M de Laine
Dr W E I Littlejohn
Dr J H S Martin
Dr R N Matthews
Dr H K I McLachlan
Dr J M McLeod
Dr J E H Milne
Dr G Pattison
Dr R H Saunders
Dr P Sheil
Dr D Simmons
Dr D C Sowden
Dr I D Thomas
Dr B S Vanrenen
Dr L N Walsh
Dr R C Webb
Dr G R Wigley
Dr A S Wood

1952
Dr L I Baird
Dr O McK Coltman
Dr P Forsell
Dr D G MacLeish
Dr R N Mellor
Dr D Miller
Dr A J Murphy
Dr M I Nissen
Dr J B O'Brien
Dr H M Pannifex
Dr I F Robertson
Dr N K T Taylor
Dr B M Wadham
Dr B W Walklate
Dr J F Wiseman
Dr N G York

1953
Dr P E Campbell
Dr L A Fennessy
Dr R C Gutch
Dr J S Hamilton
Dr W C Heath
Dr J W Hill
Dr W C Lawrence
Dr A Marshall
Dr F I R Martin
Dr H E McKenzie
Dr M A McKenzie
Dr B R K McKeon
Dr D M O'Sullivan
Dr D W Oxbrow
Dr G H Perry
Dr A Salvaris
Dr M J Sanders
Dr R G Shaw
Dr K F Shepherd

Dr D J Shuter
Dr J G Sloman
Dr V K Spowart
Dr J W McK Upjohn
Dr J B Webb

1954

Dr P Adrian
Dr J L Bartram
Dr A Cameron
Dr M C Canning
Dr A J Caro
Dr S H Chani
Dr N T W Cheshire
Dr E M Craig
Prof D M Danks
Dr D K Dargaville
Dr D P Gale
Dr W K Gin
Dr G W Harley
Dr W H Huffam
Dr W H Koschade
Dr K H Langford
Dr C J Louis
Dr C G Price
Dr L Simpson
Dr F Wraight
Dr J S Yeatman

1955

Dr G L Buckwell
Dr R G Cameron
Dr W E Fabb
Dr J E K Galbraith
Dr D M Gee
Dr R L Godfrey
Dr K J Green
Dr R P S Gunter
Dr J A Horgan
Mr G J Little
Dr A K Lowe
Dr J H Matar
Dr A Owies
Dr W Schnur
Dr P Tenni
Dr M E Whisson

1956

Dr R M Compton
Dr J F Connelly
Dr J K Dawborn
Dr G Freed
Dr R Gillies
Dr P F Hart
Dr D C Hodge
Dr R W Howard
Dr F C Jones
Dr J Levin
Dr M Luria
Dr R H Meyer
Dr H Reisler
Dr R B Rodrigue
Dr F B Webb

1957

Dr T F Acheson
Mr J A Buntine
Dr G H Capp
Dr C I V Childs
Mr B T Collopy
Dr D Conroy
Dr A Fortune
Dr B S Gilligan
Dr S S Gold
Dr G M Greenbaum
Dr J A Hayman
Dr M A Kidson
Dr J G Mackenzie
A/Prof J E Mainland
Dr H J A McMahon
Dr S Moraitis
Dr J G Nicholson
Dr N V Niteckis
Dr J E O'Donovan
Dr J P Royle
Dr L Slonim

Dr H Small
Dr W B A Southwell
Dr J Stevenson
Dr W G E Straffon
Dr B Sweet
Dr J R York

1958

Prof F A Billson
Dr A S Bodey
Dr L Carp
Dr B Clarke
Dr C P Clarke
Dr J T Cummins
Dr W M Donoghue
Prof K J Hardy
Dr K Hayes
Dr J B Heinze
Dr H P Hutton
Dr R J Kelly
Dr E W Leake
Dr R G H Morgan
Dr J B Morley
Dr G T Schmidt
Dr M Sweet
Dr R Valentine
Dr C M Williams
Dr J C Woods
Dr B J Zerman

1959

Dr P J Duggan
Dr W B Essex
Dr F Kopecek
Dr J Mathew
Dr J M McNamara
Dr G Medley
Dr E H Shen
Dr W J Spicer

1960

Dr R E Abud
Prof J S G Biggs
Dr J T Black
Dr D C Burke
Dr P J Campion
Dr E R D Dammary
Dr P H Francis
Dr J Galati
Dr F Hirschfeld
Dr M G James
Dr W A Kemp
Dr S A Levin
Mr T M M Long
Prof W J Louis
Dr F B M Phillips
Dr M A E Pickles
Dr A J Varigos
Dr A J Wall
Dr A P Yung

1961

Dr R P Barkman
Dr G M Barty
Dr R C Bennett
Dr K Bredikis
Dr R W Brown
Dr J A Burgess
Dr J K C Chew
Dr A A A Coates
Dr O R Cole
Dr M C Douglas
Dr J C Grimwade
Dr J R Grove
Dr J A L Hart
Dr W F Heale
Dr R Hooper
Dr J Jagoda
Dr A M King
Dr R G King
Dr H B Liszukiewicz
Dr J Long
Dr G B Matthews
Dr R A McArthur
Dr I F C McKenzie
Dr C W Morris

Dr P A Ots
Dr R W Pattinson
Dr J D Paull
Dr W E M Renton-Power
Dr G L Richardson
Dr J Rush
Dr G B Ryan
Dr K Shannon
Dr R Southby
Dr A M Steiniger
A/Prof J R Stockigt
Dr I K Ting
Dr F Weir

1962

Dr R McM Adie
Dr J J Anastasios
A/Prof R C Atkins
Dr D L Bell
Dr D S B Brownbill
Dr J F Cade
Dr J W P Chow
Dr N C Diamond
Dr G E Duigan
Dr G L Gillam
Dr R Hjorth
Dr A Isaacs
Dr N R Johns
Dr D G Johnson
Dr H Kranz
Prof D M de Kretser
Dr S K Loh
Dr B D McKie
Dr W Mooney
Dr S R Pager
Dr J W Paton
Dr H Pragier
Dr I Rechtman
Dr C R F Richardson
Dr A M Sandland
Dr G R Santoro
Dr J E Scott
Dr B W Smith
Dr G C Sutherland
Dr J O Wilson

1963

Dr S A Cantor
Dr I Faris
Dr B L Guerin
Dr I F Gunn
Dr C Kibel
Dr C P Lindsay
Dr D J MacIntosh
Dr K J Mackley
Dr B N Margetts
Dr G J Royal
Dr G G Smith
Dr D I Stewart
Dr R A W Ward
Dr J M Woodward

1964

Dr B P Batagol
Dr I W Black
Dr P L Brown
Dr B J Carroll
Dr I G E Cunningham
Dr B B Davis
Dr J T Dowling
Dr E B Heffernan
Dr J F King
Dr H Lipp
Dr F E S Mair
Dr D J O'Donnell
Dr M R Redpath
Dr R L C Sutcliffe
Dr J E Taub-Katz
Dr A G M Tymms
Dr R W Wade

1965

Dr D A Abell
Dr G J Baker
Dr J C Burford
Dr S Ceber

Dr B J Dowty
Dr M E Doyle
Dr H B Frydenberg
Dr J W Funder
Dr P G Habersberger
Dr J E Hammond
Dr P C Jackman
Dr C H C Kiing
Dr A M Van der Knijff
Dr L I Landau
Dr P H Lee
Dr W Leung
Dr H M Manning
Dr K M McBeth
Dr F J Morgan
Dr J F O'Brien
Prof R J Pepperell
Dr K Siu
Dr K W Sleeman
Dr T J S Smith
Dr J F Strickland
Dr T H Thia
Dr G B Thomas
Dr V H Thomas
Dr J D Vidovich
Dr K W Waldron
Dr D Wallace
Dr K D Waters
Dr N D Yeomans

1966

Dr K Bendall
Dr M R C Brown
Dr A R Clifford
Dr C J Cox
Dr J C Davey
Dr G W Edelsten
Dr L Fail
Dr G P Gay
Dr E F F Hanson
Dr T L Hee
Dr B V Lauritz
Dr W H Leadston
Dr B J Lightfoot
Dr J R Nave
Dr S O'Loughlin
Dr G M Patience
Dr A K Roberts
Dr W F Ryan
Dr G Shardey
Dr J H Silver
Dr A P Weldon
Dr R D Weymouth
Dr I C Wheatley

1967

Dr J B Brennan
Dr D G P Buist
Dr M de Clifford
Dr B J Dawson
Dr P C Dobson
Dr J C Duggan
Dr R L Eyres
Dr P Fox
Mr J W Glover
Dr B M Kelly
Dr P M Loewy
Dr M D Lush
Dr M E Meldrum
Dr G M Moran
Dr P M Motteram
Dr E J Nash
Dr J P Nettleton
Dr M H R Ng
Dr J F Oldham
Dr N Pappas
Dr V Peers
Dr V Syrmis
Dr A M Tonkin
Dr B M Tress
Dr S J B Williams

1968

Dr E M Balaam
Dr M J Best

Drs D & K Birks
Dr A J Cass
Dr L K Cleeve
Dr P J Collier
Mr F P Denton
Dr P J Harris
Dr R F Haskett
Dr S D Hogg
Dr M E Kemp
Dr G D Kerr
Dr L Markman
Dr R F W Moulds
Dr L J Murton
Dr R G Newnham
Dr L J Norton
Dr J O'Day
Dr K Oppenheimer
Dr G D Richardson
Dr R M Rome
Dr B R Speed
Mr D W Stoney
Dr C G Tan
Dr C P Thelander
Dr O Y M Wu
Dr A Zimmerman

1969

Dr A J Babarczy
Dr N Brinkley
Dr J J Dwyer
Mr G Fell
Dr H McA Foster
Dr Z W Gruba
Dr E Gurman
Dr R W Harper
Dr E Hendel
Dr R V James
Mr D J Kidman
Dr R Kuhn
Dr N M Ludbey
Dr M R Luxton
Dr D Moss
Dr C J Mullany
Dr J N Oats
Dr H M Parker
Dr A J Portelli
Dr L J Reeves
Dr P M Rosenberg
Dr A R Rubinfeld
Dr F J Ryan
Dr S M Scott
Dr D Steiner
Dr M J Sullivan
Mr D D Westmore
Dr J M Wettenhall
Dr R J Whiting
Dr R Woodruff
Dr A A Woodward
Dr G P Young
Dr R A Young

1970

Dr D A Barbaro
Dr N L Blair
Dr J D Buchanan
Dr E A Carew-Reid
Dr D N Chamberlain
Dr L Dennerstein
Dr M K Easton
Dr G Fabinyi
Dr M E Griggs
Dr B Jackson
Dr R T Judson
Dr D P Lewis
Dr M J MacDonald
Dr E A Marrow
Dr G Mendelson
Dr P Y Milne
Dr R B Reid
Dr P A Sinclair
Dr I J Skelton
Dr G A Thompson
Dr E A Venables
Dr D J Wohlfahrt

Dr K V Woollard
Dr R L Yewers
Dr R Ziffer

1971

Dr A I E Anderson
Dr K E Anderson
Dr D J Butterfield
Dr E Dax
Dr G Gescheit
Dr J S Goldbaum
Dr B U Ihle
Dr M Lichtenstein
Dr M J Liddell
Dr B J Main
Dr L Piterman
Dr L J Roberts
Dr G J Taggart
Dr K Tiedemann
Dr G A Varigos
Dr J D Wark
Mr R N Westh
Dr M J Wilson
Dr E P Wong

1972

Dr W M Beswick
Dr M P Bishop
Dr L E Clemens
Dr A J Costello
Dr M G Dobson
Dr R Drummond
Dr M Eisenbruch
Dr P Fineberg
Dr J Freeman
Dr M Green
Dr R A Harris
Mr B-H Hong
Dr P A Kelly
Dr J H LaNauze
Dr J R Lazdins
Dr G P Leitl
Dr C J Meehan
Dr J M Muller
Dr A M Perlesz
Dr G J Pribaz
Dr R I Rex
Dr M Rigoni
Dr J M Russell
Dr M G Soccio
Dr R Stillwell
Dr I S Szymanski
Dr M W Verso
Dr B H Wakefield
Dr A D Winter
Dr M J Wisdom
Dr L I Woodgate

1973

Dr P M Ashton
Dr I G Bonwick
Dr W M Bugiera
Dr M E Dalziel
Dr N P Downes
Dr N Eizenberg
Dr H P Ewing
Dr B Fensling
Dr W C Fream
Dr D M Hookham
Dr S Jaworowski
Dr S B Kay
Dr A H Kaye
Dr P F Kelly
Dr G K Knight
Dr J R Lambert
Dr S W S Laurie
Dr E A Livingstone-Muller
Dr S K Lowe
Dr P D Meese
Dr W H Miles
Dr P L Moran
Dr H G Owen
Dr J G Plenderleith
Dr M J Plunkett
Dr S Punyanitya

Dr M R Salzberg
Dr I Schweitzer
Dr P A Shekleton
Dr R J Stawell
Dr B Williamson
Dr P I H Wong

1974

Dr M Barr
Dr R B Brink
Dr R M B Chan
Dr W F Christophersen
Dr R W Denisenko
Dr G Durham-Smith
Dr E Frank
Dr A C G Frean
Dr B S Gilbert
Dr W J Hare
Dr M S Hirshorn
Dr L Y Ho
Dr D H Hooke
Dr I E Humphrey
Dr T Konkoly
Dr R J Krigsman
Dr A M Lavoipierre
Dr B de Morton
Dr V M Novelli
Dr R J Searle
Dr L R Segal
Mr M S Skinner
Dr J H Taylor
Dr S L Vaughan
Mr D R Webb

1975

Dr S B Baker
Dr A C W Bong
Dr G J Bromwich
Dr D A Clifton
Dr L M Cunningham
Dr D Czarnecki
Mr P D Danne
Dr G A Easton
Dr J M Flynn
Dr A Gordon
Dr C Hogan
Dr A K Horwood
Dr J C Kay
Dr S W L Lau
Dr R F Lim
Dr A McCready
Dr P F Millington
Dr L G Munro
Dr K M Nicholls
Dr A D Pattison
Dr J D Santamaria
Dr D J Warburton

1976

Dr I S Beasley
Dr W B Buckley
Dr S Carey
Dr P D Coombe
Dr W G Cowell
Dr K J Czuba
Dr N I Demediuk
Dr R Fagan
Dr I Goater
Dr R Hand
Dr W Howson
Dr J W Kelly
Dr M J Lawrence
Dr A E McCleary
Dr L B McGrath
Mr M Medownick
Dr I N Olver
Dr C S Reeves
Dr S J Rodgers-Wilson
Dr K C Rose
Mr J V Rosenfeld
Dr D Rosner
Dr E M Russell
Dr S A Schnall
Dr A P Sheehan

Dr M D Spillane
Dr J Steel
Mr C S Sutherland
Dr A M Zagorski
Dr M N Zajd

1977

Dr E D Bowman
Dr A M V Brooks
Dr P D Brukner
Dr I A Campbell
Dr L J Campbell
Dr W D Capell
Dr P L Champness
Dr A J Chong
Dr M J Cotter
Dr S M Davey
Dr D Dobriansky
Mr N S I Gordon
Dr H Grossman
Dr J T Heywood
Dr W J W Kelly
Dr L J Kliman
Dr J Lichtblau
Dr M Martakis
Dr A J Monk
Dr G P Norton
Dr J R Salkeld
Dr A J Storti
Dr J H J Tan
Dr K Wayne

1978

Dr M J Dawkins
Dr D F Eckel
Dr N Fisher
Dr D Gin
Dr I C Hawley
Dr J S Hoare
Dr T J P Hodson
Dr F K Judd
Dr D J Kerr
Dr E M Langenegger
Dr I D Mathieson
Dr K G McCullough
Dr J W Newbury
Dr M A Rees
Dr S Silberberg
Dr R J Simmie
Dr R F Weller
Dr C R Welsford
Dr F S-H Wong

1979

Dr R E Beavis
Dr D K Burke
Dr G D Campbell
Dr K C Cheung
Dr C Clifopoulos
Dr A W Dent
Dr A G Frauman
Dr N P Kafieris
Dr B F Kay
Dr G L Leber
Dr D P Lowenstern
Dr P D Mark
Dr H G McLennan
Dr R Oei
Dr H A Royston
Dr P N Rozenthal
Dr J W Serpell
Dr D Ungar
Dr H M Vokach-Brodsky
Dr C M Vun
Dr A G Walpole
Dr S G Warmington
Dr P R Werb
Dr C A Wright

1980

Dr J M Adams
Dr G P Bearham
Dr M T Chapman
Dr R A Cuthbertson
Dr R S Dorey

Dr A L Fisher
Dr J E T Gooley
Dr H D Goonatillake
Dr J S Gordon
Dr T W H Kay
Dr C J McHardy
Dr P F McMahan
Dr G W Self
Dr M R Sim
Dr R J Sitlington
Dr D K L Smith
Dr M Sosnin
Dr N F Strathmore
Dr A C Street
Dr R G Vine

1981

Dr S W Banting
Dr A Bendrups
Dr R Black
Dr D G Bolzonello
Dr G J Campbell
Dr J A Carman
Dr M J Christie
Dr J G Churchman
Dr M F Cole-Sinclair
Dr D G Darby
Dr R de la Harpe
Dr M J Dodd
Dr J E Elder
Dr M C Fitzgerald
Dr I Gartley
Dr S Harrison
Dr R Hemphill
Dr B R Johnstone
Dr R A Kwiatek
Dr A H K Lou
Dr G M McInerney
Dr C Mylonas
Dr G F Opie
Dr R Sheen
Dr J A Smith
Dr L J Smith
Dr M J Stewart
Dr S A Tobin
Dr B Tulloh
Dr C L Wilson

1982

Dr J Barlow
Dr A D Cass
Dr G L Crosthwaite
Dr R P Davies
Dr W R Fleming
Dr M I McK Garwood
Dr T J Kilpatrick
Dr A P Lawrence
Dr C A McConnell
Dr H McPherson
Dr M T Naughton
Dr P K Neerhut
Dr G M Russell
Dr A M Walbran
Dr G R White
Dr O D Williamson

1983

Dr J B Agnew
Dr W H Anderson
Dr P Barnett
Dr R L Basser
Dr I B Bastian
Dr W Bissinger
Dr A Buchanan
Dr A H Bui
Dr C S Y Choong
Dr N A Cunningham
Dr I M Davidson
Dr S Downes
Dr P Francis
Dr S Game
Dr A P Garnham
Dr J R Goad
Dr M K Harris

Dr R Heath
Dr W Joshi
Dr F Man-Kit Law
Dr G J Lieschke
Dr A I MacIsaac
Dr A W Pick
Dr M Pirotta
Dr A Radovini
Dr H P Rehfish
Dr C Reid
Dr M A Rosenthal
Dr M A Shembrey
Dr C A Silagy
Dr J Tobin
Dr P Wein
Dr A J Wright

1984

Dr J H Altermatt
Dr H Aurbach
Dr J L Bodycomb
Dr R J Bonwick
Dr R Chan
Dr J R Chenoweth
Dr M A Daly
Dr L M Danvers
Dr A M Dean
Dr R G Doig
Dr I G Faragher
Dr G Garra
Dr R P Gerraty
Dr I W J Hurley
Dr L Kritharides
Dr K K T Lim
Dr H G Mack
Dr A E Malatt
Dr H E Malcolm
Dr J L Newstead
Dr D A Ross
Dr C J Worsnop
Dr M M Worsnop

1985

Dr D M Bolton
Dr A G Cain
Dr C D Dirckze
Dr J R Dowd
Dr R M Fethers
Dr V Fourlanos
Dr C R Grant
Dr G S Hebbard
Dr P Y Y Ho
Dr C J Hogan
Dr S J Hookey
Dr C Horton
Dr R W Hosking
Dr S C Hyde
Dr R Jacobs
Dr J C Jamieson
Dr O Kefaladelis
Dr A S Leaver
Dr M J Love
Dr D G MacLellan
Dr G B Mann
Dr G J Morgan
Dr P G Mulkearns
Dr A S Narita
Dr I K C Ng
Dr A P Porter
Dr A J Robertson
Dr P O Sharp
Dr I J Sharrock
Dr J A Silberberg
Dr A W W Tang
Dr J Tsaltas
Dr M G K Veitch
Dr J Wong
Dr R Wong

1986

Dr F Alberico
Dr P J Allen
Dr L J Allinson
Dr A A Almeida

Dr Bill Arsenakis
Dr N Bacis
Dr M T Baker
Dr A G Baxter
Dr M J Benson
Dr R W R Bills
Dr A L Bonomo
Dr R S Breamore
Dr R A Bunter
Dr F J Cameron
Dr R L Campagnaro
Dr J Campbell
Dr P P Chen
Dr D G Clarke
Dr Vicky Cocotis
Dr J M Collett
Dr J M Collins
Dr M A Coote
Dr M V Croce
Dr M Daniell
Dr J M Davey
Dr E A J Davies
Dr D W De Boer
Dr W H B Edwards
Dr W D Eichler
Dr D G Flanagan
Dr G J Flanagan
Dr A J Freidin
Dr S A Freund
Dr D Gaddie
Dr P J Gard
Dr M F Gidney
Dr C J Ginifer
Dr G J Gladman
Dr O Gobbo
Dr A B Golemo
Dr P D Good
Dr M G Healey
Dr B J Heath
Dr P D Hebbard
Dr D B Hipgrave
Dr M K Hocking
Dr P W Howat
Dr B Infeld
Dr S P Kaye
Dr D W Keating
Dr A J Kiellerup
Dr A T C Kotsimbos
Dr T Kyrou
Dr M A Lancaster
Dr P W Larsen-Disney
Dr K T Le
Dr P B Le
Dr J M Lee
Dr J L Leong
Dr C Liow
Dr F J Liskaser
Dr R Liubinas
Dr S A Locarnini
Dr A W Lowe
Dr M J Lynch
Dr W E Marshman
Dr B J McDonald
Dr R P McNair
Dr T J McNamara
Dr D Meerkin
Dr T E Merriman
Dr J Mikuz
Dr P U Milonas
Dr J Moloney
Dr J A Mulhauser
Dr B A Mullins
Dr P H Ngo
Dr A J O'Flaherty
Dr M A Oziemski
Dr R Padmanabhan
Dr M A Paine
Dr K Paizis
Dr C Papachristos
Dr A-M Pellizzer
Dr L Poon
Dr M J Price

Dr G Proimos
Dr S G Radford
Dr M D Richardson
Dr M S Robertson
Dr E Romas
Dr V G Ross
Dr E R W Salter
Dr S L Seow
Dr M C Sherwood
Dr F L Shumack
Dr P J Smith
Dr B T Stewart
Dr J A Sutherland
Dr S Swain
Dr J Swieca
Dr G S B Tan
Dr M L-K Tang
Dr J H Teh
Dr T L Todd
Dr J S E Toh
Dr J S Tovey
Dr S G Troupakis
Dr M G Vaughan
Dr M A Viney
Dr K L White
Dr K Wing Shing
Dr D O H Wong
Dr J K M Wong
Dr P J Worboys

Other members

Prof H D Attwood
Prof J R B Ball
Dr C Bell
Prof R C Bennett
Dr D D Bucens
Prof G D Burrows
Dr K Cameron
Dr G R Campbell
Prof G J A Clunie
Miss D Colville
Prof I Darian-Smith
Prof B M Davies
Dr L Dennerstein
Prof M R Ewing
Dr D T W Fei
Dr J R L Forsyth
Dr M Greenbaum
Dr L W Gregory
Mr P S Groom
Dr K N Ham
Dr L I Hatherley
Dr L A Kellam
Dr G C T Kenny
Dr P J Keppel
Prof P Kincaid-Smith
Dr Z S Kiss
Dr P M Lavoipierre
Prof Em R R H Lovell
Dr P C Maher
Dr S Mak
Dr R Moodie
Prof T Morgan
Prof C O'Herlihy
Prof D G Penington
Prof P D Phelan
Dr R M Robins-Browne
Prof G H Schreiber
Dr S L Skinner
Dr J Syme
Dr J W G Tiller
Prof M L Wahlqvist
Dr R W Warne
Dr M J Waters
Dr G Whelan
Prof D O White

Faculty of Medicine

Message from the Dean

General Review of 1986

During 1986, a major new development involving the Faculty of Medicine was the decision that the University of Melbourne would participate in the establishment of a new teaching hospital at the Western General Hospital which is to be upgraded and amalgamated with a new hospital being built at Sunshine. This amalgamated hospital is to be known as the Maribyrnong Medical Centre. Following several months of negotiations between the University, the State Minister of Health and officers of the Health Department of Victoria, the following major academic developments were approved:

- the establishment of a joint Clinical School of the University between the Amalgamated Melbourne and Essendon Hospitals and the Maribyrnong Medical Centre;
- the extension of the current University Departments of Medicine and Surgery at the Royal Melbourne Hospital to establish units of these departments at the Maribyrnong Medical Centre;
- the establishment of a University Chair of Medicine and First Assistantship in Surgery based at the Maribyrnong Medical Centre;
- the linking of the University Departments of Obstetrics and Gynaecology (Royal Women's Hospital), Paediatrics (Royal Children's Hospital) and possibly Psychiatry to the corresponding services at the Maribyrnong Medical Centre.

This development is a key component in the State Government's plans to upgrade and rationalize medical and hospital services in Melbourne's western suburbs. It will be of immense value to the Faculty of Medicine in improving the access of medical students to a more broadly based patient population.

The Federal Minister for Health, Dr Neal Blewett, announced in 1986 that he planned to establish an Inquiry into Medical Education and Medical Workforce. A National Workshop on these topics was held in Canberra in July 1986. The Terms of Reference for the Inquiry include considerations of the effectiveness of medical undergraduate education and postgraduate training, the provision of an appropriate supply of medical practitioners, and the issues of intake numbers and methods of selection into medical education. Professor Richard Larkins, the James Stewart Professor of Medicine at the Royal Melbourne Hospital, is a member of the Committee appointed by the Minister. The Minister hopes that the Inquiry will be completed in time for its report to be considered 'prior to the 1988 medical schools intake'. The Inquiry will be a major event in 1987. It will provide an opportunity to inform the Minister of the important initiatives introduced in recent years by the Faculty of Medicine in objective-motivated curriculum reform; teaching in the social, preventive and ethical aspects of medicine; expanded postgraduate training and continuing education programmes; and selection procedures that provide access to medical education for socially and educationally disadvantaged students.

In 1986, the Faculty decided to institute its own internal reviews of the teaching, research and administrative functions in various disciplines within the Faculty. The first

such review now underway relates to the disciplines of Psychiatry and Behavioural Studies. Such reviews will be of considerable value to the Faculty, not only in promoting academic excellence but also in responding to issues raised by the recently formed Australian Medical Council which will take over from the General Medical Council the responsibility for the assessment and accreditation of medical schools and medical education in Australia.

Student Matters

The intake into the first year of the medical course was again 182 students for 1986. The HSC cut-off score for selection rose from 347 in 1985 to 360 in 1986. Included in the entry into first year was the usual quota of 13 overseas students (who required HSC scores of at least 378) and a small number of mature-age students selected on the basis of both HSC and tertiary studies.

In 1986 the Faculty again participated in the University's Special Admissions Scheme in which up to 10 students are admitted to the first year of the medical course on the basis of HSC performances somewhat lower than the normal cut-off figure but considered to be adversely affected by social and educational disadvantage. Ten such students were admitted to first year in 1986 and are proceeding to second year. The four students admitted under this scheme in 1985 have successfully completed two years of the course. During 1986, details were finalized for the Faculty's Extended Special Admissions Scheme to be introduced for the 1987 selection round. This provides for the selection of up to ten additional disadvantaged students whose academic performances are between the above Special Admissions cut-off and the cut-off score for entry into Science at the University. The students will be admitted to the second year of the medical course if they perform at a satisfactory level in prescribed science subjects for two years.

The Faculty's long-standing Lateral Entry Scheme continues to operate successfully, offering the opportunity for students to gain selection into the second year of the course on the basis of appropriate tertiary studies. All seven students admitted under this scheme in 1986 were successful in completing second year. In addition, the Faculty's Refugee Entry Scheme provides access to the course for appropriately qualified senior medical students or recent medical graduates admitted to Australia with refugee status. A total of ten such students were studying in the course during 1986. These students were required to pass screening tests in second year subjects to gain entry into the third year of the course. I am pleased to report that all four refugee students who reached final year in 1986 graduated at the end of the year.

During 1986, eight students were enrolled for the Bachelor of Medical Science degree, mostly after their third or fourth year of medical studies. This provides excellent opportunities for students to carry out a year of supervised research in a wide range of areas in preclinical or clinical departments of the Faculty. It is disappointing that the number of students willing to interrupt their studies to undertake this degree is relatively small. However, the explanation for this may lie in the interest of students in the mainstream medical course, their motivation to study Medicine and their aim to complete the course in the minimum time. Pass rates continue to be

very high and very few students withdrew from the course in 1986, again attesting to the success of the revised curriculum and the efficiency of the selection process.

The Faculty continues to monitor the effectiveness of its teaching activities. The Curriculum Review Committee is currently taking the opportunity to revise the teaching programme, particularly in the preclinical years, in view of the changes that need to be made with the introduction of the two-semester academic year in 1989. The Committee is working in close consultation with the Faculty of Science to develop the most effective first year programme with the most efficient use of resources. Discussions are also occurring with the Faculty of Science with the aim of responding to the growing demand from the undergraduate science students to study biotechnology-related subjects offered by departments in the Faculty of Medicine.

Research

Researchers in the Faculty of Medicine attracted outside funds totalling in excess of \$13.5 million in 1986. These funds came from a variety of sources including government agencies, private foundations, donations and private industry. The largest contribution was an amount of nearly \$5.5 million from the National Health and Medical Research Council comprising approximately \$4 million shared between 33 New Project grants and 47 Continuing Project grants, and just over \$1.4 million for five Continuing Programme grants. The Faculty was again very successful in the 1986 round of applications for funding in 1987. The total NH&MRC allocation to the Faculty in 1987 will be more than \$6.5 million — an increase of nearly 19 percent on the 1986 allocation — in respect of 45 New Project grants, 58 Continuing Project grants and the five Continuing Programme grants. In addition to the \$6.5 million of NH&MRC grants administered through the University, associates of University departments working in affiliated hospitals were awarded more than \$1.5 million in NH&MRC funds for 1987, giving an overall total well in excess of \$8 million for the Medical School. The University's NH&MRC application success rate in the 1986 round was 46 percent, compared with the national average of 37 percent. The Faculty continues to attract the largest allocation of NH&MRC funds to any medical school in Australia, highlighting the high standard and competitiveness of the medical research being carried out at The University of Melbourne.

There is a growing involvement of researchers in the Faculty in raising funds through the commercial development of their discoveries. For instance, Professor Graeme Clark and his research team in the University's Department of Otolaryngology at the Royal Victorian Eye and Ear Hospital receive support for their bionic ear research from Nucleus Limited, the Sydney high-tech biomedical firm which holds the contract for the commercial development of the implant. Nucleus Limited has recently spawned sister companies, Cochlear Pty. Ltd. based in Sydney and Cochlear Corporation based in Denver, Colorado, with the aim of marketing the bionic ear internationally.

Professor Ian McKenzie and his colleagues in the Research Centre for Cancer and Transplantation in the Department of Pathology received continuation of C.T.E.C. Special Research Centre funding (\$668,000) in 1986 and were involved in two major commercial initiatives. The first was an agreement with two biotechnology companies, Australian Med-Research Industries and Integrated Medical Technologies Ltd., for a contribution of \$2.4 million over three years to be used to develop an imaging process for the early detection

and location of breast cancer using a specific monoclonal antibody discovered in Professor McKenzie's laboratory. The second commercial initiative was the involvement of the Research Centre in the Victorian Government's Australian Medical Research and Development Consortium that was announced in 1986. The aim of the Consortium is to create a means of developing commercial products from Australian research, facilitating the transfer of technology from the laboratory to the marketplace, and in particular exploiting Victoria's very strong base in medical biotechnology. Four institutions affiliated with the University — the Walter and Eliza Hall Institute of Medical Research, the Howard Florey Institute of Experimental Physiology and Medicine, the Murdoch Institute for Research into Birth Defects and the Royal Children's Research Foundation — have also agreed to participate in the Consortium.

The strong growth in research funding received from outside sources by the Faculty of Medicine in recent years has been paralleled by major increases in research staff and the numbers of postgraduate students who are studying for higher degrees in departments of the Faculty. In 1986, the Faculty had the equivalent of approximately 320 full-time higher degree students, a figure that has nearly doubled over the last ten years. This growth in research activity has generated considerable strains on the accommodation available to the Faculty. There is the prospect of some relief in this area for the University departments at the Royal Melbourne Hospital in view of the space that will become available when the former Walter and Eliza Hall Institute building is refurbished as the Medical Research Building. Also the decision by the University to purchase the former Ramsay building at 200 Berkeley Street, Carlton, will provide the opportunity, in due course, to respond to the more extreme accommodation difficulties of the Faculty, such as those of the Department of Pharmacology.

In 1986, the Faculty welcomed the affiliation between The University of Melbourne and the Murdoch Institute for Research into Birth Defects at the Royal Children's Hospital. The Murdoch Institute, under the Directorship of Professor David Danks, joins with the other institutes affiliated with the University — the Walter and Eliza Hall Institute of Medical Research, the Howard Florey Institute of Experimental Physiology and Medicine, the Ludwig Institute for Cancer Research, the St. Vincent's Institute of Medical Research — and the campus departments and teaching hospitals of the medical school to form the most important focus of medical research activity in the Southern Hemisphere. It is pleasing to note that in 1986 the Murdoch Institute was awarded a Block Grant by the NH&MRC, commencing in 1987, based particularly upon the outstanding productivity of Professor Danks and his colleagues during the tenure of an NH&MRC Programme grant.

Staff and Alumni Matters

Major new appointments in 1986 included Professor Ian Gust as Professor/Director of Clinical Virology at Fairfield Hospital; and Professor Donald Metcalf, Deputy Director of the Walter and Eliza Hall Institute, to a Personal Chair of Cancer Biology in the Department of Medical Biology. In addition, Dr Len Harrison accepted appointment as Professor/Director of the Burnet Clinical Research Unit of the Walter and Eliza Hall Institute and the Amalgamated Melbourne and Essendon Hospitals, and will take up this position in April 1987. Mr Alan Cuthbertson accepted appointment in August 1986 as Associate Dean (Clinical) at the Royal Melbourne Hospital. Professor Trefor Morgan was elected Assistant Dean (Preclinical) for the period 1987-90.

Retirements during 1986 included Professor G.W. Crock, Professor J.V. Hurley and Professor D.M. Prinsley. As Foundation Ringland Anderson Professor and Chairman of the Department of Ophthalmology at the Royal Victorian Eye and Ear Hospital since 1963, Professor Crock laid the foundations for academic ophthalmology in Australia and is widely recognized for his innovative advances in eye surgery. Professor Hurley was a member of the Department of Pathology since 1955 and was appointed to the Chair in 1981; he is an excellent teacher and has established an international reputation for his research in the field of inflammation. Professor Prinsley was appointed Foundation Professor of Gerontology and Geriatric Medicine at the Mount Royal Hospital in 1976 and was responsible for developing the first significant undergraduate teaching and postgraduate training programmes in geriatric medicine in Australia. Dr Roger Melick, Associate Dean (Clinical) at the Royal Melbourne Hospital, retired due to illness in May 1986 and died in November 1986. This was a very sad loss to the University and to the Royal Melbourne Hospital. Dr Melick was loved by his students and he was a very active worker for the Faculty and an unusually constructive and penetrating contributor to discussions in Faculty committees. The Faculty recorded its appreciation for the important role played by Dr Christine Penfold, Clinical Supervisor at the Royal Melbourne Hospital, in carrying on the work of the Clinical School during this period.

Notable honours gained during 1986 by persons associated with the Faculty include the appointments of Professor Emeritus A.E. Doyle and Mr P. Williams as officers of the Order of Australia, and Dr H.W. Garlick as a member of the Order of Australia. The following promotions to Reader were announced in 1986: Dr B.E. Davidson (Biochemistry), Dr D.F. Story (Pharmacology), Dr N.T. Williams (Physiology) and Dr N.D. Yeomans (Medicine, Austin and Repatriation General Hospitals).

Professor Priscilla Kincaid-Smith was appointed President of the Royal Australasian College of Physicians, and Professor W.S.C. Hare was appointed President of the Royal Australasian College of Radiologists. It should be noted also that Mr D.G. Macleish, a Professorial Associate of the

Department of Surgery (Royal Melbourne Hospital), is President of the Royal Australasian College of Surgeons, and Dr J.E.K. Galbraith, a Senior Associate of the Department of Surgery (Royal Melbourne Hospital), is President of the Royal Australasian College of Ophthalmologists.

During 1986, Professor David Penington was appointed Chief Adviser on Health Policy and Programmes for the Health Department of Victoria. In this capacity, Professor Penington has played a key role in the development of planning and management strategies for major projects on behalf of the Health Department, including the new Monash Medical Centre and the Maribyrnong Medical Centre. Also during 1986, Professor Sir Gustav Nossal was elected President of the International Union of Immunological Societies, and Professor Jack Martin was elected President of the International Conferences on Calcium Regulating Hormones.

The University of Melbourne Medical Society (UMMS) continues to prosper, with a current membership of 1229. This includes 113 members of the 1986 medical graduation class who were recruited to membership of the Society following a ceremony held in December in the Sunderland Theatre to 'hand over' the class to the Medical Board of Victoria. The Society's journal *Chiron*, is an excellent publication, a tribute to the enthusiasm and skills of Dr Peter Jones and his editorial committee. The Dean's Lecture Series continues to be well attended. A highlight of the 1986 Series was the seminar on 'Ethics at the growing edge of medicine' led by Professor Emeritus Richard Lovell and His Excellency, the Governor of Victoria, Dr Davis McCaughey. This was followed by the Annual General Meeting of the Society. During 1986, the Chancellor, Professor Emeritus Sir Douglas Wright, stepped aside from the position of Foundation President of the Society and was succeeded by Professor Emeritus Sir Sydney Sunderland. Sir Douglas has agreed to continue serving as a member of the Executive Committee of the Society.

Graeme B. Ryan
Dean, Faculty of Medicine
Chairman, UMMS Executive Committee

Inquiry into Medical Education and the Medical Workforce

The Federal Minister for Health, Dr Neal Blewett, announced on 20 January 1987 an inquiry into medical education and the medical workforce. The inquiry will be chaired by Professor Ralph Doherty, Pro-Vice-Chancellor of Queensland University. Other members of the committee of inquiry are:

- Professor Robert Smith, Vice-Chancellor, University of Western Australia
- Dr Bernie Amos, Westmead Hospital
- Professor Richard Larkins, University of Melbourne
- Mrs Delys Sergeant, Social Biology Resources Centre, Melbourne
- Dr Neville Hicks, University of Adelaide
- Dr Sue Morey, Royal Prince Alfred Hospital, Sydney.

In announcing the establishment of the committee, Dr Blewett said that it would give members of the medical profession, educationalists, health administrators, other health care professionals, and the community an opportunity to contribute to the shaping of the medical practitioner

workforce of the future. 'The committee will first examine the desirable long-term trends in the pattern of the delivery of medical care required to meet future economic and social circumstances,' he said.

Dr Blewett drew attention to the emphasis now being placed throughout the world on health promotion and illness prevention. He pointed to some of the comments made recently in the *Report of Australia's Better Health Commission* to the effect that current medical training regimens do not equip graduates to promote health. 'The committee will make recommendations to the Ministers for Education and Health on major aspects of the preparation for medical practice,' he said.

Dr Blewett stated that the proposed terms of reference were: 'To inquire into and make recommendations upon major aspects of preparation for medical practice, including:

1. The effectiveness of the curricula and the structure of current Australian medical undergraduate education and the internship year, in producing medical graduates with

appropriate skills and competencies to meet national health care needs.

2. The effectiveness of current post-graduate Australian training for general medical practice and medical specialties (including continuing education programs and specialist accreditation).
3. The provision of an appropriate supply of each broad category of medical practitioner, with particular regard to supply issues such as projected wastage rates and the entry into Australia of overseas trained medical practitioners, and demand issues of meeting national health care needs, and including specific recommendations for appropriate overall intakes into medical undergraduate education.
4. The selection of students to undertake the study of medicine including ways in which entry to medical education may be made available to the widest socio-economic range of students.
5. The health, social and economic impact of the major recommendations of the inquiry.

And to provide advice to the Ministers on the implementation of such recommendations as the Government decides upon.'

'While I appreciate that the matters to be considered are extensive and complex, I hope that the committee will be able to complete its task in time for its report to be considered prior to the 1988 medical schools intake', Dr Blewett said. 'The need to regulate the numbers of medical practitioners is a matter of major concern — a concern which is shared by the Australian Medical Association. For this reason, the committee has been asked to consider workforce issues within the context of future health needs of the Australian community.'

Committee of Inquiry into Medical Education and the Medical Workforce

Professor Ralph Doherty (chairman) — Professor Doherty, Pro-Vice-Chancellor (Health Services) at the University of Queensland's Medical School, is a former Medical Research Fellow in the Queensland Institute of Medical Research. Professor Doherty's main interest is in infectious diseases and he served as the Institute's Director for eleven years. He obtained a Master of Public Health from the Harvard School of Public Health, Boston, U.S.A. For nine years he was a member of the National Health and Medical Research Council's Medical Research Advisory Committee. He is a former Dean of the Faculty of Medicine at Queensland University. A Fellow of the Royal Australian College of Medical Administrators, Professor Doherty was also the former chairman of the Advisory Board of the Australian Institute of Health.

Professor Robert Smith (member) — Professor Smith is a graduate in geography from the University of New England.

He obtained his Master's at the Northwestern University, Chicago, U.S.A., and his Ph.D. at the Australian National University, Canberra. He was appointed Vice-Chancellor of the University of Western Australia in 1985 following a year as President *pro tem* of the University of British Columbia. Prior to this he served as Academic Vice-President of that University which carried the responsibility for the twelve faculties, including medicine.

Dr Bernie Amos (member) — Dr Amos has recently been appointed to the position of Chief Executive Officer of the Cumberland Area Health Service in New South Wales. He was a former General Superintendent of the Parramatta Hospital and a member of the project team responsible for the construction of Westmead Hospital. He is President of the N.S.W. Medical Board and a member of the Australian Medical Council.

Mrs Delys Sergeant (member) — Mrs Sergeant is the Foundation Director of the Social Biology Resources Centre in Melbourne. A science graduate of the University of Western Australia and a Master of Education from La Trobe University, her main interest is in the development and implementation of tertiary courses, mostly in applied human biology and social sciences.

Dr Neville Hicks (member) — Dr Hicks is a member of the Faculty of Medicine at Adelaide University. He is a former chairman of the University's Department of Community Medicine and of the Foundation for Multi-disciplinary Education in Community Health. A former Commissioner of the South Australian Health Commission, Dr Hicks, who is a historical demographer, has a major interest in the history of medicine and the social analysis of public health and ethical issues.

Professor Richard Larkins (member) — Professor Larkins is the James Stewart Professor of Medicine at the Royal Melbourne Hospital. His main interest is in endocrinology and he is the immediate Past President of the Endocrine Society of Australia. He is a member of the Board of Censors of the Royal Australasian College of Physicians.

Dr Sue Morey (member) — Dr Morey is the Director of Community Medicine at the Royal Prince Alfred Hospital in Sydney, a position she has held since 1976. After obtaining her basic medical degrees at Sydney University, Dr Morey entered the specialty of internal medicine and was admitted as a Fellow of the Royal Australasian College of Physicians. She subsequently gained a Master of Public Health at Harvard University, and is a Fellow of the Royal Australian College of Medical Administrators. She has wide experience in health services both at a community level and in a hospital setting.

There had been a growing suspicion in Ulverstone, Tasmania, (though no surprise in the Wright family) that the boy was bright.

The Speculum, 142, July 1939

The fundamental characteristics of this set of reactions and in such a situation is that perhaps of greater or less intensity or depth of reaction at that particular point there is such a degree of proliferation as is the usual set of circumstances in this type of vital cellular activity depending on the manner in which the process is extended leading to a somewhat similar result. This is quite characteristic of this type of reaction to a greater or less degree.

Problem: Find the Lecturer or Find the Verb.

The Speculum, 1948

Question: Who wrote both the above?

Answer: Peter MacCallum.

Faculty of Medicine Final Year 1986

Top Final Year Students 1986

Peter Dale Hebbard



Peter Dale Hebbard

Peter Dale Hebbard came to the University of Melbourne from Canberra. He was educated at Phillip College, a Commonwealth secondary college, and matriculated with the highest score in the A.C.T. After a year working in Tasmania, he applied for and started the medical course in 1981. Until he married in December last year, Peter lived at Trinity College, where he met his wife, Melissa. He spent the clinical years of the course at the Royal

Melbourne Hospital and was awarded the Kenneth J. Grice Prize as the top fourth year student. Interestingly, Peter's brother, Geoff, was the top final year student last year. Peter's interests include opera and plays, bushwalking, skiing, tennis and golf. He hopes to continue training in surgery, radiology or anaesthetics.

Katherine Paizis



Photo News Limited

Katherine Paizis

Katherine Paizis was educated at Lowther Hall Grammar School prior to commencing Medicine at The University of Melbourne. She completed the three clinical years of her course at St. Vincent's Hospital. Her parents came from Greece in 1957 and settled in Melbourne. As part of her elective studies in final year she visited the home of her ancestors and worked in the King Paul and Hippocrates Hospitals in Athens. She is a quiet person who has always gone about

her work as a student with diligence, energy and a highly developed sense of responsibility. Her hobbies have included a study of traditional Greek dancing and the Greek language.

Australian Medical Association Prize

HEBBARD, Peter D. RMH
PAIZIS, Katherine SVH

Medicine

Keith Levi Memorial Scholarship in Medicine

PAIZIS, Katherine SVH

Robert Gartly Healy Prize in Medicine

PAIZIS, Katherine SVH

Jamieson Prize in Clinical Medicine

PAIZIS, Katherine SVH

Upjohn Award in Clinical Pharmacology and Therapeutics

CURTIS, David John AH/RGH

Surgery

Beaney Scholarship in Surgery

HEBBARD, Peter D. RMH

Robert Gartly Healy Prize in Surgery

HEBBARD, Peter D. RMH

Proxime Accessit Prize in Surgery

CLAYTON, Alison L. RMH

Ryan Prizes in Surgery (R.A.C.S.) (RMH/SVH)

HEBBARD, Peter D. RMH

PAIZIS, Katherine SVH

Smith & Nephew Prize in Surgery (AH/RGH)

WORBOYS, Philip J. AH/RGH

E.H. Embley Prize in Anaesthetics

LEFKOVITS, Jeffrey RMH

Neil Bromberger Prize in Orthopaedics (AH/RGH)

WHITE, Karen L. AH/RGH

Obstetrics & Gynaecology

Fulton Scholarship in Obstetrics & Gynaecology

CLAYTON, Alison L. RMH

Robert Gartly Healy Prize in Obstetrics

WHITE, Karen L. AH/RGH

Hubert Sydney Jacobs Prize in Clinical Gynaecology

MULHAUSER, Julie-Anne AH/RGH

Kate Campbell Prize in Neo-Natal Paediatrics

PAIZIS, Katherine SVH

Alfred Edward Rowden White Prize in Clinical Obstetrics

HOWAT, Paul W. AH/RGH

Edgar & Mabel Coles Prize in Obstetrics (RMH/SVH)

CLAYTON, Alison L. RMH

Max Kohane Prize in Obstetrics & Gynaecology (AH/RGH)

WHITE, Karen L. AH/RGH

Paediatrics

Howard E. Williams Prize in Paediatrics

CARAPETIS, Jonathan R. RMH

Child Growth & Development Study — Nursing Mothers' Association Prize in Paediatrics

O'FLAHERTY, Amanda J. SVH

Clara Myers Prize in Surgical Paediatrics

TANG, Mimi Lai-Kuan RMH

Psychiatry

John Adey Prize in Psychiatry

McNAIR, Ruth P. SVH

John Cade Memorial Medal in Clinical Psychiatry

POON, Lianne B.M.L. AH/RGH

Graduate List 1986

Bachelor of Medicine and Bachelor of Surgery

Joanne Christine Adie, Fiorella Alberico,
Andrew Geoffrey Allan, Penelope Jayne Allen,
Aubrey Anthony Almeida, Richard David Angliss,
James Antoniadis, Brett Damon Archer, Bill Arsenakis,
William Mark Atkin, B.Med.Sc., Michael Thomas Baker,
Nicholas Balis, Andrius Juozas Balnionis,
Louise Elizabeth Batchelor, Alan George Baxter,
Diana Margaret Baylis, Andrew Donald Beischer,
David Richard Bell, Matthew Julian Arundell Benson,
Richard William Rex Bills, Margaret Ruth Bird,
Antonio Leopoldo Bonomo, Claudia Clare Antonia Bosch,
Ross Stephen Breadmore, Lindsay Robert Bridgford,
Agus Emong Brotodihardjo, Heather Julie Brown,
Susan Bernadette Buhler, Richard Andrew Bunter,
Fergus John Cameron, B.Med.Sc., Jillian Louise Camier,
Robert Luigi Campagnaro, Judith Campbell,
Jonathon Rhys Carapetis, Tony Chan, Chen Phoon Ping,
Sang Chung, B.Med.Sc., David Gregory Clarke,
Alison Louise Clayton, Fiona Helen Clements, Vicky Cocotis,
Jacinta Mary Coleman, Jacqueline Marcelle Collett,
Jane Marguerite Collins, Michael John Connellan,
Michael Andrew Coote, Sue Meredith Corrigan,
Michael Victor Croce, Carmel Therese Crock,
David John Curtis, Matthew Christopher Daly,
Mark Davies Daniell, Jennifer Mary Davey,
Elaine April Joy Davies, Martin Leonard Day,
Willem Bastien de Boer, B.Med.Sc., Francesco Demaio,
Stuart James Dille, Leo Thomas Donnan,
Kenneth Peter Dowd, Glenn Osborne Downey,
Robert Eadie, Margaret Mary Eagle,
William Howard Bruce Edwards, William David Eichler,
Damon Peter Eisen, Ilya Boris Englin, B.Med.Sc.,
Mary Jane Fitzpatrick, Damian Gerard Flanagan,
Grant Justin Flanagan, Brian Robert Fox,
Matthew Yorke Frei, Andrew Jonathan Freidin,
Steven Andrew Freund, Doron Gaddie, Peter John Gard,
Joanne Gardiner, Matthew Francis Gibney,
Corinne Joy Giniifer, Gregory John Gladman, Olivia Gobbo,
Paul Robert Goggin, Anna Barbara Golemo, B.Sc.,
Peter Douglas Good, Christopher Mark Goods,
Lynette Joy Goudie, Merran Louise Gowans,
Stephen Roger Graves, Ph.D. (Monash),
Virginia Mary Hamilton, Chanad Stephen Harangozo,
Martin Graham Healey, Barbara Janet Heath,
Peter Dale Hebbard, Ana Raquel Hernandez,
Isolde Evelyn Hertess, B.Sc., David Barry Hipgrave, B.Sc.,
Michael Keith Hocking, B.Med.Sc., Malcolm John Hopwood,
Paul Warren Howat, Michael William Hum,
James Francis Garvan Hurley, Bernard Infeld,
Gerard Patrick Ingham, Yvette Michele Jan,
David Henry Kausman, Steven Peter Kenneth Kaye,
Darren William Keating, Khor Kok Eng,
Andrew James Kiellerup, Anastase Thomas Christos Kotsimbos,
David-Colin Kruse, Theo Kyrou, Mary-Anne Lancaster,
Peter William Larsen-Disney, B.Sc. (Monash), Kim Thu Le,
Phuoc Binh Le, Johnny Matthew Lee, Vincent Hock Cheng Lee,
Jeffrey Lefkovits, Justin Laurence Leong,
Caroline Fong Leng Liow, Frank John Liskaser,
Rimas Vincent Liubinas,
Stephen Alistar Locarnini, B.Sc. (Monash)
Andrew William Lowe, Matthew Joseph Lynch,
Susan Heather MacGill, Michael Lindsay Mackay,
Catherine Margaret Maclean, Phoebe-Anne Mainland,
Wendy Elizabeth Marshman, Ellen Louise Maxwell,
Belinda Jane McDonald, Sue-Anne McLachlan,
Ruth Patricia McNair, Timothy John McNamara,
David Meerkin, Tracey Elizabeth Merriman, John Mikuz,
Panagiora Ula Milonas, John Thomas Moloney,
Michael Montalto, Ruth Jennifer Mueller, B.Sc.,
Julie-Anne Mulhauser, Brian Anthony Mullins,
Victoria Nakhames, John Martin Negri, Pha Huu Ngo,
Amanda Jane O'Flaherty, Jane Elizabeth Opie,
Margaret Ann Oziemski, Ravi Padmanabhan,
Mark Andrew Paine, Katherine Paizis,
Christos Papachristos, Despina Parathira, B.Sc.,
Brynley William Parry, Vahid Payman,
Anne-Marie Pellizzer, Lianne Barbara Mei Lin Poon,
Mary Josephine Price, George Proimos, B.Sc.,
Susan Gay Radford, Michael Anthony Ragg,
Martin Donald Richardson, Megan Sue Robertson,
Evangelos Romas, Victoria Regina Ross,
Stephen Norman Rowles, Eric Reginald William Salter,
Freya Jan Schmidt, Seow Swee Leng,
Megan Courtenay Sherwood, Felicity Louise Shumack,
Magdalena Simonis, Peter James Smith, Bruce Telford Stewart,
James Alexander Sutherland, Sarah Swain, John Swieca,
Gerard Swee Boon Tan, Kiar Seng Tan, Irene Tan Ae Rin,
Mimi Lai-Kuan Tang, Jin Hui Teh, Tacye Louisa Todd,
Julie Toh Swee Eng, Jane Sarah Tovey,
Steven George Troupakis,
Michael Geoffrey Vaughan, B.Med.Sc., Melissa Ann Viney,
Stephen George Wales, B.Med.Sc., Anne-Marie Louise Watson,
Karen Louise White, Keith Wing Shing, John Kieng Ming Wong,
David Wong Ong Hea, Fiona Victoria Wood,
Philip John Worboys, Alison Ruth Yung,
Peter Anthony Zammit, Michael Ziccone.

Reports from Clinical Schools

Austin and Repatriation General Hospitals

The three years students spend at the Clinical School involve a gradual acquisition of knowledge of medicine, and an increase in responsibility for the student. I should like to tell you how this is achieved at the Clinical School.

In the fourth year, the students are taught the fundamentals of history taking and physical examination, and how to synthesize the information. As part of this process the communication skills aspect is very important and emphasis is placed on the skills required to gain information from patients, and also the skills needed to present the information obtained to a colleague or tutor. Somewhat different skills are required for each of these areas.

For the first term the emphasis is on the gaining of knowledge about the patient, while in the latter two terms students are taught more on the synthesis of the information and its presentation as well as principles of management. In the fourth year as well students gain instruction in pathophysiological aspects of disease, medical ethics, the use of laboratory tests and imaging, psychological problems of their medical patients, orthopaedics and casualty. Thus, by the end of the fourth year we feel that the student should be comfortable with patients, able to communicate with them and have an understanding of the disease process and its management.

In the fifth year, the students spend most of their time undertaking special areas of medicine such as paediatrics, obstetrics and gynaecology, psychiatry, casualty, trauma, resuscitation, forensic medicine and community medicine. This gives them a perspective of a wider range of areas.

In the sixth year, the students begin with a ten week elective during which time many go overseas. This is a period of great development for the student and has proven useful in allowing him/her to develop. There follows two terms of ten weeks of medicine and surgery, with five weeks of general work and five weeks of specials. The specials term gives the student only a taste of many of the specialist areas. While they are undertaking the general training there are usually only two students in each group so that they can be integrated with a Unit as 'student interns'. This allows them to be involved with the Units and to gain practical knowledge, especially in management.

It can be seen, therefore, how the programme over three years gradually involves the student in more and more responsibility in clinical medicine. At all stages the Clinical School tries to pick up the weaker students and give them remedial tuition.

In 1986 the Clinical School has undertaken, with the Department of Psychiatry, a project to test the effectiveness of communicating skills training. This has involved the fourth year students in being assessed for their communication skills, and then being divided into a communication trained and control group. These two groups will be followed for the rest of their medical course, and it is hoped even into their resident years, to assess whether the training programme has contributed to their ability to communicate with patients. This is an important project in that it actually assesses the effectiveness of such a training programme. The preliminary communication of the project was presented to the annual meeting of the Australian New Zealand Association for Medical Education, and was well received.

All 64 final year students graduated in 1986 and it was a particular pleasure that our first refugee medical student successfully completed the course after being admitted to the third year under the Faculty's special programme.

*Bernard Sweet
Associate Dean (Clinical)*

The Royal Melbourne Hospital

After seven years in office Dr Roger Melick took early retirement as Associate Dean (Clinical) in May 1986 due to ill-health. He continued to take an active interest in the affairs of the Clinical School up until his death on 15 November, the day after the final year Graduand Dinner. He was widely loved and respected by the students. He was easy to approach and gave advice willingly. This advice was always practical and greatly appreciated. He was a tireless worker for the University giving far more than might have been expected from his half-time appointment. He will be sadly missed by his colleagues, but his outstanding leadership will be remembered by all members of the Clinical School both past and present. During Roger's illness, Christine Penfold, to a large extent, took over the running of the Clinical School, which she managed to do with a minimum disruption despite her other commitments.

This year the fourth year introductory programme was extended to two weeks of intensive sessions on introduction to clinical method, history taking, physical examination and interviewing techniques. The students were allotted to wards and patients from the first day and continued in the same Unit for the first rotation. This allowed greater opportunity for observation of individual students performing physical examination and greater continuity of teachers and teaching.

Rotations to Ballarat Base Hospital and the Goulburn Valley Base Hospital continued to be popular with the students, who appreciated the contact with a spectrum of patients and diseases not often seen in the parent institution.

Fifth and final years remained essentially unchanged. Again about 70 per cent of our students spent at least part of their option period outside Australia and the majority spent twelve to fourteen weeks on their options. The Clinical School received 150 requests for elective periods. Seventy-two students were offered a place and forty did attend the Royal Melbourne for up to eight weeks of study. The majority of these students were from overseas.

The Clinical School has had difficulties providing students with a wide spectrum of diseases because of the lack of an affiliated suburban hospital. The announcement by the Dean and the Minister of Health of the establishment of a new joint Clinical School linking the Amalgamated Melbourne and Essendon Hospitals with the Western General Hospital was warmly welcomed.

Hepatitis B immunization was undertaken for all students in the Clinical School. In future, student immunization will be completed in the preclinical years.

Fortunately, the final year examinations were completed before the nurses' strike, however, it was necessary to conduct the fourth year clinical examination without patients. This provided a new experience for students and examiners but it turned out better than most of us had expected.

A final year class of 61 students successfully completed the course. We were pleased to provide the joint top medical student for the year and see the graduation of our first two refugee students.

*Alan Cuthbertson
Associate Dean (Clinical)*

St Vincent's Hospital

During 1986 the teaching programme that has been established over the last three years was continued. However, a greater emphasis was placed on demonstrations and seminars at the expense of lectures. A formal casualty training programme was introduced into fourth year. This now enables our students to gain experience in country hospital emergency rooms during their fifth year C.T.R.A. roster (casualty, trauma, resuscitation and anaesthesia). Many had opportunities to broaden their clinical expertise in this subject as well as appreciating emergency medicine in rural areas.

Two of the three foreign medical graduates who have been attached to St Vincent's for their clinical training were successful in passing the A.M.C. (Australian Medical Council) Examinations in 1986. Following registration one has gone

into practice in an outer Melbourne suburb. The other has proceeded to further postgraduate training. Since the formalization of this scheme occurred, in conjunction with the V.M.P.F., we have been able to assist smaller numbers of overseas graduates, but it has become possible to prepare them more thoroughly for the A.M.C. Examinations.

This was a difficult year for all teaching hospitals because of increasing levels of industrial disputation. Preston and Northcote Community Hospital, where our fourth year students receive a major share of their surgical teaching and some of their medical teaching, was affected early in the year. St. Vincent's Hospital became greatly disadvantaged as the year progressed. Although a high standard of teaching was maintained the amount of patient contact available to our students was markedly reduced as a result of bed closures and reduction in elective admissions. It is disappointing to report that the format of the clinical examinations in medicine and surgery held for our fourth year students needed to be altered because of the closure of more than half of our bed capacity.

Congratulations to the 77 final year students who graduated in 1986. Included in the class were the joint top medical student for the year and our second refugee student who had been admitted to the third year of the course in 1983.

*Greg Whelan
Associate Dean (Clinical)*

October, 1916.

THE SPECULUM.

231

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Departments



Senior Academic staff of the Department of Pharmacology during a visit by Sir Arnold Burgen, FRS, 1985 Florey Lecturer and Guest of Australian Academy of Science. Back row: Michael Nott, Roger Summers, Professor Michael Rand. Front row: Max Fennessy, Sir Arnold Burgen, David Story (David Leaver was not yet appointed).

Pharmacology

This year is special for the Department of Pharmacology. After years of planning, Professor Michael Rand is presiding over the 10th International Congress of Pharmacology. The Congress, which will be held in Sydney in August 1987, will be a first for Australia (and only the second in the Southern Hemisphere). Three thousand pharmacologists from academia, research institutes and industry worldwide will participate in the plenary lectures, symposia and research communication sessions. Before and after the Congress, local pharmacologists will take the participants to venues around Australia for Satellite Symposia. Two such meetings which bear strongly on research in our department are being organized by our staff: Michael Rand expects 200 participants at the International Symposium on Nicotine, and David Story and Henryk Majewski will host around 250 at the 6th Symposium on Vascular Neuroeffector Mechanisms. Our staff are making major contributions within the Congress itself, not only by delivering research communications but also in running some of the forty Congress symposia: Roger Summers (Senior Lecturer) is co-ordinating a symposium entitled, 'Receptor Activation Response Coupling'; David Story (Chairman of Pharmacology and Reader) is co-ordinating 'Pharmacological Aspects of Noradrenergic Neuroeffector Transmission' and co-chairing 'Alpha-adrenoceptor Antagonists with Additional Central Activity'; David Leaver (Senior Lecturer) is leading a symposium on 'Drug Research and Use and Toxicology in Developing

Countries' and Michael Nott (Senior Lecturer and the Co-ordinator for Pharmacology 3rd Year MBBS) is expressing the department's commitment to advancement of medical education by co-ordinating a symposium on 'Teaching Pharmacology under Economic Restraints'.

That the International Congress of Pharmacology is occurring in Australia testifies to the present strength of pharmacology in this country. Michael Rand, with his colleagues, has played a key role in developing the national societies which provide the forums for scientific meetings where basic and clinical pharmacologists and toxicologists communicate their most recent research findings and which form the infrastructure which allows the International Congress to be hosted in Australia. It is no mere coincidence that only two years after Michael Rand's arrival in the Department of Pharmacology at The University of Melbourne in 1965, the Australian Physiological Society became the Australian Physiological and Pharmacological Society (APPS) and the Australasian Society for Clinical and Experimental Pharmacologists (ASCEP) was born. Michael Rand is current President of the latter society. Other parallel developments were the inauguration of the *Journal of Clinical and Experimental Pharmacology and Physiology* which further enhances the profile of Australian pharmacology at the international level. Michael Rand was its inaugural Editor-in-Chief (from 1974 to 1986) and his colleagues Professor Austin Doyle (Medicine, Austin

Hospital), Dr John Coghlan (Florey Institute) and Professor Paul Korner (Baker Institute) were on the founding Editorial Board; Professor Doyle assumed the role of Editor-in-Chief in 1986. Also during this period Michael Rand and his Australian colleagues began to formalize special ties with pharmacologists in nations adjacent to Australia. This resulted in the first South-East Asian and Western Pacific Regional Meeting of Pharmacologists being held in Singapore in 1976. Subsequent meetings have been held at three-yearly intervals in Jakarta, Bangkok and Penang. These meetings invariably take on the flavour of the host country in terms of research, education and culture. A strong contingent of pharmacologists from the People's Republic of China typically attend them and, as a corollary, representatives from this department joined a group of Australian pharmacologists for a visit to basic and clinical pharmacology departments in China in 1985. We are seeing an increasing number of pharmacologists, most often medically qualified, coming to the department from these adjacent countries to contribute to our research and to enhance their own efforts in research and teaching on return to their country of origin.

Those of you who were in Division 3 MBBS before 1965 would remember Professor Frank Shaw. He was a Melbourne science graduate who in 1938 took a Ph.D. with J.H. Gaddum whose pharmacology textbook you might have used. Shaw was an Associate Professor in the Physiology Department before he took the first Melbourne University Chair in Pharmacology in 1958. This was only the second Chair of Pharmacology in Australia, the first one having been established at Sydney University in 1949. Shaw's research was clinically orientated and included studies on the use of amiphenazole and tacrine to overcome the respiratory depressant actions of morphine and the development of bemegride as an antidote for barbiturate overdosage.

It was as undergraduates and recently graduated science students that some of our present staff first met Michael Rand at his early research seminars and were excited by his commitment to excellence in pharmacology. After completing his Master's degree at Melbourne, he gained his Ph.D. under Professor Thorpe at Sydney University, then researched and taught at Oxford and the University of London. He quickly led the department at Melbourne to the forefront of research into autonomic neurotransmission but without 'trading off' against excellence in other areas.

By 1967 most of the Medical Faculty was already comfortably housed in the new triradial building on Grattan Street. Pharmacology, the newest of the medical sciences, remained in its shabby neo-Gothic buildings, where the Physics building now stands, and in part of Old Pathology. The department literally had taken the matter into its own hands so that students who would have preferred spending their summer vacation on the beach found themselves cleaning and painting the grimy walls. Soon we 'temporarily' moved to the top floors of the new Microbiology building, and, with capital funds never quite reaching us, there we remain. A new site is constantly being sought. This will enable us to enhance both our research and teaching facilities. At the time of the move to the Microbiology building, staff included Marion McCulloch, Bill Lang, Albert Schulmann, Max Fennessy, Wan Soon Gay and Colin Raper. Colin is now Dean of Pharmacology at the Victorian College of Pharmacy. Bill, who was Reader, served as Deputy Chairman and often Acting Chairman but, sadly, he died in 1980. Subsequently Marion served in those capacities until she retired in 1983. Max Fennessy leads a research group on opiate receptor and respiratory pharmacology and he and Roger Summers, who was recruited from Glasgow via Bill

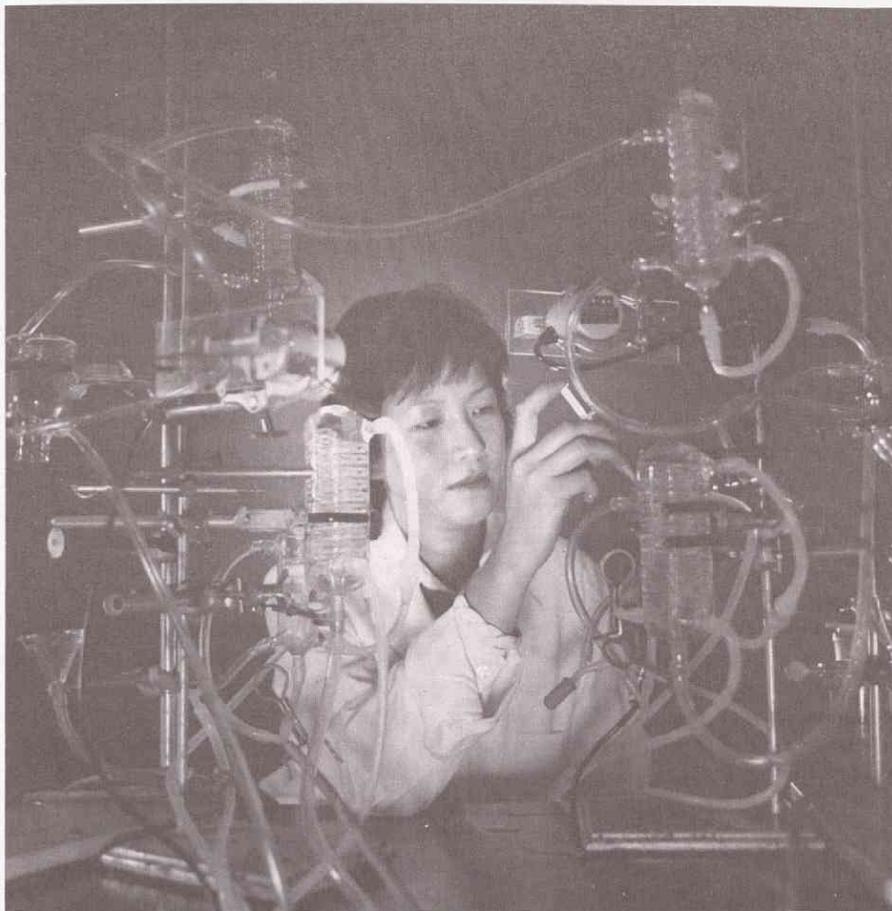
Louis' department at the Austin, co-ordinate teaching of pharmacology to science students and Wan Soon Gay manages the practical classes. David Story is now our Chairman and newly appointed Reader. Last November, these and many other colleagues and friends appropriately celebrated Michael Rand's 21st anniversary of his appointment to the Chair in Pharmacology with a scientific meeting interspersed with festivities.

Before 'Bowman and Rand' there was 'Goodman and Gilman'. This text was advisedly considered the pharmacologists' bible: not only was it authoritative, it was written by a multitude! It has a marked therapeutics inclination which makes it suitable for students in hospitals and for clinical practice, but not optimal for the preclinical science experience which is highly valued at this and most other traditional medical schools. Bill Bowman and Michael Rand wrote their *Textbook of Pharmacology* with pharmacological science as its *raison d'être*. Being written by only two authors, it excites the student by the way it connects the multitude of aspects of this new and rapidly expanding science. 'Bowman and Rand' has been translated into Spanish, Italian, Portuguese and Chinese. This concept of connectedness and overview in pharmacology is enshrined in one of our philosophies of teaching: *that there be no subject specialists on the staff, so that each academic staff member be prepared to teach any particular topic*.

A number of positive pressures are intermittently brought to bear on the course content and structure, making it, we hope, more and more responsive to the needs of future medical practitioners. We have worked with two successive Deans, Professors Penington and Ryan, clinicians from teaching hospitals and the third year students themselves (in Curriculum Review Committees) to continually realign the course to the needs of the medical profession.

Professor Michael Rand and Professor Austin Doyle were instrumental in establishing a pharmacology unit at the Austin Hospital and Bill Louis became its first Professor of Clinical Pharmacology. Clinical Pharmacology was quickly established at the Royal Melbourne Hospital where Dr Rob Moulds heads the unit and at St Vincent's Hospital where Laurie Mashford is Director. Until this year Laurie Mashford held a joint appointment between Medicine at St Vincent's and our department where he was a Reader. There have been strong ties between the three Clinical Pharmacology departments and the Department of Pharmacology since their inception. This is especially so in the planning and execution of teaching where staff from these departments come in to give the students appropriate clinical orientation to our lectures, workshops and practicals. A reverse of this situation has been mooted from time to time, where Pharmacology staff would go to the teaching hospitals to give an overview and update of the science of a particular system while it is being considered by students in 4th, 5th or 6th years. To date, however, this has not happened and teaching past the 3rd year level is confined to Diploma of Psychological Medicine students, occasional postgraduate courses such as 'Recent Advances in Neuropharmacology', which we ran as part of the Faculty of Medicine Continuing Medical Education Program in 1986, and regular commitments to primary FFA courses.

Some may not be aware that the department has other roles in the teaching of Science undergraduates and postgraduates, and Dental and Optometry students. Like the other preclinical science departments, pharmacology draws tremendous strength from its commitment in this area. Typically we teach pharmacology to 70 or so second year Science students and around 20 third year and 6-10 fourth year students. Science graduates who choose to undertake



Measuring the effect of a drug on neurotransmission in vascular smooth muscle.

higher degrees (M.Sc. or Ph.D.) form the backbone of our research teams and after graduation many have proceeded to fill senior academic, government and industrial positions. In 1987 we have 29 students undertaking research for higher degrees. They work in the research teams investigating autonomic neuroeffector mechanisms, receptor localization and coupling, cardiovascular pharmacology, respiratory pharmacology, opioid research and toxicology. Senior Research Fellows who devote themselves fully to leading some of these teams are Henryk Majewski and Janina Staszewska-Woolley. Funding these areas of research are a major National Health and Medical Research Council (NH&MRC) Program Grant, and other grants from the NH&MRC, National Heart Foundation, the Wellcome Trust, the Special Development Fund of The University of Melbourne and the Clive and Vera Ramaciotti Foundation.

Teaching of pharmacology to Dental and Optometry students necessarily has a major emphasis on the drugs that these practitioners will use. But the courses are much more extensive: the aim is to give all these students a feel for the whole range of drugs used in medical practice. The reasons for this are two-fold. Firstly, the optometrist or dentist may be dealing with a patient who is taking drugs prescribed by a medical practitioner and which may influence the outcome of the optometric or dental treatment. Secondly, we aim to educate optometrists and dentists to be conversant in the broader aspects of pharmacology so that they can liaise more effectively with the medical profession and generally keep up with advances in drug therapy.

Toxicology and safety evaluation of drugs have always been considered an integral component of Pharmacology,

and Professor Rand's personal interest in these subjects is exemplified by the establishment of a drug safety evaluation unit, which serves local pharmaceutical manufacturers, his long membership of the Victorian Poisons Advisory Committee and the World Health Organization Committee which deals with residues of veterinary drugs in food intended for human consumption. Moreover, drugs in toxicology from outside the department, such as Dr Struan Sutherland of the Commonwealth Serum Laboratories, a scientist pre-eminent in the study of natural venoms and toxins, and Dr Alan Christophers, formerly Head of the Department of Occupational Health of Victoria, have been regular contributors to the Pharmacology curriculum. Our teaching of toxicology obviously does not just deal with adverse effects of drugs, but is broad enough to deal with present and future problems arising in industry, agriculture and the general environment. Dr David Leaver, who in 1986 succeeded Jorma Ahokas as head of our Toxicology Division, conducts an advanced study unit for 3rd Year medical students entitled 'Environmental Toxicology' and believes that our medical graduates will not only be called upon to treat cases of acute and chronic poisoning, but also to be at the forefront in policy-making and trouble-shooting in environmental toxicological problems. Current research in the Toxicology section deals with the hazards for human health posed by trace and heavy metals in the environment. In addition, the potential of *in vitro* systems, such as tissue culture, for the identification of mechanisms of toxicity of chemicals, is being investigated.

Obituaries

Dame Kate Campbell 1899-1986

Reprinted from the issue of Australian Paediatric Journal dedicated to Dame Kate Campbell (Vol. 10, No. 2, April 1974, pp.49-51), with the kind permission of Dr Elizabeth Turner, guest editor for that issue and the author of this editorial, and of the current editor, Dr J.H. Court.

Paediatrics is invariably associated with a child and his family and it is not unreasonable to commence with a brief outline of the family which produced a famous paediatrician.

Kate Campbell's father was born in Wick, Scotland, in 1850, and migrated to New Zealand at the age of 19 years, where he worked as a clerk. He met and became engaged to a school teacher, who was born in Dunedin, New Zealand. They married in Australia and their two eldest children were sons, who later entered the business world. Four years later, their first and only daughter, Kate was born, to be followed 15 months later by their youngest son, who became a well known Barrister and Q.C.

Kate quite obviously weathered the stresses of hypoxia associated with a home delivery, and weighed 11 pounds on the kitchen scales! She thrived until the age of 10 months, when she contracted a gastrointestinal infection, which must have made an indelible impression on her mind, for much of her work with infants in later life concerned the alimentary system and there is no doubt that she became the saviour of that particular system in probably thousands of small infants, by her adroit and sensitive appreciation of infantile dietary matters.

Young Kate first attended the Hawthorn State School and then, abandoning her Presbyterian forebears, she won a scholarship to the Methodist Ladies College and obtained one of the rare Government Scholarships available in those days, which paid for her secondary education.

Entering the Melbourne University with a residential scholarship at Janet Clarke Hall, she had a distinguished studentship, incidentally sharing the Exhibition in Physiology with Frank Macfarlane Burnet, and graduated MB.BS. with honours in 1922, in the company of some of the most celebrated members of the medical profession including: Frank Macfarlane Burnet, Rupert Willis - Pathologist, Roy Cameron - Pathologist (afterwards of London), Jean Macnamara - Paediatrician, who won international acclaim for her work in poliomyelitis, Jean Littlejohn - Otorhinolaryngologist (whose work for deaf children is well-known), Lucy Bryce - Pathologist, the founder of the Victorian Red Cross Blood Transfusion Service, Kate Mackay and Geoffrey Pennington - Physicians of Melbourne, and a host of others.

After a year as Resident Medical Officer at the Melbourne Hospital, Kate Campbell was one of the first female resident medical staff at Melbourne's Children's Hospital in 1923-4, and at the Women's Hospital in 1924-5. She obtained her M.D. in 1924. About this time, she became interested in Infant Welfare work, and was associated with Dr Vera Scantlebury (later Scantlebury-Brown) and the Victorian Baby Health Centres Association, an association which she served faithfully and tirelessly.

Kate Campbell then spent ten years in general practice from 1927 to 1937, and it was during this time that she learned the importance of the welfare of the family in the total health of the child.

In 1937, she began her paediatric practice in Melbourne, continuing to give honorary services to the Neonatal and Paediatric Departments at both the Queen Victoria and Women's Hospitals. Long before neonatology had become a subspecialty of paediatrics, Kate Campbell was collecting and storing information concerning the reactions of newborn infants to various perinatal stresses, and relating maternal antenatal illness and disease to intrauterine health and development of the foetus.

So it followed quite naturally that she should have been one of the first to note the deleterious effect of high oxygen concentrations on the eyes of the premature infant; this observation was confirmed by an increased number of premature infants who developed retrolental fibroplasia in one obstetric hospital, where oxygen was piped to the incubators, in contradistinction to the lower incidence in a second hospital, where oxygen was not so readily available.

This one astute observation alone brought acclaim both in the medical world and in the popular press, and for this she received the Britannica Award, but Kate Campbell made a large number of other noteworthy advances in the management of the newborn.

Such was the high regard in which she was held by her obstetric colleagues, that they sought her help and presence at their more difficult deliveries.

By her enthusiasm and originality, tempered always by her persuasive, persistent manner, there was always a co-operative harmony between obstetricians and paediatrics in any hospital in which she worked.

Her gentle but persistent tenacity in any debate drove her opponents to near distraction if they were able to maintain their position long enough; however, many succumbed to her way of thinking simply by attrition, and some as a way of retreat from a position that they had suddenly discovered was no longer tenable. This ability stood her in good stead on the few occasions when she needed to attend court over the small litigious affairs that are not unusual in medical practice, and on these occasions, one could readily appreciate why her brother was a successful Q.C.

Kate Campbell exerted an extraordinary fascination on her small patients and many a tiny, screaming infant suddenly stopped and stared as Kate talked to him during the examination. It was the practice of this facility which she obviously enjoyed, that she was often able to impart to her students - both medical, nursing and parental; and there must be many thousands of youngsters in our community, who remember her affectionately as 'Auntie Kate'.

She was meticulous in her attention to detail and had an 'infinite capacity for taking pains'; she also had an excellent memory, thus she was able to detect significance in minute variations, and to see patterns where others failed so to do.

In January 1971, she was awarded the equivalent of a Knighthood by Her Majesty the Queen in the New Year's Honours List and became Dame Kate.

In December 1966, the University of Melbourne conferred on her and on Jean Macnamara the degree of Doctor of Laws Honoris Causa, a high honour never before bestowed on a woman apart from Royalty, betokening a high regard by her own University for her academic achievements; and we, her colleagues in paediatrics, will remember her for her unparalleled contributions to our specialty.

Sir Edward Ford 1902-1986



One of the most outstanding graduates of our medical school died on 27 August 1986. Edward Ford¹ was born on 15 April 1902 in Bethanga the son of Edward and Mary Ford and when he was six came to Melbourne with his family. In 1918 he obtained high marks in the public service examination and entered the postal service. Working with him was Albert (later Sir Albert) Coates. He wanted to

study medicine at the University, but lacked the subjects required for matriculation. These he obtained by attendance at night classes and entered the medical school in 1926, working in the postal service until 1928 and supporting himself by coaching students at home.

He graduated MB,BS. with distinction in 1932 and spent a year at the Melbourne Hospital. In 1933 he was appointed Stewart lecturer in anatomy at the University, becoming senior lecturer in anatomy and histology the following year. He greatly admired Frederic Wood Jones with whom he shared an interest in physical and cultural anthropology and who fostered Ford's book collecting and the study of bibliography.

In 1937 he was appointed lecturer at the School of Public Health and Tropical Medicine in Sydney thus commencing his lifelong association with tropical medicine, a field in which he was to attain international recognition. Early in 1938, having obtained the DTM (Syd.), he was asked by the Papuan Administration to undertake a survey of native health, particularly malaria and venereal disease, in the coastal areas of New Guinea, the Trobriand Islands, Goodenough Island and the D'Entrecasteaux Group. The survey lasted until mid-1939 and Ford found the field work demanding, but richly rewarding and the knowledge gained of the greatest value when the area was later involved in war. At the same time he made a study of the cultural heritage and art of the Papuan people.

On his return to Sydney he was appointed medical officer in charge of the Commonwealth Health Laboratory at Darwin. Early in 1940 he was released so that he could enlist in the A.I.F. to take command of the 1st Australian Mobile Bacteriological Laboratory and be sent to the Middle East. During the Syrian campaign he worked at Nazareth investigating malaria, sand fly fever and dysentery. Later, with the occupation of Syria, he moved to Tripoli with a Casualty Clearing Station to provide all laboratory investigations.

When Japan entered the war troops were returned from the Middle East for service in Malaya and New Guinea and Ford was appointed assistant director of pathology to the New Guinea Force with the rank of lieutenant-colonel, but

unofficially acting as malariologist. The problem of malaria became evident very early in the campaign, but critical at Milne Bay. In September 1942 the malarial rate among the troops there was 33 per thousand per week, but this rose to 82 per thousand and in the last week of December 1083 cases were admitted to hospital out of a total force of 12,000. If this rate continued, the whole force would be lost in less than three months. The medical services could not get adequate supplies as priority was given to combatant stores and attempts to tighten up poor anti-malarial discipline in the troops produced only a weak response. Ford felt that it was necessary to directly approach Sir Thomas Blamey, the Commander-in-Chief. Through the DDMS Brigadier W.W.S. Johnston in December 1942 Ford obtained an interview with Blamey whom he had met before the war when giving lectures to the Victoria police.

Quite bluntly he pointed out that the malarial discipline was bad and should be an integral part of unit discipline, that personal attention must be enforced and breaches of orders punished. That there must be a steady and unfailing supply of all anti-malarial materials especially quinine and atabrin. He pointed out that medical units had been evacuating 300 men a week for weeks past and this must not be allowed to continue. He asked for higher priority for all malarial work, particularly increased quantities of equipment and stores for mosquito control and wanted 1000 men for additional labour. Ford got immediate cooperation from Blamey who issued the necessary orders. Under these orders discipline was tightened, the wearing of protective clothing and the taking of suppressive atabrin was made compulsory. Later the combatant commanders and not the medical services were made responsible for implementing these orders. Gradually the sickness rate from malaria started to fall.

In March 1943 Ford was appointed senior malariologist to the Army and, as one was not available, prepared a memorandum on malaria illustrated by maps of the hyperendemic areas. *Malaria in the South-West Pacific*, 1943 was widely circulated to all Australian and American units and to the British forces in Burma. This short but masterly account was written over the course of three days while he was on leave in Sydney, but his name does not appear as the author. At the request of the British Army Ford visited Burma as adviser to General Slim on malarial control, his suggestions being accepted without modification. The director of medicine, Brigadier N.H. Fairley, recommended the establishment of a research unit at Cairns and this was to become a vital centre for all aspects of investigations into malaria. By the end of 1944 the problem of malaria was largely under control. This followed the dedicated work by all sections of the medical services, but there can be no doubt of the importance which must be given to the outstanding contribution made by Ford in the field. In the latter stages of the war Ford was director of hygiene, pathology and entomology for the A.I.F. with the rank of colonel. For his services he received the O.B.E. in 1945, having been mentioned in despatches in 1943.

At the end of the war Ford returned to Sydney University and in 1946 was awarded a Rockefeller fellowship to study at the London School of Hygiene and Tropical Medicine and,

1. Sir Edward Ford: Kt., OBE (Mil.), MB BS (Melb.), MD (Melb.), LittD (Hon. Syd.), DTM (Syd.), DPH (Lond.), FRACP, FRCP, FRCPA (Hon.), FRSH, FRSanI, FZS, FRAHS (Hon.), FRSTMH, FACMA.

in the same year, obtained the MD (Melb.). In 1947 he received the DPH (Lond.) and returned to Sydney as director of the School of Public Health and Tropical Medicine and professor of preventive medicine at the university, holding both positions until his retirement in 1968. He was responsible for many changes at the School; the building was enlarged, the staff increased and all activities expanded. His skill as an administrator was seen both inside and outside the university. Apart from the many committees within the campus he was, at various times, a member of committee of some 42 bodies outside the university and chairman of ten of these.

From 1953 until 1957 he was dean of the faculty of medicine and fellow of the senate of the university. He received a knighthood in 1960 and from November of that year to March 1961 was acting vice-chancellor. He took part in the planning of the medical school of the University of Western Australia and was a member of the first council of Macquarie University as well as being a member of the committee on the future of tertiary education in Australia. He served on the National Health and Medical Research Council and on the World Health Organization. He was on the board of the Sydney University Press and with his friend Sir John Ferguson founded the Friends of the Library of Sydney University of which he was president 1962-72 and later patron. He was active in the affairs of the Royal Australasian College of Physicians; editorial committee of its journal 1951-65; research advisory committee 1952-63 and vice-president 1970-72.

In 1958 he became curator of the historical library of the College and chairman of the library committee which he held until his death. During his curatorship the library grew in stature as an important collection in the history of medicine, especially Australian medicine, for he had presented to the college his collection of 19th century books by Australian authors. These had formed the basis for his *Bibliography of Australian medicine 1790-1900* (1976) a magnificent reference work on which he had worked for many years. His extensive collection of early printed books on medicine he bequeathed to the College and these have recently been added to the library.

John Murray Blair 1897-1986

Dr John Murray Blair, MB, BS, FRACO, OBE, passed away quietly on Saturday, 11 October 1986 in the Mildura Base Hospital, the hospital he served with such distinction for forty years as honorary ophthalmologist and as a member of Committee of Management from 1934-36. He was a Life Governor of the hospital and a past president of Mildura Legacy. His wife Frances, also a 1923 Melbourne medical graduate, pre-deceased him.

John Blair graduated in 1923 and was an RMO at the Alfred Hospital. In 1924 he went to Mitchell in Queensland where he began general practice and remained until 1929. That year he returned to Melbourne to be an RMO at the Victorian Eye and Ear Hospital. He commenced specialist practice in Mildura in 1930.

His war service included time in the Middle East, Palestine, Egypt and the siege of Tobruk from 1940-42. He then returned to the South West Pacific to serve at Milne Bay, and on Bougainville where he was awarded an OBE for meritorious services. In June 1945 he was promoted to the

rank of Colonel and in January 1946 became Commander of 115th A.G.H. Heidelberg. He had earlier served his country in the First AIF as a trooper in the Light Horse.

His publications and orations have been mainly biographical or bibliographical, but in 1950 he wrote 'The malarial problem in Australia and the Australian Pacific territories' (*Med. J. Aust.*, 1950, I, pp.153-70) a classical account of the problem, but his own significant contributions were not mentioned. In 1969 he was the first recipient of the Fairley Medal of the Royal College of Physicians, presented after the Mills Oration when he spoke of the life of his great friend Sir Neil Hamilton Fairley (1891-1966) with whom he had worked so hard during the war. His last few years were marred by illness which curtailed his activities, but not his spirit.

Ford was a modest, gentle, retiring, almost shy person who shunned publicity, with great commonsense and wisdom, but his gentleness masked a firmness and strength of character which only occasionally needed to be expressed. When he spoke in his characteristic rather hesitant way he commanded instant attention, very evident when on committee or other administrative occasions for he was fearless and firm in debate. Always delighted to meet his friends, the greeting to those who were close to him was often boisterous. He had a keen sense of humour shown by a chuckle or a twinkle in the eye, a sharp wit with an apt turn of phrase or a well chosen anecdote. He was a staunch friend to many. Fond of children, his nieces, nephews and god-children returned this affection to the full. He had not married. He was generous, almost to a fault, and a great letter writer to his friends and his family. The letters to children were illustrated with little sketches, often of flowers for he was very keen on botany. As a form of relaxation he walked to his destination with a slow, deliberate step, never in a hurry. He enjoyed good music and good conversation and was an excellent host. He collected the works of the many artists whom he knew personally, was a keen bibliophile with a remarkable library. He collected autograph letters and documents including those by Samuel Pepys, James Cook, Charles Dickens, Florence Nightingale and others.

In all he was one of the most remarkable medical men this country has produced.

K.F. Russell

In 1981 the Mildura District Hospital named the theatre suite the 'John Murray Blair Theatre Suite', a fitting tribute to one who so dearly loved his hospital, its staff and patients.

On a more personal note, from one who knew him well both as friend, mentor and professional colleague, I can vouch that he never forgot a patient, and never forgot that they were a whole person with feelings, emotions and fears, rather than just a pair of eyes. He had immense imagination, naive honesty and a sense of humour, once shared, never forgotten. He had wisdom of almost spiritual magnitude, dedication unbounding, and a zest for giving his all.

He went not with reluctant tread.
He was conquered, but did not capitulate.

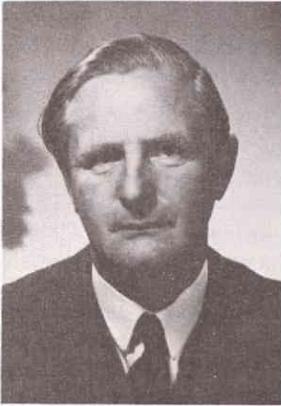
To his surviving three sons and their families goes our grief.

W. Lawrence

Ainslie Dixon Meares

1910-1986

This appreciation is published in Chiron thanks to the generosity of the author, and with the permission of the Editor of The Australian and New Zealand Journal of Psychiatry in which it will appear in June, 1987.



Dr Ainslie Meares died in September, 1986. He was 76 years old and death came suddenly, almost incongruously. I have been asked by his son, Russell, to write his obituary. I feel honoured, but it is not an easy task. I knew Ainslie for thirty-five years; we were friends, yet thinking back over all those years, I must admit, I did not know him very well. This tall, shy, gentle man, who throughout his profes-

sional life wrote extensively about the 'inner self' and was read by thousands of people, remained an enigma to his readers, his patients and his friends.

The official story is easily told. In 1910, Ainslie was born in Melbourne to a family of graziers of considerable wealth. He was educated at Melbourne Church of England Grammar School, where he boxed and played tennis; his academic achievements were, I believe, no more than average. Both his parents died when he was only sixteen. At Melbourne University, he first studied agricultural science, probably in deference to family values, but after obtaining his degree, Ainslie switched to medicine and graduated before the war. He was a captain in the Australian Army Medical Corps from 1940-46, and a psychiatrist in private practice from 1946 to 1973. In that year, to the utter astonishment of his colleagues, he voluntarily withdrew from medical psychiatric practice and became a non-medical consultant specializing in hypnotherapy, meditation and cancer therapy, until his death in 1986.

Ainslie Meares held the Diploma of Psychological Medicine (London); he was an MD (Melbourne) and a Foundation Fellow of both the British and the Australian and New Zealand Colleges of Psychiatrists, and a past president of the International Society for Clinical and Experimental Hypnosis. He contributed a great number of psychiatric papers to various scientific journals and was the author of some twenty books which dealt with popular aspects of psychiatry.

Ainslie married Bonnie in 1934 and had three children, Russell, a psychiatrist, and two daughters, Carolyn and Sylvia. His wife died many years ago. He travelled extensively and to remote places, played tennis and skied, and was a member of many clubs. During the last years of his life, the Melbourne Club became his retreat. He dressed with understated elegance, drove a Rolls-Royce, and lived and worked in a luxury apartment in the city.

If I have succeeded in painting the portrait of a wealthy professional man and member of the Melbourne establishment, I must now attempt to conjure up the other Ainslie, the scientist, the mystic, the healer.

I first met Ainslie Meares in the early 1950s at Royal Park, a Melbourne psychiatric hospital where I worked as a psychiatrist. Ainslie, four years my senior, was already established in private practice. He regularly attended our Tuesday afternoon clinical seminars, a tall, fair-haired, soft spoken man who smoked a Dunhill pipe and contributed to our discussions in an almost hesitant manner. I was fascinated by his immense capacity to listen to patients, the gentleness and yet depth of his interviewing technique, and his interpretation of psychodynamic mechanisms. We invariably talked after the meeting; he was never in a hurry.

Gradually, as the years passed, we became friends. He developed the habit of sending me reprints of all his papers with the never varying inscription, 'Herbert, I thought, you might be interested. Ainslie.' In those days, the style of most medical and particularly, psychiatric papers was heavy, convoluted and full of jargon. Ainslie's papers were different, the writing precise, lucid, simple, yet full of significance. He was an excellent teacher and in my opinion, one of the most gifted psychiatrists in Melbourne. His forte was psychotherapy, already showing a highly personal style.

During 1955 and 1956, he sent me a number of his papers for the *Journal of Clinical and Experimental Hypnosis*, which dealt with defences, suggestibility, and motivation during hypnosis. It was, as I recollect, during that time that Ainslie travelled to Nepal and spent a crucial week with an ancient sadhu in the forest near Kathmandu. When he returned, he had somehow changed. I remember him saying to me, 'Herbert that encounter in Nepal was incredible.' He spoke about the utter tranquility achieved through meditation and the mastery over pain. His emerging belief in this form of healing was obvious.

I think it was then that he began to drift away from conventional psychiatry; he saw its limitations and perceived the need for a different therapeutic approach. The logical consequence was a broader appeal to society, a turning away from 'scientific' psychiatry. Ainslie then began writing popular books with psychological themes - *The Door of Serenity*, *Relief Without Drugs*, *The Wealth Within* and many others.

At the same time he redefined the theories of hypnosis and evolved an atavistic regression hypothesis; he experimented on himself; his mind began to exert mastery over his body; he overcame pain through self-hypnosis. Conventional psychiatry became uneasy, yet Ainslie had not breached any official rules. But he no longer used physical or pharmacological methods of treatment and by that time had become very well known as a writer.

We still had lunch every now and then and he spoke increasingly about meditation, tranquility, the East, mysticism, self-hypnosis and control of body pain. On one occasion he practised self-hypnosis and was in a deep trance, while I contemplated our fillet steaks and his greying head and closed eyes, until the snap of my fingers woke him up and we resumed conversation.

In the late 1960s, the gradual transformation of Meares the psychiatrist to Meares the guru and healer gathered speed. In 1973, he severed the last strands still binding him to conventional psychiatry, and resigned from colleges and medical institutions. By then, he had become immensely popular, both as a writer and healer. He indubitably helped

many patients, at times with a touch of his hands relieving anxiety. In the late 1970s, he became interested in cancer therapy through meditation. He seemed to have successes. Yet the scientist in him still overruled the mystic. Ainslie firmly believed in a medical, physiological explanation for the relief of cancer through meditation. 'It is the strengthening of the auto-immune system, probably through neurotransmitters, which influences cancer growth', he said to me in 1981. He went to Bristol to consult with immunologists interested in his work. The role of meditation in cancer therapy is a controversial issue, to be sure, but there is no doubt that he helped many sufferers towards a more serene approach in the final phase. Ainslie Meares did not have any disciples; he was not a guru in the eastern sense, rather a wise, tranquil, immensely persuasive figure to anyone who had contact with him. There was, however, one path to Ainslie's inner-most self, perfectly camouflaged, just because it was so easily accessible. I speak of his poetry.

In the winter of 1981-82 we met by sheer accident in London. We had dinner that night in his hotel, the snow coming down gently. Inside, warm, in golden lamplight, we ate and drank and talked. I had some poems of mine in my pocket, I had scribbled that day. I read them slowly. His eyes,

under those bushy white eyebrows watched me as he listened. When I stopped, he said, 'Now, I would like to read you some of mine.' He went upstairs and came back with the manuscript of *Prayer and Beyond*. And he read:

Long have I known the stillness
Of meditation
But now there comes
A greater stillness
That does not seem to be
Of mine own self

Silent
As in the autumn
When a falling leaf
Reverberates
The dry leaves on which it falls

He was an unusual man, a psychiatrist who had moved far from the mainstream of his profession; his existence has enriched us all. My colleagues and I mourn for Ainslie Meares.

Herbert Bower

Ian Jeffreys Wood

1903-1986

This appreciation is reproduced with the kind permission of The Lancet, 27 September 1986, p. 760.

Ian Jeffreys Wood, Kt, MD (Melb.) FRCP, FRACP, who has died aged 83, was the highly successful head of the clinical research unit of the Walter and Eliza Hall Institute of Medical Research, Melbourne, from 1946 to 1963, during which time he was also deputy director of the Institute. He was a founding father of clinical research in Australia.

Wood lived for discovery, with an approach based on detailed observations on disease, intuitive and descriptive rather than reductionist, and relying strongly on clinical and histopathological correlation, and he was a great believer in technical innovations. He was more than thorough in organization of his unit, research activities, preparation of results for presentation at meetings, and in writing scientific papers. He gently let this rub off on to many junior colleagues. His organizational flair led to his development of massive blood transfusion and establishment of blood banking in Australia in the 1930s. He developed blood banking for the Australian Armed Forces in the 1939-45 war.

His earliest interests were in gastric function. Recognizing that gastric mucosa as well as gastric juices could be sampled by peroral suction, he designed, with an engineering colleague, Arthur Hughes, a biopsy tube through which suction was applied by a pump normally used for inflating tyres. In the Forsmann tradition, his own gastric mucosa was among the first to be sampled. The definitive paper on gastritis was based on over 1000 gastric biopsy examinations. Peroral gastric biopsy became exploited in clinical and population studies and contributed greatly to the understanding of acute and chronic gastritis, relationships between gastritis and peptic ulcer, and gastritis and pernicious anaemia. The technique led on to tube biopsy of the small intestine.

As deputy director, Wood gave staunch and loyal support to Macfarlane Burnet, and relieved him of much of his administrative load. Initially, Wood's interests in gastroenterology and Burnet's research in virology had little common ground. After 1957, as immunology took over, Ian Wood lured Burnet into the clinical arena, in particular to the unit's Friday morning postgraduate case presentations, usually oriented towards immunology: these were sparkling affairs, attended by many visiting celebrities. Wood became a great promoter of Burnet's doctrines on forbidden clones and autoimmunity, despite much current scepticism, and he championed autoimmunity as a cause of chronic hepatitis. Many publications from the unit were co-drafted in Wood's office, or in his living room at home, but often he withdrew as an author to allow credit to go to others; he wrote many scientific papers but 'ghosted' many more for novice writers in his unit or in the Royal Melbourne Hospital. In his writing he was a punctilious English stylist and a great devotee of Fowler, with sometimes a touch of grandeur creeping in. His autobiography *Discovery and Healing in Peace and War*, written in his later years and given to many friends, is vintage Wood, upward-looking and optimistic.

He was a keen sportsman. He represented Melbourne University in district cricket: his reminiscences include descriptions of encounters with the likes of H. Ironmonger and W.H. Ponsford. Later he played tennis very keenly with an evenly matched group of medical colleagues.

He will be remembered for the encouragement and inspiration he gave to many junior colleagues whose careers he fashioned and furthered. He wrote in the epilogue to his autobiography: 'May the youth of tomorrow triumph and fashion a happy, healthy and peaceful world with lessening stress, apprehension and sorrow. Our future rests in their hands.'

I.R. Mackay

Roger Melick 1925-1986

Dr Roger Melick, MD (Syd.), FRACP, FRCP (London) was Reader in Medicine and Associate Dean (Clinical), Royal Melbourne Hospital Clinical School. He was educated at King's, Australia's oldest school, and graduated from the University of Sydney in 1947. After acquiring postgraduate qualifications as a consultant physician, he embarked on a career in endocrinology. He joined the Faculty in 1957 as the third member of the foundation Department of Medicine established by Professor Richard Lovell in the previous year. A quiet worker, he was a superb organizer whose international standing in the clinical aspects of his specialty matched his scientific achievements, and whose unreserved service to the Faculty and its committees, to the Clinical School and to those whose careers he fostered, will long be remembered. His contributions to the community outside are described in a Memorial Address at Queen's College on 27 November 1986.

'Roger Melick was a rare individual. Although I had the privilege of working closely with him for half his professional life, and had shared many common interests in that time, I am quite unequal to the task of paying adequate tribute to his outstanding personal qualities, and his contributions to our society. For one thing, I know now that I was not fully aware of all of them. The life and influence of people such as Roger can never be recounted properly without much enquiry and reflection. Your presence here today — members of this College, friends, patients, students, professional colleagues, associates in his extramural activities, representatives of Hospital, Faculty, University, the Royal Australasian College of Physicians and others; and the messages from people as far away as Darwin who were unable to come — says much more than any words can.

'Owen Parnaby has told you of Roger's long and unstinted service to this College, which epitomizes two of his most prominent qualities; constancy in purpose, and complete commitment to any cause or venture that he took up. I suspect that none of us apart from his family ever knew just how extensive his activities were at any time. There is no doubt, however, that the profession of medicine, whatever it might demand of him, took priority over all.

'I had never heard him say why he chose to study medicine, but it is clear from the comments of his fellow students that he had already possessed some felicitous qualities that explain his seemingly easy ability to withstand the burdens that it often imposes. He was noted to have boundless energy, and a cheerful disposition; in the University of Sydney Medical Graduates' Yearbook of 1946 he was recorded as "A man, he seems, of cheerful yesterdays and confident tomorrows . . ." He is also remembered as one of the independent group of individuals who followed their own study programmes rather than attend the overcrowded lectures of the day, and were rewarded with conspicuous success. It is clear that, in common with many great teachers, he had the gift of retaining and passing on the insights gained from his own experiences.

'Following graduation, Roger followed a single-minded and seemingly monastic course of self-selected training as a physician, almost emulating the impossible prescription of that doyen of modern physicians, Sir William Osler; first as Junior Resident Medical Officer at the Royal Prince Alfred Hospital in Sydney, then at the Royal Hobart Hospital where he became a Member of the Royal Australasian College of Physicians, followed by periods in London where he acquired Membership of the Royal College of Physicians of London, and as Fellow in Medicine at the University of Louisville. In modern medicine there are certain intellectual

dynasties that can be traced back to single persons, and have continued to flourish by virtue of the exceptional people who feel compelled to work and study with their founders and then hand on the torch. One who stood out in this distinguished company was Fuller Allbright, who almost alone, established the specialty of endocrinology, explored much of the basic science necessary for its development and generated many concepts that still stand. To work with such a person is a rare and hard-won honour gained against worldwide competition. Roger achieved this distinction and spent the years from 1954 to 1956 as Clinical Fellow in Medicine at the world-renowned Massachusetts General Hospital and as Research Fellow in Medicine at the Harvard Medical School.

'In 1957, he became the third member appointed to the foundation Department of Medicine and thus joined the select band of graduates from the University of Sydney who have graced our Faculty. He immediately set about establishing an active research programme in endocrinology which produced a most impressive array of scientific papers in short time. It is not the time to recount his career in research which he continued through his final illness — sufficient to say that he tackled the unpopular and difficult but important aspects of common bone disease. In his specialty, he recruited, encouraged or collaborated with many of the country's most outstanding workers in this field, and sustained the same level of activity in the Endocrine Society. He also served the RACP for many years in State and Federal Councils.

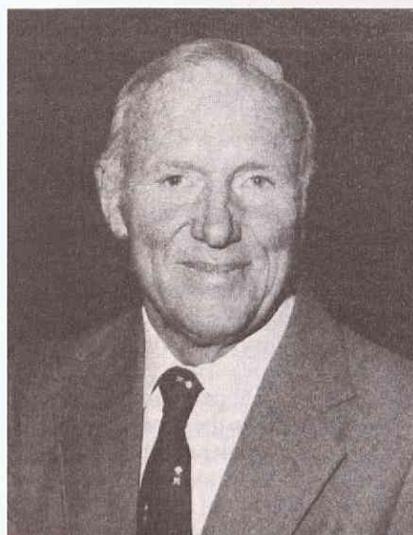
'It is clear from this far-from-complete account that Roger had a formidable intellectual capacity and a rare self-discipline that explained his capacity to sustain so many concurrent activities — gifts that he never attempted to flourish. Yet even if he had forsaken his scientific interests at an earlier age, we would nevertheless be standing here to express our gratitude for his other life as a practising physician, teacher and much-loved Mentor to the RMH Clinical School in the role of Associate Dean Clinical; and in this latter post, for his contribution to the successful institution of clinical teaching at the Ballarat and Goulburn Valley Base Hospitals.

'In his beautiful but melancholy meditation on mortality, John Donne, a wise old man of the world, reminded us that ". . . any man's death diminishes us."

'We have been drawn here, however, not only to share our grief in a dear friend's passing, but to honour an exceptional man; someone who even at the end entertained no mournful thoughts for himself. For those of us who have had the privilege of knowing Roger Melick as friend, patient or professional colleague; the good fortune of working with or near him; and especially, the comfort of his advice in perplexity, he has left not merely a legacy of fond memories but an enduring enrichment of our own lives: something of his sense of justice, his generosity of spirit, his compassion, his sense of service and his dedication to the notion of excellence in all that he embarked upon. Those of us who knew him closely will also be cheered by the memory of his warmth, colour, candour and complete lack of dullness. These are but some of the virtues that appear to have been the constants of Roger Melick's life.

'A life of such dedication to ideals would have been impossible to sustain without Mardi's devoted and selfless support, and later that of their children. His influence through them, through us and through the many institutions that he served will be his monument — something that he would value far more than the finest piece of stone.'

J.R.E. Fraser



Professor William Hare

Professor Hare appointed President, RACR

Professor William Hare, Professor of Radiology in The University of Melbourne, is the new President of the Royal Australasian College of Radiologists. The College is the medical body responsible for the standards of diagnostic radiology and radiation oncology in Australia and New Zealand. Professor Hare was installed during the 37th annual scientific meeting of the College, held in Singapore with the cooperation of the Academy of Medicine, Singapore.

Appointed to the University of Melbourne as foundation Professor of Radiology in 1965, his main scientific interest is in urinary tract radiology and many of his publications relate to the introduction of new techniques. He is a member of many medical and scientific bodies and has served on a number of expert advisory committees in Melbourne associated particularly with organ imaging and radiation safety.

Between 1971 and 1975, Professor Hare was founding President of the Asian and Oceanian Society of Radiology which promotes exchange of knowledge about radiology between fifteen nations in the region.

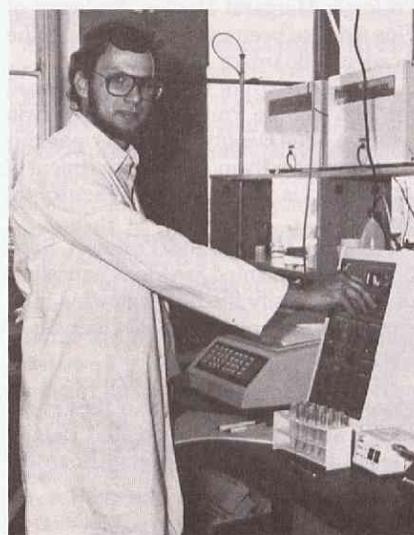
Blood pressure researcher wins major Fellowship

Research linking stress-induced high blood pressure to release of the hormone adrenaline has earned for Dr Harry Majewski of Pharmacology a Wellcome Trust Australian Senior Research Fellowship, one of only two such fellowships awarded annually in Australia.

Dr Majewski has a long-standing interest in the control of blood pressure and heart function via the nerve network known as the sympathetic nervous system. He has studied the workings of sympathetic nerves

as an undergraduate and postgraduate at The University of Melbourne in association with Dr David Story and Professor Michael Rand of the Department of Pharmacology. As well, he has developed a technique of measuring the release rate of transmitter substances from the sympathetic nerves of whole animals while working at the University of Freiburg in West Germany for nearly three years.

The Wellcome fellowship comes at a particularly important time in Dr Majewski's research activities. The fellowship guarantees funding for five years, consisting of a salary at the level of senior research fellow plus substantial research expenses. Such support will enable Dr Majewski to further his investigations of a theory of high blood pressure development which suggests a key role for the sympathetic nervous system. According to this theory 'which has substantial laboratory and clinical backing but still requires more thorough investigation', the production of adrenaline (by the adrenal glands near the kidneys) — perhaps in response to stress — enhances the release of the transmitter, noradrenaline, from the sympathetic nerves. This in turn leads to both an increased blood output by the heart and a constriction of blood vessels generally, with the result that the blood pressure rises.



Dr Harry Majewski

Although most anti-hypertensive drugs currently available act by decreasing the action of the sympathetic nerves in one way or another, no strict cause and effect relationship has been established between the sympathetic nervous system and elevated blood pressure. 'So the theory we are working on and our approach to dealing with early-stage high blood pressure remains a matter of controversy'.

Dr Majewski considers that the mechanisms responsible for the actual development of high blood pressure are somewhat different from those responsible

for the maintenance of a raised blood pressure. This change in the nature of hypertension may provide an explanation for the conflicting data and lack of consensus among researchers and clinicians alike as to how the condition develops and how it can best be controlled.

Dr Majewski hopes that the research opportunities made possible by the Wellcome fellowship will result in a new treatment approach to early-stage hypertension.

'The basic thrust of the current project is to gain an understanding of the mechanisms underlying the early development of hypertension and to use this understanding as a springboard for the selection of more appropriate therapies. If drugs are the treatment of choice, patients should ideally need to use them only temporarily to restore blood pressure to normality. Furthermore, by acting specifically at one point in the chain linking stress with high blood pressure, it is hoped that such drugs would have fewer side effects than those currently in use and that patients with early stage hypertension would not inevitably go on to develop established hypertension.'

In his search for more appropriate anti-hypertensive agents, Dr Majewski is testing drugs which act specifically to block the release and/or synthesis of adrenaline.

'It really is crucial to our project that we get a drug that does what we want it to do. We're not in the business of screening millions of compounds to see if one of them works. Rather, we want to use drugs in a very selective and logical manner that allows us to test our hypothesis and enables us to prevent the development of stress-induced hypertension.'

'If one of these drugs or something similar is effective it may suggest a new treatment approach.'

'We would hope that it could be used by early-stage hypertensive patients for short periods of risk such as during times of stress.'

\$2.4 million contributed to breast cancer research

Agreements have been signed by the University and two biotechnology companies, Australian Med-Research Industries Pty Ltd and Integrated Medical Technologies Limited for the contribution of \$2.4 million to the University over three years. The funds will be used by the Research Centre for Cancer and Transplantation to develop an imaging process for early detection and location of breast cancer using a monoclonal antibody.

The project will be one of the largest of its type in the world and is expected to employ 17 researchers and associated personnel. It results from long and close co-operation between the University and the two companies and is indicative of the increasing ability of research institutions to work with

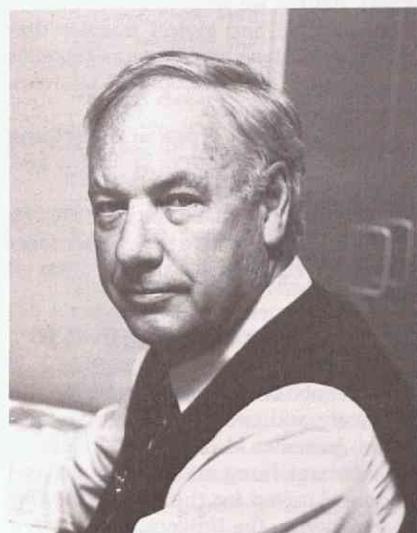
industry in developing innovative Australian research in Australia. Research will be undertaken over a three year period and it is expected that the procedure should be available for market evaluation within that time.

Integrated Medical Technologies Limited (IMT), a recently listed public company, will be the source of funds for the imaging project. This latest contribution by IMT to the Centre's work, follows an earlier donation of \$100,000 made to the University last year when the company was listed.

The research will be headed by Professor Ian McKenzie, Director of the Centre, assisted by three senior scientists who will form a task force to co-ordinate the three major areas of work. The preliminary experimental work will be carried out at the Centre. Arrangements are now being finalized for clinical studies to take place in three major hospitals in Australia; one in Europe and one in Canada.

Breast cancer is probably the most serious of all diseases in women. Professor McKenzie said monoclonal antibodies, such as 3E-1.2, were relatively specific to breast cancer and could now be used for detection of tumours in the body. 'Previously the antibodies were neither sufficiently specific nor powerful and were not available in large and reproducible amounts. Monoclonal antibodies overcame these problems and can be radiolabelled, injected into patients and tumours detected. So far we have examined 20 patients and the preliminary results are encouraging.'

Cancer researcher appointed to Chair



Professor Donald Metcalf

One of Australia's leading cancer researchers, Professor Donald Metcalf, has been appointed to a personal chair in the University. Professor Metcalf is Head of the Walter and Eliza Hall Institute of Medical Research's Cancer Research Unit. Appointment to a personal chair in the University is offered only to a person who is internationally recognized as an eminent scholar.

Professor Metcalf will be known as the Research Professor of Cancer Biology in the Department of Medical Biology. He also holds the position of Assistant Director of the Hall Institute and has been a Professorial Associate of the University.

A graduate of the University of Sydney, he joined the Walter and Eliza Hall Institute in 1954 as Carden Fellow in Cancer Research. He later spent three years as a research associate at Harvard Medical School before returning to become Head of the Institute's Cancer Research Laboratory.

In a career spanning 30 years, he has published more than 350 works and has served at various times on the editorial boards of thirteen scholarly journals.

Professor Metcalf is a Fellow of the Australian Academy of Science and a Fellow of the Royal Society. He has been vice-president of the International Union Against Cancer, a consultant to the Immunology Unit of the World Health Organization (WHO), and a member of the Executive Council of the Australian Cancer Society as well as a WHO Travelling Fellow and a Royal Society Guest Research Fellow at Cambridge.

His awards and honours are numerous and include the University of Melbourne's Syme Prize for Research, the Royal Society of Victoria Research Medal and the Gold Medal of the Australian Cancer Society. In 1976 he was made an Officer of the Order of Australia and this year was awarded the Royal Society Wellcome Foundation Prize.

Academic Board

Professor Margaret Manion, Professor of Fine Arts, has been elected Chairman of the Academic Board for 1987.

Vice-Chairman of the Academic Board for 1987 will be Professor Graeme Ryan who has been Deputy Vice-Chairman this year. Professor Ryan, of the Department of Anatomy, is Dean of the Faculty of Medicine.

Professor Manion and Professor Ryan have been appointed Pro-Vice-Chancellors of the University for 1987 following their election as Chairman and Vice-Chairman of the Academic Board.

Professor Tom Healy, Professor of Physical Chemistry and Dean of the Faculty of Science, has been appointed Deputy Vice-Chairman of the Academic Board for 1987.

University support for Victoria's technological development

The University of Melbourne will play a major role in the Victorian Government's new \$50 million technology plan. The strategy, which was unveiled on 1 July, is based on the widely-shared view that Australia's economic growth is increasingly drawing on reserves of intellectual and technical skill rather than mineral resources and old-style manufacturing industries.

The Government will be both a participant and catalyst in the State's tech-

nological development, working in partnership with private enterprise, universities and other research and development organizations. Initiatives under the strategy cover four main areas: biotechnology; materials science; information and telecommunications technology; and advanced manufacturing technology. Three of these will directly involve the University.

Biotechnology

Medical Biotechnology

The University's Research Centre for Cancer and Transplantation and four institutions affiliated with the University — the Walter and Eliza Hall Institute of Medical Research, Howard Florey Institute of Experimental Physiology and Medicine, Murdoch Institute for Birth Defects and Royal Children's Hospital Research Foundation — will participate with three other institutions in the Australian Medical Research and Development Consortium.

The aim of the Consortium is to create, with the support of leading research institutes, a new means of developing commercial products from Australian research. The Victorian Government believes that Australia's research base in medical biotechnology is so strong that the Consortium could become one of the leading organizations in the world in facilitating transfer of technology from the laboratory to the marketplace.

The Victorian Government will have a 35 per cent equity, the research institutions, 10-15 per cent and private sector interests at least 50 per cent. The initial paid-up capital base will be \$40 million and the Government is prepared to provide up to \$14 million in equity funds.

Plant biotechnology

Professor Adrienne Clark, Head of the University's Plant Cell Biology Research Centre, is one of three directors of a new company, Bioplantech Limited, which will foster collaborative research links in molecular and plant cell biology between the State Government, University and CSIRO and develop joint programmes of commercially orientated research. Bioplantech will have an annual budget of up to \$0.5 million to pursue its objectives for the commercialization of research.

Bioplantech has the lead role in developing an oilseed venture in co-operation with an Australian company, Agseed Pty Ltd, which will initially be based on edible oil linseed, sunflower seed and oilseed rape. The venture could expand to cover oilseed testing and production, crushing, extraction and subsequent production and marketing of speciality and commodity oils. It would draw on the scientific work and resources of the CSIRO Division of Plant Industry and the Crop Research Institute at Horsham, with support and advice from the University's Plant Cell Biology Research Centre.

Bioplantech, with the aid of a substantial study by McKinsey and Company, has identified strong prospects for the development of a general horticultural venture based on the research of the

University, CSIRO, State Government and other Victorian sources. An initial focus might be genetically engineered horticultural products and initiatives in the areas of improved potato, tomato, and other crop and vegetable products also appear viable.

Materials Science

The Victorian Government will provide up to \$1 million for two new electron microscopes, one of which will be located at the University's School of Physics. The electron microscope will be used for the creation and refinement of new materials for industrial, medical and other uses.

The Government has endorsed the report by Dr J.R. Sellar to establish an Advanced Materials Analytical Centre in conjunction with the CSIRO Division of Materials Science and the University. The Centre would provide, on a commercial basis, industry access to microscopy facilities for microanalytical research. The Government has agreed to commit substantial funds to the project, subject to an appropriate level of support from the private sector.

Advanced Manufacturing Technology

A Centre for Manufacturing Management will be established at the University's Graduate School of Management with funding of \$685,000 provided by the Victorian Government over five years.

The Centre will provide a focal point for research and teaching with seminars, short courses for manufacturing managers, a new subject in the current MBA programme, research programmes and reports. Victoria has a strong need for the Centre with its diverse manufacturing base of more than 8500 firms.

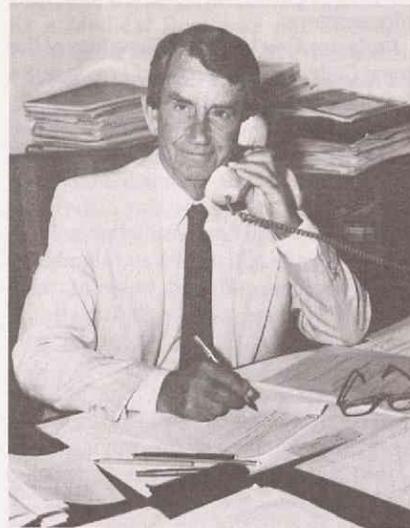
Teaching and research will cover the role of manufacturing strategy in supporting corporate strategy; the impact and analysis of advanced manufacturing and product technology on competitiveness; and the role of advanced manufacturing management techniques. Specific topics to be covered will include product generation and evaluation, project management of new product development, invention and innovation, product development cycles, capital budgeting for process improvements and technical interface with vendors and customers.

Because of the important link between technology and management, arrangements have been made for the Centre to have access to specialist skills in the major institutes of technology and the University's Faculty of Engineering. It is expected that the Centre's work will be utilized in undergraduate and other courses provided by institutes of technology and that industry will have a strong contribution in developing the teaching programme and establishing research priorities.

Community medicine expert wants palliative care units for cancer patients

Regionalized palliative care units should be established in all large metropolitan and provincial hospitals to treat patients with advanced and progressive cancer,

Professor Ross Webster told the 8th annual Scientific Meeting of the Australian Pain Society. The meeting, which was held at the University last month, discussed a range of topics relating to pain and its management.



Professor Ross Webster

Professor Webster, Chairman of the Department of Community Medicine, presented the findings of a special committee set up by the Anti-Cancer Council of Victoria to investigate the State's palliative care services. He said home care is the preferred option for the terminally ill patient, but there are many difficulties in providing a realistic service at home. The problems relate to the availability of medical care and prescribed drugs when needed at short notice in the 'after hours' period.

Each of the regionalized palliative care units recommended by the Victorian Anti-Cancer Council Committee, he said, would be under the general supervision of a senior medical practitioner, preferably a specialist in internal medicine with experience in oncology. Medical care at home would be supervised by a general practitioner in close liaison and full communication with the head of the hospital unit, which would provide specialist medical skills, and would co-ordinate a wide range of supporting services. The team would comprise the medical practitioner, nurse, social worker, chaplain, the principal care giver in the home and members of the patient's family. Other professionals such as psychiatrists, physiotherapists and occupational therapists should be available when needed by a patient.

He said some Government funding would be needed to set up regionalized palliative care units. The units would not require large capital expenditure, but there would be an increase in personnel and costs would be involved in the reorganization of the staff structure. Funds would also be required to provide a 24 hour cover by the various nursing services.

Professor Webster said that in both the UK and North America there is evidence of a move away from the institutionalized hospice to a multi-disciplinary domiciliary palliative care service linked to the local

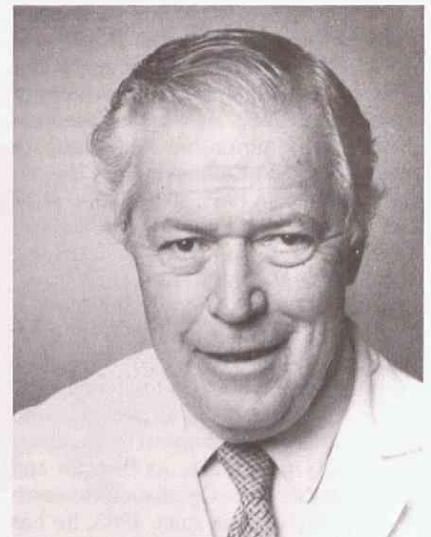
general hospital. One study had concluded that intensive hospice care of terminal cancer patients did not yield the expected increased benefits in pain or symptom relief, or in the alleviation of psychological distress, when compared with conventional care in a university affiliated hospital.

'Where hospices are already established', he said, 'they should form part of the regionalized palliative care service, and their experience can be used for the development of units in other regions based on hospital facilities. However, there appears to be no advantage in promoting further hospices at present. The appropriate action now is to encourage dissemination of the principles of terminal care and to develop an integrated system with emphasis on co-ordination between the hospital, hospice, and the primary care sector.'

Professor Webster also stressed the need for improved undergraduate medical teaching in the area of palliative care. He said that, regrettably, there is considerable evidence that medical practitioners are reluctant to fully inform patients dying from cancer of their condition and to provide a realistic prognosis.

Professional staff, he said, have the task of 'maintaining hope in patients and the urge to live, upon which life itself might depend, and of helping patients and families adjust to the probable outcome. At the same time they must be truthful, so that patients and relatives can trust them. This requires the utmost sensitivity and skill and is not always achieved.'

Dr Fraser Honoured



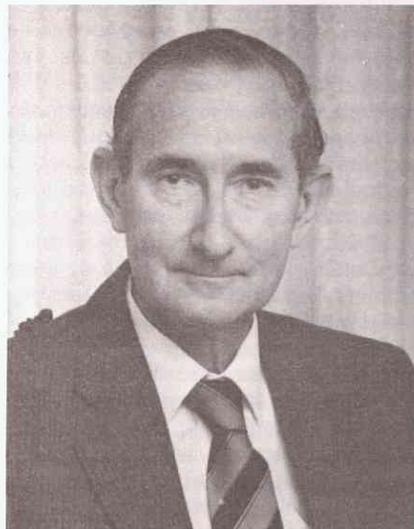
Dr J.R.E. Fraser

Dr J.R.E. Fraser, Reader in the Department of Medicine (Royal Melbourne Hospital), has recently been honoured by the Royal Society of Sciences of Uppsala, Sweden, the oldest scientific society in Scandinavia.

Dr Fraser has been elected as the sole Australian representative of the natural history and medical section of the society, which has only 25 international representatives in all.

Retirements

Professor Gerard William Crock



Professor Gerard Crock

Gerard William Crock was born in Perth, on 14 September 1929. He graduated MB.BS. at The University of Melbourne in 1953, sharing the Exhibition in Anatomy and T.F. Ryan Gold Medal with his twin brother, Harry, in 1949, and winning the Exhibition in Medicine in 1953. After two years as Resident Medical Officer and one year as Pathology Registrar at St Vincent's Hospital, he was appointed Demonstrator in Anatomy at The University of Melbourne in 1957. He returned to St Vincent's Hospital as Deputy Medical Superintendent for a year before travelling to London where he became Ophthalmic Registrar at Moorfields Eye Hospital in 1959, and Senior Lecturer in Ophthalmology, University of London, in 1961-62. He was then awarded a Harkness Foundation Fellowship in 1962-63 to work at Johns Hopkins University, Baltimore. In 1963, at the age of 34, he was appointed Foundation Ringland Anderson Professor of Ophthalmology, University of Melbourne.

During his long period as Chairman of the University Department of Ophthalmology at the Royal Victorian Eye and Ear Hospital, Professor Crock has had a great influence upon ophthalmic research and the upgrading of the surgical treatment of eye disease in Australia. As Director and Board Member of the Ophthalmic Research Institute of Australia since 1963, he has promoted research activity in a broad range of areas, including retinal and lens disorders and corneal grafting. In particular, he has had a major international impact on ophthalmological practice and surgery through the design and development of optical and microsurgical instrumentation. Such instrumentation is now used throughout the world and includes the Schultz-Crock Binocular Indirect Ophthalmoscope, the COMMIDO, a combination loupe and ophthalmoscope which won a Prince Philip

Design award, together with a wide variety of equipment for transplantation and intraocular surgery. The latest automated device, a Microsurgical Compact, is recognized as the state-of-the-art unit for all procedures in vitreoretinal and lens microsurgery.

Professor Crock holds Fellowships of the Royal College of Surgeons of London, the Royal Australasian College of Surgeons, the Royal Australasian College of Ophthalmologists and the Royal Australasian College of Physicians. He has been Director of the Retina Investigation Unit of the Royal Victorian Eye and Ear Hospital since 1964. He has served as Chairman and Member of many professional and hospital committees. He was on the International Council for Ophthalmology for seven years and played an important role in bringing the People's Republic of China into the world body. He was closely involved in field work projects including the establishment of the Low Vision Clinic for the Association for the Blind and, through the World Health Organization in the Philippines and the Cook Islands, carried out public service work aimed at the prevention and treatment of eye diseases in Third World countries. He was on the founding body of Project Orbis and a team member during its first visit to China. Working with the Hospitaliers' Committee of the St. John Organization, he helped establish the Australian-Jerusalem project. He has also contributed to community-based programmes in India. He was awarded the Doyné medal at Oxford in 1970 and the 1977 Barraquer medal at Barcelona. In recognition of his services, Professor Crock was appointed Commander of the Order of St. John of Jerusalem in 1983, and an Officer of the Order of Australia in 1984.

The University and the community are indebted to Professor Crock for his outstanding work in establishing the first University Department of Ophthalmology in Australia and in promoting ophthalmology as a major field of research and medical practice in this country.

Professor John Victor Hurley

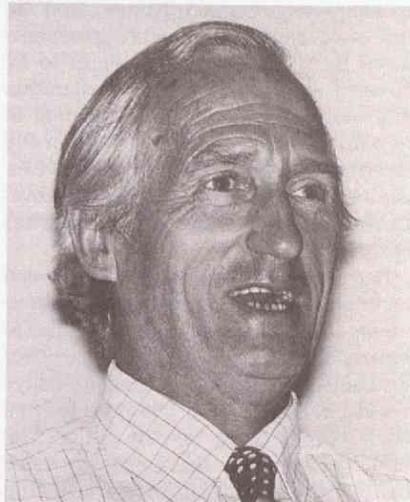
John Victor Hurley was born in Melbourne on 18 November 1921 into a distinguished medical family. He graduated MB.BS at The University of Melbourne in 1944 achieving many Honours and Exhibitions during the course. After a period of a year as a Junior Resident Medical Officer at the Royal Melbourne Hospital, he served from May 1945 to November 1947 as a medical officer with the rank of Flight-Lieutenant in the Royal Australian Air Force, including a period in British North Borneo in 1945.

Originally intending to become a surgeon, John Hurley was appointed Surgical Associate Assistant to Mr Paul Jones at the Royal Melbourne Hospital in 1948 but in 1950 he was forced to abandon his plans for a surgical career because of a recurrence of pulmonary tuberculosis acquired in the RAAF. He decided then to enter the field of Pathology and during 1950-52 worked for a period as Assistant

Pathologist at the Royal Melbourne Hospital and in a research position in the Department of Pathology, University of Melbourne. Following recovery from his illness, he was appointed Stewart Lecturer in Pathology at The University of Melbourne in February 1955. Apart from leave overseas, he has worked continuously in the Department of Pathology for over thirty years. He was promoted to Senior Lecturer in 1957 and to Reader in 1965. On the death of Professor George Christie, Professor Hurley was appointed to the Chair of Pathology in 1981. He became Assistant Dean (Preclinical) in the Faculty of Medicine in 1982.

Professor Hurley was awarded the University of Melbourne degrees of Ph.D. in 1959 and M.D. in 1965. He holds Fellowships of the Royal College of Pathologists of Australia, the Royal Australasian College of Physicians and the Royal College of Pathologists (Great Britain) and Honorary Fellowship of the Royal Australasian College of Radiologists.

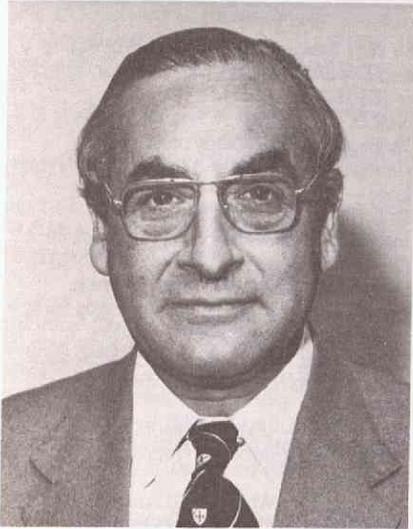
During an appointment as Nuffield Dominion Travelling Fellow in 1959-60, Professor Hurley was fortunate to gain experience in the new exciting wave of experimental pathology in Britain under the leadership of Sir Roy Cameron at University College Hospital Medical School, London. It was during this period that Professor Hurley first developed his interests in acute inflammation, an area in which he is now an international authority. His studies concerning the behaviour of normal and injured small blood vessels are widely recognized as being of great significance in understanding the pathogenesis of fluid loss and tissue swelling in inflammation. His book *Acute Inflammation* is a key reference work in this field.



Professor John Hurley

As well as his outstanding achievements in research, Professor Hurley is an excellent teacher who has had an important influence upon more than a generation of medical students and upon postgraduate training in experimental pathology. We are indebted to Professor Hurley for a lifetime of service to the academic life of the University and to the discipline of Pathology in Australia.

Professor Derek Melville Prinsley



Professor Derek Prinsley

Derek Melville Prinsley was born at Hartlepoole, England, on 21 July 1921 and graduated MB.BS. in 1942 from the University of Durham, and M.D. in 1948. He gained Membership of the Royal College of Physicians, Edinburgh, in 1957, followed by Fellowship of the same College in 1970, and

Fellowship of the Royal Australasian College of Physicians in 1977.

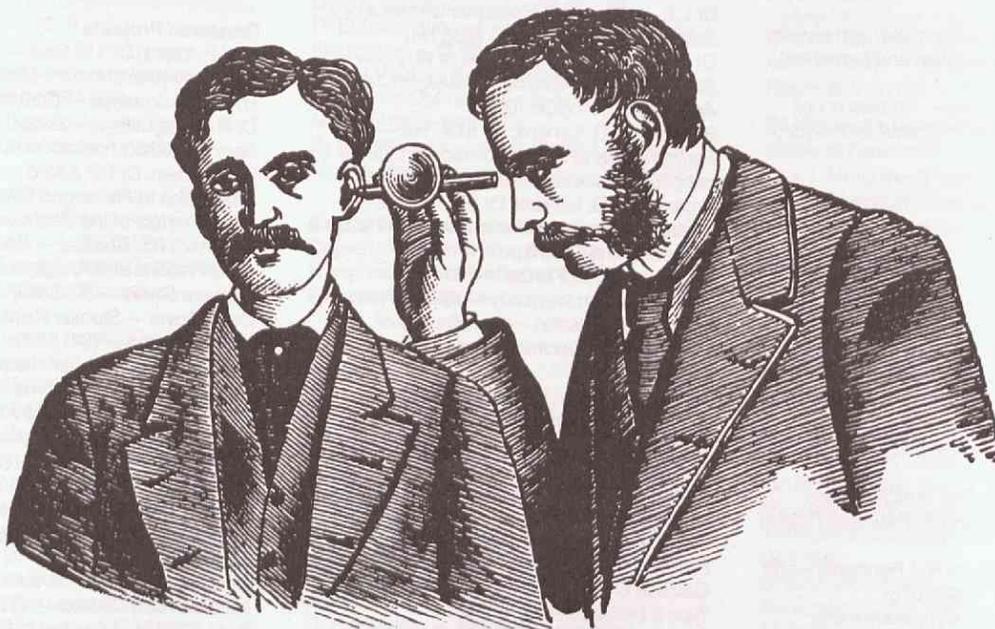
From 1943 to 1947 he served in the Royal Air Force Medical Branch, reaching the rank of Squadron Leader. Over the next twelve years, he gained broad experience as a Medical Registrar and Assistant Physician at several hospitals in England. In 1959, he was appointed Senior Consultant Physician in Geriatric Medicine, Geriatric Services, Teesside Hospitals. During 1973 and 1974 he was seconded to the Hospital Advisory Service of the U.K. Department of Health as the leader of the Geriatric Team. He studied in detail many Geriatric departments in England and gained experience of Geriatric practice in Canada, Sweden, Germany, Denmark and Holland.

In 1976, Professor Prinsley was appointed Professor of Gerontology and Geriatric Medicine, The University of Melbourne, and Director of the National Research Institute of Gerontology and Geriatric Medicine, Mount Royal Hospital. He subsequently became Chairman of the Clinical School at Mount Royal Hospital, Senior Geriatrician at the Royal Melbourne Hospital and Honorary Consultant Geriatrician at the Montefiore Homes for the Aged.

Professor Prinsley has been a pioneer in the development of medical education in

geriatrics in Australia, both in the undergraduate medical course and in the postgraduate area. A special initiative of Professor Prinsley has been the development of a Master of Medicine degree programme to promote postgraduate training in Geriatric Medicine. He has also been responsible for the upgrading of geriatric medical practice in Melbourne, in particular for its evolution from long custodial care to active treatment and rehabilitation. Under his leadership, the National Research Institute of Gerontology and Geriatric Medicine has developed research programmes in Social Gerontology and investigations of systems of health care delivery, Clinical Geriatric Medicine mainly in the field of medication, and Geriatric Nutrition. In June 1983, the Institute was designated a World Health Organization Collaborating Centre for health care of the elderly. Attesting to his international reputation in this specialty, Professor Prinsley is a Member of the W.H.O. Expert Advisory Panel on Health of Elderly Persons.

During his time in Melbourne, Professor Prinsley has played a very significant leadership role in teaching, clinical practice and research in Geriatric Medicine in Australia.



BRUNTON'S METHOD OF EXAMINING THE MEMBRANA TYMPANI.

Brunton's Auriscope, about 1885. The source of light was directed into the funnel-shaped side piece and by an inclined mirror into the ear. A similar set is advertised in a catalogue of 1906 for £1.1.0.

University of Melbourne Collection

NH&MRC Grants

Researchers at the University of Melbourne will receive a total of \$6,529,918 from the National Health and Medical Research Council in 1987 — an increase of nearly 19 per cent on the amount received last year.

The University has received 45 new grants for 1987 (compared with 33 in 1986) totalling \$1,825,590 and 58 continuing grants (47 in 1986) worth \$3,168,826.

A total of \$1,535,502 was awarded for five continuing programme grants.

In addition to the \$6.5 million of grants administered through the University, associates of University Departments working in affiliated Hospitals or the National Vision Research Institute, received a total of \$1,732,353 in NH&MRC grants.

The Dean of the Faculty of Medicine, Professor Graeme Ryan, said he was very pleased with the University's application success rate — 46 per cent compared with a national average of 37 per cent.

'The result offers a challenge for the future to maintain the University's national pre-eminence and competitiveness in NH&MRC funding', Professor Ryan said. 'There is now a lot of work to be done before February to prepare the grant applications for 1988 and I am confident they will be of the same high standard established over recent years.'

Program Grants

Professor G.M. Clark — *Studies to develop sensory prostheses for deaf children and adults* — (\$241,163).

Professor W.J. Louis, Dr B. Jarrott — *Biochemical pharmacology of anti-hypertensive and other cardiovascular drugs* — (\$530,528).

Professor T.J. Martin — *Hormonal and cellular regulation of bone-resorption and formation* — (\$255,240).

Professor I.F.C. McKenzie — *Studies of cell antigens by hybridoma and other techniques* — (\$268,140).

Professor M. Rand, Dr D.F. Story — *Modulation of synaptic transmission by prejunctional receptor mechanisms* — (\$240,431).

New Awards

Project Grants

Dr D. Alcorn, Professor G.B. Ryan, Dr A.T. Marshall, Professor T.O. Morgan — *Quantitative X-ray Microanalysis in Investigations of Renal Electrolytes* — (\$43,399).

Dr R.C. Augusteyn — *The Structures and Properties of Human and Animal Lens Protein* — (\$68,844).

Dr H.W. Baker, Professor R.J. Pepperell — *An Infertility Data Base* — (\$21,071).

Dr C. Bell — *Control of Neurotransmitter Function in Catecholaminergic Neurons* — (\$41,737).

Dr C. Bell — *Distribution of Dopaminergic Neurons in the Autonomic Nervous System* — (\$25,033).

Dr M.R. Brandon, Dr C.S. Lee, Dr T.E. Adams — *Growth and Immunological Regulators Produced at the Foetal Maternal Interface* — (\$54,809).

Dr G.R. Campbell — *Antigenic and Gene Expression Changes in Smooth Muscle Cells of Human Atheroma* — (\$50,431).

Dr I.K. Campbell, Dr J.A. Hamilton — *Osteoarthritis and Chondrocyte Activation* — (\$49,834).

Dr D.P. Crankshaw, Dr W.C. Chan, Dr D.J. Morgan, Dr P.R. Prideaux — *Attenuation of CVS Responses to Induction of Anaesthesia by Infusion of Opioid* — (\$27,768).

Professor I. Darian-Smith, Dr A.W. Goodwin, Dr S.S. Cheema — *Postnatal Maturation of Monkey Sensorimotor Cortex: Correlation with Hand Use* — (\$27,046).

Dr G.A. Donnan — *Dopamine Uptake Sites in Ageing and Parkinsons Disease* — (\$30,202).

Dr G.J. Dusting, Dr O.L. Woodman — *Endothelial Factors Affecting Vascular Smooth Muscle Contraction* — (\$30,720).

Dr J.A. Hamilton — *Growth Regulation in the Monocyte-Macrophage Lineage* — (\$116,215).

Dr P.J. Harris, Dr D. Alcorn — *Physiology and Morphology of Tubulo-Glomerular Feedback System* — (\$22,381).

Dr G.D. Hirst — *Factors Affecting Contractile State of Cerebral Arteries* — (\$26,133).

Dr B. Jackson — *Antihypertensive Drug Modulation of Renal Injury in Renal Failure Models* — (\$58,430).

Dr B. Jackson — *Angiotensin Converting Enzyme: Studies by Radio-Inhibitor Binding* — (\$72,040).

Dr G. Jerums, Professor A.E. Doyle, Dr B. Clark — *Blood Pressure, Renin Angiotensin System and Diabetic Nephropathy* — (\$31,609).

Professor C.I. Johnston, Dr A.J. Marchingo — *Vasopressin Receptors in Brain and Spinal Cord* — (\$31,119).

Dr A.H. Kaye — *The Use of Porphyrins as Photosensitizers for Treatment of Cerebral Glioma* — (\$42,117).

Dr L.E. Kelly — *The Molecular Genetics of a Seizure Inducing Gene* — (\$35,114).

Dr W.H. Kitchen — *Outcome of Very Low Birthweight and Normal Birthweight Children Aged 5 Years* — (\$26,189).

Professor R.G. Larkins, Mr M.A. Hill — *The Pathogenesis of the Microvascular Complications of Diabetes Mellitus* — (\$43,541).

Professor R.G. Larkins, Dr S.P. Rogers — *Metabolic Abnormalities in Neuronal Tissue in Diabetes* — (\$44,631).

Professor I.F. McKenzie — *Studies in Transplantation Immunity* — (\$33,107).

Dr F.A. Mendelsohn — *Localization of Receptors for Calcitonin and CGRP* — (\$29,360).

Dr R.F. Moulds — *Vasodilators and Postreceptor Events in Human Blood Vessels* — (\$28,062).

Dr K.W. Ng, Dr M.E. Dunlop — *Characterization and Differentiation of Clonal Rat Pancreatic Beta Cells* — (\$44,897).

Dr J. Proietto, Dr K. O'Dea, Professor R.G. Larkins — *The Role of Hepatic Glucose Overproduction in the Aetiology of Type 2 Diabetes* — (\$39,318).

Professor P.C. Reade, Dr L.S. Sych — *Timing and Space in Development of the Craniofacial Region* — (\$54,033).

Dr M.D. Rickard — *Immunological Diagnosis and Prevention of Hydatid Infection and Cysticercosis* — (\$76,868).

Dr R.M. Robins-Browne, Professor A.J. Pittard — *Pathogenesis and Diagnosis of Yersinia Enterocolitica Infections* — (\$46,893).

Dr M.S. Sandrin — *Characterisation of Genes Encoding LFA-1 OKM-1 and Gp11b/IIa Molecules* — (\$40,102).

Dr W.H. Sawyer, Dr L. Tilley — *Processing and Dynamics of the LDL-Receptor Complex* — (\$36,927).

Dr R.B. Sewell, Dr R.A. Smallwood, Dr N.D. Yeomans — *Cell Biology of Ageing in Reticulo-Endothelial and Parenchymal Cells of Liver* — (\$24,857).

Dr R.B. Sewell, Dr R.A. Smallwood — *Intrahepatic Localization of Drugs: Effects on Drugs Uptake and Elimination* — (\$29,134).

Dr R.J. Summers — *Autoradiographic Localization and Transduction Mechanisms for Drug Receptors* — (\$46,007).

Dr J.W. Tiller, Dr M.C. Pain — *Psychological Variation and Respiratory Symptoms* — (\$32,424).

Dr J.D. Wark — *Expression of Cellular Oncogenes in Endocrine Neoplasia* — (\$34,221).

Professor D.O. White, Dr D.C. Jackson, Dr L.E. Brown, Dr E.M. Anders — *Viral Epitopes: Analysis Using Synthetic Peptides, Cloned T Cells and Antibodies* — (\$41,038).

Dr N.T. Williams — *The Effect of Platelet Mass on Growth Factor Regulation of Megakaryocytopoiesis* — (\$33,936).

Dr N.D. Yeomans — *Isolation and Study of Function of Gastric ECL Cells* — (\$25,286).

Dr G.P. Young — *Role Hormones in Cell Growth and Differentiation in Small Intestine* — (\$27,832).

Dr J.R. Zalcberg — *Evaluation of Monoclonal Antibodies for Cancer Diagnosis and Treatment* — (\$28,594).

Special Initiative Grant

Dr C.A. Clifford, Professor W.J. Ewens, Dr J.L. Hopper, Dr D.J. Hill — *A Longitudinal Study of the Alcohol and Tobacco Use of Adolescent Twins* — (\$52,280).

Renewed Projects

Dr F.P. Alford, Dr J.D. Best — *Insulin Action in Man: In Vivo and In Vitro Metabolic Effects in Hyperinsulinaemia* — (\$30,811).

Dr R.C. Augusteyn — *Lens Change During Senile Cataract Formation* — (\$58,494).

Dr J.D. Best, Dr F.P. Alford — *Metabolic Adaptation to Prolonged Stress-Hormone Infusion: Role of the Beta Cell* — (\$30,648).

Professor P.S. Bhathal — *Biliary Epithelial Cells Proteins and Antigens in Normal and Disease States* — (\$32,815).

Dr W. Boyle — *Studies Related to Human Macrophages* — (\$41,555).

Dr W. Boyle — *Cellular Interactions in Immune Responses to Alloantigens* — (\$86,846).

Dr R.R. Buchanan — *Anti-Phospholipid Autoantibodies: Their Interference with Eicosanoid Production* — (\$27,353).

Professor R.N. Cahill, Dr W.G. Kimpson and Dr M.R. Brandon — *Ontogeny of Lymphocytes in Foetal Sheep and Neonatal Lambs* — (\$32,272).

Dr G.R. Campbell — *Arterial Elastic Lamellae in Health and Disease* — (\$22,954).

Dr C. Cheers — *Control of Phagocyte Production During Infection with Intracellular Bacteria* — (\$47,385).

Dr N. Christophidis — *Endogenous Thiol Pools and Effects of Treatment in Arthritis and Related Disorders* — (\$25,564).

Dr W.G. Cole, Dr J.F. Bateman — *Molecular Defects of Collagen in Osteogenesis Imperfecta* — (\$77,403).

Dr W.G. Cole, Dr J.F. Bateman — *Collagen DNA Defects in Heritable Connective Tissue Diseases* — (\$54,113).

Professor I. Darian-Smith, Dr A.W. Goodwin — *Tactile Discrimination of Textured Surfaces, Thalamo-Cortical Projections in Primate* — (\$158,136).
Dr R. Di Nicolantonio, Professor T.O. Morgan — *Prenatal Exposure to Na + & K + in the Rat: Role in Blood Pressure & Salt Taste* — (\$27,658).
Dr M.E. Dunlop, Professor R.G. Larkins — *Islet Phospholipids: Enzyme Location, Calcium Mobilization and Insulin Release* — (\$63,602).
Dr G.J. Dusing, Professor A.E. Doyle and Dr D.M. Li — *Prostanoid Precursors in Hypertension* — (\$47,816).
Dr J.F. Forbes, Professor D.R. McNeil — *Optimal Cytotoxic Therapy and Quality of Life for Breast Cancer Patients* — (\$29,374).
Mr D.M. Francis, Miss C.A. O'Brien & Professor G.J. Clunie — *Surgical Techniques in Canine Segmental Pancreatic Transplantation* — (\$13,785).
Dr J.R. Fraser — *Biology and Metabolism of Hyaluronic Acid in Joints and Tissues* — (\$59,791).
Dr O.M. Garson — *Investigation of Degree of Erythroid Involvement in Acute Leukaemia* — (\$27,502).
Dr J.A. Hamilton — *An In Vitro Model of Rheumatoid Arthritis* — (\$30,833).
Dr J.A. Hamilton — *Control of Gene Expression in Human Synovial Cells* — (\$61,347).
Professor K.J. Hardy, Dr D.J. Morgan and Dr R.A. Smallwood — *Studies of Placental and Foetal Hepatic Drug Disposition* — (\$57,665).
Dr G.D. Hirst — *Calcium Currents and Arteriolar Constriction* — (\$86,684).
Dr I.H. Holmes, Dr M.L. Dyal-Smith — *Antigenic Characterization of Rotaviruses* — (\$70,494).
Dr J.L. Hopper, Dr J.D. Mathews — *Analysis of Bivariate Continuous and Binary Traits in Twin and Family Data* — (\$54,782).
Dr G.J. Howlett — *Physico-Chemical Characterization of the Bradykinin/Kininogen System of the Rat* — (\$28,726).
Professor C.I. Johnston, Dr P.L. Nolan — *Vasopressin in Blood Pressure Homeostasis and Hypertension* — (\$94,078).
Dr B.E. Kemp — *Regulation and Specificity of Calcium Dependent Protein Kinases* — (\$112,555).
Professor R.G. Larkins — *Isolation & Study of the Renal Tubule Cells Responsible for Vitamin D Metabolism* — (\$37,942).
Dr B.G. Livett — *Neuropeptide Control of Hormone and Transmitter Secretion* — (\$55,021).
Dr A. Lopata — *Human Fertilization: Oocyte Maturation, Activation & the Block to Polyspermy* — (\$36,390).
Dr P.D. Marley, Dr B.G. Livett — *Occurrence and Functions of Opioid Peptides in the Adrenal Medulla* — (\$45,672).
Mr C.J. Martin, Dr J.D. Dent — *Neural Control of Reflux Associated Lower Oesophageal Sphincter Relaxations* — (\$32,192).
Dr J.D. Mathews, Dr B.D. Tait, Dr J.L. Hopper and Dr S. Whittingham — *Disease Susceptibility Genes Linked to MHC and Immunoglobulin Loci* — (\$77,689).
Dr F.A. Mendelsohn — *Localization and Regulation of Angiotensin Receptors in Brain and Kidney* — (\$30,322).
Dr G.W. Mihaly, Dr R.A. Smallwood — *Studies of the Clinical and Biochemical Pharmacology of Antimalarial Drugs* — (\$66,013).
Professor T.O. Morgan, Mr W. Fitzgibbon — *Renal Concentrating System Interaction of Different Hormones* — (\$32,702).

Professor T.O. Morgan — *Effect of Atrial Factor on Renal Function* — (\$12,608).
Professor T.O. Morgan, Dr S.L. Skinner and Professor G.B. Ryan — *Physiological Biochemical and Morphological Events During Renin Biosynthesis* — (\$74,458).
Professor T.O. Morgan, Dr P.J. Harris — *The Mechanism of Sodium Transport Across the Papillary Collecting Duct* — (\$29,673).
Dr K.D. Muirden — *Protective Mechanisms in Joints and Rheumatoid Arthritis* — (\$25,859).
Dr W.G. Naylor — *Calcium Overload in the Ischaemic and Reperfused Myocardium* — (\$104,088).
Dr K. O'Dea — *Nutritional and Environmental Effects on the Diabetic Phenotype* — (\$82,991).
Professor A.J. Pittard — *Molecular Studies of the Replication of Plasmids from Incompatibility Groups B and I* — (\$59,818).
Professor A.J. Pittard — *Construction of Mini Gal Plasmids for Rapid Incompatibility Testing* — (\$31,180).
Dr F.W. Rickards, Dr T.J. Redhead — *Steady-State Brain Potentials and the Early Diagnosis of Deafness* — (\$23,942).
Prof. G.B. Ryan, Dr D. Alcorn, Dr D.K. Davies — *Studies of Peripolar Cell Function and Glomerular Proteinuria* — (\$169,202).
Dr M.S. Sandrin — *Molecular Cloning of Human Genes Using DNA-Mediated Transfection* — (\$36,766).
Professor G.H. Schreiber, Dr G.J. Howlett — *Plasma Protein Synthesis in the Liver and its Control* — (\$42,975).
Professor G.H. Schreiber — *Transport of Thyroid Hormones from the Bloodstream to the Brain* — (\$32,968).
Dr I. Schweitzer, Dr J.W. Tiller
Dr K.P. McGuire, Professor B.M. Davies — *Studies of Hypothalamic-Pituitary-Adrenal Axis Dysfunction in Depression* — (\$38,441).
Dr A. Shulkes, Professor K.J. Hardy — *Production, Processing and Ontogeny of Neurotensin* — (\$83,750).
Dr R.A. Smallwood, Dr G.W. Mihaly, Dr D.J. Morgan — *Determinants of Hepatic Elimination* — (\$78,252).
Dr J.D. Wark — *Regulation of Normal Endocrine Cell Function by Vitamin D Metabolites* — (\$41,923).
Dr N.T. Williams — *Bone Marrow Control of Murine Megakaryocytopoiesis* — (\$58,488).

Grants for Associates of University Departments working in affiliated Hospitals or the National Vision Research Institute:

New Awards

Project Grants

Austin Hospital Research Foundation

Dr J.S. Wiley — *Deoxycoformycin in Lymphoproliferative Disease of Man* — (\$26,227).

Cancer Institute

Dr I. Bertoncello, Dr T.R. Bradley, Dr G.S. Hodgson — *Properties of Primitive Haemopoietic Cells In Vivo and In Vitro* — (\$56,658).
Dr R.F. Martin — *Interaction Between Homologous DNAs as a Basis for Selective Gene Inactivation* — (\$30,184).
Dr L.P. Wakelin, Dr T.A. De Kretser — *Inhibition of Gene Expression by DNA-Binding Antitumour Agents* — (\$30,469).

National Vision Research Institute

Professor A. Hughes, Dr R. Wong — *Functional Co-ordination of Optics and Retina During Pre and Post-Natal Eye Growth* — (\$48,276).

Professor A. Hughes, Dr W.S. Jagger — *Optimal Design Strategies in Human and Animal Eyes* — (\$45,847).
Dr D.I. Vaney, Professor A. Hughes — *Cellular Mosaic of Identified Amacrine Cells in Mammalian Retina* — (\$60,305).

Royal Children's Hospital Research Foundation

Mr J.M. Hutson — *The Role of Mullerian Inhibiting Substance in Testicular Descent* — (\$25,889).
Dr F. Oberklaid, Dr M. Prior — *Factors in the Child-Environment Transaction Affecting Development* — (\$31,443).
Dr G.L. Warne — *The Regulation of Human Skeletal Growth by Androgens and Oestrogens* — (\$25,460).

Royal Melbourne Hospital

Dr A.J. D'Apice — *Non-HLA Leucocyte and Endothelial Antigens: Definition and Relevance in Transplants* — (\$33,656).
Professor R.M. Fox, Professor P.S. Bhathal, Dr R.A. Harris — *Clinical Application of Cell Cycle Analysis of Human Malignancy* — (\$25,758).
Dr R.A. Harris — *Isolation and Characterization of Murine Megakaryocyte Progenitor Cells* — (\$28,832).
Dr H.A. Jonas, Dr L.C. Harrison — *Characterization of an Atypical Receptor for Insulin* — (\$73,336).
Dr J.D. Newman, Dr L.C. Harrison — *Genetic and Structural Defects in the Insulin Receptor* — (\$63,566).
Dr J.A. Savige, Dr A.J. D'Apice — *A Molecular Biological Approach to the Pathogenesis of Glomerulonephritis* — (\$16,495).
Dr G.A. Varigos — *The Association Between Mast Cells and T Lymphocytes in Skin Disease* — (\$25,470).
Dr J.A. Whitworth, Dr S.L. Skinner — *The Pathophysiology of Prorenin* — (\$28,373).

St Vincent's Hospital

Dr K.R. Knight, Mr A.M. MacLeod, Mr B.M. O'Brien — *Pharmacologic Salvage of Failing Skin Flaps* — (\$26,916).
Mr W.A. Morrison, Mr B.M. O'Brien, Mr J.J. Pribaz — *Tendon-Bone Grafting for Flexor Tendon Reconstruction* — (\$40,026).

St Vincent's Institute of Medical Research

Dr F.J. Morgan — *Purification of the Mineralocorticoid Receptor* — (\$36,656).

Renewed Projects

Austin Hospital Research Foundation

Dr J.M. Connellan, Dr P.J. Thurlow — *Investigation of Immune Thrombocytopenia With Monoclonal and Allo Antibodies* — (\$23,860).

Cancer Institute

Dr J.F. Bishop, Dr R.M. Lowenthal, Dr J.P. Matthews, Dr D.E. Joshua — *Randomized Multicentre Clinical Trial of VP16-213 in Acute Myeloid Leukaemia* — (\$12,514).
Dr D.M. Woodcock — *DNA Methylation and Replication Errors in Mammalian Mutagenesis* — (\$24,203).

Fairfield Hospital

Associate Professor I.D. Gust, Dr B.N. Anderson — *Molecular Cloning and In Vitro Expression of Hepatitis A Virus Genome* — (\$149,971).

National Vision Research Institute

Dr D.I. Vaney, Professor A. Hughes — *Rod Pathways in the Inner Plexiform Layer of Cat Retina* — (\$3,091).

Royal Children's Hospital Research Foundation

Professor R.G. Adler, Dr I.M. Eisenbruch — *The Psychosocial Adjustment of Refugee Children: Cambodian Unaccompanied Minors* — (\$73,446).
Dr R.F. Bishop, Dr G.L. Barnes, Dr B.S. Coulson, Dr S. Tzipori — *Immunology and Seroepidemiology of Rotavirus Infection* — (\$116,082).
Dr K.H. Choo, Dr H.H. Dahl — *Expression and Amplification of Cloned Human Genes in Cultured Mammalian Cells* — (\$66,263).
Mr J.M. Hutson — *The Action of Mullerian Inhibiting Substance in Sexual Development* — (\$30,365).
Dr F. Oberklaid, Dr M. Prior — *Temperament and Behaviour — A Prospective Longitudinal Study* — (\$38,310).

Professor P.D. Phelan, Dr I. Hudson — *Cystic Fibrosis — Growth Failure, Ps. Aeruginosa Colonization and Lung Disease* — (\$11,434).
Dr G.L. Warne — *Mechanism of Androgen Action* — (\$32,824).
Dr G.A. Werther — *Actions of Insulin-Like Growth Factor I and Insulin in Rat Brain* — (\$22,173).

Royal Melbourne Hospital

Dr I.L. Campbell, Dr L.C. Harrison — *Isolated Human Pancreatic Islets: Immunology and Transplantation* — (\$48,547).
Dr A.J. D'Apice, Dr B.D. Tait — *Human Monoclonal Antibodies to HLA: Production and Use in Transplantation* — (\$52,645).
Dr L.C. Harrison — *Structure-Function of Insulin-Receptor Complexes Translocated Intracellularly* — (\$25,290).

Dr L.C. Harrison, Mr B. Dean — *A Humoral Inhibitor of Insulin Action in Non-Insulin Dependent Diabetics* — (\$25,652).

St. Vincent's Institute of Medical Research

Dr N.W. Isaacs — *Studies in Protein Crystallography* — (\$164,579).

Renewed Special Initiatives

Austin Hospital Research Foundation

Dr K.W. Walsh, Dr A.J. Goble, Dr M.U. Worcester — *Cognitive Impairment Following Coronary Artery Bypass Graft Surgery* — (\$31,262).

The University of Melbourne Library Borrowing Privileges for Graduates of The University

Borrowing privileges are extended by The University of Melbourne Library (which includes Baillieu Library, Brownless Medical Library, and thirteen other Branch Libraries) to nominated groups of off-campus users. Members of UMMS, as members of the University of Melbourne Alumni Association, are one such group as are Graduates and Diplomates of the University. Approved Borrower cards, which bear a barcoded number, must be presented before books can be checked out through the automated loans system. Books may be borrowed by Approved Borrowers who are UMMS members, Graduates or Diplomates for up to seven days.

To apply for an Approved Borrower card, patrons must fill in the appropriate form, copies of which are available in Brownless Medical Library and in other library locations. An Approved Borrower card will be made available to approved persons after presentation of this form at the Lending Section (Loans Desk) in Baillieu Library. Approved Borrower cards must be renewed annually, and in the case of UMMS members, Graduates and Diplomates, the annual expiry date is 30th March.

Staff of Brownless Medical Library are always pleased to assist graduates in satisfying their information needs. Graduates visiting from the country or interstate, if wishing to borrow from the Library, are urged to make their arrangements for Approved Borrower status in advance, and Library staff will gladly help them with this. All borrowers would be wise to familiarize themselves with borrowing restrictions on various parts of the collection, to avoid disappointment. In Brownless Medical Library, for instance, the Medical Library Users' Committee has decreed that periodicals shall not be lent; this restriction is offset by access to photocopiers which are activated by resource cards. Cards can be purchased on the spot for \$1, and can be charged up with credit to a value of \$99. All copying must conform with the requirements of the Copyright Act.

Although the Library is unable to offer on-line searching or interlibrary loan facilities to Approved Borrowers, staff at the Brownless Medical Library Information Desk can usually suggest alternative methods of obtaining required information. Some graduates, especially those in the country or interstate, may not be aware that if they have access to a local hospital or other library, interlibrary loans from The University of Melbourne Library can usually be obtained for them. In the case of articles from periodicals, the transaction will usually result in a photocopy for retention.

Visitors requiring assistance from the professional staff at the Information Desk of Brownless Medical Library are reminded that this desk closes at 6pm on weekdays, and is not open on Saturday mornings. The very generous hours of opening offered by Brownless are:

Term and Term vacations

Monday to Friday: 8.30am — 10pm
Saturday: 8.45am — 12 midday

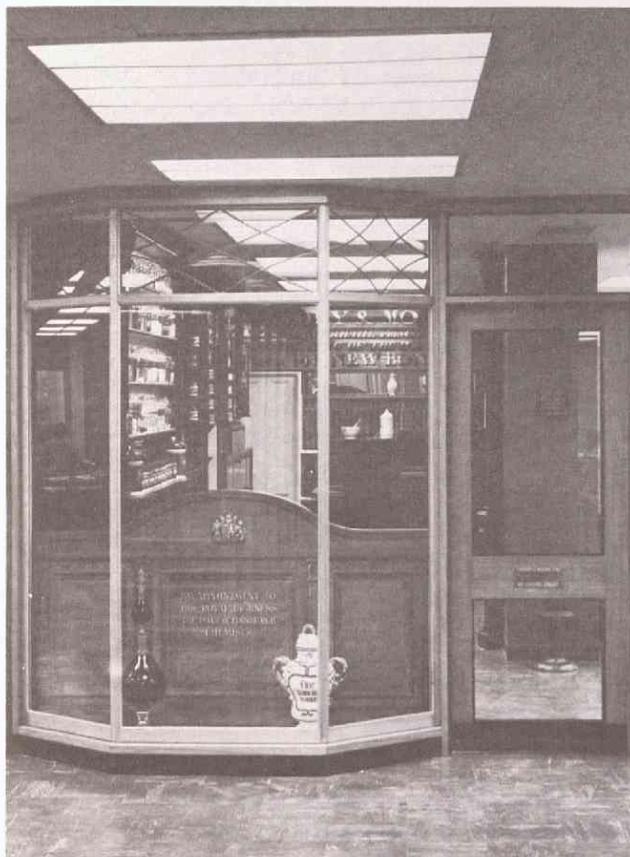
Long vacation

Monday, Tuesday, Thursday, Friday: 9am — 6pm
Wednesday: 9am — 9pm
Saturday: 9am — 12 midday

Staffing after 6pm and on Saturday mornings comprises only a Library Assistant and an Attendant. These staff are trained only to provide basic service (directional information, loans, etc.), and will decline to take decisions outside their sphere of responsibility. This is one of the ways in which the valuable resources of the Library are protected.

Patrons who can visit only when the Information Desk is closed are warmly invited to discuss their information needs in advance with Reference staff on the Information Desk before 6pm weekdays, telephone (03) 344-5718. Required materials may then be made available at a time convenient to the patron, or appropriate instructions left for other staff.

The Life Sciences Librarian, Joan Martin, telephone (03) 344-5717, would be pleased to discuss any problems concerning past or proposed use of Brownless Medical Library.



The 19th century London pharmacy, Savory & Moore, now reconstructed in the Medical History Unit of The University of Melbourne. In 1968 the fittings and contents were presented by Savory & Moore to the Wellcome Institute of the History of Medicine, and the generous gift (including packing and transport to Melbourne) was then offered to The University of Melbourne. The pharmacy was officially opened and formally accepted for the university by the (then) Chancellor, Sir Robert Menzies, on 1 June 1971.

1986 Report

Late in the year, Andrew Cuthbertson joined the honorary staff as an Associate. In 1977 Andrew completed a B.Med.Sc. in the then Department of Medical History under Professor Russell. His report on Duchenne of Boulogne was of an unusually high standard and provided new data about this unusual man. Andrew's book *Duchenne's Mechanisme de la Physionomie Humaine* is soon to be published by Cambridge University Press.

Visits and Discovery Day

On 13 March members of Faculty were shown a preview of an exhibition *Medical Deans* which highlights the doings of our deans from George Britton Halford in 1876 to Graeme Bruce Ryan in 1986. On 'Discovery Day' this was supplemented by a lecture demonstration by Dr Eric Cunningham Dax on a selection from his extensive collection of psychiatric art. During the year groups from schools, adult education organizations, and overseas visitors have been shown round the museum.

Cataloguing the Collection

With the aid of a grant from the Ramaciotti Foundations, Marion MacNally was appointed as Assistant Archivist. Marion has worked well and already the large and important collection of photographs illustrating the early history of this school has been catalogued and appropriately housed. All items on display are now fully catalogued and our large collection of diplomas, papers and instruments is steadily being enumerated and recorded.

Recent Acquisitions

Of the interesting pamphlets and instruments donated during the year, the microscope given by Dr Herbert Hardy of Geelong is of particular interest. This Zeiss microscope is plated and bears on its base the inscription: 'Sir Thomas Elder Prize in Physiology, Gained by Mary Amelia Joyce, March 1884. Carl Zeiss Jena 7027'. From Adelaide University's archivist, Susan Woodburn, we have learnt that the Elder Prize, initiated in 1882, was a sum of money (20 pounds). Edith Emily Dornwell, the University's first graduate in Science and, indeed, the first woman graduate, won the prize in 1882. She asked that 8 pounds of the prize go towards 'the microscope Dr Stirling spoke about' and it is likely that Mary Amelia Joyce followed her example. Mary Joyce, however, did not pursue her studies and the University of Adelaide has no other information about her.

Publications

After a gestational period of five years, William Clift's copy of Matthew Baillie's *Atlas of Morbid Anatomy* was published by Melbourne University Press in a limited edition of 520 copies. This handsomely boxed leather bound volume contains an almost complete set of William Clift's drawings which have never before been reproduced in colour. The colour rendition is a credit to the printers, Wilke & Company Limited, of Clayton. (The Mayo and Johns Hopkins bought copies by return of post.)

Professor Russell has completed the arduous task of proof reading for the second edition of his classic, *British Anatomy*, now to be published in 1987.

Curator's Leave

In July the curator visited London and worked on original papers of William Clift and Matthew Baillie in the libraries of the Royal College of Surgeons and the Royal College of Physicians. By invitation from Sir Gordon Wolstenholme he was a guest at the dinner following the 400th meeting of the Osler Club.

In August the curator attended the 11th British Congress on the History of Medicine on 'Medicine Furth of Scotland' in Edinburgh. This was a most enjoyable combined meeting of the British Society for the History of Medicine and the Scottish Society of the History of Medicine.

In August he attended and gave a paper entitled 'William Clift's copy of Baillie's *Morbid Anatomy*' at the XXX International Congress of the International Society for the History of Medicine in Dusseldorf and visited the medical history museums in Heidelberg and Vienna.

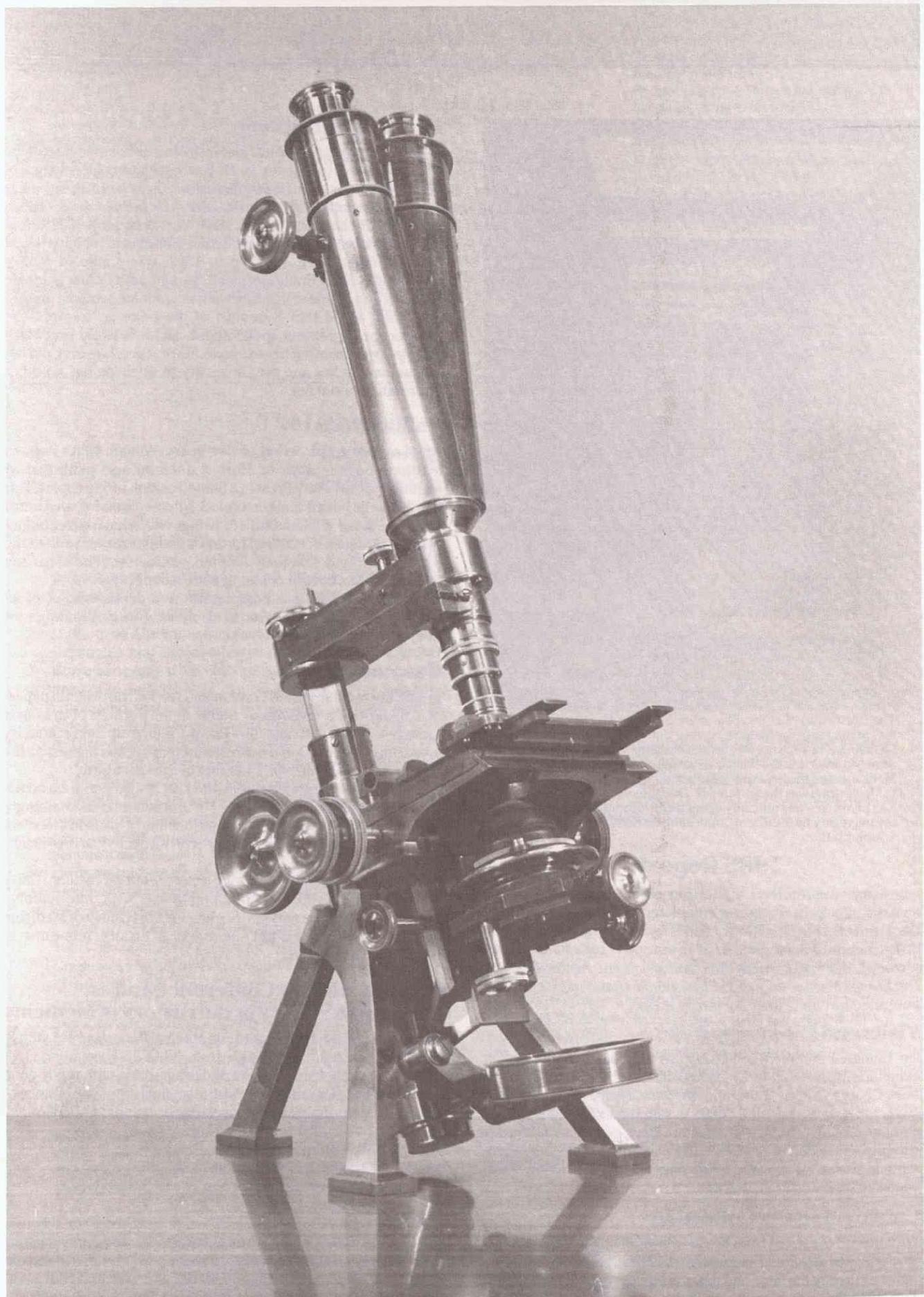
Medical History Conference and an Australian Society of the History of Medicine

The Third National Conference on Medical History and Health in Australia was held in Adelaide from 23 to 25 November. Over eighty registrants enjoyed a varied programme with many good papers. On 25 November an Australian Society of the History of Medicine was established, a constitution adopted and Council appointed. The officers of Council are:

Bryan Gandevia, President
Diana Dyason, Vice-President
Harold Attwood, Secretary
Geoffrey Kenny, Treasurer.

The Medical History Unit will act as secretariat for this new society, the aim of which is 'to encourage the study and teaching of the history of medicine and the development of critical standards in the field'. Seven historians and seven medically qualified people form the Council and with membership open to all interested in the history of medicine, the new society could well achieve its aims.

Enquiries may be addressed to Harold Attwood, Curator, Medical History Unit, Faculty of Medicine, The University of Melbourne.



The microscope used by Professor G.B. Halford. This Powell & Lealand (London) microscope together with many accessories was purchased for one hundred pounds by the university from the Rev. John Bleasdale, a prominent Catholic clergyman and an active member of the Microscopical Society of Australia.

Dates to Remember 1987

Dean's Lecture Series

Tuesdays at 5.30 pm
Sunderland Theatre,
Ground Floor, Medical Centre Building
(corner of Grattan Street and Royal Parade)
University of Melbourne

The Dean's Lecture Series is designed to illustrate current research activities in the Faculty of Medicine. All medical students, medical graduates and interested biological scientists are invited to attend. Admission is free.

10 March

Emerging Trends in Education for General Medical Practice
Professor Ross Webster, Department of Community Medicine,
University of Melbourne

17 March

Defence of the Gastric Mucosa: From Physiology to Anti-Ulcer Drugs
Dr Neville Yeomans, Reader, Department of Medicine, Austin Hospital.

24 March

Dialogue Between Nerves and Muscle: Autonomic Neuroeffector Transmission
Dr David Story, Reader, Department of Pharmacology, University of Melbourne.

31 March

Life Before Birth: Regulation and Function of the Fetal Adrenal
Dr Marelyn Wintour-Coghlan, Reader, Department of Physiology, University of Melbourne.

7 April

53rd Beattie-Smith Lecture
The Choroid Plexus and Dementia
Dr Ross Anderson, Reader, Department of Pathology, University of Melbourne.

14 April

New and Emerging Techniques in Medical Imaging
Professor Bill Hare, Department of Radiology, Royal Melbourne Hospital.

21 April

Easter Tuesday — no lecture.

28 April

Towards the Prevention and Cure of Diabetes
Professor Len Harrison, Professor/Director, Burnet Clinical Research Unit, The Walter and Eliza Hall Institute and Royal Melbourne Hospital.

5 May

To Speculate on Speculum
Professor Harold Attwood, Department of Pathology and Curator, Medical History Unit, University of Melbourne.
This will be followed at 6.30 pm by the 1987 Annual General Meeting of The University of Melbourne Medical Society.

25 August

Halford Oration
The Interface Between Basic Research and Clinical Medicine
Professor Emeritus Sir Michael Woodruff, formerly Professor of Surgical Science, University of Edinburgh.

Continuing Medical Education

These courses are intended to update doctors and others working in associated health professions. Registration may be limited for specific courses. The Faculty also offers continuing education training programmes in Anatomy for Surgeons (in conjunction with the Royal Australasian College of Surgeons), Diagnostic Radiology, and Industrial Screening Audiometry. Registration forms and further information will be available for each course throughout the year, giving details of venue, programme, fees, etc., from the Faculty of Medicine Office for Continuing Medical Education, University of Melbourne, Parkville 3052. Telephone (03) 344 5889.

Friday 13 February

Radiology of Joints, Including the Role of Newer Techniques
Course Director: Dr T.C.A. Doyle
Venue: Hercus Lecture Theatre, University of Melbourne.

Friday and Saturday 20-21 February

Hypnosis and Psychosomatic Medicine
Course Director: Professor Graham D. Burrows
Venue: John Lindell Lecture Theatre, Austin Hospital.

Friday and Saturday 27-28 March

Pain and Its Relief
Course Director: Dr R.F.W. Moulds
Venue: Lecture Theatre N10, Royal Melbourne Hospital.

Friday 29 May

Child Abuse: a Practical Approach to Management
Course Directors: Professor R. Adler and Dr F. Botica
Venue: Lady Latham Lecture Theatre, Royal Children's Hospital.

Saturday and Sunday 27-28 June

Fourth School in Audiology: Audiological and Educational Management of Hearing-Impaired Children
Course Directors: Dr Field Rickards and Miss Shirley Dennehy
Venue: Laby Lecture Theatre, University of Melbourne.

Friday and Saturday 24-25 July

Medical Update for the Family Doctor and Physician
Course Directors: Drs Graeme Young and Stephen Davis
Venue: Lecture Theatre N10, Royal Melbourne Hospital.

Thursday to Saturday 3-5 September

Breast Cancer Screening for Radiologists Using Mammography
Course Directors: Mr John F. Forbes and Professor W.S.C. Hare
Venue: Ewing Lecture Theatre, Royal Melbourne Hospital.

Friday to Saturday 18-19 September

Update in Gerontology and Geriatric Medicine
Course Directors: Professor R.D.T. Cape & Dr R.W. Warne
Venue: To be announced.

Friday 9 October

Recent Advances in Biliary, Hepatic and Pancreatic Surgery
Course Director: Mr Neil A. Collier
Venue: Royal Melbourne Hospital.

Friday and Saturday 16-17 October

Update in Neurology and Neurosurgery
Course Directors: Drs E. Byrne, P.C. Gates and Mr J. Cummins
Venue: Michael Chamberlin Lecture Theatre, St Vincent's Hospital.

19 August 1987 125th Anniversary Dinner

