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# UMMS

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**Front Cover:** The 'medical wing' of The Melbourne University Rifles, Wilson Hall in background, 1940. (Trinca Collection)

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**I**N THIS and earlier issues of *Chiron* we have published biographies of graduates, including stories of several families of country doctors, memorable not only for devoted service to their communities, but also as early chronicles of Victoria's medico-social history. The stories of doctors at war tell of medical experiences under extreme conditions when women and men show compassion, initiative, bravery and endurance — virtues also called on in times of peace. Some stories were solicited, some were not, but all have been compiled from treasured memories and sources, and whilst perhaps not historically researched, with a little gentle editing have proved interesting and sometimes inspiring reading. They are important archival material for a definitive history of the teaching and practice of medicine in Victoria.

### The 'call' to the bush

*[September 1938] . . . I found myself entirely alone in about fifteen miles radius and responsible for approximately 800 lives within the area. I felt elated, and drove about telling myself, 'I am a responsible country General Practitioner, I must be always ready, know what to do in any emergency, be able to cope with it, to take all calls and never let the weather stop me.' . . . I had my own surgical instruments. I kept five bags ready packed . . . I had no ambulance . . . There was no veterinary surgeon . . .*

(Gweneth Wisewould, MBBS 1915, *Outpost — A Doctor on the Divide*, Lowden Publishing Co., Kilmore, Victoria, 1971.)

For almost one hundred and thirty years this School of Medicine has been sending graduates out into the world to practice what was once referred to as a 'calling'. In the past, depending on family background or opportunity, young doctors worked in the city and suburbs or the country. A small number went inland or abroad as missionary doctors, some became researchers, some achieved fame. Amongst these graduates are those who answered another 'call' and went to war in the service of their country or as members of international emergency medical teams.

In recent years, the options have not been so straightforward. Studies by universities and associated health professions point to an imbalance in the distribution of medical practitioners, with a shortfall in country recruitment and a surplus in cities, the latter presenting the misleading impression that there are too many graduates. Communication, travel and the transfer of patients are infinitely better now throughout Victoria, but the workplace is shifting, attitudes to self-fulfilment changing and job satisfaction waning. For example, in the country, large base hospitals have replaced the many traditional four-bed bush nursing homes where local doctors derived a sense of worth from maintaining total patient care of manageable cases. Paradoxically, when Gweneth Wisewould renounced her city practice in 1938 and moved to the country, one of her reasons was:

*. . . the changing type of practice which was fast depriving the town doctor of the responsibility of attending his own patients and their families for all ailments and making him a mere clearing house for the specialists or the public hospitals, for without responsibility incentive soon dies and interest perishes.*

Today, young doctors seeking career paths question how they will find a satisfying career and life-style one or two hundred miles from a metropolis. The perceived professional isolation also relates to their families with the proximity of schools and career possibilities for a spouse adding strong arguments for

working in cities. The satisfactions and advantages of country life are perhaps less tangible and appeal to a minority of graduates. The 'call' to most general practitioners and general surgeons is a practice with clearly defined hours and agency locums to handle evening and week-end work. An agency locum from the UK, in Australia for work experience — 'no better place' he said, added that he was here 'to do what Australian doctors won't do' as he was about to take a six-months locum in a country town, where the resident doctor was recuperating from a car accident.

In December last year a report of the AMA conference on rural doctors made headlines: 'Ridiculous medical training methods . . . to blame for the chronic shortage of general practitioners in country areas' (*The Age*, 3 December 1990). This Medical School has concerned itself with the problem of maldistribution for some years, and found that there are no simple answers: institutions and teachers, not society's changing values, are blamed for problems within the professions, just as schoolteachers, not parents, are blamed for student behaviour. Whilst there is no statistical evidence that those born and bred in the country are more likely to practice there, the School considers country applicants to the course under its Special Admissions Scheme as well as under normal selection requirements, and, through changes to the clinical practice years, endeavours to engender in urban students a sympathetic view of rural practice and the health needs of rural communities. In response to the criticism that students' role models are academic doctors teaching in city universities and hospitals, students now spend substantial periods in country practices and country hospitals as part of the Community Medicine and Clinical Practice rotations, providing them with the opportunity to appreciate a different spectrum of disease than is otherwise seen at their parent hospitals. These country rotations are very popular with students, patients and staff. The Faculty of Medicine, Dentistry and Health Sciences is continuing to develop its training program in rural health at the Ballarat Base Hospital, and is establishing a research program through a satellite unit of the Department of Community Medicine. In the postgraduate area, for example, the Royal Australasian College of Surgeons has formed a rural surgery division, with training for general surgeons in those aspects of specialised surgery which can be expected to arise urgently in the country. In Victoria, the Royal Australasian College of Physicians organises programs for its isolated physicians division, which include continuing medical education courses and specifically structured clinical meetings; the RACP will assist in finding locums for isolated physicians who wish to keep up-to-date by spending time in city hospitals.

It is too early to assess the value of these approaches, but the Faculty will continue to monitor both the needs of the general community and the needs of the medical profession.

### Thank you

During the production of this issue, both editors suffered ill-health. We wish to thank our patient contributors and those who gave a good deal of their precious time to assisting with typing or editorial tasks — particularly Harold Attwood, who picked up our pens and, with his usual charm, successfully chased malingering authors.

*Chiron* is late off the line for the first time in nine years. We thank UMMS members for their forbearance and in return offer them this bumper issue.

Peter G. Jones and Maggie Mackie

# PRIVACY IN MEDICINE ISSUES OLD AND NEW

**Dean's Lecture Series  
Seminar  
The University of Melbourne  
27 July 1990**

**Convener**

Professor Emeritus Richard Lovell, AO  
Professor of Medicine, The University of Melbourne 1955-83  
Former Chairman NHMRC Medical Research Ethics Committee

**Introduction**

Professor Richard Lovell

**In medical practice**

Dr Paul Nisselle

Australasian Secretary, The Medical Protection Society

Associate Professor Sidney Bloch

Department of Psychiatry, The University of Melbourne

**In research**

Professor Ross Kalucy

Dean, Medical School, Flinders University

Chairman NHMRC Medical Research Ethics Committee

Professor Fiona Stanley

Foundation Director, West Australian Research Institute  
for Child Health

**In law**

Mr Kevin O'Connor

Privacy Commissioner, Commonwealth of Australia

Mr Russell Scott

Consultant to Mallesons Stephen Jacques, Solicitors  
Member NHMRC Medical Research Ethics Committee

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**PAUSE — YES, BUT . . .**

HE Dr Davis McCaughey, AC  
Governor of Victoria; theologian

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**DISCUSSION**

Audience and speakers

## Privacy in Medicine Issues Old and New

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### INTRODUCTION



Professor Richard Lovell

**M**Y ENTHUSIASM for these seminars stems from a conviction that, for a profession to be called learned, it must not only be aware of fields related to its own, but must also lead in contributing ideas in such fields. Because in this context the field of medicine is very wide, we must make opportunities to speak with people in other disciplines. Today is part of this philosophy in action.

Let me start by declaring a personal interest in today's topic. When we come to discuss medical research, the Commonwealth Privacy Act will be considered. As originally drafted, this Act would have brought much medical research bearing on the prevention of disease to a standstill — an incidental casualty of legislation directed to other targets.

As the then chairman of the Medical Research Ethics Committee of the National Health and Medical Research Council, this came to my attention as MREC was completing its guidelines on ethics and epidemiological research. Our conclusions about what was ethically right, and in practice essential, put us on a collision course with the drafters of the Bill. The difficulty arose from a principle which said, in effect, that record holders might not use information for purposes other than those for which it was collected, without the consent of the individual concerned.

Things had to be done fast. So I telephoned Mr Justice Michael Kirby, then Chairman of the ALRC, and he arranged for a consultation between MREC and the Commissioner concerned with the reference. Within the week, Dr Davis McCaughey, Mr Russell Scott and I descended on the Commissioner in Sydney — who must have recognised a well argued case when he met one. Subsequent negotiations between public servants in the Health Department and the Attorney General's department led to modifications in the Bill. That is how the door was opened to allow a vital component of medical research to continue in Australia.

Whether or not the mechanism set out in the Privacy Act to safeguard both the public interest, and medical research, is efficient and effective may emerge in today's discussions.

## PRIVACY IN MEDICAL PRACTICE

### i) Dr Paul Nisselle



Dr Paul Nisselle

Every doctor is aware that there are many situations where there is a statutory requirement that patient confidentiality be breached. For example, there is a range of 'notifiable diseases' which, since time immemorial, must be reported to the health authorities by the attending doctor, with or without the permission of the patient, and if the doctor does not comply, then he or she is subject to penalty at law.

Apart from this statutory obligation to report certain notifiable diseases, the doctor also has a burden to notify relevant authorities if an individual is no longer medically capable of enjoying a community right. Thus, under current legislation, once a person has obtained a driver's licence, they are entitled to renew that licence on payment of the appropriate fee. If a patient becomes, say, epileptic, the doctor is certainly in a difficult legal position. The doctor might ask the patient voluntarily to give up their licence until there has been a sufficient seizure-free period to suggest that they are safe to go back on the road; but, if the patient refuses to give up that licence, the doctor is under a burden to ensure that the community is not put at risk.

There have always been provisions in public health legislation enabling public health authorities to take drastic action if they become aware that a particular member of the community is wilfully and knowingly putting the community at risk of infectious disease. In the past, the classic case was 'Typhoid Mary', an asymptomatic typhoid carrier who spread typhoid across America whilst working in a number of fast food outlets. The modern equivalent is 'Charlene', the King's Cross prostitute, who was forcibly detained when it became known that she was continuing to ply her trade, as a prostitute, when she knew that she was HIV antibody positive.

*The most difficult issue, of course, is when it is not a matter of the general community good that is at stake, but when the doctor must balance the rights and needs of two individuals.*

The key phrase here, of course, is 'when it became known'. A doctor may become aware that one of his or her patients is recklessly putting the community at risk, and the doctor may well have the burden of deciding to breach confidentiality by informing the public health authorities of this fact, in order to protect the broader community. In these circumstances, the doctor might be covered either by specific

statutory protection or by 'Good Samaritan' provisions in legislation.

The most difficult issue, of course, is when it is not a matter of the general community good that is at stake, but when the doctor must balance the rights and needs of two individuals.

The classic example that has been debated endlessly is that of the bisexual man, who becomes HIV antibody positive, and specifically instructs the doctor not to tell the patient's wife of his condition. If the doctor has reasonable grounds to believe that the patient is continuing to put his wife at risk by refusing to wear a condom during sexual activity with his wife, the doctor must balance moral and ethical considerations against the legal penalties that might be incurred if he or she imparts that information to the patient's wife.

If the doctor does breach confidentiality, in these circumstances, would the patient succeed in an action against the doctor? Clearly part of the doctor's duty of care is to preserve confidentiality. The doctor breaches that duty of care by breaching confidentiality without the patient's permission. The patient may well suffer a measurable loss as a result of this breach of a duty of care if, for example, the patient's wife brings divorce proceedings against her husband.

Against this, the poor doctor might have an action brought against him or her, by the wife, for failing to protect her from a known risk. This action might well succeed, even if the wife was not usually a patient of the doctor concerned. The doctor is in the position of 'damned if I do and damned if I don't!'

The only consolation I can offer is that if it is clear that the doctor acted in good faith, in the genuine belief that the wife was being placed at considerable risk, and that the husband was doing nothing to minimise the risk, then it is unlikely that substantial damages would be awarded against the doctor. Conversely, if the doctor did not tell the wife, I have the feeling that in the present climate in our community, the wife would receive substantial damages if it became known that the doctor failed to protect her against such a serious risk.

In summary then, once we say that the patient has a 'right' to confidentiality, we immediately qualify that right in a number of circumstances. Not only may there be legal compulsions requiring the doctor to breach confidentiality, but the doctor may well be forced by moral or ethical considerations to decide, in balance between competing arguments, that either the greater community good or even the welfare of just one other person requires a breach of confidentiality.

Can I conclude by mentioning a particular hobby horse of mine? We assume that patients can waive their rights to confidentiality, by giving a doctor signed consent to reveal certain information to certain people. I am continually appalled at the sloppy wording on standard 'releases' supplied by lawyers and insurance companies to their clients, which they ask their clients to sign, theoretically giving doctors permission to reveal information to that lawyer or insurance company. Most of the wording has as much legal meaning as the wording on the back of a car parking ticket!

From my days in practice I well recall that the average consent form was preprinted, did not indicate the patient's name or address, certainly did not indicate my name or address, was usually a 'blanket' authority not mentioning any specific information to be divulged; and there was a scribble at the bottom of the form that I was meant to take to be the patient's signature. Occasionally the form was not even dated. It was never witnessed.

If you are to protect yourself against any subsequent action from the patient, you should ask that any form sent to you, purporting to be a release by the patient to reveal certain clinical information, be addressed specifically to you, be an

original not a photocopy, clearly identify the full name of the patient and their address, be signed, dated and witnessed, specify the identity of the witness on the form by the witness's name and address; and must specify the nature and extent of the clinical information requested. The authority form should also be dated contemporaneously with the date of the letter from the lawyer or insurance company requesting the report.

Recently, I received a request from the State Insurance Office in South Australia, for a report on a patient I had seen once, in relation to an accident that had occurred four years ago. The letter requesting the report was dated May 1990. It enclosed an alleged release to me to reveal the information, which was a photocopy, was not addressed to me, did not have the patient's name and address on it, and simply had a scribbled signature and a date in June 1987 appended to it. I refused to supply the report until I received a new authority, signed and dated recently by the patient, addressed to me.

I leave you with a final problem to consider. How would you respond when an unfamiliar voice says to you, on the phone, 'I am Mary Smith's husband. She asked me to ring to get her pregnancy test report?'

## PRIVACY IN MEDICAL PRACTICE

### ii) Associate Professor Sidney Bloch



Assoc. Prof. Sidney Bloch

WHEN ASKED TO contribute to the seminar, a whole range of ethical problems immediately came to mind, which confirmed for me that the issue of privacy is paramount in psychiatry. It is, after all, in this sphere of medical practice that a person's most intimate feelings, thoughts and fantasies are explored as a *sine qua non* of the diagnostic and

therapeutic process. And not only the very private world of the patient: family members are often, necessarily, recruited to share highly personal information about their relative or about themselves. Moreover, certain therapeutic approaches such as marital therapy, sex therapy, family therapy and group therapy, pose considerable difficulties as the individual patient's need for privacy repeatedly collides with the clinical requirement for the most personal of self-disclosure.

Time precludes a consideration of the many aspects involved. I wish therefore to deal with some core issues as I see them. A useful starting point is the definition of privacy. Sissela Bok<sup>1</sup>, in her excellent book, *Secrets*, suggests that it is:

... the condition of being protected from unwanted access by others — either physical access, personal information or attention.

Beauchamp and Childress<sup>2</sup> view privacy more in terms of the individual's 'personal control over information about oneself and over access to that information'.

It is widely agreed that a person should enjoy a right to privacy. The utilitarian, for example, argues that, without respect for privacy, all important human relationships would be placed in jeopardy. A major feature of a trusting relationship is the expectation of not being intruded upon by others. The deontological position involves the absolute value accorded to respect for autonomy, with respect for privacy constituting a central aspect of it. And, since respect for autonomy is held to be such a fundamental principle, it follows that privacy should be totally respected.

Whichever theoretical position is applied, a consensus prevails that an individual has, as Justice Brandeis succinctly put it, 'the right to be left alone'.

The clinical encounter in psychiatry entails the very opposite condition. Not only is the patient *not* left alone, but his most personal self is enquired about, and in the most intricate detail. The psychiatrist's assumption is that the patient is willing to grant access to this information. The snag lies in the extreme difficulty there is in delineating what body of information will be required for the psychiatrist to perform his task effectively. Thus, the psychiatrist makes the additional assumption that he will have relatively unimpeded access.

Given the earlier comment on the centrality of privacy, this wide access places a significant burden on the psychiatrist to operate responsibly. It is therefore not surprising that the doctor's duty or obligation to safeguard the transmitted information and to keep it completely secret has been maintained as a venerable tradition for twenty-five centuries. The Oath of Hippocrates<sup>3</sup> stipulates that:

Whatever in connection with my professional practice, or not in connection with it, I see or hear in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret.

A contemporary version in the *Principles of Medical Ethics* of the American Medical Association<sup>3</sup> highlights confidentiality in the context of patients' rights, with Principle 4 stating that:

A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law.

Thus, a premise inherent in the therapeutic relationship is that the patient grants access to his secrets, and the psychiatrist promises to keep them. This seems a sound arrangement in that it enables the psychiatrist to perform his job without hindrance and the patient is encouraged to collaborate trustingly in the process. Justice Clark<sup>4</sup> has clarified the features involved as follows:

- a. A person in need of treatment would hesitate to seek that treatment unless he or she felt that what transpired between doctor and patient would remain confidential; this is even more so the case when stigma or shame is experienced by the patient.
- b. Once engaged in treatment, the patient would be ambivalent about revealing innermost thoughts and feelings, essential for an accurate diagnosis to be arrived at, unless he felt assured that the psychiatrist would not undermine the confidential quality of the relationship, and
- c. the patient could only be helped further if trust was preserved throughout treatment, meaning that secrets were kept by the psychiatrist until treatment had ended (and indeed beyond it).

All would be well if the arrangement as outlined by Justice Clark could be universally applied. Unfortunately, confidentiality cannot always be readily guaranteed. If we reconsider the ethical guidelines in the Hippocratic Oath and the AMA Code, we will note crucial limitations. Thus, the Oath refers to safeguarding information 'which ought not to be spoken of abroad', implying that other forms of information may not fall into this category. The AMA Code holds that respect for confidentiality can only be maintained 'within the constraints of the law'. Even without recourse to what is legally required, there are various potential exceptions to keeping a patient's confidences. The British Medical Association<sup>5</sup>, for example, cites five such exceptions in its *Handbook of Medical Ethics* and the General Medical Council in the United Kingdom<sup>6</sup> contains eight exceptions in its guide to professional conduct. These exceptions include, *inter alia*, the situation in which other doctors are involved in a patient's care; where the public interest overrides the duty of confidentiality; and

where the doctor concludes that a relative or close friend should be aware of the patient's condition but it is clinically undesirable to obtain the patient's consent.

Some commentators have argued that so many obstacles exist to keeping a patient's secrets that the concept of confidentiality has become obsolete. The clinician and ethicist, Mark Siegler<sup>7</sup> puts it this way:

This ancient medical principle . . . has become old, worn out and useless. . . efforts to preserve it appear doomed to failure and often give rise to more problems than solutions.

Siegler was prompted to conclude thus after one of his patients insisted that the confidentiality of his clinical file should be respected. It certainly was not at the time of his grievance. At least 25, and perhaps as many as 100, health professionals and other hospital staff had free access to the file.

Siegler's position seems to me overly pessimistic. If we begin with the premise that certain duties and obligations cannot be absolute and that they may necessarily have to be overridden by other competing duties and obligations; and that there is a *prima facie* case to uphold the principle of confidentiality, exceptions are ethically permissible with the proviso that they are fully justified, and then with the aid of critical, moral reasoning.

*Some commentators have argued that so many obstacles exist to keeping a patient's secrets that the concept of confidentiality has become obsolete.*

Consider, for example, circumstances in which the public interest may be more critical than the duty of confidentiality. A useful, albeit unusual, illustration is the situation in which a patient divulges to his therapist an intention to harm another person. Here, it could be argued that the intended victim's welfare, indeed his or her life itself, is more important than keeping the patient's secrets. Such was the judgement in the Tarasoff case<sup>4</sup>: Prosenjit Poddar, a student at Berkeley, shared with his therapist a plan to kill his girlfriend, Tatiana Tarasoff, following her rejection of him. The therapist informed the police about this threat and Poddar was consequently detained. He was soon released, however, following his denial of any intent to kill and a promise not to contact Ms Tarasoff. Two months later, Poddar shot and stabbed her to death. The victim's family brought suit against the University of California for failing to warn their daughter or themselves that she was at risk. Recognising the considerable difficulty in balancing the countervailing concerns, the Court concluded that:

When a therapist determines . . . that his patient presents a serious danger of violence to another, he incurs an obligation to use reasonable care to protect the intended victim against such danger.

Obviously, this breach of confidentiality may have the undesirable side-effect of the patient losing trust in his therapist and therapy itself may be jeopardised. This risk however seems substantially less crucial than the alternative one of a life being lost. Moreover, it could be argued that the therapist is acting in the patient's interests if the risk of his perpetration of violence is diminished, this in keeping with the principle of beneficence.

Time permits only this one example of how the duty of confidentiality may need to be overridden in certain exceptional circumstances. Apart from legal requirements for a breach of confidentiality, when the psychiatrist must act within the boundaries of the law, many other situations arise when the best ethical and clinical judgements will be needed in order to satisfy the interests of the patient, of his family, and of the common good. The crucial ethical desiderata are that any such breach is fully justified; is as limited as possible; and whenever feasible informed consent is obtained from the patient, who is also aware of what information is being transmitted to another party.

At a time when psychiatrists are assailed from all sides for information about their patients — government departments, health insurers, employers, licensing agencies, schools, and the like — he or she needs to be ever vigilant in respect of privacy and exceedingly careful in considering any violations of it.

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## IN RESEARCH

### i) Professor Ross Kalucy



Professor Ross Kalucy

**I**N TODAY'S PRESENTATION I wish to look at some aspects of the issues of privacy from the point of view of medical research — although I shall have to refer to data which is not directly related to medical research.

The first point I would wish to make is that privacy as an issue in medical research has not, until the introduction of the Privacy Act, had a high profile of concern. The overwhelming concern of health research workers in the area of privacy has been to maintain standards of confidentiality which are at least as firm, and of as high quality, as those that are maintained in doctor/patient and hospital/patient interactions. I have, as yet, been able to find no example of a major breach of confidentiality in relation to a research project that has reached a level of public scrutiny. It is therefore difficult to know how important the general issue of privacy is as a matter of principle in the public mind.

I perhaps should, by way of pre-empting my own thoughts, say that I do not believe that privacy is a comprehensive ethical principle or a fundamental one. It seems to me that what people choose to be private about is a personal rather than a community issue. The concentration on privacy, nationally, seems to derive more from concerns about access to financial records, or business records, or welfare records,

than it does to issues concerned with doctor/patient, hospital/patient or health researcher/subject interactions. The translation of concern about privacy in relation to finance to privacy in relation to medical records, is theoretically sound and has already alerted many of us to the potential malpractices which have not previously been widely discussed. An example of this might be the risk of institutions attempting to gain access to data bases for reasons of self-interest — these reasons have, however, been seriously endangering when the concern is to protect the subject or the patient. An example might be inappropriate access to a genetic register.

I am indebted to Davis McCaughey for a very simple phraseology, which captures the essence of privacy concerns as they are currently debated, viz., all patients or subjects have the right to know about themselves and equally they have the right not to know about themselves; all patients or subjects have the right not to be known about.

Is it possible to get any kind of idea of the extent of concern of the public about privacy in relation to health research or, more specifically, confidentiality? Whilst I was able to find a great deal of concern on the part of research workers and ethics committees for the protection of privacy of subjects in research, I could not, as I mentioned above, find a case of a misdemeanour. This was true, both in relation to single-subject research and epidemiological practice. For this reason I chose to examine complaints about doctor/patient or hospital/patient interactions, and then to see if any information was available within those complaints as to the extent to which breaches of confidentiality occurred. I hoped to draw a parallel between the extent and nature of complaint in the clinical area with concern in health research.

I recognise that looking at complaints is a very crude method of gaining insight. The threshold for dissatisfaction often has to be very high before a patient will complain and one must presume that this could be at least as true for a research subject. Furthermore, some subjects might worry about complaining about a particular doctor, since they may wish to continue in that doctor's care. As well, complaints only reflect known misdemeanours and would tell us nothing about the extent to which, in this case, confidentiality is breached without the knowledge of the patient.

Accepting the crudity of this approach I took up figures from four sources: the first, Medical Boards; second, the ombudsman system in three States; third, the patient advisory service available to me within my own teaching hospital — Flinders Medical Centre; and fourth, complaints to institutional ethics committees. The figures provided are crude but give some feeling, I think, of the extent to which patients have concerns at a level which would produce a complaint. Looking at the figures for 1987 of complaints to ombudsmen, I was informed that, roughly speaking, about one in sixty complaints is concerned with a health matter, and that about one in fifteen-hundred complaints is concerned with confidentiality issues. The South Australian Ombudsman noted that the ratio of complaints about health to total complaints is roughly the same in New South Wales, Victoria, and South Australia. He informed me that health complaints are uncommon and often readily resolved.

When one turns to Medical Boards, the only way of making sense of the frequency of complaint is to relate it to the total number of doctor/patient interactions. In South Australia in 1988/89 there were about twelve million doctor/patient interactions, these averaging from around six to seven for males, and from nine to ten for females. The total number of complaints to the South Australian Medical Board averages around 250-300 per year. This means that there is about one complaint per 40,000 doctor/patient interactions. This figure

is slightly misleading in that there are fewer doctors complained about than there are the number of total complaints. Thus, there are many doctors who are never in a lifetime complained about, and there is a small number who are recipients of a large number of complaints. When we turned to the issue of confidentiality as a complaint, it turned out to be a very rare issue for Medical Boards, the South Australian Medical Board, for example, having had only three such complaints in eleven years. None of these achieved the degree of seriousness as to require an inquiry and all were resolved by a process of discussion.

*. . . all patients or subjects  
have the right to know about  
themselves and equally they  
have the right not to know  
about themselves; all patients  
have the right not to be known  
about.*

In looking at complaints about hospital/patient interactions I obtained figures only from the Flinders Medical Centre. There is a total of about 350,000 hospital/patient interactions per year at the Flinders Medical Centre, most of those occurring, of course, in outpatients. Our patient advocates receives between two and three hundred complaints per year. Of those in 1988/89, three were concerned with confidentiality; two of those three were found to be innocent or benign in nature, and one could not be investigated satisfactorily.

The ombudsmen, the Medical Board and the patient advocate all made the same point: that most complaints turn out to be readily resolvable by open discussion, most come into the category of misunderstandings and a small number come into the category of being vexatious or frivolous. Most serious complaints are resolved by apology and few result in compensation action. Nevertheless, it was reassuring that a good number of complaints lead to changes in procedures.

I contacted a number of readily available ethics committees and found that complaints concerning research projects do come to institutional ethics committees. In the ethics committees I contacted (which were 'busy ones'), complaints about breaches of privacy or confidentiality were very rare.

This kind of data might be a clue to the fact that breaches of confidentiality are unusual in our community, and are not major pre-occupations of the general public. This might account for the fact that surveys looking at whether or not doctors are regarded as trustworthy or not, regularly come out as showing that they are seen as amongst the most trustworthy professionals in the community.

One interesting observation from investigating the nature of these complaints is that they are not distributed equally across all professions or all interactions. Complaints about being 'known about' are much over-represented when the illness being investigated is of a psychiatric nature. This again suggests that privacy *per se* is a selective issue, that is to say, there are some issues of privacy which people regard as sensitive and potentially damaging, and some they do not.

To give an example: one case of a complaint concerning a breach of confidentiality involved a patient in the psychiatric unit of a large teaching hospital. Two friends of hers met and one asked why she had not seen the patient recently. The other friend told her that she had been ill and that she was

in a hospital and told her which ward she was in. The second friend then visited the patient who was mortified to find that the girl knew that she was in a psychiatric unit. The patient discovered that the source of the information was the first friend who, as it happened, worked in the medical records department of the hospital. The patient became convinced that the first friend had access to her record, and had indeed read it, and that this was how she knew that the patient was in hospital. This turned out to be untrue. The point here is that if the same set of interactions had occurred and the patient was in hospital having a baby, or recovering from an abdominal operation, or having plastic surgery for a birthmark, it may well have been that all would have been welcomed into the hospital and that the patient would have been glad to see her.

What then are the issues as the wave of importance attached to privacy begins to pervade the health sector? I would say they are as follows:

1. That privacy guidelines have not been put in place because there is a major issue within the health sector.
2. That one should be optimistic about such guidelines — one might hope that they would reinforce an already very good system. In the end, the patient and the public are already well-protected and will be more so with strong Privacy Acts.
3. The Act and the subsequent State Acts will heighten awareness and consciousness of issues not previously discussed and will probably increase uniformity of approach. It is easy to see that an Act like the Privacy Act requires consistency across all institutions of the Federal Government which hold large data bases. This principle of consistency, I think, will be reinforced across all institutional ethics committees.
4. An Act of this kind, if well debated, will heighten public consciousness about a potential misuse of data on a public scale.
5. There is an urgent need to educate the health sector on the application of the various Privacy Acts to their activities. At present the Privacy Act has attracted more negative comment than positive comment. Strong public debate would remove that problem.
6. In relation to medical research there is a number of problems which need to be resolved over time and these include:
  - a. That there is a fundamental difficulty in translating an Act, written for legal purposes, into a set of guidelines to be used by institutional ethics committees and medical researchers and the institutions within which they reside. The problem is that the way they need to be written to ensure medical researchers and ethics committees understand them is a very different language from the way they are written to ensure their quality for legal purposes. Mr O'Connor and I have spent a great deal of time wrestling with this problem, and I anticipate we will spend very much more time before we have completed the task. I am sure Mr O'Connor will confirm that the present wording is short of ideal from his perspective, yet we felt that we made many changes, both in wording and in the way we tabulated the guidelines to try and meet his needs. The submissions we have received, so far, repeatedly make the point that the way they are laid out makes it difficult for medical research workers to follow and that they would like the language to be 'simpler'.
  - b. The quality of adherence to the Act is, at the moment, relatively easy to follow, because it applies only to Federal

Agencies, and this means that the projects can be easily identified. They are also relatively small in number and thus the processes of checking on adherence to the Act, and monitoring the program, are relatively simple. It is clear, however, that states will produce their own Privacy Acts; and in any event, institutional ethics committees and medical researchers feel they would like to apply the same principles to projects whose data sources are not from Federal Agencies. It is in the nature of researchers and members of ethics committees to like to be consistent.

The issue here is that institutional ethics committees have been evolving over about eight years, and, in one sense, are a magnificent institution in their own right. The fact that there are some one hundred and twenty ethics committees examining the vast majority of research projects in this country, all manned by volunteers who put in many hours of work, is a remarkable event. At our bi-annual workshops, when we meet with representatives of ethics committees across the country and in each state, the discussions have become more and more sophisticated, and it is clear that a lot of time is spent picking through the principles that should be adhered to when examining a project. Nevertheless, it would be naive and foolish to regard the system as perfect. There are many issues that will need to be addressed in the short and medium term and these include questions such as: what constitutes a forum; should all members designated by the NHMRC always be present when a privacy issue is examined; and how can we improve our system of monitoring projects once they are underway?

An imperfect system is not a reason for having grave reservations. This is especially true when it can be demonstrated that a constant effort goes into improving the system. The alternatives to this imperfect system might be to conduct all research under the auspices of regulations — this has been demonstrated everywhere to be a very unsatisfactory approach. The reasons are simple: one writes regulations for the broad range of activities and, therefore, they are insensitive, inflexible, indiscriminate and often rigid in relation to individual projects or concerns. A second method might be to create so called 'Peak Committees' who consider either one special area or are, as it were, the nation's ethics committee. This notion of expert committees obviously has value and one could easily see that the reliability of judgements would be high. The disadvantage of this approach is that it is insensitive to local issues. It is our view that institutional ethics committees should be constituted by local people and should take local events into account. This might well lead to a degree of messiness; this is especially true when multi-centre studies are involved. It is possible, and has happened, that one ethics committee turns down a project whilst five others do not. That is rare. However, it is not uncommon for there to be differences in the requirements of ethics committees in relation to consent forms. This can be a great cause of irritation and frustration to research workers but, to my own way of thinking, seems a healthy thing.

In summary, it is unclear that the general public has a high level of anxiety, or need for greater protection of confidentiality within doctor/patient, hospital/patient or medical research subject interactions. It is reasonable to presume that the ethical standards applied in relation to confidentiality in these areas is high; and that the introduction of Privacy Acts will ensure that that remains the case — and may, indeed, improve the reliability of consideration of such matters. The unique problems of dealing across the large institutions, in this case the MREC and a Federal Legal Agency, has been a learning process for ourselves and, I believe, the Privacy Commission. I believe the problems can be solved, but some

patience and some tolerance of imperfection are vital ingredients if the public interest in research, in health provision, and public health activities, is to be sustained in a rational fashion.

## IN RESEARCH

### ii) Confidentiality of medical records and medical research: An epidemiologist's view

Professor Fiona Stanley



Professor Fiona Stanley

**T**HREE QUESTIONS are often asked about the existing and long-standing practice of giving medical researchers access to medical records for bona fide research purposes:

1. Why do medical researchers need access to medical records to perform research?

2. Why must medical records accessed in the course of research contain patients' names?

3. Why should medical researchers be given access to medical records without prior patient consent?

#### The value of medical research

A satisfactory response to each of these questions can only be given if it is accepted that the community as a whole views medical research as a desirable public good, and does not wish the existing level of research activity to be curtailed unless there is evidence of harm done to individual patients or subjects that outweighs the benefits to society.

Few people would disagree that the benefits of medical research, both in clinical and public health fields, achieved over the last 150 years, have been remarkable, and to a large extent underlie the high standards of health enjoyed by people in developed countries like Australia. Benefits include vaccinations for infectious diseases such as polio, smallpox, diphtheria, and rubella; modern drug treatment for acute and chronic diseases, and particularly ensuring that untoward side effects of drugs and other new diagnostic technologies are not hazardous. More recently, research has enabled the identification and effective control of many hazardous substances in the workplace, (eg., asbestos, benzene) and has identified tobacco as a major preventable risk factor for lung cancer, low birth weight, heart disease and other chronic diseases. Research has proved the effectiveness of public health programs, such as maternal rubella vaccination, fluoridation of water supplies and the early detection of breast and cervical cancers, it has identified teratogens in pregnancy, and resulted in safer formulations of oral contraceptives with reduced risk of causing blood clots. These are but a few examples.

The contention that widespread community support exists for medical research is evidenced by the seemingly insatiable thirst for medical knowledge by the public, and the demand for information about the safety of the environment and ways to improve health. It is also demonstrated by the willing participation of people in medical research projects that involve contact with the researcher; in our case-control and cohort studies and randomised controlled trials in Western Australia, we have very high participation rates. And there are increasing donations of private money from members of the public to support medical research. It is self-evident that people care about the quality and quantity of life for

themselves and their children, and these are areas that epidemiological research in particular seeks to address.

### Concerns about privacy

Having said this, I believe that, in the current debate on privacy and access to medical records, the issue of invasion of individual privacy dominates without adequate appreciation of the importance to the community of good public health research. Medical researchers are not seeking any greater access to patients' records than in the past, and, in the present debate medical research appears to be a potential and, probably for most people, unintended casualty of increasing concerns about data banks used for taxation, social security, health insurance and criminal investigation. People may need to be reassured that epidemiological researchers' computers do not 'talk' to other computers, either to receive or transmit data of *any* nature, let alone that of a sensitive or confidential nature.

### Why do medical researchers need access to medical records to perform research?

Some medical research generates its own data and does not need access to medical records. However, much epidemiological and other medical research relies heavily on access to records kept by doctors, hospitals and other health care professionals. Generally access is needed in the circumstances described below:

1. The research requires the identification of all cases of a particular disease in a group of people exposed to a potentially harmful (or beneficial) substance or activity. The aim is to identify an exposed cohort of individuals, to ascertain the incidence of the disease in them, and to compare this with its incidence in unexposed cohorts. Here the exposure and the outcome are best obtained by access to a system of records which accurately and completely identifies both. This sort of research is exemplified by the ascertainment of birth defects after service in Vietnam, of heart attacks after vasectomy, and of health of infants born following *in vitro* fertilisation.
2. The research necessitates the identification of all cases of a particular disease occurring in a population living in a defined area and time period, or attending a particular hospital. The sources of information may include registries of disease such as cancer and birth defects or handicaps. This sort of research is necessary for exploring associations, for example, between skin cancer and sun exposure, neural tube defects and vitamin intake, and for clarifying the natural history of strokes and heart attacks.
3. The research depends on collecting medical information which is only available in medical records. Most evaluations of diagnostic methods and of health care (which have not been made by randomised controlled trials) come under this heading; for example, the influence of X-rays in pregnancy on birth defects, the effectiveness of the Pap smear in preventing cervical cancer, and the associations between diethylstilboestrol and cancer and birth defects.

### Why must medical records accessed in the course of research contain patients' names?

**Pragmatic reasons:** Since it is essential for proper medical care that the patient's record be fully identifiable at all times, patients' names cannot be removed from medical records prior to access by researchers.

**Scientific reasons:** Most forms of medical research based on medical records cannot be undertaken without identifying information being available to the researcher. This is necessary, for example, to ensure that, when information from various records on an individual is linked, the information is accurate. Examples of this sort of research include linking exposure information to disease occurrence, and treatment details to disease severity. There may also be a need to seek further information directly from the patient (eg., smoking status, diet, occupational details), and this would be impossible if patients' identities were not known.

### Why should medical researchers be given access to medical records without patient consent?

**Moral reasons:** We need to strike a balance between the autonomy of the individual and the responsibility each member of the community has to contribute to the overall good of society. Neither complete individual autonomy nor complete social control is compatible with human well-being. Most people willingly accept a reasonable degree of loss of individual freedom (public health controls, law and order enforcement), in order to share the benefits of living together in society.

Because the results of medical research are a public good that benefits society, it is argued that all of us have a moral obligation to contribute in some way to the cost of medical research, including the intangible costs such as invasion of privacy from a medical researcher having access to medical records. The person who willingly participates in receiving the benefits of medical research based on the medical records of other patients, should be prepared to allow their own records to be used for research. In our research in Western Australia, we have found that when we do seek consent, most patients traced agree to our having access to their records.

**Scientific reasons:** To conduct epidemiological research that is free from significant error or bias, it is essential to obtain information on as complete a sample of subjects as is possible. People who refuse consent may well be different from those who give it, so that a population sample based on consent may be inherently biased. The results of research based on such a sample would be impossible to interpret.

*People may need to be reassured that epidemiological researchers' computers do not 'talk' to other computers . . .*

**Pragmatic reasons:** It is logistically and economically impractical to obtain consent from the large number of people often required for a good epidemiological study. Consider, for example, a longitudinal study in which there is need to access records that are years old: many patients would not be traceable, have died or moved interstate or overseas; both circumstances may be associated with either disease or exposure. Obtaining blanket consent on admission to hospital, for later access to hospital records for medical research, is sometimes advocated. But many old records would not include such consent and their value would be lost, and obtaining valid consent would be impracticable with patients who are ill or upset and cared for by busy staff whose priority is care, not research.

The increased costs of attempting to obtain consent have been estimated in a study involving linkage of occupational

records to cancer and death registry data in Western Australia. Without consent, the one-year study would have cost about \$40,000 for a research assistant and some maintenance. If informed consent had had to be obtained from those whose records were to be linked, the estimated cost rose to \$240,000, and the study expanded to four years to allow tracing and follow up of the non-responders. The estimated scientific effects were to lower the response rate, and cause artificial differences between participants and non-participants in either occupational exposure or disease status. Thus the need for informed consent would have raised the cost of the research project to a level above which funding was unlikely to have been obtained and would have jeopardised the scientific quality of the work and hence its usefulness to the community.

The current practice of allowing medical researchers access to medical records, with strict safeguards, has evolved because it is the only practical means of conducting research without it being choked by an unworkable bureaucratic juggernaut.

### Ethical research guidelines

There are guidelines for the conduct of epidemiological research which are agreed to by epidemiologists to ensure an ethically acceptable balance between individual rights and the wider good of society.

These include the preparation of written protocols describing the methods to be used, the ethical issues that may arise, the value of the research, and proposed safeguards for the protection of subjects and maintenance of confidentiality. These proposals have to be approved by properly constituted ethics committees.

I believe that access to medical or other records that identify subjects should be allowed without prior consent provided:

1. the research is important and the protocol has been approved by a properly constituted ethics committee;
2. the research is essential to achieve the stated objectives;
3. obtaining consent is logistically or economically impractical or would prejudice the scientific value of the study;
4. the consent of the custodian of the records is obtained;
5. the data abstracted are the minimum necessary to achieve the objectives; and
6. the data obtained are kept confidential and are not used for new research without further consent of the custodian and further ethical approval by an ethics committee.

Arising from these comments, I have two concerns. Are the currently constituted ethics committees able to judge scientific quality, value of the research to society and ethical aspects? With the increasing volume of research, how will institutions cope with the demands being placed on their committees?

Are we, in medical research, avoiding debating these issues publicly to the detriment of medical research? We have a responsibility to inform the public about the value of epidemiological research that is in the public interest, and about the safeguards that exist for the protection of sensitive information.

### Acknowledgments

I am grateful to Drs D'Arcy Holman and Bruce Armstrong for access to various papers and useful discussions on this topic, and to colleagues within the NHMRC Research Unit in Epidemiology and Preventive Medicine.

## IN LAW

### i) Trends in Privacy Protection as they affect Medical and Health Data

Mr Kevin O'Connor



Mr Kevin O'Connor

I AM PLEASED TO HAVE the opportunity to speak today to this important gathering of health practitioners and those with an interest in legal and ethical issues affecting health.

Over the last twenty years most Western industrial nations have responded to the threat posed to individual privacy by advances in information processing technology. International organisations such as the OECD and the Council of Europe closely examined these issues during the 1970s. In 1980 the OECD (comprising 24 member countries, including Australia) adopted guidelines for the protection of individual privacy, which its members agreed to implement. The Council of Europe, which had in fact been working on the issue for longer and in greater detail than the OECD, adopted broadly-similar standards in 1981; and the Council has continued to take a high level of interest in data protection issues (as they are usually known in Europe), through a range of working parties dealing with specific subject areas which have included medical data.

By 1988, when Australia passed its Privacy Act, 20 countries (including most of those belonging to the Council of Europe) had passed national laws on information privacy or data protection. The laws of most interest to Australia are probably those of Canada (there is a federal law governing the privacy of personal information held by the Federal Government, as well as laws in two provinces), the law of the United Kingdom and, because of its historic importance (being the first national law and passed in 1973), the law of Sweden. At about the same time as Australia passed its law, laws were passed in the Netherlands, Ireland and Japan. So it can be seen that there is a continuing trend towards having detailed information privacy standards developed.

Since the passage of the federal Privacy Act, there has been considerable interest at state level in Australia in the possibility of enacting information privacy laws. As you may be aware, New South Wales has had a Privacy Committee, established by legislation, in operation since 1975. It has done a good deal of useful work in promoting awareness of privacy issues (across the whole spectrum), not just in the area of information privacy, but has now been calling for several years for there to be statutory data protection standards enacted in New South Wales. As I understand the matter, the New South Wales government has recently renewed its consideration of the possibility of introducing data protection legislation for New South Wales.

Currently, the Queensland government is re-examining the role of its Privacy Committee (which has existed since 1985) with a view to extending its functions into the information privacy area. The South Australian government has established a Privacy Committee by administrative arrangement to implement privacy standards in respect of the public sector. The Victorian government has announced it is considering the passage of privacy legislation, in light of a recent Parliamentary Committee report. The Western Australian and Northern Territory governments are also actively examining the issue and have had consultations with

me as Privacy Commissioner. So it can be seen that the federal parliament's Privacy Act forms one small part of a large and widening mosaic of laws dealing with privacy protection.

The federal Privacy Act impacts on medical and health practices in the following ways:

- i) Federal and ACT government agencies involved in the collection or use of medical and health information must observe the Information Privacy Principles contained in section 14 of the Privacy Act. There are eleven principles governing such matters as
- what questions can be asked;
  - what patients (for example) need to be told about the reason for collection and possible uses or disclosures of the information;
  - how securely data must be held;
  - rights of access and correction;
  - ensuring accuracy of data before use; and
  - the limits on further use of the data or its disclosure to third parties.

- ii) The use of personal data held by the agencies mentioned for research purposes is not permitted by the Act unless that purpose is notified to the individual at the time the data is collected, or, in the case of external researchers seeking access to Commonwealth health data, the individual concerned consents to the use of that data. There is an important qualification to that prohibition in the area of medical research — Section 95 allows use or disclosure of the affected data for medical research purposes if that occurs in conformity with guidelines issued by the National Health and Medical Research Council and which have the approval of the Privacy Commissioner.

As some of you will know in February I approved the issuance of guidelines to operate until the end of this year. I asked the National Health and Medical Research Council to undertake consultation, in particular with the community which it represents, and to take into account in its next submission to me. A major National Health and Medical Research Council consultative meeting will take place in Canberra on 6 and 7 August. I have indicated to the National Health and Medical Research Council that as I am the guardian of the interests of the whole community in this area, it may be necessary for me to engage in some independent public consultation once I have received the NHMRC submission, but I would hope that any further consultative process could be kept simple.

- iii) Infringement of the eleven Information Privacy Principles or of the Medical Research Guidelines by an agency may be the subject of a complaint to me. If the complaint is found justified, it is open to me to order monetary compensation or changes in practice by an agency.

To date I have only had a handful of complaints relating to health information. One was quite serious and received a good deal of press publicity. It alleged that personal sexual history information, volunteered by a patient on admission to hospital, had been included in the patient card openly displayed on his bed. It was capable of being read and understood by anyone who passed by. The hospital in question has now altered its practices in this regard and the complainant has indicated his satisfaction with the outcome.

Another complaint has raised the difficult question of how far back into a person's health history a Commonwealth doctor is entitled to go when assessing a 'retirement on ill health' claim. The relevant Information Privacy Principle states that information may only be collected to the extent that is 'necessary for' or 'directly

related' to the relevant purpose. Does that principle allow for comprehensive inquiry into a person's health background?

At present I am chairing a national working party, set up as part of the federal government's AIDS Strategy, which has been asked to examine the adequacy of the Privacy Act in dealing with AIDS-related information, and to develop guidelines. The issues being examined by the working party include:

- the extent to which AIDS information needs to be collected to perform government functions;
- the extent of use and dissemination of that information;
- explanations to affected individuals as to how it will be used;
- accuracy checks;
- any evidence of inappropriate use of AIDS information.

Another matter in which I have been involved in the past year, and which may be of more-than-passing relevance to this audience, is the administration of the pharmaceutical benefits scheme. In February, I expressed concern over the possibility that pensioners claiming a pharmaceutical concession might have their privacy unreasonably threatened if a proposal floated by the Health Insurance Commission was adopted, namely to require pharmacists to check by an on-link link to the HIC the pension status of the customer. While I acknowledged the need for controls that ensured only people entitled to the concessional rate received it, I objected on a variety of grounds to the proposed technique. I was pleased to see that the government responded quickly to my concerns and announced that this proposal would not proceed. I am continuing to discuss with the Health Insurance Commission whether an alternative approach which is less intrusive can be found to deal with the status-verification problem.

*. . . special attention needs to be given to how traditional precepts about confidentiality can be reconciled with the complexity of modern hospital and treatment settings and with the information-processing and information-dissemination possibilities raised by new technology.*

Internationally, there is some interesting work occurring in relation to the privacy of medical data at the Council of Europe, at whose meetings Australia has observer status. The Council is currently reviewing regulations it issued in 1981 on the operation of computerised medical databanks. Those regulations deal with

- public notice of the computerised databank's existence
- its contents
- recording of data
- access to and use of information
- long-term conservation of data
- patients' rights and
- professional obligations.

The current review of these regulations is concentrating on these matters in particular:

- disclosure to others likely to be affected, of research findings (especially in genetic disease or epidemiological research);
- the development of expert systems for medical diagnoses — known in France as *Infocentres*;
- the use of personal health information 'smart cards', now extensive in France and being trialled in the United Kingdom;
- communication networks linking doctors, chemists and other agents;
- the holding of individual health profiles in medical information bureaus;
- international health incident registers; and
- collection, circulation and security of AIDS data.

These issues demonstrate, I feel, that while traditional precepts about the confidentiality of medical or health information continue to be important, they need to be placed in the wider context of the range of issues addressed by information privacy standards. In particular, special attention needs to be given to how traditional precepts about confidentiality can be reconciled with the complexity of modern hospital and treatment settings and with the information-processing and information-dissemination possibilities raised by new technology.

## IN LAW

### ii) Medicine, Individual Privacy, Confidentiality and the Law

Mr Russell Scott



Mr Russell Scott

THE PRIVACY COMMISSIONER, Mr O'Connor, has explained the 1988 federal Privacy Act and the interim privacy protection guidelines for medical research. These guidelines were prepared by the National Health and Medical Research Council as required by the Act, were given his approval as also required by the Act, and took effect in February last.

My contribution to today's proceedings will be to provide up-to-date background to this new Australian law of privacy. This will include a legally-oriented discussion of the meaning of the word privacy, and a related but not synonymous word — confidentiality.

First, what do we mean when we talk about a person's entitlement to privacy? We are really talking of a number of claims that have been advanced on behalf of the individual person; or, to put it another way, a number of interests of that individual that are seen as meriting protection. Three principal interests have been identified.

1. **The interest in 'territorial privacy'.** In other words, a man's home or property is his castle, where he should be free of disturbance by trespassers, noise, and peeping Toms.
2. **The interest in privacy of the person.** This is already protected by laws that prohibit assault and unwarranted search or seizure of the person as well as laws allowing freedom of movement and speech. Privacy in this sense is concerned with the dignity of the human person. It is worth observing here that the concept of the medical duty of disclosure to patients or 'informed consent' as it is

sometimes called, is clearly linked with the patient's claim to personal privacy because the giving of treatment without consent can give rise to liability for assault, trespass to the person or negligence.

3. **Information privacy.** This interest is of particular significance in the computer age, and asserts that all information about a person belongs to that person, who should have control over its communication and retention.

This threefold division of privacy was accepted by the Australian Law Reform Commission in its 1983 report, and earlier by an official Canadian federal inquiry into privacy<sup>1</sup>.

The first two claims or interests in personal privacy, that is to say, the claims to territorial privacy and personal physical privacy, have been described in these words:

there is no general right to personal privacy under Australian law, although particular privacy interests are legally protected by, for example, the laws of trespass, defamation and breach of confidence.<sup>2</sup>

Even so, these claims have wide public support, but are increasingly difficult to protect. Lewis Powell, a retired justice of the United States Supreme Court recently said:

When you consider that you can take a picture from a satellite and see a tennis ball on a tennis court, you recognise that today there's no such thing as the type of privacy that existed when the Founding Fathers wrote the Constitution [of the United States of America].

However, information privacy, our third privacy interest, is now a matter of major concern and is directly recognised and protected by a legal code — the 1988 federal Privacy Act. This Act is severely limited in its scope or 'reach' by the Australian Constitution to the protection of information about individuals held by 'federal agencies'. But, before dismissing the Act as a toothless tiger, remember that it imposes detailed controls over access to, and use of, personal information held by income tax authorities, Telecom, the defence forces, federal health and welfare authorities and all other commonwealth departments, instrumentalities and organisations.

This has particular significance for medical and epidemiological research because of the frequent need of researchers to obtain personal information from official records. For this reason the National Health and Medical Research Council has been given a direct regulatory role by the Privacy Act. The Act provides that the NHMRC will prepare guidelines which will provide privacy protection for individuals whose personal histories may be made available for research purposes.

Mr O'Connor, who administers this legislation, has already discussed these provisions of the Act.

So much for my present comments on privacy, its meaning, its protection by the federal law of Australia and its relevance to medicine, medical research and health care. I wish now to turn to the related but not synonymous topic which I mentioned earlier — confidentiality — described by the Australian Law Reform Commission as a complementary interest to privacy which, while overlapping privacy, does 'not precisely coincide with' it.<sup>3</sup>

A general legal duty of confidentiality is a long-standing feature of our judge-made law, and will be imposed by the Courts of Australia upon many people. These include persons in specific relationships, one category being medical practitioners and their employees in relation to information obtained from a patient.

The general legal duty of confidence was described recently in the *Spycatcher* case in these words:

... he who has received information in confidence shall not take unfair advantage of it...<sup>4</sup>

In 1988, an eminent English judge, Sir Nicholas Browne-Wilkinson, said that the courts will enforce the duty of confidentiality because

It is unconscionable for a person who has received information on the basis that it is confidential subsequently to reveal that information.<sup>5</sup>

If one sets aside the legal language for a moment, it is plain that the duty of confidence and its development by the common law rest upon principles that can reasonably be described as moral or ethical. The legal concept proceeds from basic notions of right and wrong behaviour. In other words, if a person reposes information in another, in confidence, it can be said that this raises a reciprocal duty or obligation on the part of the recipient to observe confidentiality. It is a moral transaction that the law will support and enforce.

Privacy, on the other hand, can be seen differently. The concept of privacy does not necessarily involve notions of morality; it reflects current social attitudes. On this approach 'privacy' is a claim or demand upon other members of the community for a particular standard of behaviour.<sup>6</sup>

If this argument is accepted, it will support the suggestion that privacy claims should rely for support, not on particular equitable or moral principles, but on specific legislation such as the Privacy Act or on more general legal concepts such as the law of assault and battery. On the other hand, the legal duty of confidence, arising from equity and conscience, clearly has the capacity for development in accordance with principles of morality and ethics.

### *. . . what do we mean when we talk about a person's entitlement to privacy?*

There is an abundance of historic, international and national statements placing the doctor/patient relationship on an ethical/moral foundation.<sup>7</sup> There is also an abundance of judicial statements imposing a duty of confidentiality upon doctors. I will quote three made within the last three years:

1. In the long run preservation of confidentiality is the only way of securing public health as well as private health . . .<sup>8</sup>
2. The law has long recognised that an obligation of confidence can arise out of particular relationships. Examples are the relationships of doctor and patient . . .<sup>9</sup>
3. The records of hospital patients . . . should, in my judgment, be as confidential as the courts can properly keep them . . .<sup>10</sup>

The law will enforce the duty of confidentiality in favour of the persons to whom it is owed, by a variety of means including injunctions and damages. The principles have been developed to the stage where they will be automatically applied to particular relationships, including employer and employee and priest and penitent as well as doctor and patient.

Further, in this field of confidentiality the courts are responsive to the ethical statements of professional organisations. For example, in a recent English High Court decision (December 1988) the ethical rules of the General Medical Council of the United Kingdom on medical confidentiality were accepted and quoted.

On the other hand, the judicial approach to personal privacy claims does not rest on so direct an equitable or ethical basis. Rather it depends upon the existence of specific

legislation, or legal principles such as those of assault and defamation, which incidentally confer privacy protection upon the individual citizen.

I conclude by welcoming the pioneering initiative of the Federal Government in introducing the NHMRC into the official legislative process via the Privacy Act of 1988. The medical research privacy protection guidelines represent an important step in interdisciplinary law-making, drawing on the experience of the medical and research communities to achieve a balanced regulatory system. Its purpose is to reconcile the public health interest with the interest of the individual citizen in personal autonomy and personal dignity.

#### Footnotes

- 1 Australian Law Reform Commission *Privacy* (ALRC 22, 1983) V.1, 21-22.
- 2 *Id.*, p.21.
- 3 *Ibid.*
- 4 *Stephens v. Avery and Others* (1988) 1 Ch 449, 455-6.
- 5 *Ibid.*
- 6 Note 1 above, p.xlvii.
- 7 i) The following general statements on confidentiality applicable to the doctor-patient relationship appear in Appendix 1 to the Discussion Paper *Confidentiality of Medical Records and Medical Research* (Project No.65 Part II) of the Law Reform Commission of Western Australia:
  - The Hippocratic Oath states:  
"Whatever, in connection with my professional practice, or not in connection with it, I see or hear, in the life of men, which ought not be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret."
  - The Declaration of Geneva (as amended at Sydney, 1968) recommends the taking of the following vow at the time of being admitted as a member of the medical profession.  
"I will respect the secrets which are confided in me, even after the patient has died".
  - The International Code of Medical Ethics states:  
"A doctor shall preserve absolute secrecy on all he knows about his patients because of the confidence entrusted in him".
  - The American Medical Association's Principles of Medical Ethics states:  
"A physician may not reveal the confidences entrusted in him in the course of medical attendance . . . unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or the community".
  - A recent policy statement (1986) by the Australian Medical Association states ". . . as a principle of public policy . . . medical records should be confidential (1981)".ii) *National Health and Medical Research Council Statement on Human Experimentation and Supplementary Notes* states:
  - 'Subject to maintenance of confidentiality in respect of individual patients, all members of research groups shall be fully informed about projects of which they are working (para 12, General Statement)'
  - '. . . the confidentiality of information identifying the patient will be preserved' (Supplementary Note 2 para D 2 (vi)).
  - 'The use in an epidemiological study of confidential or personal information should not be allowed to cause . . . disadvantage to any individual' (Supplementary Note 6 para 8).
  - 'Information that is confidential . . . must not be used for purposes other than those specified in the approved protocol . . .' (*Id.* para 9).
  - 'Investigators and their associates must preserve the confidentiality of information about research subjects. The confidentiality of records . . . must be at least as secure as it was in the sources from which the records were obtained' (*Id.* para 10).
  - 'Results of research must not be published in the form that permits identification of individual subjects' (*Id.* para 11).
  - 'The relationships between subjects and their usual medical attendants must not be adversely affected by the research and confidential relationships between doctors and patients must be preserved' (*Id.* para 14).
- 8 *X v. Y and others*, 13 IPR 202, 207 (Rose J.).
- 9 *A-G v. Observer Limited and others* (1988) 3 WLR 776, 781 (Lord Keith of Kinkel).
- 10 Note 8 above, 217.

## PAUSE — YES, BUT . . .



HE Dr Davis McCaughey, AC

**T**HANK YOU, Mr Chairman, for the opportunity to enter a caveat towards the end of this interesting and important discussion. The Oxford English Dictionary gives as an example of a caveat, used in the non-legal transferred sense of a warning, an admonition, a caution, a phrase of a sixteenth century writer: 'A caveat, to be ware of to moche confidence' (Recordes 1557).

I suppose that those who drafted Privacy legislation would have us 'be ware of to moche confidence' in collectors of information, would protect us from prying eyes, 'to give effect to the right to persons not to be subjected to arbitrary or unlawful interference with their privacy, family, home or correspondence'. They have entered a caveat against many tendencies in modern society; and much of that is welcome. But let me enter some caveats on the other side.

First, we are in grave danger of getting off on the wrong foot when we start by defining the Principles of Information Privacy and then try to apply them to the practice of medicine, and especially of epidemiological research. We would be wiser to put the matter the other way round, and ask, first, 'What belongs to the proper relation between doctor and patient, or between the researcher and available data?' Then, and only then, 'Does this intrude in any objectionable way into the lives of men and women? Does it damage the relation of confidence between doctor and patient, or the trust which is necessary if we are to undertake enquiries which will promote health in our society?'

What I have in mind is well illustrated by a recent volume entitled *Doctors Decisions* edited by G.R. Dunstan and E.A. Shinebourne. Professor Dunstan, a leading moral theologian, was asked to write a book on medical ethics. 'He declined because he is not a doctor'. He agreed, however, along with a medical colleague to edit a series of essays, the majority of which would be written by doctors describing ethical conflicts in medical practice. So you have a series of case studies, as it were, by physicians and surgeons and psychiatrists and general practitioners and the rest.

Significantly, the word 'privacy' does not appear in the index but there are over twenty references to 'confidence, confidentiality and breach of confidence'. If you look up those instances they all concern the relationship of confidence, of trust, between people. 'Trust', as one writer puts it, 'is the lynchpin of the dialogue between patient and his (or her) doctor'.

In his introductory essay, Professor Dunstan issues some warnings against the inflated use of certain ethical terms. Current emphasis on patients' rights, for instance, 'polarizes as adversaries — even to the point of expensive lawsuits in pursuit of damages in the Courts — those, doctor and patient, who can work together properly only in a relationship of trust'. He goes on to say that 'the polarization is worsened

when, as now happens, the initiative in formulating the discussion of medical ethics is taken by philosophers, lawyers and "ethicists", and not by doctors themselves'. He uses the case of 'confidentiality': 'The duty to respect confidences, not to reveal secrets, is inflated with an abstraction called 'confidentiality'. The word can be used as an impediment, not simply to a serious discussion of duty in sensitive areas (by assuming a strict or absolute duty which has yet to be proven), but also to co-operative action when such is required for the better service or protection for the patient'. He might have added 'and when such is required for the improvement of human health'.

My first caveat or warning, then, is addressed to doctors, medical scientists and practitioners. Watch out for any formulations of principles which appear to be imposed upon your activities from without, and ask rather what is implicit in the traditional conscience of medical practice which may be expressed in this case. When a matter of confidentiality or privacy seems to be at stake, if you must have a criterion ask whether this contributes to, or seriously damages, the relationship of trust between doctor and patient or between doctor and potential patient. Confidence between people is more important than the alleged confidentiality of documents or data — which may or may not be very important. Even here, with reference to the obligation to respect confidences we must, in Peter Byrne's phrase, 'distinguish between saying that confidentiality is an intrinsic good within sound medical practice and saying that it is an absolute good'.

This leads to my second caveat. As far as I can make out neither the Privacy Act 1988 nor the International Covenant on Civil and Political Rights to which it would give effect ever say in what privacy consists. What is it? Their silence is understandable, and to a degree commendable, because nobody knows — or at least no one has to date come forward with a description or definition which obtains widespread assent. As Professor McCloskey of La Trobe University has pointed out in two of the few discussions of this subject by a philosopher, none of the great philosophers of the post-Enlightenment period has discussed the matter: neither Locke, nor Rousseau, nor Kant, nor von Humboldt, nor John Stuart Mill. Nor, indeed, more recent social thinkers like Hobhouse or Tawney. The concern for privacy is a modern one, precipitated no doubt by the totalitarian state and by the technology which makes possible recording of vast quantities of data which includes information about individual persons.

*A caveat, to be ware  
of to moche confidence'  
(Recordes 1557).*

In these circumstances, it is important not to panic. Not all infringements of privacy are reprehensible. Some are necessary for the common good. It cannot be repeated too often that privacy is an instrumental virtue; it is not an intrinsic right. That is to say, when the defence of privacy is invoked, we must ask: what is being protected by the call for privacy? What lies behind it? Why should this man or woman have his or her privacy protected? Privacy shines with an amber, a warning light; it is not a 'stop' sign, a red light.

Professor McCloskey finishes his second article with the following warning:

The law is a clumsy, insensitive instrument. If used to protect privacy in those areas where concern for other rights and values dictates the protection of privacy, the law must be made sensitive, and be used with the greatest of sensitivity and with an awareness of the values behind privacy which it is seeking to safeguard.

Let us hope that the arrangement made in the Privacy Act 1988 for recognition of NHMRC guidelines for the protection of privacy in the conduct of medical research is an example of such sensitivity. In enacting Information Privacy Principles our legislators have assumed that there are some human values which need protection; in allowing that those princi-

ples may be set aside in certain circumstances, they have perceived that privacy is a means not an end, and that it can obstruct the true ends of life as well as protect them. What the ends are is left open, as should be the case; for legislation cannot define the ends for which men and women live. It can only keep the door open for the pursuit of those ends which include a more widespread enjoyment of health, and a better knowledge of how to achieve it.

Lawyers and scientists need to be in conversation, if only so that each may remind the other 'to be ware of to moche confidence'.



## DISCUSSION PRÉCIS

While the papers presented had concentrated on information being passed from medical sources to others about patients, the discussion began with a contrasting question: whether or not it is a breach of confidence to keep information about a patient away from that patient (G. McPhee). In this context, it had been found that some psychiatric notes could be injurious to patients who read them. Should an attempt therefore be made to write objective notes that are not injurious (S. Bloch)? From the legal point of view, failure to supply information could be justified in some circumstances, if it could be seen as being in the patient's best interests (R. Scott). This led to mention of inducing anxiety in the course of seeking 'informed consent' (F. Stanley); and to a reminder that patients have a right to know about themselves, as well as a right not to know. (R. Kalucy).

The question of ownership of knowledge of a patient's condition was raised (anon.) and whether or not there is a distinction to be drawn between records made public by hanging them on the end of a hospital bed, and records remaining in the private study of the attending physician. This issue was one that the Privacy Commissioner had pondered when he first did research on privacy in the late 1970s, and he (K. O'Connor) had found it difficult.

The discussion changed to an aspect of the doctor-patient relationship and to the practising clinician's concern about the possible intrusion of the law into this relationship. Ethical decisions, it was asserted (P. Komesaroff), were best taken between the individuals concerned — what did Dr McCaughey think? Dr McCaughey strongly echoed the concern. There was a danger in intruding the law into doctor-patient relationships before that need was thought through. Legislation leads to a situation in which the language is that traditionally used for the resolution of disputes, whereas the appropriate vocabulary for doctor-patient relationships is that used ordinarily by doctors and patients. And the basis of that relationship is trust.

The need for consent to disclosure of information to be not only 'informed', but also 'voluntary' was then explored (J. Gardiner). Victorian WorkCare legislation was quoted as an example of legislation under which a doctor's report might go to many people. Reference was made to the Commonwealth's questionable practices by which the Health Insurance Commission imparted confidential medical information to law enforcement agencies. (P. Jones). This was seen as another difficult issue. Might there be a need for authorities to disclose their practices, and, possibly, for some form of

overseeing mechanism (K. O'Connor)? In this context, reference was made to possible legislation, in Victoria, which could lead to a person being denied the right to prevent blood being taken, although having the right not to disclose personal clinical information (P. Nisselle). In the general context of consent, a plea was made (R. Scott) for the use of a term such as 'medical duty of disclosure', instead of the term 'informed consent' which means different things to different people.

Up to this stage, the discussion primarily reflected concerns about protection of privacy in medical practice. It was now asked: what does the public really feel about personal medical records being used in medical research without an individual's consent (D. Hill)? It was said that there was a high level of acceptance of this practice, but that a small proportion of the community argued forcibly against it (R. Kalucy). Some enquiries suggested that patients were more in agreement with the practice than were doctors (F. Stanley).

Another subject raised was privacy in hospitals. It was said that when patients walk through the doors of a hospital they waive their rights to three privacies — territorial, information and personal (R. Smallwood). However, actual misuse of hospital records seemed unusual, and perhaps credit for this should go to the manner in which, from the start, medical students, nursing students and medical librarians are taught (R. Kalucy).

A related concern (anon.) was bureaucratic violations of privacy in nursing homes, where Health Department inspectors had a right to inspect medical records without the permission of either the patient or the doctors. This was seen as an example of the common situation (K. O'Connor) in which entitlement to benefit from government funds is dependent upon an individual giving up rights of confidentiality. There had to be a balance between the right of the community to see that its funds were spent responsibly and the rights of the individual.

Finally, it was observed that for years doctors have been sending patients off for laboratory tests without detailed explanation (J. Smibert). Now doctors are suddenly required to obtain the patient's consent before testing for HIV. The comment was that past practice had been wrong (P. Nisselle).

The Dean then brought the meeting to a close, thanking the convener, the panel, the audience and the organisers for their participation in another excellent seminar in the Dean's Lecture Series.

# The School of Dental Science

## A brief history

The development of dental education in Victoria has had close links to community needs, professional advocacy and public service. The genesis of dental education in Victoria can be traced to the activities in 1884 of the small group of dentists forming the Odontological Society of Victoria. Development of the profession in

Victoria required a Dental Act, registration of its members and the establishment of a College and Hospital for training students. The first dental school, the Australian College of Dentistry, was established in 1897 by volunteers of the dental profession. Operating within the Melbourne Dental Hospital (also a voluntary organization), and with the support of the Dental Board of Victoria, the College issued a diploma of membership (MACD) to candidates who had successfully completed two years of study. In

1899, a new course, covering four academic years and leading to the Licentiate of Dental surgery was introduced by the College.

The Australian College of Dentistry became affiliated with The University of Melbourne in 1904, and a tripartite agreement between the University, College and Dental Board of Victoria led to the establishment of the Faculty of Dental Science and

the award of the degree Bachelor of Dental Surgery (changed to Bachelor of Dental Science in 1911). The undergraduate course was lengthened to four years and two terms in 1926 and to five years in 1951.

In 1963 staff of the Australian College of Dentistry were transferred to The University of Melbourne

and the School of Dental Science came into being at its present location with its joint tenant — the Royal Dental Hospital of Melbourne. From

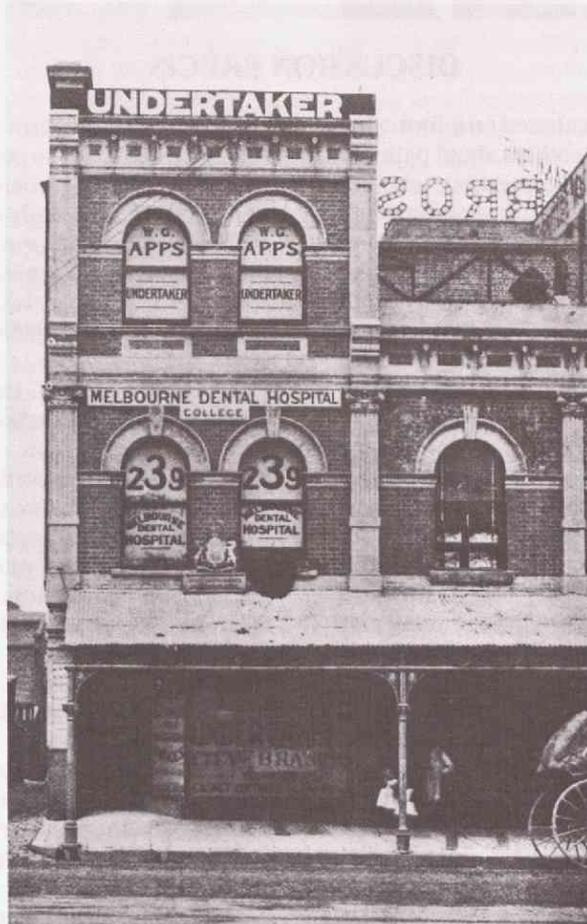
total reliance on voluntary teachers in the first two decades of the College, the first Chair in Dentistry (the Chair of Dental Science) was established in 1920 with the appointment of

Professor Frank Wilkinson. Gradually, from the mid-1930s voluntary teachers were replaced by full-time lecturers and senior lecturers. The history of the School of Dental Science closely

parallels the

development of the Royal Dental Hospital of Melbourne and the vision of the dental profession to see the need in Victoria for a strong academic and clinical base for professional training.

The amalgamation of the Faculty of Dental Science with the Faculty of Medicine in September 1989 comes at a time when the community and profession are facing new challenges in service to the community and professional education.



Melbourne Dental Hospital & College  
Lonsdale Street, Melbourne, 1891-97.

# CHANGES IN ORAL HEALTH: CAUSES AND CONSEQUENCES

Professor F.A.C. Wright  
Head, School of Dental Science

Dean's Lecture Series  
The University of Melbourne  
20 March 1990

## Introduction

**T**HIS PAPER presents a brief history of the predominant dental disease in Australia, dental caries, and what we may learn from history with respect to the future planning of dental education and dental health services. There have been substantial improvements in the oral health of Australians over the last decade. In this changing pattern of oral health, the focus has been on improvements in young persons; however, adult oral health is also improving. Further, in both the young and not-so-young in our community there are pockets of the population whose level of oral disease equates with the extreme levels of the past. Finally, this paper briefly describes how misperceptions of changing levels and severity of dental disease is weakening the advocacy for a health problem which is still of major public significance.

## Dental caries in Australian children

The earliest recorded history on the prevalence and severity of oral diseases in the Australian community comes from studies on the oral health of Aboriginal people. In one of a series of studies by the South Australian dentist T.D. Campbell (1936), it was noted that 13.6 per cent of teeth of the Aboriginal people in the study were carious, however: 'for individuals under 20 years old, only one person showed dental caries'. Further, of the total number of deciduous teeth examined only one was decayed.

In 1938 Clements and Kirkpatrick published a survey of some 900 NSW pre-school to Grade 3 children. In stark contrast to the Aboriginal children, Clements and Kirkpatrick reported: 'the outstanding feature disclosed is that on average, about 13 surfaces of the teeth of each child have been attacked by dental caries'. Less than three per cent of children five years or over were free from dental decay.

In the mid-1950s the NHMRC commissioned Peter Barnard from the University of Sydney to conduct the first state-wide, randomised survey of oral health of children. That survey involved just under 7,000 children, from 6 to 15-year-olds, drawn from all schools in the State of New South Wales. Taking two key age-groups, 6 and 12-year-olds, Barnard (1954) reported that at age 6 years only 5.8 per cent of children were caries-free in both permanent and deciduous dentitions; and that by age 12 years, less than 0.8 per cent of children were free of dental caries. Thus, in the mid 1950s, the prevalence of dental disease in 6-year-olds was around 96 per cent, and in 12-year-olds, almost 100 per cent.

The severity of dental disease is measured by the accumulated amount of decay which has occurred at any time in the life of the individual up to the time of examination. The DMFT-index measures the severity of accumulated experience according to the categories: Decayed, that is, decay present in the permanent teeth at the time of examination. Missing, that is, the permanent tooth has been extracted because of previous decay; and Filled, that is, the permanent tooth has been filled or restored because of previous decay. The DMFT index is useful not only in presenting the total severity of dental caries for a given age cohort, but also in expressing current dental need, as the D-component, previous need which has been met by Fillings, in the F-component, and previous need met by Extractions, the M-component.

Barnard (1954) reported a mean of 0.99 permanent teeth affected by decay at the age of 6 years, and at age 12 years, a mean of 9.53 teeth affected by dental caries. Over the 6 year period there was thus an annualized rate of 1.4 new dental caries experiences per child.

Comparison with international standards, using the World Health Organization (1986) classification of the severity of dental caries, for 12-year-olds, a mean DMFT score of 9.53 is well above the minimal score (6.61 teeth) for classing such a cohort into the 'very high' severity category.

## Dental caries and international responses to need

New South Wales with such a high prevalence and severity of dental caries in the mid-50s was not unique in Australia. The UK, the USA, the Scandinavian nations and New Zealand, all at that time, presented similar rates of prevalence and severity.

For a number of nations, the 1950s saw tremendous activity in the development of programs for the prevention and treatment of dental caries, especially in the high risk child and adolescent populations. Many of the somewhat radical initiatives of the 1920s and 30s were now perceived as acceptable in the light of the demonstrable massive levels of dental disease. Data from the UK on the high prevalence and severity of dental caries in children and adolescents led, in part, to the inclusion of dental health services within the National Health Service. In Denmark, Sweden and New Zealand the movement toward comprehensive dental services for children accelerated with the expansion of school dental programs. For some countries the availability and cost of dental health personnel constrained development. Others turned to the introduction of auxiliary operating dental health personnel.

The United States of America expanded the role of the dental hygienist in public schools and private practice. The New Zealand experiment, using a two-year trained school dental nurse (therapist) to provide services through government clinics to school children, was taken up by a number of nations, including some Australian States. Plans for the expansion of dental schools were drawn up, and new dental schools sprang up throughout the USA, Scandinavia, the UK and Europe. Schools for dental auxiliaries evolved in Queensland, South Australia, New South Wales and West Australia. There was an unprecedented international expansion of private and public dental health service activity.

The problem of dental decay, a disease which has caused considerable distress and suffering for generations, appeared at last to be recognised by governments and public alike as a serious public health problem. In the post-Second World War enthusiasm for raising community standards and providing health services in those nations which were reaping the economic boon of product export surpluses, funding for new programs was not a major limitation to the development of services. In addition, because of the extremely high prevalence of dental caries there was little need to consider risk-groups other than children and adolescents in the broadest context. There were studies, prior to the mid-1950s which demonstrated some variation in risk between sub-groups of children: country children, for example, tended to have less caries than metropolitan children, boys tended to have less caries, by age, than girls; and in the early studies, Aboriginal children had less caries than European children. However, these differences were only marginal, thus a universal approach to service delivery formed the basis of most public initiatives for the delivery of dental services.

Information on adult oral health was almost non-existent. The only standardized collection of oral health information was by the Armed Services, both on the presenting conditions of recruits, and the services provided to them. Records made by Service dentists in the late 1930s and early 1940s demonstrated that the high prevalence and severity of dental caries in children was transferred into adulthood. The major differences in the level of dental caries in adults compared with children was the almost inevitable loss of teeth which was associated with the transition from adolescence to adulthood.

## Developing technologies in prevention and treatment

Prevention in the 1930s and the early 1940s was not completely understood, and what was known, mainly about dietary sugar and oral bacteria, was rarely practised.

Restorative dentistry was slow, frequently painful, often very expensive and liable to failure with recurrences of further disease. The extraction of teeth, on the other hand, was simple, relatively inexpensive, and perceived by both public and profession alike as a simple and effective remedy for the scourge of dental decay.

The dental curriculum of most Western universities and institutions in the 1950s reflected the needs and technology of the times. A medical science basic core — anatomy, bacteriology, pathology and surgery — was followed by the demands of the time for anaesthesia, 'control of infection', extractions, prosthetics and conservation of teeth.

The 1950s were the watershed years of dentistry and oral health, for reasons other than the universal (in Western nations at least) prevalence of dental caries. The 1950s were also the time when the great experiments in preventing and treating dental caries were finding their way into the literature and slowly into dental practice. The technological revolutions in the 1950s involved the development of the high speed dental drill, safe and dependable local analgesics, and inexpensive durable dental restorative materials. In community prevention, however, the greatest of all challenges was being implemented.

### A. Fluorides and water fluoridation

In 1931 a chemist by the name of H.V. Churchill, working for the American Aluminium Company in the mining town of Bauxite, USA, analysed the fluoride content of water collected by a local dentist, Dr Frederick McKay, from various areas of Colorado. McKay for many years had been investigat-

ing the condition known as 'Colorado Black Stain' or 'enamel mottling'. Churchill's analyses confirmed a link between the prevalence and severity of enamel mottling and the fluoride content of the water supply. McKay observed, however, that despite the more frequent roughness of the enamel surface of teeth with mottling, contrary to expectations, the incidence of dental caries was less than in those subjects without enamel mottling.

In the late 1930s the US Public Health Service commissioned H. Treadley Dean to pursue full-time research on mottled enamel and fluoride. Treadley Dean's work, published in 1942, took him to 21 cities in the USA with varying levels of naturally occurring fluoride in their drinking water. Dean examined over 7,000 children between 12 and 14 years old in these cities and described and detailed the relationship between fluoride, dental caries and enamel fluorosis. The study showed that in cities with less than about 1 ppm fluoride the prevalence and severity of dental caries increased dramatically.

Such was the concern about the extremely high prevalence and severity of dental caries in American school children, and so demonstrably natural did it seem to simply add the 'optimal' level of fluoride to a public water supply, that the first controlled clinical trial of fluoride added artificially to community drinking water was commenced on 25 January 1945 in the Michigan State city of Grand Rapids.

The first reports on the effects of artificial fluoridation of water were surfacing in the early 1950s. However it was not until 10 to 15 years after continuous water fluoridation that the immensity of the impact that this public health strategy had on dental caries was appreciated by the profession, governments and, increasingly, by the public. It was the dental equivalent of John Snow removing the handle of the Broad Street pump to prevent cholera.

The caries experience of 15-year-old Grand Rapids children had fallen from a DMFT of 12.48 in 1944 to 6.22 in 1959, a difference of some 50 per cent. The rate of dental caries in the non-fluoridated control city of Muskegon was almost twice that of the Grand Rapids children — and the caries experience of Grand Rapids children, by 1959, was very similar to the same aged children in the city of Aurora with 1.4 ppm F occurring naturally in the drinking water.

Running parallel with the public health experiment of water fluoridation, biological scientists, and clinical researchers embarked upon what has become the greatest in-depth examination of the effect of a preventive agent on dental caries. As this work became published the preventive effect of fluoride was being increasingly employed in vehicles other than a potable water supply. Fluoride tablets and drops were introduced; fluoride was added to toothpaste, used as a mouth rinse, applied by dental health workers during routine dental visits, and became freely available in any number of forms across supermarket or chemists' counters.

The first Australian town to be fluoridated was Beaconsfield, Tasmania in 1953. Between 1964 and 1977 more than 60 per cent of the Australian population was receiving artificially fluoridated water. All capital cities with the exception of Brisbane are now fluoridated.

### B. Sugar consumption

But fluoride wasn't the only important discovery gaining practical application in the 1950s. Although the link between sugar and dental caries had been recognized by Aristotle more than two thousand years before, it wasn't until the turn of this century that W.D. Miller scientifically demonstrated the process whereby the role of micro-organisms in metabolizing sugar gave rise to an acid pH in the plaque sufficient to demineralize the enamel and cause dental caries. Even armed with this knowledge since the early part of the

century, dental health educators have major difficulties in turning this simple message into a positive oral health outcome. In fact, the only time when intervention at the diet alteration level has brought about significant decreases in dental caries across a given community has been during wartime (when there were severe restrictions in the availability of sugar), in closely controlled lactovegetarian or sugar free communities, or in experiments where the degree and frequency of exposure to sugar was closely controlled.

### C. Control of dental plaque

Knowledge of dental plaque, the microcosms surrounding teeth and gums, has seen a tremendous research effort with, potentially, a tremendous impact on the promotion of health. Sales of toothbrushes, dental floss, toothpastes and mouth-rinses have risen dramatically in the last decade as commercial manufacturers competed in the market place for disease preventing and sex enhancing oral care products.

The greatest technical achievements in plaque control in the last two decades, however, was developed in the mid-1960s by Danish researchers led by Dr Harold Loe. Loe first described and tested the cationic chemical chlorhexidine and its impact on plaque disruption. Although there are difficulties in using either chlorhexidine or other like compounds within the mouth over a long period, the potential to find and develop a highly effective, antiplaque agent with a low level of injurious effect, is a clear possibility in the future. However, like our understanding of the role of sugar in dental caries, until socio-biological mechanisms can be found to universally, or in an easily accessible way, target those at risk to plaque diseases, the impact on the community's oral health will be limited.

### D. School-based dental service delivery programs

The early 1970s marked another milestone in Australian dental history. Although a number of Australian States had, under their own jurisdiction, introduced dental therapy and school-based delivery schemes, an Australia-wide School Dental Therapy Scheme was only introduced in 1973. The aim of this national program was to reduce dental disease through prevention and treatment services provided by dental auxiliaries: the School Dental Therapists. As well as providing the States with resources to achieve improvements in personnel to population ratios, data on the dental health status and treatments received were collected by each State or Territory school dental service, and reported through the Commonwealth Department of Health.

These school-based data have permitted the development of a clear picture of the state of the nation's child dental health over almost a decade. The Australian School Dental Scheme had a brief history; responsibility for school dental services reverted to the States and Territories in 1981.

## The changing patterns of dental disease

In 1972, the WHO International Collaborative Study on Dental Manpower Systems completed its collection of standardized data on the oral health of children, adolescents and adults from six countries throughout the world, including Australia. The International Collaborative Study stimulated tremendous interest, not only from member countries, many whom for the first time had the opportunity of seeing objective information collected from randomly selected subjects, but also at the international level, where data on adult oral health could be interpreted in relation to community oral health programs and service delivery methods.

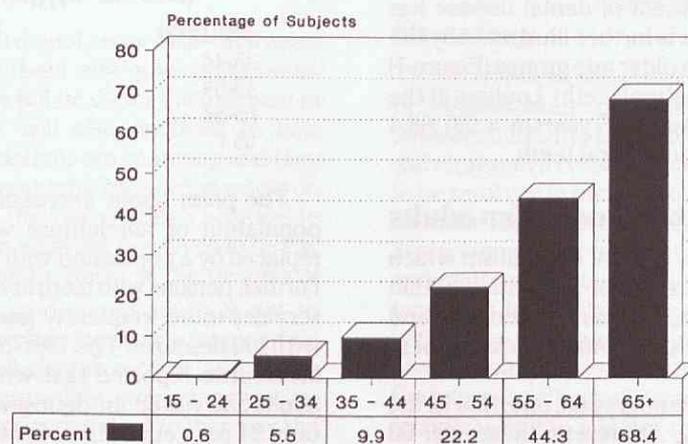
Three key features of changes in dental disease were demonstrated in the Australian data. Firstly, the caries experience of Australian adolescents in 1972 was, on average, almost three teeth *less than* the average experience of adolescents in 1954. In other words, the data demonstrated almost a 50 per cent reduction in the caries experience of adolescents during the 18-year period.

Secondly, as this was one of the first studies to identify the oral health status and needs of adult Australians, it focused attention on the very high severity of dental caries experience of adult Australians. The WHO classification of the severity of dental caries places a DMFT greater than 16.3 teeth for 35 to 44-year-olds as the highest category of severity. The International Collaborative Study reported that 35 to 44-year-old Australians had, on average, 21.4 teeth affected by dental caries.

The third major finding of the study was the high rate of tooth loss, and especially total tooth loss, in adult Australians. The long-term consequence of dental caries for adults was seen in the proportion of adults who were completely edentulous, that is, had no natural teeth. The International Collaborative Study documented this phenomenon, and the variations from nation to nation. The highest proportion of totally edentulous adults (36 per cent of the 35 to 44-year-old sample) was in New Zealand. Thirteen per cent of the Australian sample, and 6 per cent of Norwegian 35 to 44-year-olds, had lost all their natural teeth.

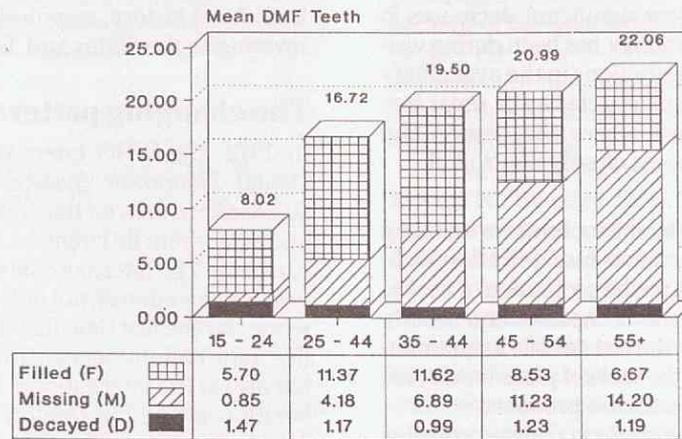
Figure 1 Edentulism (No Natural Teeth)  
Changing Pattern in Adults

From S.A.M. 1985



**Figure 2**  
From S.A.M. 1985

### Severity of Dental Caries Changing Pattern in Adults



In the early 1980s surveys of adult oral health were undertaken, firstly in Brisbane, secondly in Melbourne and, in 1987-88, the first national oral health survey was commenced. Data from these three surveys have many similarities; thus the Melbourne study is used to illustrate the present pattern of oral diseases in Australian adults.

The Melbourne study involved just under 1000 subjects drawn from 18 different municipalities within the Melbourne Statistical Division. Figure 1 shows the proportion of the population in each age-group with no natural teeth, and Figure 2 the severity of dental caries experience, in terms of total DMF teeth affected. The components of the caries experience in terms of decayed, missing and filled permanent teeth are also shown in the latter figure. These data demonstrate a number of changes in community oral health and changes which can be relatively accurately predicted to occur in the future.

**Firstly**, the total caries experience of Melbourne 15 to 24-year-olds in 1985 (DMFT = 8.02) is substantially less than the caries experience of 12-year-old children (DMFT = 9.53) reported in the mid 1950s. **Secondly**, the level of untreated dental decay (the D-component of the index) is low, and relatively constant over all age-groups. In other words, there is not a massive untreated dental need in any particular age-group in the community. **Thirdly**, the manner in which dental disease has been managed differs between the various age groups, for example, in subjects less than 45 years of age, the predominant characteristics of the DMFT index is the Filled component. Dental disease has been managed in these age-groups by restorative and reparative means. In stark contrast, however, in the over 45-year-old groups, the predominant mode of management of dental disease has been the extraction of teeth; this is further illustrated by the proportion of subjects in the two older age groups (Figure 1) who are totally edentulous (no natural teeth). Looking at the small group of subjects over the age of 65 years (n = 98), 68.4 per cent of this age group had no natural teeth.

#### Changes in the oral health of Australian adults

It is this change from high to low rates of edentulism which will occur in adults, especially the senior population within our community, that will have most impact on dentistry and the provision of oral health services in Australia in the next two generations.

The first point is the simple demographic one, that is, the Australian community is ageing. At present, those over 60

years of age comprise 13.7 per cent of the Victorian population. By the year 2021 it is estimated that those over 60 years will double in actual numbers and comprise 22.1 per cent of the community. The second point directly follows this demographic change, that is, the dramatic reduction in edentulism which will accompany the younger age cohorts as they advance, with lower edentulous rates, into the older age-groups.

There are a number of other objective indicators of this dramatic trend in reducing rates of edentulism. The first indicator comes from the 1985-86 *National Survey of Oral Health in the USA*, which allows comparison of rates of edentulism with two previous US surveys. One was in 1960-62 and the other in 1971-74. In all age groups the rate of total tooth loss in the USA was significantly less in 1985-86 than either 1971-74 or 1960-62. The dramatic changes occurred in the decade between the mid-70s and the mid-1980s. In the 55 to 64-year-old US age group there was a 20 per cent difference in the rate of edentulism between 1960-62 and 1985-86.

The second indicator comes from ABS data collected in Brisbane. In 1979 the ABS conducted a special supplementary survey of dental health in Brisbane; this was followed in 1984 by the *BSD Survey of Adult Dental Health*. Allowing for the differences in the design of the surveys, it is clear (from Table 1) that within the relatively short period of time between 1979 and 1984, there was a consistent decreasing trend in edentulism in each age group.

**Table 1: Changing rates of edentulism (no natural teeth) in Brisbane between 1979 (ABS Survey) and 1984 (BSD Survey) (per cent edentulous)**

Age (yrs)	1979	1984
35-44	12.3	5.0
45-54	24.4	18.1
55-54	42.2	35.1
65+	65.2	58.5

The point about decreasing edentulism is that a large population of full-denture wearers is increasingly being replaced by a population with teeth at risk of dental diseases. Further, persons with teeth at risk of dental disease use dental services more frequently and more regularly than people with full dentures. The 1985 *Survey of Adult Oral Health* in Melbourne reported that whereas 79 per cent of dentate adults had visited the dentist within the previous three years, only 34 per cent of the edentulous had made a dental visit

within the previous three years. Further, while 54 per cent of dentate subjects usually visited a dentist at least once a year, only 12 per cent of those whom were edentulous claimed to visit a dentist at least once per year.

Objective data are essential for planning workforce and educational systems, and it is only in the last 5 to 10 years that such information has become available. There is no doubt that dental caries is declining, and has declined rapidly in our area of the world. However, public health problems related to dental caries are not declining, and it does not appear that they will be easily eliminated within the next generation. The current level of oral disease within the Australian community is such that more appropriate public health management of oral diseases, which do not involve such massive mutilation of an individual, will be possible in the future.

## Challenges for dental education and practice in the next 25 years.

### Increasing demands for adult oral health services

There are four main factors which strongly suggest increasing demands for dental services from adult Australians:

**First**, the demand for dental services is at least three times less by denture wearers than those with natural teeth, and as the population retains more teeth, it would seem logical that there will be increasing demand for dental care, irrespective of other changes.

**Second**, the presence of a restoration in a tooth marks that tooth for life as increasingly susceptible to further professional intervention and maintenance. More than 50 per cent of affected teeth in 35 to 44-year-olds in 1985 will require constant maintenance for at least a further generation.

**Third**, increasing the survival rate of teeth means an increased number of teeth at risk of decay later in life, and of risk from periodontal diseases. Evidence on adult dental caries, on cervical or root caries in the elderly, and on the prevalence and severity of periodontal conditions, is slowly accumulating. None of these oral diseases, at this stage, appears to have the same epidemic proportions or consequences as dental caries in children or adolescents earlier in the century, but they are on the increase, not in decline.

**Fourth**, dentists' diagnostic and management skills are being increasingly challenged to cope with new medical disorders (HIV, hepatitis B, etc) and the increasing complexity of providing dental care to those on complex pharmacological and therapeutic regimens, especially the elderly. Changes in the curriculum, in terms of understanding and skills required to meet the oral health needs of the elderly and those with long-term medical complications, are urgently required.

### Identifying those most in need of oral health services

Whilst almost 85 per cent of all dental services are delivered through the private sector without any government reimbursement or contribution, the public sector involvement in dental health, and its costs, will also continue to face challenges. Community expectations are changing and they are changing in a number of areas which impact strongly on dental practice. For example, the 'community's attitude' to public intervention programs in what are perceived to be low risk low benefit areas is changing. Because the ravages of dental caries in our children and young adults is not so pervasive, a lot of the imperative for community intervention programs, such as the school dental service and water fluoridation, is weakening. There will be increasing pressure to defluoridate, and virtually no movement to increase the

number of Australian communities which are fluoridated. In addition, because of public economic necessity, there will be decreasing funds allocated to public services, and thus increasing pressures on school dental programs and hospital dental services. Many of the changes in oral health pattern place those least able to access services and preventive care at even greater disadvantage than the past.

In 1977, and again in 1985, a randomised survey of 5 to 6-year-old children from the municipality of Brunswick was conducted. In 1977 only 11 per cent of the children sampled were free of dental caries, while in 1985, 46.6 per cent were free of caries. The severity of dental caries declined from an average of 6.4 deciduous teeth affected in 1977 to only 2.3 teeth in 1985. Now, taking the aggregate data and interpreting it only in its broadest generalization, it would appear that the problem of dental caries in Brunswick 5 to 6-year-olds had been solved. However, when these aggregate data are broken down by known exposure to water fluoridation, a dramatic gradation in caries severity by fluoride exposure appears. Children who have not lived all their lives in fluoridated Australian cities had almost twice the caries experience of those who did. And more startling is the group who have lived part of their lives in Melbourne and part overseas: their caries experience was at about the same level as pre-fluoridated Melbourne 5 to 6-year-olds.

Surveys of adolescents in the outer Melbourne suburb of Springvale, in Northcote and Coburg, support these findings of high risk groups within our community. Those in poverty, those with medical or mental handicaps, migrant children and now Aboriginal children, all form high risk groups. Without the capacity to access easily private dental services, and with public dental services increasingly under threat, these and other high risk groups are of considerable public health concern.



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## Summary

There have been significant improvements in the oral health of the Australian community, especially in children and in adolescents in the last two decades. However, oral diseases still represent a considerable range of public health problems to be resolved in meeting both present and future demands. Demand for dental care will increase as the older age-groups in our community maintain more teeth, and thus more teeth and supporting structures will be at risk to oral diseases. Increased longevity and an increasing number of persons within the community with compromising medical or pharmacological conditions, will require our practitioners of the future to be better informed and better able to apply their technical skill to a wider range of persons than is now the

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1 April 1991 — 31 March 1992

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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.

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#### UMMS Secretariat

C/- Graduate and Community Relations

School of Medicine

The University of Melbourne

Parkville, Vic. 3052.

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case. The projected changes in the complexity of skills required by future providers of oral health services appears to be falling into two distinctive groups: an increased demand for simple preventive and interceptive skills of therapy and dental hygiene, and an increased requirement for specialized diagnostic and treatment skills.

The Australian community is becoming increasingly aware of inequities in accessing services, and in variation in the prevalence of disease in different socio-cultural groups. With the changes in oral health of the Australian community there is in our younger community a small population, some 20 per cent of children and adolescents, who now carry almost 80 per cent of the total caries experience. Public dental health services have not readily addressed the needs of these high risk children, nor the future need to target more effectively services provided by different health and community modalities. In addition, apart from a small hospital and a community public system, there are virtually no comprehensive, innovative and forward-looking public dental health programs for adults and the elderly in Victoria.

**Any conclusion that the oral health problems of our community have been eliminated, is premature; a wider debate is necessary to address the educational and service skills which will be required of our future providers of dental service to meet the oral health needs of future generations of Australians.**

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## The Halford Oration

# THE MOLECULAR CONTROL OF BLOOD CELLS: BASIC SCIENCE TO CLINICAL MEDICINE

Donald Metcalf

Research Professor of Cancer Biology  
The Walter and Eliza Hall Institute of Medical Research

Dean's Lecture Series  
The University of Melbourne  
10 July 1990



Prof. Donald Metcalf

IT IS NOT OFTEN IN medical science, that a research worker has the pleasure of witnessing a basic discovery evolve into an actual new medical treatment. More often, a lifetime's work, however successful, at best sets the scene for future advances. However, the story of the colony stimulating factors is one where new therapeutic treatments have evolved from basic science

within the working life of the investigators concerned. This subject is an appropriate one for an Halford Oration because the discovery and development of these agents is an Australian success story in which most of the key work was done in The University of Melbourne and two of its associated research institutes: The Walter and Eliza Hall Institute of Medical Research, and Ludwig Institute for Cancer Research.

The mature cells in the peripheral blood are relatively short-lived and must be replaced constantly throughout adult life. The haemopoietic tissue responsible for this blood cell production is located mainly in the bone marrow, although in some species like rodents, small but potentially expansible haemopoietic populations are also present in the spleen.

The role of the haemopoietic tissues is highly complex. There are eight major lineages of blood cells to be formed, in quite differing numbers; marked maturation events must eventually occur in the cells of each lineage before they are ready to enter the blood, and the whole system must be capable not only of producing basal numbers of cells with precision but also be able to respond promptly to demands for increased numbers of cells in emergencies.

The haemopoietic tissues are sustained by the self-generative capacity of a small set of haemopoietic stem cells which are formed during a single episode in embryonic development. Thereafter, all haemopoiesis depends on the ability of these stem cells both to self-renew and also to generate progeny (progenitor cells) committed to enter one or other differentiation lineage. In turn, progenitor cells each have a capacity to generate up to  $10^5$  cells that will undergo progressive maturation to the cells finally released into the peripheral blood.

The inherent complexity of these cellular events defeated most early attempts, using intact animals, to determine the regulatory processes controlling haemopoiesis. In 1961 a technique was developed for detecting haemopoietic stem cells. This involved injecting bone marrow cells into lethally-irradiated mice when individual stem cells, seeding in the spleen, reveal their presence and potential by forming large haemopoietic colonies. Observations on the proliferation of stem cells and their progeny indicated the importance of adjacent stromal cells in regulating these events. This has

been confirmed by subsequent tissue culture studies in which long-term cultures of marrow stromal cells are able, by a cell contact-mediated process, to maintain stem cell numbers and proliferative capacity. However, this work did not lead to the identification of regulatory molecules which might be involved in the control of haemopoiesis. It was not until the development in The University of Melbourne and the Weizmann Institute, Rehovot, in the mid-1960s, of semisolid culture techniques able to support the growth of differentiating colonies of haemopoietic cells *in vitro* that methods became available which allowed the detection and eventual identification of such molecules.

In these semisolid cultures, individual progenitor cells are able to proliferate and form colonies of progeny cells and differentiate to mature blood cells. The first haemopoietic cells able to be grown clonally *in vitro* were members of the paired granulocyte/macrophage lineage, and culture techniques permitted the analysis of the cellular events by which committed granulocyte-macrophage progenitor cells produce mature neutrophils and macrophages.

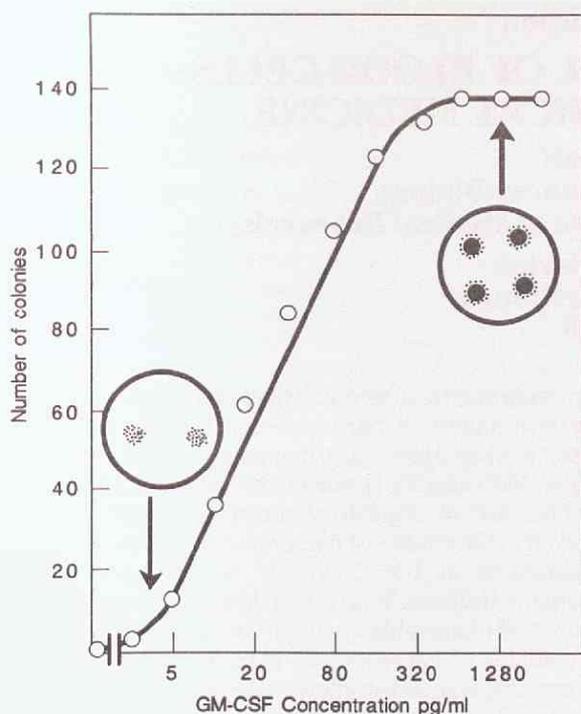
Although sixteen different regulators active on blood cells have now been characterized, this account will only describe the discovery and characterization of the regulatory molecules controlling granulocyte and macrophage formation, the subsequent cloning of the genes for these molecules, the mass-production of the growth factors in recombinant form, and the first clinical use of these molecules.

## The history of the colony stimulating factors (CSFs)

Analysis of the growth of granulocyte-macrophage colonies *in vitro* quickly revealed that the cell proliferation involved did not occur spontaneously but required the positive stimulation of every cell division. It was assumed initially that only a single active factor was involved and the operational name colony stimulating factor (CSF) was applied to the unknown molecule.

CSF was detectable in the serum and urine, in extracts of a variety of tissues, and in medium from cultures of such tissues. Of great practical importance was the fact that the concentration of CSF added determined the number and size of colonies developing in cultures of bone marrow cells, and thus the cultures provided a workable bioassay for monitoring the purification and characterization of CSF.

Studies to determine the nature of CSF commenced late in the 1960s but were to continue for fifteen years before completion because of several unforeseen complications. CSF proved to be a glycoprotein, and techniques for purifying such proteins were in their infancy in the 1960s. Furthermore, CSF had extremely high biological activity per mg protein, which meant that the absolute amounts of CSF present in even the most active tissue sources were minute. The final successful purification of CSF depended not only on the development of methods for mass-producing crude materials for purification but more critically on the progressive



Increasing concentrations of GM-CSF stimulate bone marrow cells to form increasing numbers of colonies of progressively increasing size.

development in the 1970s of sophisticated methods for separating proteins, such as affinity chromatography and ultimately high performance liquid chromatography. In a very real sense the history of the purification of CSF and similar blood cell growth factors is the history of the development of the science of separative protein chemistry. If the purification of CSF was to be attempted in 1990, it probably could be achieved using this modern technology within from six to twelve months, but it would still be a major undertaking, heavily dependent on the availability of convenient bioassay systems for monitoring each of the multiple separation steps required.

However, the major problem complicating the purification of CSF was the fact that the initial concept was over-simple. There was not a single form of CSF involved but a group of distinct CSF molecules, each able to regulate granulocyte-macrophage formation; the CSF project ultimately required the recognition of four distinct CSFs and the separate purification of each. It was predictable enough that there would be species-differences between the CSF molecules, and indeed this proved to be the case, so the characterization of the CSFs in fact required the purification of the four murine and four human CSFs.

By 1984, the combined work of our own and other laboratories had resulted in purification of all four of the murine CSFs and it had been possible to carry out a wide series of studies on the actions of each CSF in tissue culture, often using elegant cultures of only a single progenitor cell. The CSFs were able to be radiolabeled and some initial studies had been undertaken, using such material, on the nature of the unique receptors for each CSF that were present on the membrane of granulocyte-macrophage cells, and on the half-life of trace amounts of CSF when injected *in vivo*.

This was satisfying work for the cell biologists concerned, but it was also a time of considerable gloom. Calculations from the recovery of pure CSF from even the richest starting material indicated that it was going to be impossible ever to purify enough CSF to test, even in mice, whether CSFs really had significant effects in the body on granulocyte and

macrophage formation. For example, medium conditioned by mouse lung tissue was the richest source of G-CSF, but it would require the use of 200,000,000 mice to produce, by extraction one gram of purified G-CSF. This was a seemingly hopeless situation. How then was it that clinical trials on the CSFs were able to be commenced in 1987? The solution to the problem came from the entry of molecular biology into the field of haemopoietic growth factors. Within three years, cDNAs for each of the four CSFs in the mouse and in man had been cloned. This was done either by screening cDNA libraries using nucleotide probes based on the amino acid sequence data obtained from the purified native CSFs or, more directly, by expression screening of cDNA libraries. This cloning of the CSF genes was rapidly followed by the successful use of bacteria, yeast, or mammalian cells, to produce active recombinant CSF and the verification that recombinant CSFs have identical biological actions to those of the native CSFs.

With the ability to produce milligram or gram amounts of purified recombinant CSFs, it was possible to show, in mice and primates, that the injection of CSF produced obvious stimulation of granulocyte and macrophage formation without significant toxic effects. This allowed initial clinical trials of GM-CSF and G-CSF to be commenced. At the present time, clinical trials on CSFs are in progress in many countries, including Australia, and a significant body of information has emerged, on their effectiveness and on the disease states in which they are likely to have clinical value.

While this account will refer only to the four CSFs and their actions, the unravelling of the complete molecular control of granulocyte-macrophage formation still continues. Three other haemopoietic growth factors: IL-1, IL-4 and IL-6, have some, probably minor, actions on the formation of these cells, and there is evidence that additional regulatory molecules may exist. However, the four CSFs seem to be the major regulators and, for the present, the account of the control of granulocyte-macrophage formation will be concerned only with the CSFs.

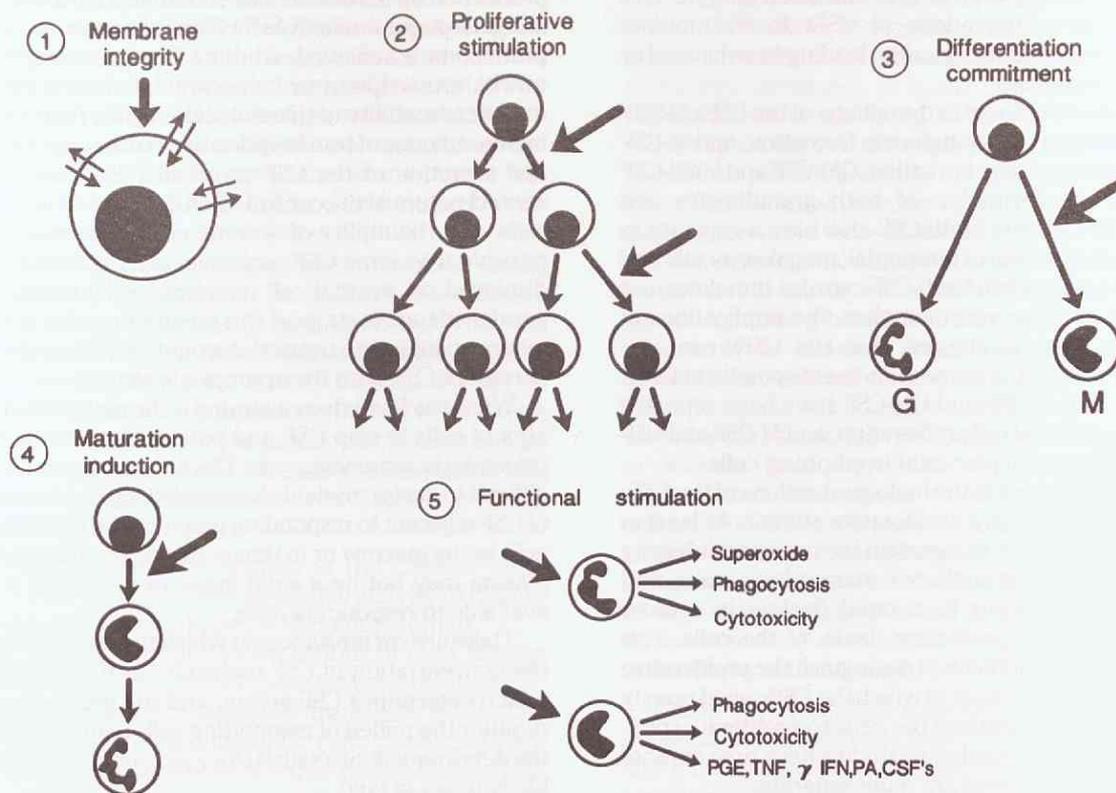
## The nature of the CSFs and their regulators

TABLE 1  
The colony-stimulating factors

Species	Factor	Molecular weight of polypeptide	Chromosomal location of gene
Mouse	GM-CSF	14,400	11 A5-B1
	G-CSF	19,100	11 D-E1
	M-CSF	21,000 18,000	3 F3
	Multi-CSF (IL-3)	16,200	11 A5-B1
Man	GM-CSF	14,700	5q 23-31
	G-CSF	18,600	17q 11.2-21
	M-CSF	21,000 18,000	5q 33.1
	Multi-CSF (IL-3)	15,400	5q 23-31

The four known CSFs are listed in Table 1. Each is a glycoprotein and the sizes of the polypeptide chains are reasonably similar (14-21,000 MW). Three are composed of only a single polypeptide chain, but the fourth (M-CSF) is a dimer of two apparently identical chains. The amount of carbohydrate associated with the polypeptides is variable but can be a major portion of the complete molecule. The role played by this carbohydrate remains somewhat obscure. It is not involved in the binding of the CSF to responding target cells, and is not necessary for the action of the CSF either *in vitro* or *in vivo*. The most likely possibility is that the carbohydrate increases the half-life of the molecules *in vivo* by slowing the processes of degradation and clearance.

# MULTIPLE ACTIONS OF THE COLONY STIMULATING FACTORS



Each colony stimulating factor has five distinct actions on responding populations. These are summarised schematically.

Each CSF polypeptide contains one or more pairs of cysteines which are linked by disulfide bridges to maintain the molecules in the three-dimensional configuration necessary for biological activity. Small fragments of the CSF polypeptides have no biological activity, since multiple portions of the molecule combine to form the active binding domain. This has made it impracticable to consider synthesizing CSF polypeptides, and the production of recombinant CSF is the only feasible method of mass-producing the molecules.

As shall be seen, the four CSFs have overlapping and sometimes similar actions. It came as a considerable surprise therefore, when the full amino acid sequence of each polypeptide was deduced from the cDNA clones, that there was no homology between the four CSFs in amino acid sequence and no likely common secondary structure. The CSF's therefore appear to be quite unrelated molecules which happen to share common functions.

However, the original concept that the CSFs were a family of related regulators has proved to have some validity. The unique genes encoding each CSF show an intriguing chromosomal clustering. Specifically, a cluster of the genes for GM-CSF, Multi-CSF together with the genes for two other haemopoietic growth factors, IL-4 and IL-5, is located on the long arm of chromosome 5 in man and on chromosome 11 in the mouse. Furthermore, these genes have similar general structures and may have some common promoting elements. The receptors for three of the CSFs show evidence of homology in their extracellular domains, indicating a common ancestral origin. Finally, occupation by one CSF of its receptors can influence the functional state of receptors for other CSFs on the same cell by a process of trans-down-modulation.

Each CSF has a corresponding polypeptide receptor on the membrane of responding granulocytic and macrophage

cells. These receptors are not numerous and typically number only a few hundred per cell. However, functional signalling following binding of CSF to its receptor is highly efficient and can be achieved with low receptor occupancy. cDNAs for the four CSF receptors have now been cloned and the amino acid sequence of each is known. One receptor, that for M-CSF, is the product of the *c-fms* proto-oncogene and is a typical transmembrane polypeptide with a tyrosine kinase domain initiating signalling by autophosphorylation. The other three CSF receptors share some sequence homology in their extracellular domain, but lack intracytoplasmic tyrosine kinase domains. Signalling from these receptors following CSF binding must be initiated by some other mechanism. Despite these differences, it is likely that both types of signalling share some common final steps, since retroviral insertion of cDNA for the M-CSF or the human GM-CSF receptors into the same murine haemopoietic cell type permits receptor expression and allows proliferative stimulation to occur using the appropriate regulator.

## The biological actions of CSFs

The cardinal action of the CSFs is their essential role in stimulating every cell division in cells of the granulocyte-macrophage lineage. In the presence of an adequate concentration of CSF ( $10^{-10}$ – $10^{-12}$ M) granulocyte-macrophage cells in the G1 phase are forced to enter the S phase of the cell cycle and the concentration of CSF determines the length of the cell cycle and the total number of progeny produced within a given time interval. Withdrawal of CSF results in most cells being unable to complete the cell cycle in progress. Thus, signalling from the CSF-receptor complexes appears to be required for a major portion of the cell cycle, although the exact nature and location of the genes being influenced by this signalling remain uncertain.

One of the features of granulocyte-macrophage cells is that individual cells tend to express, simultaneously, receptors for more than one type of CSF and often all four. This permits pairs or combinations of CSFs to co-stimulate proliferation of individual cells, often leading to enhanced or superadditive responses.

There is some selectivity in the actions of the CSFs. G-CSF is a selective stimulus for granulocyte formation, and M-CSF for monocyte-macrophage formation. GM-CSF and Multi-CSF can stimulate the formation of both granulocytes and monocytes. GM-CSF and Multi-CSF also have a capacity to stimulate the proliferation of eosinophil, megakaryocytic and some erythroid cells, while Multi-CSF can also stimulate mast cell proliferation. More recent studies, the implications of which remain unclear, suggest that the CSFs can also stimulate cell division in some non-haemopoietic cells, at least *in vitro*. Thus G-CSF and GM-CSF have been reported to stimulate endothelial cell proliferation, and M-CSF and GM-CSF the proliferation of placental trophoblast cells.

The intriguing aspect of the biological actions of the CSFs is that they are not simply proliferative stimuli. At least *in vitro*, CSFs are necessary to maintain the transport integrity of the membrane of granulocyte-macrophage cells, and withdrawal of CSFs leads to a rapid decline in cellular functions followed by premature death of the cells. This phenomenon made it difficult to distinguish the proliferative actions of the CSFs from those in which the CSFs acted merely as survival factors, permitting the cells to proliferate spontaneously. However, a number of studies have now demonstrated that the two actions are quite separate.

In addition, the CSFs have some capacity to commit, irreversibly, progenitor cells to the exclusive formation of granulocyte or macrophages and are able to initiate the familiar maturation events by which, for example, myeloblasts progressively mature to form neutrophilic granulocytes. An important additional function possessed by the CSFs is their ability to enhance the functional activity of mature granulocytes and macrophages, leading these cells to increase their phagocytic or cytotoxic capacity, or macrophages to produce a variety of pharmacologically-active factors such as interferon, tumour necrosis factor, plasminogen activator, or other CSFs.

The CSFs therefore have a versatile range of actions on granulocytic and macrophage populations in controlling the proliferation, maturation and functional activity of these cells.

## The sites and control of CSF production

Because of the low levels of CSF in various tissues, it has been difficult to build up a complete picture of which cells in the body produce CSF and in what circumstances. It is difficult to produce pure populations of most cell types for testing and, equally seriously, the procedures of cell separation and subsequent culture are now known often to lead to marked induction of CSF transcription with fallacious estimates of the activity of that cell type *in vivo*.

What has been established is that CSFs can be produced by many cell types, including lymphocytes, macrophages, endothelial cells, stromal cells and fibroblasts. It remains possible that all cell types have some capacity to produce CSF, following appropriate induction. Furthermore, a number of cell types such as lymphocytes, fibroblasts and endothelial cells can simultaneously produce more than one type of CSF.

Normally, levels of CSF production appear to be very low, with the possible exception of M-CSF which has another unusual feature in being produced in very large amounts by the pregnant uterus. In general, CSF production is designed to be markedly elevated within hours following inductive signalling, the effective signals varying according to cell type.

Thus endotoxin, either acting directly or by first inducing IL-1 or IL-6 production, is a powerful inductive stimulus for CSF production by fibroblasts and endothelial cells, while foreign antigens play a similar role for T-lymphocytes. Increased CSF production is achieved either by first increasing the rate of mRNA transcription or by accumulation of mRNA due to enhanced stability of the molecule. This is then followed by increased rates of transcription with subsequent processing and secretion of the CSF molecules. Because of the cell contact nature of the control of stromal cells of haemopoietic cells, and the ability of stromal cells to produce CSF, it is possible that some CSF molecules are not secreted but are displayed on stromal cell membranes. However, the only good evidence to support this possibility so far is for M-CSF where an alternate transcript would permit production of a variant M-CSF with the appropriate structure.

What has been demonstrated is the ability of the glyco-alyx of cells to trap CSF and potentially to hold it in close proximity to responding cells. This process makes it extremely difficult to devise methods for establishing the concentrations of CSF adjacent to responding granulocytic and macrophage cells in the marrow or in tissues for the measurable levels in plasma may not be a valid index of what CSF is actually available to responding cells.

There are circumstances in which the number rather than the concentration of CSF molecules available is the factor which determines CSF action, and the general inability to monitor the milieu of responding cells continues to prevent the development of a satisfactory picture of how the CSFs are likely to act *in vivo*.

Just as CSF induction is rapid, the decline in CSF synthesis is equally rapid following withdrawal or removal of the inducing signal. This, coupled with the short plasma half-life of CSFs (a few hours at most), leads to the CSF control system being highly responsive and labile according to fluctuating demands.

The CSF production system is ideally designed to respond to and mediate responses to invading microorganisms. The CSF-producing cells are widely dispersed throughout the body and are in locations likely to make early contact with the products of invading micro-organisms or of cells damaged by such organisms. CSF responses are rapid and able to activate existing cells within hours. Where infections persist, the CSFs have the ability to stimulate the formation of massive numbers of additional mature cells and to sustain this elevated production for prolonged periods until infection is resolved.

## *In vivo* effects of the CSFs

The above postulated role of the CSFs was deduced essentially from *in vitro* experiments. Whether the CSFs actually could perform this function *in vivo* could only be established by injecting CSF *in vivo*. This direct test became possible in the mid-1980s with the mass-production of biologically-active recombinant CSFs.

Initial studies in mice established that the repeated injection of relatively low doses of CSF (10-200 µg per mouse) was able to elevate blood levels of granulocytes or monocytes, based on an increased proliferative activity of precursor populations in the marrow and spleen. The pattern of responses to injection of the different CSFs followed expectations from the earlier *in vitro* studies. Injections of G-CSF induced a pronounced rise in blood granulocyte levels, while injection of GM-CSF or Multi-CSF had some ability to elevate the numbers of granulocytes, monocytes and eosinophils. In the case of Multi-CSF, the only CSF with the ability to stimulate mast cell proliferation *in vitro*, injection *in vivo*

induced a pronounced rise in mast cells in the spleen and lesser rises in other tissues.

*In vivo* studies have indicated that there are distinctive differences in the actions of the CSFs. For example, G-CSF was the most effective agent for inducing rises in blood, marrow and spleen granulocytic populations, but was relatively inefficient in elevating local levels of granulocytes at the site of injection. In contrast, the blood, marrow and spleen changes induced by GM-CSF were minor in magnitude, but GM-CSF was the most efficient CSF in elevating local levels of macrophages, granulocytes and eosinophils.

Some unanticipated responses were observed to the injection of CSFs. For example, in G-CSF-injected mice a massive relocation of erythropoiesis occurred from the marrow to the spleen. This type of response is unlikely to be a direct action of G-CSF since it has no effects *in vitro* on erythroid precursors. In this type of situation it is likely that the injected CSF either elicits the production of other factors active on haemopoietic cells, or interacts with existing factors to influence haemopoietic populations outside its direct target cell range.

In line with the known actions of the CSFs *in vitro*, injections of CSF enhanced the functional activity of mature granulocytes and macrophages in recipient animals.

Further evidence of the *in vivo* actions of the CSFs has come from a variety of models in which excess levels of CSF are generated either by creating CSF transgenic mice or by grafting animals with haemopoietic cells producing high levels of CSF as a consequence of retroviral insertion of CSF cDNA. In all these models, the excess levels of CSF induced massive hyperplasia of the appropriate haemopoietic populations.

These experiments documented that the CSFs can strongly regulate granulocyte and macrophage populations *in vivo*. However, in themselves, they do not prove that the CSFs are necessarily the regulators controlling granulocyte and macrophage formation in normal health. Evidence on this question can only be obtained by suppressing CSF levels and observing whether this leads to the development of leukopenia. To date, only two observations attest to the importance of the CSFs for normal haemopoiesis. In rabbits injected with human G-CSF, antibodies are elicited that cross-inhibit host G-CSF. Antibody development results in profound neutropenia in such animals. In a second series of studies the genetic abnormality in *op/op* mice of osteopetrosis was shown to be based on defective osteoclast formation, the latter cells being derived from macrophages; *op/op* mice have now been shown to have a mutation in the M-CSF gene preventing synthesis of functionally-active M-CSF and the disease is curable by the injection of M-CSF. By inference, the formation and function of osteoclasts is M-CSF-dependent in normal health.

While this evidence is incomplete, the two findings strongly imply that the CSFs do play an important role in regulating the basal level of granulocyte and macrophage formation. Their role in controlling increased levels of cell formation in response to infections is more readily apparent since in acute infections, or in response to the injection of the bacterial cell-wall product, endotoxin, serum levels of CSF are elevated, as are the level and production of CSFs in tissues, and the effects of CSF injection reproduce the rises in granulocytes and monocytes normally seen in such infections. In this context, the disease — cyclic neutropenia in man or in grey collie dogs — is particularly instructive. In this disease cycles of neutropenia occur every 21 days, associated with recurrent infections of varying severity. Serum levels of CSF fluctuate in parallel and the implication is strong that the

recurrent fall in neutrophil levels is based on comparable fluctuations in CSF levels.

What is also emerging from an analysis of the response to injected CSFs is the recognition that the biology of granulocyte and macrophage populations is more complex than previously envisaged. It is still customary to assess this population by determining blood cell levels and marrow cellularity, on the tacit assumption that local tissue cellularity will reflect, passively, changes in blood and marrow populations. This is almost certainly an oversimplification, and it is quite conceivable that substantial changes can occur in the number or functional activity of local cells without impinging on the level of activity in the blood or marrow. Furthermore, agents regulating blood and marrow cellularity may not necessarily be identical with those most active on local populations. Such a divergence is seen dramatically in GM-CSF transgenic mice which exhibit constitutive 100-fold elevations in serum GM-CSF levels, but no changes in blood or marrow granulocytic or monocyte populations. In contrast, such mice exhibit massive (100-fold) elevations in cellularity in tissue compartments such as the peritoneal and pleural cavity. A similar divergence is observed following the intraperitoneal injection of GM-CSF in mice, where little change is observable in blood or marrow populations but again a marked rise occurs in peritoneal macrophage, granulocyte and eosinophil populations.

G-CSF elicits marked responses in blood and marrow populations but relatively little change in local populations and a comparison with the action of GM-CSF leads to the conclusion that these two CSFs are influencing the two different aspects of granulocyte-macrophage biology: systemic versus local.

For a proper understanding of the biology of granulocytic and macrophage populations, particularly in local responses and in the development of local lesions, it is a matter of some urgency to document local concentrations of the different CSFs if a clear picture of the regulatory control of these populations is to be achieved.

It was demonstrated early in this century that, when granulocyte numbers are abnormally low, the body becomes highly susceptible to infections. The ability of the CSFs to elevate granulocyte and macrophage levels should result in enhanced resistance in these circumstances. This has now been verified in animal models in which the myeloid tissue is first damaged by drugs or irradiation, then the animals challenged with lethal doses of a variety of micro-organisms. The injection of CSF into such animals has enhanced resistance and survival, up to one thousand-fold.

## Clinical studies

Following the initial work in mice, studies in primates using G-CSF or GM-CSF demonstrated the ability of both agents to elicit elevations in blood and marrow granulocytic and monocyte populations with little evidence of toxicity. This led to Phase I clinical trials to establish the efficacy of the agents in man, and to determine whether these CSFs exhibited dose-limiting toxicity. The first reported study (1987) was in AIDS patients in whom, despite pre-existing neutropenia, the injection of GM-CSF induced significant rises in blood granulocytes and monocytes.

The initial study in AIDS patients soon followed by multiple clinical trials in Melbourne and elsewhere of G-CSF and GM-CSF in cancer patients, before and following chemotherapy. In both situations a close relationship was observed between the dose and frequency of CSF injections and the resulting rise in blood white cell levels.

These changes occurred in three phases:

- a) an initial fall in levels due to adhesion of cells to vascular endothelium;
- b) a rapid subsequent rise probably due to release of cells from the marrow; and
- c) a sustained and higher rise reflecting increased production of new cells.

Depending upon the dose injected, granulocytes could be elevated from a normal level of 4-6000/mm<sup>3</sup> to more than 100,000/mm<sup>3</sup> — levels far higher than encountered or required during the most severe infections. Elevated white cell levels could be sustained for as long as CSF injections were continued, but fell rapidly to normal values within 1-2 days of ceasing CSF injections.

No significant toxicity has been encountered with G-CSF but GM-CSF does exhibit dose-limiting toxicity at doses above 15µg/kg/day, the toxic effects including the capillary leak syndrome and, occasionally, pericarditis. It seems likely that this toxicity is based on stimulation by GM-CSF of the production of toxic metabolites by macrophages.

More complex trials have established the ability of injected CSF to elevate white cell levels sufficiently rapidly, following myelotoxic chemotherapy, to permit scheduled repeat courses of cytotoxic drugs. The administration of either G-CSF or GM-CSF accelerates haemopoietic regeneration following autologous marrow transplantation, so that the period of barrier nursings can be reduced by seven to ten days. More recent protocols suggest that post-transplantation leukopenia may be entirely preventable by CSF therapy.

The CSFs have also proved effective in stimulating white cell formation in a variety of patients with myelodysplastic disorders despite the evident abnormality of the marrow precursor populations available for stimulation in such patients.

An unanticipated response to both CSFs was a substantial rise in haemopoietic progenitor cells of all lineages in the peripheral blood. At the peak of the response, the number of these cells approaches that in marrow populations and several clinical studies are in progress using blood cells from CSF-injected patients in lieu of marrow in autologous transplantation.

In none of these studies did the design allow much data to be collected on the impact of the elevated white cell levels in preventing or ameliorating secondary infections, although in each case suggestive evidence was obtained that this occurred. Current clinical trials on cancer patients receiving chemotherapy are addressing this question.

Meantime, however, clear evidence has emerged from studies on cyclic neutropenic and congenital neutropenic patients that the injection of G-CSF does markedly reduce the occurrence of such infections, in agreement with expectation from model studies in mice. These initial clinical studies have set the basis for the more extensive clinical use of the CSFs, including now M-CSF and Multi-CSF, and again in line with animal studies, the likely advantage of the use of combinations of CSFs will be explored.

The CSFs seem destined for early licensing for clinical use, and the question this raises concerns the range of patients who would benefit from their use. To date all clinical trials have been performed on leukopenic patients, because of the ability of the CSFs to stimulate white cell formation. Since this category includes cancer patients on cytotoxic therapy, this patient group is exceedingly large. However, once the principle has been established that host regulator responses to profound aplasia are not capable of elevating maximum possible responses, as the data already show, it is possible to question whether patients with apparently normal haemo-

poietic populations are exhibiting the maximal possible responses to infections. It seems likely that they are not and, just as was the case for aplastic patients, the injection of CSFs should be able to enhance resistance to infections through their ability to increase white cell levels even higher, and particularly their ability to stimulate the functional activity of existing cells.

On this reasoning, it is possible to envisage that many additional types of patient, such as those with local infections following abdominal surgery, or chronic renal tract infections, would benefit from the use of CSFs.

The situation with AIDS patients is of particular interest because of their predisposition to infections, the neutropenic state of AIDS patients, and the myelotoxicity of AZT. The problem arising is that the monocyte is a host cell for the HIV virus, and if the replication of HIV is enhanced in such cells, additional cells become liable to infection. GM-CSF, but not G-CSF, has been reported to enhance HIV replication in monocytes, suggesting that G-CSF may be a preferable agent to use in such patients. However, in the presence of AZT, GM-CSF does not enhance HIV replication and, if used in this context, may have no particular disadvantage.

In general, the extent of future clinical uses of the CSFs will depend on a number of factors familiar to clinicians:

- a) toxic effects of the CSFs
- b) continued efficacy
- c) induced antibody formation and
- d) cost.

Unlike some other biological agents such as IL-2 or IL-1, the CSFs are relatively non-toxic in the conventional sense. A possible risk of their overuse is that haemopoiesis may become seriously skewed to the formation of granulocytes and monocytes, with the development of anaemia or thrombocytopenia. This possibility is being monitored but has not so far emerged as a major problem. CSFs have been used for more than a year in individual patients without loss of efficacy. Related to this question is the possible induction of neutralizing antibodies to the recombinant CSF, either because the material is non-glycosylated or abnormally glycosylated. One such report has appeared, but it is too early to assess the likelihood of this presenting as a problem for the future long-term use of the CSFs.

Where an infection is life-threatening and likely to be of short duration, the price of a drug like CSF is not a major issue, but should the pharmaceutical companies choose to use a high price structure (to recoup development costs since production costs are low), then the cost of the CSFs may well prove to be restrictive. This will be a regrettable circumstance if they prove of value in enhancing resistance in a variety of serious but non-fatal infections.

**The CSFs are now well established as haemopoietic regulators with obvious clinical applications, and Australians can take pride that the work of their medical scientists has led to these exciting advances. Meantime, the whole field of haemopoietic growth factors has been surging forward. In addition to the CSFs, twelve other growth factors have now been identified and mass-produced by genetic engineering. In the not too distant future our clinical colleagues will have available an array of powerful highly specific agents to assist their efforts in correcting a wide range of disease states involving blood cell abnormalities.**

#### **Suggested further readings**

T.M. Dexter, J.M. Garland and N.G. Testa (eds.). Colony-Stimulating Factors. Marcel Dekker, New York, 1990.  
Metcalf, D. The Molecular Control of Blood Cells. Harvard University Press. Boston, 1988. ■

## From the Dean

**T**HE FACULTY continues to adapt to the changing needs of the University and the community. During 1990, the first full year of the amalgamation of the Faculties of Medicine and Dental Science to form the Faculty of Medicine and Dentistry, it was decided that, from 1 January 1991, the Faculty would expand further and change its name again to become the Faculty of Medicine, Dentistry and Health Sciences. The initial aim of this change is to enable the establishment of a new School of Physiotherapy within the Faculty, providing opportunities for students to gain undergraduate and postgraduate qualifications in physiotherapy at The University of Melbourne.

The Faculty enjoyed another highly successful year in attracting excellent students into its undergraduate and postgraduate courses, in continuing to review and upgrade its teaching programs, in attracting high quality staff, in winning very substantial research funds from outside sources, and in the award of major honours and distinctions to staff of the Faculty.

1990 was the final year of the five-year terms of office of the Dean (Professor Graeme Ryan), the Deputy Dean (Professor Gordon Clunie), the Assistant Dean (Pre-clinical) (Professor Trefor Morgan) and the Assistant Dean (Clinical) (Professor Ken Hardy). From 1 January 1991, the 'Deanery' has been restructured to provide for wider devolution of responsibilities in the areas of undergraduate programs and postgraduate activities.

**Dean of Faculty, and  
Head, School of Medicine**

Professor Graeme Ryan  
(re-appointed for a further five years)

**Deputy Dean of Faculty, and  
Deputy Head, School of Medicine**

Professor Gordon Clunie  
(re-appointed for five years)

**Associate Dean (Dental Science), and  
Head, School of Dental Science**

Professor Clive Wright  
(re-appointed for five years)

**Associate Dean (Physiotherapy), and  
Head, School of Physiotherapy**

Professor Joan McMeeken  
(new position, appointed for five years)

**Assistant Dean (Undergraduate Studies)**

Professor Neville Yeomans  
(new position, appointed for five years)

**Assistant Dean (Postgraduate Studies)**

Professor Priscilla Kincaid-Smith  
(new position, appointed for one year until her retirement)

The positions of Associate Deans (Clinical) have been re-named as Clinical Deans.

A sad loss to the Faculty and the University in February 1990 was the passing of Professor Emeritus Sir Roy Douglas Wright. As Professor of Physiology, as a Dean of the Faculty and as Chancellor, Sir Roy had a very major influence on the development of the Faculty for more than fifty years. We miss

him. It is a pleasure to note that the Research Chair of Experimental Physiology and Medicine, currently held by Professor John Coghlan as the Director of the Howard Florey Institute, has been re-styled as the R. Douglas Wright Chair.

In the latter half of 1990, considerable attention was given to reviewing and updating the Faculty's Strategic Plan for the next triennium, 1991-93. This was an important exercise, first in evaluating Faculty's success in achieving its objectives during the past three years, and secondly in triggering discussion and coming to decisions concerning a wide range of future initiatives. In the process of this review and arising from discussions held later in the year by the Dean with Heads of Departments concerning staff appraisal, it is clear that the morale of the Faculty is high and that there is general satisfaction with the achievements and directions being taken by the Faculty in teaching, in research and in its community interactions.

### Faculty Office Staff

In this report, it is most fitting to pay special tribute to the outstanding support given to the Faculty by the Faculty office staff under the excellent leadership of the Assistant Registrar (Medicine, Dentistry and Health Sciences), Mr Darrell Mead, very ably assisted by the Executive Officer (Dentistry) Mr Peter O'Keefe, and with Ms Deborah Rogers taking special responsibility for budgetary and NHMRC matters, Ms Tina Adams dealing with undergraduate curriculum and student issues with the assistance of Ms Anne Szadura, Ms Robin Orams overseeing the Continuing Medical Education and Graduate and Community Relations Office, Ms Jude Atkins-Morgan assisting with Continuing Dental Education, and Mrs Iris Welcome continuing to run the Dean's office with great skill and efficiency.

### Amalgamation between Medicine and Dental Science

The amalgamation between Medicine and Dental Science has proved to be successful, providing a stimulus for further integration of undergraduate teaching programs and opportunities for closer collaboration in research and in the sharing of resources and facilities. The sharing of experience in interactions with teaching hospitals has also been valuable, leading to the establishment of a number of important appointments that have been funded jointly by the University and The Royal Dental Hospital of Melbourne. In addition, the extension of the use of the title of Associate Professor (Clinical) to appropriately qualified and experienced staff of the School of Dental Science has been a significant development.

### Other proposed amalgamations

During the year, discussions were held with the Victorian College of Pharmacy with a view that the College would amalgamate with the University as a School of Pharmacy within the Faculty of Medicine, Dentistry and Health Sciences. Agreement was not reached between the University and the College of Pharmacy, and the future of this proposed amalgamation is now uncertain.

## School of Physiotherapy

Following a protracted period of negotiations, the State Government approved in July 1990 the introduction in 1991 of an undergraduate course for the Bachelor of Physiotherapy degree at The University of Melbourne. The University accepted this proposal on the basis that this would be a four-year course with an intake of 40 students in 1991, increasing to an intake of 80 students in 1993. This decision was followed by an intense period of planning and consultation with the physiotherapy profession to develop course objectives and subject details for each year of the program. The course details were approved by the Academic Board and have been given provisional approval by the Physiotherapists Registration Board of Victoria.

The program is innovative and challenging. There will be considerable sharing of classes with medical and dental students in the first two years of the course, but the School of Physiotherapy will be responsible for a major input of physiotherapy teaching in both first and second years. The clinical program of the School, predominantly in the final two years of the course, will rely heavily on the Faculty's extensive network of general and specialist clinical schools, with the establishment of strong teaching and research links with hospital departments of physiotherapy in these clinical schools. Approval has also been given by the University for the establishment of a Master of Physiotherapy degree by research, and a number of professionally-oriented graduate diploma courses are currently being planned.

The School is conveniently located in handsomely refurbished space at 200 Berkeley Street, adjacent to the University's medical precinct.

The Faculty is very pleased that Joan McMeeken, formerly Manager Physiotherapy at the Royal Melbourne Hospital, has accepted appointment as Foundation Professor of Physiotherapy and Head of the School of Physiotherapy. She takes up this position in June 1991, and also takes up the position of Associate Dean (Physiotherapy).

## Teaching hospital affiliations

From the beginning of 1990, the Faculty welcomed the Geelong Hospital as a major teaching hospital of The University of Melbourne. Geelong Hospital is linked with St Vincent's Hospital to form the St Vincent's Hospital and Geelong Hospital Clinical School. Already, during 1990, students of this Clinical School have indicated their enjoyment of the rotations to Geelong Hospital. The Faculty pays special tribute to the excellent work of Mr Geoff Royal as Clinical Sub-Dean at Geelong in ensuring the success of this new program. [See Obituary, p70]

The Faculty is indebted to the Boards of Management and staff of all of its affiliated teaching hospitals for their continuing outstanding support of the University's teaching and research programs.

## Students

**Medicine:** Quota numbers for entry into the first and second years were unchanged at 182 and 192 respectively. The first year quota included 10 students with social and/or educational disadvantage admitted under the University's Special Admissions Scheme. The second year quota included 11 Lateral Entry Scheme students, and 10 Extended Special Admissions Scheme students who had gained admission after the satisfactory completion of two years of Science to prescribed standards. There were 33 full-fee overseas students admitted to first year outside the above quota, and 2 full-fee overseas students proceeding to second year. Two

refugee students were admitted to third year after successfully completing screening tests, making a total of 3 refugees currently in the course and 9 refugees who have graduated from the course. Nine refugees previously admitted under this arrangement have graduated from the course during the past five years.

**Dental Science:** The first year quota remained at 45, and 10 Lateral Entry Scheme students were admitted to second year. Two students were admitted to first year under the University's Special Admissions Scheme. Four full-fee overseas students were admitted to first year outside the quota, and one full-fee overseas student was admitted to second year.

**Physiotherapy:** The first intake of 40 students have commenced their studies in the new physiotherapy course. The Faculty is very pleased at the very great demand for places, and the very high academic calibre of all the students admitted to the course.

**Science:** During 1990, at the request of the Faculty of Science, there was a significant increase in the number of science students admitted to science units taught by our preclinical departments. In recent years, there has been increasing demand for places in these units, leading to some incremental creep since 1986 in the numbers of students in such units. This demand has been recognised by the Faculty of Science which has agreed to transfer funding to allow an expansion in science teaching by the preclinical departments totalling 83 EFTSU over the three years 1990-92.

**Higher degrees:** There is still strong demand for places in higher degree programs of the Faculty. In 1990, a total of 408 EFTSU were enrolled as higher degree students in the Faculty, 364 in the School of Medicine and 44 in the School of Dental Science.

**Student Societies:** The President of the Medical Students Society in 1990 was Mr Simon Williams. The President of the Dental Students Society was Mr Douglas Lee. The Faculty thanks them and all other students who participated in Faculty and on committees of the Faculty for their excellent work in promoting the interests of students.

## Research

The Faculty maintains its very strong position in research. During 1990, the Faculty attracted a total of approximately \$19.7 million in outside research funds, including \$8.7 million of NHMRC funds for 112 Project Grants and 7 Program Grants. In addition, another \$1.9 million of NHMRC funds were awarded to associates of University departments in affiliated teaching hospitals, giving an overall total of approximately \$10.6 million of NHMRC funds for the Faculty and its affiliated teaching hospitals in 1990.

## Academic Staff

### Appointments to Chairs (1990), School of Medicine

- **Chair of Medicine, Repatriation General Hospital**  
Professor Richard Smallwood
- **Chair of Community Medicine**  
Professor Hedley Peach
- **Ringland Anderson Chair of Ophthalmology, Royal Victorian Eye and Ear Hospital**  
Professor Hugh Taylor
- **Chair of Physiology**  
Professor John Furness

Congratulations were extended in 1990 to Professor Fred Mendelsohn for his appointment to a Personal Chair in the Department of Medicine, Austin Hospital; and to Professor Jacques Miller for his appointment as Research Professor of Experimental Immunology at the Walter & Eliza Hall Institute of Medical Research.

### Appointments to Chairs (1990), School of Dental Science

- **Eldson Storey Chair of Child Dental Health**  
Professor Louise Brearley-Messer
- **Chair of Restorative Dentistry**  
Professor Harold Messer

### Appointments to Chairs (1991), School of Medicine

- **Chair of Medicine, Geelong Hospital**  
Dr Geoffrey Nicholson
- **Cato Chair of Psychiatry**  
Professor Bruce Singh
- **Chair of Surgery, Repatriation General Hospital**  
Mr Donald MacLellan
- **Professor/Director of Medical Imaging, Austin Hospital**  
Dr Oliver Hennessy
- **Professor/Director of Cardiac Surgery, Austin Hospital**  
Mr Brian Buxton
- **Professor/Director of Adolescent Health, Royal Children's Hospital, Royal Melbourne Hospital, Royal Women's Hospital**  
Dr Glen Bowes
- **Professor/Director, Austin Hospital Research Institute**  
Professor Ian McKenzie

### Retirements

Notable retirements at the end of 1990:

- Professor Richard Bennett from his appointment for 25 years to the Hugh Devine Chair of Surgery at St Vincent's Hospital
- Professor Brian Davies from his appointment for 26 years to the Cato Chair of Psychiatry.

Both these retirees have been appointed as Professor Emeritus.

- Mr Alan Cuthbertson, Associate Dean (Clinical) Royal Melbourne Hospital (replaced as Clinical Dean in 1991 by Associate Professor Robert Moulds).

### Honours

Notable honours awarded during 1990 to those associated with the Faculty included:

- **Companion of the Order of Australia**  
Professor Emeritus Nancy Millis
- **Officers of the Order of Australia**  
Professor Emeritus William Hare  
Professor David Danks
- **Member of the Order of Australia**  
Associate Professor Robert Fraser

### Major Awards (1990)

- **Potamkin Prize for Alzheimer's Disease Research**  
Professor Colin Masters  
(shared with Professor K. Beyreuther)
- **Albert Einstein Award**  
Professor Sir Gustav Nossal
- **Alfred P. Sloan Prize**  
Professor Donald Metcalf  
(shared with Professor L. Sachs)
- **Sandoz Prize**  
Professor Jacques Miller  
(shared with Dr M. Cooper)

### Lemberg Medal

Professor T.J. (Jack) Martin

### LKB-Pharmacia Biotechnology Medal, and the Wellcome Medal

Dr Bruce Kemp

### NHMRC Committee

At the end of 1990, significant changes occurred in the membership of important NHMRC committees: Professor John Coghlan and Professor Graeme Ryan retired from membership of the Medical Research Committee. In 1991, Professor Jack Martin and Professor Peter Reade are members of the Medical Research Committee. Professor Martin and Professor Bruce Singh are members of the Grants Committee. In addition, Professor Richard Smallwood is Chairman and Professor Priscilla Kincaid-Smith a member of the Health Care Committee. Professor Ryan is a member of Council of NHMRC.

### Graduate and Community Relations

**UMMS:** The University of Melbourne Medical Society continues to flourish, with over 2000 members, including graduates from the class of 1914 to the class of 1990. The Society's journal, *Chiron*, is an excellent publication, due to the dedication and hard work of the joint editors, Mr Peter Jones and Mrs Maggie Mackie, and to the spontaneous contributions from members of the Society.

**The UMMS evening function** for 1990 was an outstanding success. Held on 20 November 1990, members attended a buffet in the Pathology Museum followed by a brilliant lecture by Sir Sydney Sunderland given in the Sunderland Theatre. Sir Sydney delighted his audience of more than 300 with his reminiscences of 'The Melbourne Medical School and Some of Its Characters, 1931 to 1975'. In the vote of thanks, the Dean paid tribute to Sir Sydney's achievements and wished Sir Sydney well for his 80th birthday on 31 December 1990.

**SAFODS:** During 1990, the activities of the Society and Friends of Dental Science led to the full operation of the Geoffrey Wylie Centre, and saw the Centre's development as a focus for Continuing Dental Education in Victoria.

**The Dean's Lecture Series** was well attended in 1990 and continues to be an important forum for new professors to give inaugural lectures and for other special orations. Speakers included:

- Professor Clive Wright
- Professor Louise Brearley-Messer
- Professor Harold Messer
- Professor Brian Tress
- Professor Richard Smallwood
- Professor Hedley Peach.

Professor Robert Adler gave the Beattie Smith Lecture and Professor Donald Metcalf delivered the Halford Oration. Again in 1990, Professor Emeritus Richard Lovell convened a major seminar on an important ethical issue: Privacy in Medicine — Issues Old and New. Professor Lovell also worked in close association with Ms Robin Orams in planning and promoting an excellent Continuing Medical Education program that continues to attract considerable interest.

*Graeme B. Ryan*  
Head, School of Medicine  
Dean, Faculty of Medicine,  
Dentistry & Health Sciences

## Retirements

*The following Minutes of Appreciation were adopted at the last meeting of the Academic Board for 1990:*

### Professor Richard Clayton Bennett

**R**ICHARD CLAYTON BENNETT was born in 1930 in Moonta, South Australia. He graduated MBBS from the University of Adelaide at the top of his class in 1954, showing his versatility by topping both Medicine and Surgery in the final year and by gaining a University Blue for Australian Rules Football. After positions as a Resident Medical Officer at the Royal Adelaide and the Royal Children's Hospitals, he became a Lecturer in Anatomy at the University of Adelaide, taking out the Gordon Taylor Prize of the Royal Australasian College of Surgeons at the Part I examination. His early training in surgery was undertaken as a Teaching Registrar at the Royal Adelaide Hospital, as a Commonwealth Surgical Fellow at the Western Infirmary, Glasgow, and as Senior Registrar at the General Infirmary of Leeds.

He returned to Australia as Senior Lecturer in Surgery at the University of Adelaide in 1963, under the tutelage of Professor R.P. Jepson. He had already developed particular interests in colorectal surgery and became a Master of Surgery at the University of Adelaide in 1966 following submission of a thesis dealing with aspects of ano-rectal function.

Richard Bennett's status as an academic surgeon was recognised by his appointment in 1966 to the Hugh Devine Chair of Surgery at St Vincent's Hospital within The University of Melbourne. In this Foundation position he developed a department with great strengths in undergraduate and postgraduate teaching and in the broad field of what is now termed 'surgical oncology', with particular interest in the investigation and treatment of tumours of the gastrointestinal tract and the breast. His commitment to and skills in the management of breast cancer were recognised by his appointment as a Specialist Consultant Surgeon to the Breast Clinic at the Peter MacCallum Cancer Institute in 1968 and by his Chairmanship of the Breast Study Committee and the Victorian Co-operative Oncology Group of the Anti-Cancer Council of Victoria. His contributions to surgical research were recognised by his Presidency of the Surgical Research Society of Australia, 1970-1971, and by his membership of Regional Grant Interviewing Committees of the National Health and Medical Research Council. He acted as External Examiner and a Guest Lecturer or Visiting Professor in a great many institutions throughout the world, with a particular interest in South-East Asia, where he is an honoured figure. His status in international surgery is indicated by his election in 1988 as a Member of James IV Surgical Association, one of the

most exclusive and prestigious of such associations.

In addition to these major contributions, amongst Professor Bennett's greatest commitments to academic and surgical life in Australasia has been his role in the Royal Australasian College of Surgeons. He was a member of the Court of Examiners between 1972 and 1982, a member of Council and of the Victorian State Committee from 1975 to 1986, being Treasurer of the College from 1979 to 1987, Junior Vice-President from 1985 to 1987 and a member of the Court of Honour since 1987. As Treasurer he was the Founder and Co-ordinator of the Royal Australasian College of Surgeons Foundation, an outstanding organisation which provided very substantial sums of money for the furtherance of surgical research and education, these monies being gathered firstly from fellows of the College and subsequently from a variety of commercial organisations and Trusts. This achievement alone leaves a substantial mark on Australian surgery and is a tribute to Professor Bennett's vision, energy and powers of persuasion. In addition to these considerable contributions, Professor Bennett has served successively as a member and Chairman of the Editorial Committee of the Australian and New Zealand Journal of Surgery and finally as the Editor-in-Chief. His period in those offices has seen the Journal progress from a local journal of little impact to a monthly issue with a wide international distribution and reputation.

Professor Bennett has been an excellent contributor to the academic life and stature of the University and of the Faculty of Medicine and Dentistry in particular. He has formed strong and lasting links between academic surgery and the surgical profession. The Faculty and the Academic Board record their thanks for his outstanding service.

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### Professor Brian Michael Davies

**B**RIAN MICHAEL DAVIES was born in 1928 in Wales and it was there he had his early education. He graduated MBCh (1950), DCH (London 1952), MRCP (London 1954), MD (Wales 1958), DPM (University of London 1959). He had house appointments in United Cardiff Hospitals between 1950-51, and then did National Service RAMC between 1951-1953. He went into general practice between 1953-1954, and then became a Medical Registrar of the United Cardiff Hospitals from 1954 to 1956. His interest in psychiatry resulted in him becoming a Registrar and then Senior Registrar at the Bethlem Royal and Maudsley Hospitals between 1956-1964.

Brian Davies arrived on the Australian scene when he was recruited to take up the Cato Chair of Psychiatry, The University of Melbourne, at the Royal Melbourne Hospital in March 1964. As the Foundation Cato

Professor, he has had a major influence on the development of psychiatry in Victoria and Australia. Throughout his twenty-six years in the Chair, he has been a dedicated academic, actively involved in education, research and clinical work. His influence led to major changes in the medical curriculum in the teaching of psychiatry, in preclinical, clinical and postgraduate areas. He always made teaching a high priority. His thorough approach of emphasising comprehensive assessment and management has been valued and retained by many undergraduate and postgraduate students. He was an examiner in final medical examinations at the Universities of Melbourne, New South Wales and Tasmania, as well as at the Universities of Otago and Malaysia, and an examiner in postgraduate Psychiatry at the Universities of Sydney and Otago and in the Royal Australian and New Zealand College of Psychiatrists Fellowship examinations. In 1972 he was awarded a Commonwealth Senior Medical Fellowship in London and in 1977 was a Visiting Scholar to Stanford University.

He has played a major role in psychiatric research and in psychiatric publishing. He has served as Associate Editor of the Journal of the Royal Australian and New Zealand College of Psychiatrists, the Journal of Psychological Medicine and Journal of Psychiatric Research. He has been influential in international psychiatry, particularly in two distinguished periods as Committee Member of the World Psychiatric Association, and the International College of Neuropsychopharmacology. He has given a number of academic orations which have highlighted his research interests. These include the Beattie-Smith Lecture in 1968 on 'Recent Studies of Severe Depressive Illnesses'. More recently his contribution to the research of dementia was recognised when he was invited to deliver the Academic Lecture of the Royal Australian and New Zealand College of Psychiatrists at the Annual Congress in 1989 on 'Cholinergic Agents in Alzheimer's Disease'.

Professor Davies' publications include a basic text for undergraduates which has been used widely since 1966, and he is author/editor of seven other books. He has made an impressive and vast contribution to the literature in scientific journals, particularly in the area of affective disorders, psychopharmacology, and psychoneuro-endocrinology.

Professor Davies has been a quiet but inspiring leader over many years. During this time, he has fostered the careers of many postgraduate students, registrars and academic members of his Department, many of whom have gone on to become Professors of Psychiatry in prestigious departments, both nationally and internationally. In all his teaching and planning, Professor Davies has sought to blend biology, psychology and sociology into a humanistic approach towards the care of people.

The Department of Psychiatry, the Faculty of Medicine and Dentistry and the

Academic Board wish Professor Davies well in his retirement, and extend thanks for his excellent service to his discipline and to the University.

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### **Alan Morton Cuthbertson Associate Dean (Clinical), RMH**

**A**LAN CUTHBERTSON graduated in Medicine at The University of Melbourne in 1954. Following resident Medical and Surgical Officer appointments at the Royal Melbourne Hospital, he became a Lecturer in Pathology in The University of Melbourne under the tutelage of the late Edgar King. The interest in pathology arising from this association was to have a major influence on his subsequent career as a surgeon. He became a Fellow of both the London, Australasian and American Colleges of Surgeons and was successively Surgical Registrar at the West Middlesex Hospital in London and Clinical Fellow at the Cleveland Clinic Foundation in the USA. He returned to Melbourne in 1962 as Lecturer in the Department of Surgery under Professor Maurice Ewing, and as an Associate Surgeon at the Royal Melbourne Hospital. His interest in colorectal surgery had been stimulated by his time at the Cleveland Clinic and by his later association at the Royal Melbourne Hospital with E.S.R. Hughes, with whom he was to write several major texts and many original articles.

Alan Cuthbertson became one of Australasia's outstanding colorectal surgeons and made many original contributions to our understanding of colorectal cancer and its treatment. He was Head of the Colorectal Surgery Unit at the Royal Melbourne Hospital between 1982 and 1989, a Member of the Court of Examiners in General Surgery for the Royal Australasian College of Surgeons for ten years from 1979, and a Professorial Associate in the Department of Surgery from 1977 to 1987.

In 1986, following the death of Dr Roger Melick, then Associate Dean (Clinical) at the Royal Melbourne Hospital, Alan Cuthbertson stepped in, at short notice, to take up this demanding position. As Associate Dean (Clinical) he completed a career devoted to the teaching of generations of undergraduate students at the Royal Melbourne and Western Hospitals. In 1990, he retired as an active surgeon from the staff of the Royal Melbourne Hospital and also from the position of Associate Dean (Clinical), to become a consultant surgeon.

Mr Cuthbertson has been an excellent contributor to the academic and clinical life of the Royal Melbourne Hospital and Western Hospital Clinical Schools, the Faculty and the University in general. He leaves as a well-loved and highly respected figure, and will continue to contribute to teaching along with his newly adopted role of vigneron.



Ms Dorothea Rowse.

### **Dorothea Rowse, MA Life Sciences Librarian**

Following the retirement of Joan Martin in July 1990, Dorothea Rowse was appointed Life Sciences Librarian from 1 October 1990. Her last appointment was as Deputy Head of the Subject Reference Division at the University of South Africa, Pretoria, in which position she supervised a staff of thirty-six in the main library and two branch libraries. Dorothea's qualifications include Bachelor of Arts (English and History), London University, and Master of Arts, University of South Africa. She has published in the areas of information sciences, genealogy and history.

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### **BROWNLESS MEDICAL LIBRARY SERVICES AVAILABLE TO GRADUATES**

Staff of the Brownless Medical Library are pleased to provide help to graduates of The University of Melbourne, particularly those of the School of Medicine. Brochures are available in the Medical Library which describe the services available, and will help new or returning patrons to find their way about and to deal with electronic systems. The Information Desk on the ground floor is staffed, usually by professional librarians, from 9.00 a.m. to 6.00 p.m. weekdays, and can be reached by telephone on 344 5718. The Librarians are pleased to provide refresher sessions on the use of specialised reference and resource material and to give guidance in retrieving information. During semester and the winter recess, Brownless Medical Library is open from 8.30 a.m. to 10 p.m. Monday-Friday, and from 8.45 a.m. to 12 noon on Saturdays. During vacation the hours are reduced, and the Library is not open in the evening except on Wednesdays (until 9 p.m.). Signs on the doors, or a call to the Information Desk, will provide up-to-date information on vacation hours.

The University of Melbourne Library system extends borrowing privileges to graduates and retired staff of The University of Melbourne. Medical graduates wishing to enrol as Approved Borrowers should apply to the Information Desk at Brownless Medical Library with documentary evidence to support their requests. After approval of an application, an Approved Borrower card will be issued. Cards expire on 31 December each year, and re-application must be made for card renewal.

Graduates who produce Approved Borrower cards may borrow books from

any library within The University of Melbourne Library system. Certain categories of material are not available for borrowing, and the Library must, of course, retain the right to withhold from lending to Approved Borrowers, any materials which are in high demand by University of Melbourne staff and students. If this occurs, library staff will help to identify alternative resources which may be borrowed.

The Brownless Medical Library has a strong collection of medical periodicals. Library staff are pleased to suggest alternative locations if materials are not held locally.

Periodicals are not lent, but photocopyers are available; the only restriction placed on their use is the necessity to adhere to the provisions of the Copyright Act (the salient points are displayed in the vicinity of the photocopying machines). The photocopying service is supplied by Resource Card. The user is required to buy a card (cost \$10.00) from the vending machine in Brownless Library. The same machine is used to add value to the card. Copies cost approximately 10c per page.

The collection of reference materials is comprehensive, and is continually reviewed. The Medical Library also has an excellent collection of audiovisual materials in medicine and allied health fields. There are comfortable facilities for viewing of videotapes and slide-tape programs, and audio-cassettes may be borrowed for home use. Medline on CD is available in the Library.

**Graduates are warmly invited to make themselves known to Ms Rowse and the Brownless Medical Library Staff.**

### Austin Hospital and Repatriation General Hospital

In 1990 there were 154 students at the Clinical School with 49 in fourth year and 48 in final year. The actual teaching programs have shown very little change from the previous year, the major difference occurring in fifth year when the students are rotated to the Mercy Hospital for Women, Royal Children's Hospital, Community Medicine and Psychiatry; casualty, anaesthetics and infectious diseases will be undertaken in final year.

With reduced funding and number of patients at the Austin Hospital and Repatriation General Hospital, and increased specialisation in both, the clinical patient load for the students has decreased. With the continuing success of the fourth year rotations to Bendigo & Northern District Base Hospital, and with the increased number of students in 1991, the Clinical School has arranged fourth year rotations in 1991 to Albury Base Hospital and Goulburn Valley Base Hospital. This will allow the students to spend eight weeks in country rotations and see a broader mix of common conditions. At the same time, the close proximity of the Austin Hospital & Repatriation General Hospital gives them an integrated program at their home base.

The final examination in 1990 saw all students passing. The top student was Ms Julie Baird, who obtained First Class Honours in Medicine and Surgery, and distinguished herself with ten prizes in the final year examinations. Our congratulations go to Julie for such a fine performance. She will be returning to the Austin Hospital for her internship 1991.

In the fourth year results, again all students passed. Mr Peter Mount was awarded the Lorna King Prize for the top student, Rhys Vaughan coming a close second.

Staff promotions in 1990 included the appointment of Fred Mendelsohn to a Personal Chair in Medicine, Professor Oliver Hennessy as Professor/Director of Medical Imaging at the Austin Hospital, and Professor Donald MacLellan as Professor of Surgery at the Repatriation General Hospital, commencing January 1991.

Dr Alan Goble retired after a long and distinguished career of teaching at the Clinical School. We also note, with regret, the death of Dr Peter Bull who had been on the teaching staff at the Austin Hospital since the Clinical School began.

*Bernard Sweet*  
Clinical Dean

### Royal Melbourne Hospital and Western Hospital

During 1990, the new initiatives from the previous year were trialled for the first time.

Clinical ASUs (Advanced Study Units) were completed by each student during Term 2 or 3. The idea of the ASU is to require the student to pursue a subject in some depth and deliver it either as a written or oral presentation to a supervisor. This encourages the student to read independently and learn to use the library facilities. A number of presentations were excellent, but some supervisors felt that ASUs diverted attention from the true purpose of fourth year.

Pathology has once again become an examination subject in fourth year. Because all students spent one term in a country hospital, some difficulties were experienced in providing an integrated tutorial program in pathology. In 1991, pathology teaching will be concentrated in term one, when all students are in Melbourne.

Starting in 1991, one group of surgical fourth year students will be rotating to Wimmera Base Hospital during Terms 2, 3 and 4. This rotation replaces the previous one with Goulburn Valley, which has been taken over by the Austin Hospital and Repatriation General Hospital Clinical School. We look forward to a happy and productive association with Wimmera Base Hospital, which already is

staffed by residents from the Royal Melbourne Hospital. We thank the surgical staff at Goulburn Valley Base Hospital for the high standard of teaching maintained during the time of our association.

With the move of emergency teaching to fourth year it soon became apparent, particularly in the early part of the year, that students had too little clinical experience to benefit fully from practical experience. It became clear that an additional two weeks emergency experience in final year would be necessary. This will be possible from 1991, using the Emergency Departments at Royal Melbourne, Western and Ballarat Hospitals and combining this teaching with anaesthetics which moves to final year.

The teaching of infectious diseases moved to final year in 1991. Timetabling problems made it difficult to arrange a suitable schedule and it was decided that one of the five half-day blocks would be taught at RMH. Fortunately, Dr Graeme Brown has been appointed to the new position of Infectious Diseases Physician, beginning in 1991.

Cost-cutting measures at our public hospitals have resulted in a review of outpatient services. If there is to be a reduction in the number of outpatients there may be further diminution in the opportunity for clinical teaching, unless these cuts are directed at patients who are unsuitable for teaching. Outpatients at RMH make up a significant proportion of our teaching, particularly on the surgical side and reduction of this source of patients will further distort the range of conditions experienced.

Final year medical internships, after some teething troubles, appear to have been successful again. These student internships will be extended into the general surgical wards during 1991, but any cuts or privatisation of outpatients services may diminish the value of such posts.

We offer congratulations to Julie Baird from the Austin Hospital and Repatriation General Hospital Clinical Schools, who was dux of final year. Katie Heathershaw topped our clinical school, which means that female students have gained the first place for the last three years.

I retired at the end of 1990. I wish to thank all the members of the teaching staff for their commitment to student teaching, and the staff in the clinical school office for their hard work and devotion to students during my term as Associate Dean (Clinical).

*Alan Cuthbertson*  
Associate Dean (Clinical)

### St Vincent's Hospital and Geelong Hospital

1990 was a significant year in the history of St Vincent's Hospital Clinical School. We celebrated our 80th anniversary and on January 1st 1990 we amalgamated with The Geelong Hospital to form the St Vincent's Hospital and Geelong Hospital Clinical School. We are most fortunate in this endeavour which has greatly enhanced the clinical facilities available to our students, in terms of patient access, well-established teaching units and most especially in the availability of experienced and enthusiastic clinical teachers.

During this past year also, the long association between St Vincent's Hospital and the Preston and Northcote Community Hospital was further consolidated, and rotations to PANCH continue to form a major part of our teaching program.

Nineteen-ninety was a highly successful year in the Clinical School with all 46 final year students passing their examinations well. Many students received honours and a number distinguished themselves by winning various prizes and scholarships. Our top student was Peter Crowley who obtained four First Class Honours (Medicine, Surgery, Psychiatry and Paediatrics) and a Second Class Honour (Obstetrics and Gynaecology).

The new curriculum was introduced into the fifth year in 1990 and, as a consequence, students spent very little time at their parent clinical school. Students found that they enjoyed rotating to other institutions and appreciated the opportunity to mix with students from other clinical schools.

Further changes to the fourth year curriculum were introduced in 1990 and these included the formal teaching of pathology within the clinical schools. Some difficulties were encountered in co-ordinating the pathology teaching program throughout the parent institutions and the country hospitals to which our students rotate. Advanced Study Units were also introduced into fourth year for the first time in 1990. Students were required to undertake a guided, independent study of a clinical topic or issue and to present their findings in either verbal or written form. While many students found the ASU's stimulating, the curriculum changes have added substantially to their workload and there is concern that students have insufficient time to develop proficient clinical skills.

Once again our fourth year students had the opportunity to spend a term at a country hospital. These rotations provide students with the opportunity to appreciate a different spectrum of disease other than that seen at the central teaching hospital. The country rotations proved to be popular with students, and they were well received by patients and staff.

During 1990, third year students attended the hospital for one afternoon each week for an 8-week period during the second semester. Each session included a clinico-pathological correlation session and small group tutorial which the students found particularly interesting. The course was well received by the students, who enjoyed their time at the hospital.

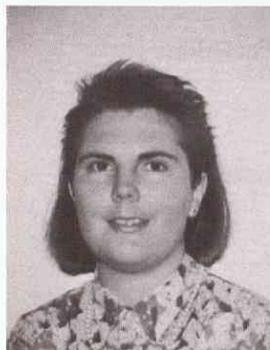
We are most grateful for the tuition given by all the dedicated and hard-working teachers associated with our clinical school during 1990. The standard of tuition is high and our students have many opportunities to experience variety in clinical practice.

We look forward to a continuing and fruitful association with all our allied institutions.

*Wilma Beswick*  
Clinical Dean

## Final Year MBBS 1990

### Top Final Year Student 1990



Dr Julie Baird

**J**ULIE MAREE BAIRD topped the Final Year 1990 and was awarded the following prizes: Australian Medical Association Prize, The CIBA-GEIGY Prize, Rowden White Prize, Keith Levi Memorial Scholarship in Medicine, Robert Gartly Healy Prizes in Medicine and Surgery, Upjohn Award in Clinical Pharmacology and Therapeutics, Beaney Scholarship in Surgery, Smith & Nephew Prize in Surgery (AH/RGH), Senior Medical Prize (AH). In her

previous years, Julie had gained prizes and exhibitions in second year anatomy, physiology and biochemistry. She topped the fourth year.

Julie was born in Merbein near Mildura, the youngest of three sisters, and went to Merbein Primary School. Her family moved to Melbourne when she was eight years of age, and her secondary education was completed at Templestowe High School, where she obtained an HSC score of 401. Her whole family is involved with the health area. Her mother and two sisters are nurses and her father is a medical technologist working at the Repatriation General Hospital.

Julie is very modest about her achievements. She is more interested in outdoor pursuits such as bush walking, camping, swimming, windsurfing and enjoys the odd round of golf.

Julie chose to complete part of her Elective studies in Tonga, where she gained valuable practical experience in working with less than adequate facilities.

She has accepted an Internship at the Austin Hospital, and is particularly interested in graduate studies in General Medicine or Ophthalmology.

## Graduate List 1990

### Bachelor of Medicine & Bachelor of Surgery

Kathryn Jane Amor, David Tomas Andrews, Ang Kian Chuan, Trude Mary Ann Augustat, Christopher Ashley Bain, Julie Maree Baird, Lisa Maree Begg, Simon Paul Leon Bernard, Anita Susan Boecksteiner, Michelle Anne Boldt, Douglas John Brodie, Andrew Ulrich Buettner, Chuong Dac Huy Bui, Julie Ann Cameron, Yee Kar Chan, Christopher John Charnley, Yvonne Ann Chepul, Deborah Yee-Mun Cheung, David Kho-Tek Chew, Stella Kit Yin Chu, Chua Boon Hui, Martin William Clark, Julia Victoria Clarke, Carlos Cobelas, Simon Craig, Peter Francis Crowley, Anthony Neil Cullen, Doris Daglas, BSc, Andrew John Daley, BAppSc (RMIT), Mark James Davie, Gavin Andrew Davis, Catherine Harriet Deacon, Michael John Demtschyna, Margherita Di Carlo, Peter Colman Dillane, MSc, BA, Steven Dimadis, Adrian Salvatore Di Marco, Andrew Nicholas Dobrotwir, Adrian John Dunlop, Rhonda Joy Edwards, Carolyn Jane Ellaway, Elizabeth May Ellis, Ibrahim Elnazak, Marcel Louis Favilla, BMedSc, Angelo Phillip Ferraro, David John Festa, Con Georgakas, Peter Gibbs, Patrick John Guiney, Christian Franziskus Haidacher, John Arthur Harrison, Ahmed Mohamed Hassan, Joanne Louise Hayes, Katie Lynette Heathershaw, Richard Leslie Hill, BSc, William John Hoffmann, Natalie Anne Hood, Anne Hotchin, Mark Erskine Howard, Huang Ching Ling, Andrew Robert Imison, Danesh Boman Irani, Farokh Boman Irani, Kerryn Frances Ireland, John Anthony James Johnston, Meredith Lea Joslin, John Joseph Mark Kearley, Geok Suan Daisy Kho, Nicholas Kokotis, Stathis Dimitri Kypraios, Anh Thi Chau Le, Denise Fung May Lee, Karen Elizabeth Lee, Saretta Lee, James Chin Sek Leong, Robert Andrew Lewin, Timothy Charles Lightfoot, Lim Guan Choon, Wye Keat Lim, Catherine Clare Lyons, Tak-Sang Dickson Ma, Sean Desmond Patrick Mackay, Michael James Malone, Adrian Wah-Ying Mar, George Maragoudakis, Kati Louise Matthiesson, David Bryan McCombe, Jacqueline Kim Mein, Gregory Biagio Mele, Leanne Elizabeth Myers, Gregory Nathan, Ng Seng Onn, Ngu Jing Jing, Fiona Bothwick Nicholson, Nicholas Nicolettou, David Anthony Nolan, Adam John O'Brien, Daniel Patrick O'Brien, David Charles Orchard, Lucia Barbara Maria Oude-Vrielink, Georgina Paizis, Elizabeth Joyce Pemberton, BMedSc, Georgina Elizabeth Pettigrew, Cong-Khac Phan, Ewa Irene Piejko, Steven Julian Pincus, BSc, Vikki Pliatsios, Alexander Chi-Shing Poon, Louis Pouw, Ignatius John Psaradellis, Kristen Randall, Ursula Jane Read, Elizabeth Mary Reed, Jane Catherine Richards, Rachael Antoinette Salter, Peter Gerard Shanley, Daniel Shortall, Joanne Elizabeth Simpson, Bronwen Gaye Slater, Marita Dorothy Smith, Thomas Raymond Solano, Andrew Paul Soloczynskyj, Lisa Gaye Souter, Paul John Vincent Spano, Sarah Jane Spargo, Maryann Bernadette Spottiswood, Amanda Stammers, Jonathan Michael Stokes, Marie Swieca, Susan Margaret Talbot, Meileen Tan, Andrew Colin Francis Taylor, Suzanne Swit Chu Teh, Catherine Temelcos, Stuart Richard Thomas, Carolyn Jane Tippet, Sophie Clare Treleaven, Andrew James Troy, Jerry Tsagaratos, BSc, Spiros Tsipouras, Adaobi Ogenna Udechuku, Costa Vakalopoulos, David Kenneth Vaughan, Arthur Velakoulis, David Anthony Paul Francis Vote, Tony John Walsh, Robert Simon Ward, Jennifer Maree Wheelahan, BSc, Guineva Joan Protheroe Wilson, Anita Estelle Wluka, Maggie Yuet Mei Wong, Kylie Adrienne Wright, Nicole Fai Sim Yap, Michael Yii Yang Yong, Nina Zimmerman.

## Prizes and Awards 1990

### **Australian Medical Association Prize**

Baird, Julie (AH/RGH)

### **The CIBA-GEIGY Prize**

Baird, Julie (AH/RGH)

### **Rowden White Prize**

Baird, Julie (AH/RGH)

## Medicine

### **Keith Levi Memorial Scholarship in Medicine**

Baird, Julie (AH/RGH)

### **The Robert Gartly Healy Prize in Medicine**

Baird, Julie (AH/RGH)

### **Jamieson Prize in Clinical Medicine**

Crowley, Peter (SVH/GH)

### **Upjohn Award in Clinical Pharmacology and Therapeutics**

Baird, Julie (AH/RGH)

## Community Medicine

### **RACGP Prize in Community Medicine**

Bernard, Simon (RMH/WH)

## Surgery

### **Beaney Scholarship in Surgery**

Baird, Julie (AH/RGH)

### **The Robert Gartly Healy Prize in Surgery**

Baird, Julie (AH/RGH)

### **Proxime Accessit Prize in Surgery**

Crowley, Peter (SVH/GH)

Heathershaw, Katie (RMH/WH)

### **Ryan Prizes in Surgery (RACS) (RMH/WH, SVH/GH)**

Crowley, Peter (SVH/GH)

Treleaven, Sophie (RMH/WH)

### **Smith & Nephew Prize in Surgery (AH/RGH)**

Baird, Julie (AH/RGH)

### **E.H. Embley Prize in Anaesthetics**

Crowley, Peter (SVH/GH)

### **Neil Bromberger Prize in Orthopaedics (AH/RGH)**

Gibbs, Peter (AH/RGH)

## Obstetrics & Gynaecology

### **Fulton Scholarship in Obstetrics & Gynaecology**

Irani, Danesh (SVH/GH)

### **The Robert Gartly Healy Prize in Obstetrics**

Irani, Danesh (SVH/GH)

### **Prize in Clinical Gynaecology**

Gibbs, Peter (AH/RGH)

McCombe, David (SVH/GH)

### **Kate Campbell Prize in Neonatal Paediatrics**

Bernard, Simon (RMH/WH)

Salter, Rachel (RMH/WH)

### **Alfred Edward Rowden White Prize in Clinical Obstetrics**

Irani, Danesh (SVH/GH)

### **Edgar & Mabel Coles Prize in Obstetrics (RMH/WH, SVH/GH)**

Irani, Danesh (SVH/GH)

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

Hotchin, Anne (AH/RGH)

## Paediatrics

### **Howard E. Williams Prize in Paediatrics**

Salter, Rachel (RMH/WH)

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

Soloczynskyj, Andrew (AH/RGH)

### **Clara Myers Prize in Surgical Paediatrics**

Daglas, Doris (RMH/WH)

## Psychiatry

### **John Adey Prize in Psychiatry**

Crowley, Peter (SVH/GH)

### **John Cade Memorial Medal in Clinical Psychiatry**

Cameron, Julie (SVH/GH)

## General Clinical Prizes 1990

### **Edgar Rouse Prize in Occupational Medicine**

1st Prize — Shea, Rosemarie (RMH/WH)

2nd Prize — Yee Ping Mok, Jennifer (SVH/GH)

### **Royal Australian College of Ophthalmologists Prize**

Favilla, Marcel (RMH/WH)

### **Hedley F. Summons Prize**

Guiney, Patrick (SVH/GH)

### **Herman Lawrence Prize in Clinical Dermatology**

Morgan, Vanessa (RMH/WH)

## Fourth and Fifth Year Prizes 1990

### Fourth Year

#### **The Medishield Ramsay Prize in Clinical Microbiology**

Harris, Marion (RMH/WH)

#### **The Harold Attwood Prize in Pathology**

Butzkueven, Helmut (SVH/GH) and

Nelson, Carmel (RMH/WH)

#### **Geriatric Medicine Prize**

No award

#### **Manu Thomas Prize**

Morgan, Susan (SVH/GH) and

Sapozhnikov, Alexander (RMH/WH)

### Fifth Year

#### **Community Medicine Prize**

Kattula, Andrea (AH/RGH)

#### **Crawford Mollison Prize in Forensic Medicine**

Gan, Philip (AH/RGH)

#### **Medical Officers of Health Section of AMA**

Kattula, Andrea (AH/RGH)

#### **The Fulton Scholarship**

McKertich, Karen (RMH/WH)

#### **The Kate Campbell Prize in Neonatal Paediatrics**

Palanka, Sylvia (SVH/GH)

#### **The Max Kohane Prize**

Kattula, Andrea (AH/RGH)

#### **The Vernon Collins Prize**

McKertich, Karen (RMH/WH)

#### **The John Adey Prize**

Manser, Renee (AH/RGH)

## Pre-Clinical Prizes 1990

### First Year

#### Medical Physics

##### G.A. Syme Exhibition

Kausman, Joshua

#### Medical Physics

##### T.F. Ryan Roentgen Prize

No award

#### Medical Biology

##### W.H. Swanton Exhibition

Buising, Kirsty

#### Medical Biology

##### Baldwin Spencer Prize

Kong, Poi Keong

#### Chemistry

##### Exhibition

Ong, Terrence John Yeong

#### Anatomy 1

##### Mathew W. McKenzie Award

Buising, Kirsty

### Second Year

#### Anatomy 2

##### Dwight Prize

##### Exhibition

##### T.F. Ryan Prize

Wu, Woodrow

#### Physiology 2

##### Wellcome Prize

Nguyen, Peter Trieu

#### General Biochemistry

##### Exhibition

Game, Justin

#### Neuroscience

##### Sunderland Prize

Dwyer, Karen and

Leach, Susannah

#### Functional Biochemistry

##### Exhibition

Dwyer, Karen

#### Physiology 2

##### R.D. Wright Prize

Nguyen, Peter Trieu

#### Behavioural Science

##### The CIBA-GEIGY Prize

Hamilton-Byrne, Sarah

### Third Year

#### Pharmacology

##### Boots Prize

Sultana, Ronald

#### Pathology

##### The Walter & Eliza Hall Exhibition

Le, Thao and

Provenzano, Elena

#### Microbiology, including Immunology

##### Ramsay Prize (Third Year)

Krawczynsyn, Mark

## 1992 REUNION SYMPOSIUM

Wednesday 25 March–Friday 27 March 1992



The Royal Melbourne Hospital  
The University Hospital in Cleveland  
and the  
Case-Western Reserve Medical School  
are jointly participating in a

### SYMPOSIUM

to mark the 50th Anniversary  
of the opening of  
The Royal Melbourne Hospital at Parkville  
and its use by the  
United States Army Fourth General Hospital  
1942–1944  
during the Second World War

### Provisional Program Day 1 — Symposia

Benefits and costs of health promotion and screening.  
Resource constraints and the practice of medicine.  
Ethical and medico-legal aspects of medical practice.

### Days 2 & 3

Concurrent workshops on a wide range of topics  
designed to cater for most interests.

The meeting will be held at both the Hilton hotel  
and The Royal Melbourne Hospital. A full social  
program has been organised.

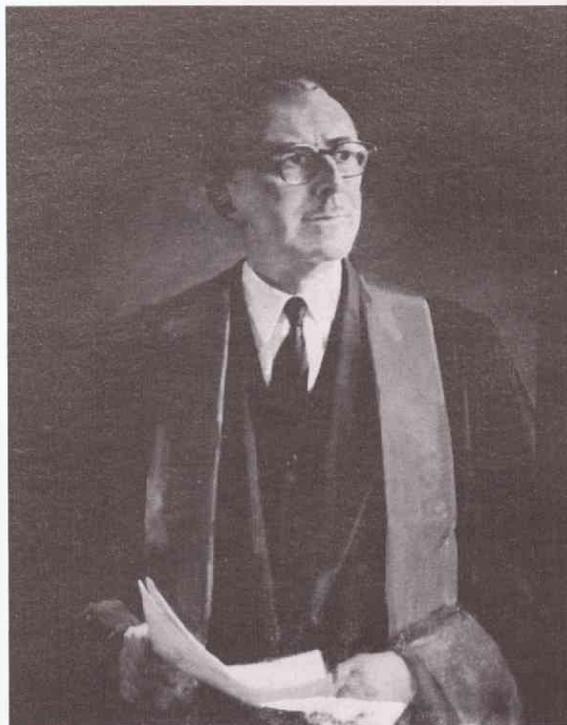
It is hoped that this international symposium will be a focus  
for past students and residents of The Royal Melbourne  
Hospital, to renew old friendships at the same time as  
participating in a stimulating, topical medical meeting.

### FULL PROGRAM AVAILABLE AUGUST 1991

#### Further information and registration details from:

F.I.R. Martin	A.C.T.S.
Dept of Diabetes & Endocrinology	GPO Box 2200 Canberra, ACT 2601
The Royal Melbourne Hospital PO RMH 3050	
Tel. (03) 347 1550	Tel. (06) 249 8015
Fax (03) 342 7802	

## Department of Medicine, St Vincent's Hospital



Professor John Hayden



Professor Carl de Gruchy

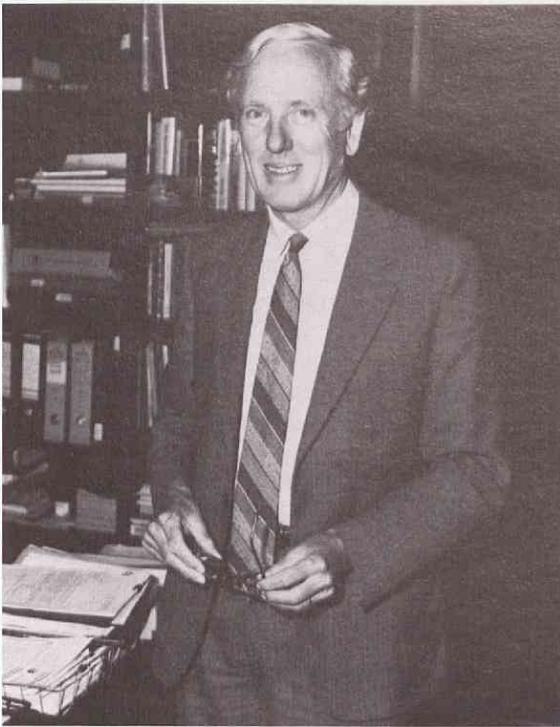
THE academic Department of Medicine began at St Vincent's Hospital in 1957 with the appointment of John Hayden as the first Professor. John Hayden had been the Stewart Lecturer in Medicine at the University of Melbourne for many years, and together with Albert Coates as his counterpart in Surgery at the Royal Melbourne Hospital, was the academic presence in the teaching hospital. With his typical foresight, John Hayden recognised the value of the Flexner model of academic teaching and research units for the teaching and practice of medicine, and he argued for many years for their establishment in Melbourne. Shortly after the University's first Professor of Medicine was appointed at the Royal Melbourne Hospital, it was fitting that John Hayden should be appointed to develop the Department at St Vincent's. He had a reputation as a distinguished and accomplished clinician and leader, and was a wonderful teacher of undergraduates and postgraduates. With his vision and guidance, the Department had an excellent start, and rapidly expanded.

The appointment of Carl de Gruchy as Senior Research Fellow in Haematology in September 1956 gave the Department the start in research it needed, at a time when physicians trained in modern research were rare indeed. At the same time, Hayden, through his imaginative and visionary approach, made a further major contribution to the development of research associated with the Department and the hospital by recruiting the Swedish biochemist, Pehr Edman, to be director of the John Holt laboratories of the School of Medical Research; from this position Edman made his remarkable contribution to biomedical science, of automating his chemical method of determining protein sequences. Professor Hayden continued to support that initiative when many around him could not understand it. It was always his intention that the research of the John Holt Laboratories should serve to benefit patient care, teaching

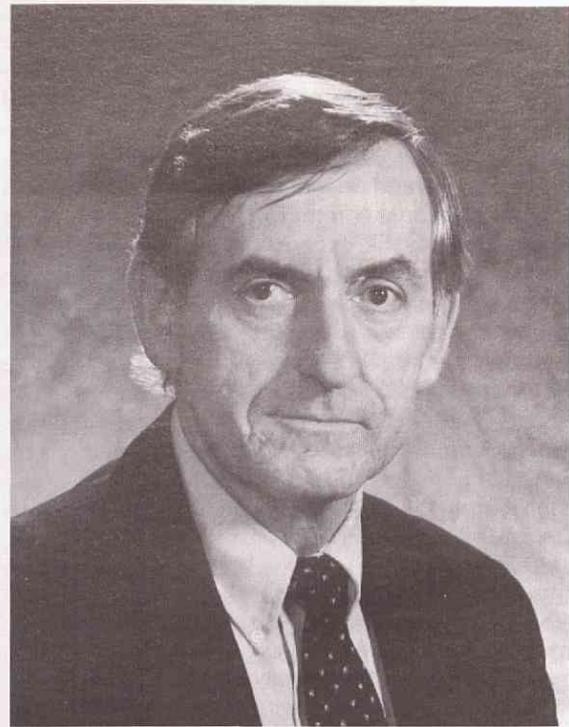
and clinical research, and he was tireless in his efforts to achieve this. Hayden's untimely death in 1960 cut short his efforts to direct young graduates to work with Edman, but one such Hayden recruit, the then medical student, Hugh Niall, obtained from Edman a basic training in protein chemistry which was to equip him to make outstanding contributions in subsequent years.

The era of Carl de Gruchy, as Professor to succeed John Hayden, saw a great flourishing of the science and clinical practice of haematology from the time of his appointment in 1962. Carl de Gruchy had trained with J.V. Dacie at the Hammersmith Hospital, and from his position in the Department of Medicine established an international reputation for his group in the study of the non-spherocytic haemolytic anaemias. He was himself an exceptionally lucid and accomplished teacher of medicine, and an outstanding and lasting contribution is his textbook *Clinical Haematology in Medical Practice*. This became, and remained, a classic text, expressing de Gruchy's gift for transmitting basic science through clinical medicine to the undergraduate and the postgraduate. He was, also, the drive behind the foundation of the Haematology Society of Australia, and served as its first President. This Society developed into a flourishing body and served as a model for the development of other specialist medical societies in Australia.

Although throughout its existence the Department of Medicine has been responsible for one of the general medical units of the hospital, and sees that as especially important for its teaching and service role, haematology was a major focus for clinical development. The Department became the centre of referral for complex haematological problems, and successive staff members were inspired by de Gruchy to careers in haematology and flourished here and elsewhere. Among these were: Jack Hirsh, who went on from being Second Assistant from 1965 to 1969 to be Professor and Head



Professor David Penington



Professor T.J. Martin

of Haematology at McMaster University in Canada, where he has become one of the world leaders in the study of thrombotic diseases; Paul Vincent and Alec Morley, Third Assistants in the mid-1960s, who have gone on to distinguished careers in haematology at Sydney and Flinders Universities respectively; Albert Baikie, recruited by de Gruchy from Glasgow as First Assistant, and noted for his work on the leukaemias, became the Foundation Professor of Medicine at the University of Tasmania in 1967. De Gruchy also had the foresight to recognise the importance of cytogenetics, and provided support and encouragement to Dr Margaret Garson in establishing a cytogenetics laboratory, which developed an Australia-wide reputation, ultimately evolving into the St Vincent's Hospital Department of Cytogenetics, with Margaret Garson as Director and Professorial Associate in the Department of Medicine.

Other Third Assistants of the 1960s were Sandy Spiers and Andrew Burgess, each of whom subsequently had a distinguished career in the USA. As Second Assistant from 1964 to 1969, Jim Rankin was a gastroenterologist who developed a special interest in alcohol and drug dependence. This was recognised as an area of great value by Carl de Gruchy, and he was instrumental in supporting the establishment of the Alcoholism Clinic (later Community Medicine) at St Vincent's Hospital. Jim Rankin subsequently distinguished himself with work in this area in Canada, where he is director of Alcoholism and Drug Dependent Services in Toronto. John Niall and George Hale were early academic appointments, who went on in subsequent years to head successful clinical departments within St Vincent's, of nephrology and cardiology respectively.

The successor to Albert Baikie as First Assistant was David Penington, recruited in 1968 from the London Hospital, and bringing further expertise in haematology and wide experience in clinical medicine. He was appointed to the Chair in 1970 to succeed Carl de Gruchy, who resigned in 1969 with serious illness which led to his death in 1974 at the age of 52. David Penington's research in thrombopoiesis and platelet biochemistry over the next several years brought achieve-

ments to the Department in new areas of haematology, and was complemented from 1975 to 1983 by the work of Colin Chesterman, as Second then First Assistant. Penington and Chesterman's work fostered links with the School of Medical Research through fruitful collaborations with Frank Morgan during that period. Colin Chesterman has subsequently gone on to be Professor of Medicine, University of New South Wales and then Professor of Haematology at the same university. Frank Firkin, who is now an Associate Professor (Clinical) was a further haematology recruit of the early 1970s, coming from a PhD on the actions of chloramphenicol and continues to apply his research to study the regulation of leukaemic cell growth in bone marrow.

The years that followed David Penington's appointment to the Chair continued to be marked by success in haematology, but he saw the need to develop other areas. While Don Chisholm was Second Assistant, endocrinology was developed as an academic specialty, and when Chisholm left in 1978 for St Vincent's Hospital, Sydney, this academic development continued through the close links which Professor Penington fostered between the University Department and the Hospital Unit in Endocrinology, headed by Frank Alford as Professorial Associate. This close link is maintained especially now with Jim Best recently moving from the position of Hospital Endocrinologist to be Associate Professor (Clinical). Gastroenterology was also developed academically during this time, beginning with Greg Whelan as First Assistant with his interest in liver disease, and Kerry Breen as Second Assistant, before he moved to the position of Gastroenterologist in the Hospital. Subsequently the link was extended further through the joint appointment of Paul Desmond, half Hospital Gastroenterologist and half Senior Lecturer in Clinical Pharmacology. Other initiatives taken by David Penington in the mid 1980s were to provide laboratory space and support for the establishment of research in immunology-renal disease, with Brendan Murphy as an Associate in the Department and full-time nephrologist to the hospital; a similar development was made in neurology, with Ed Byrne's group and their work on the mitochondrial and muscle diseases.

Clinical pharmacology is an important part of the Department, represented in each of the Departments of Medicine of the Faculty. Laurie Mashford as Reader in Clinical Pharmacology has a 50 per cent hospital appointment as Clinical Pharmacologist. Together with Paul Desmond, he is responsible for clinical pharmacology teaching; his research is in the area of hypertension and drug handling by the liver, and his involvement in national committees concerned with drug approval provides valuable expertise. With the Department's central role in undergraduate clinical teaching, the link with the Clinical School is very important. For six years until he was appointed Director of Community Medicine at St Vincent's Hospital, Greg Whelan was Associate Dean (Clinical), while continuing his position as First Assistant in the Department. When he resigned, we were fortunate to see Wilma Beswick appointed as Associate Dean (Clinical) in his place. She had been a lecturer in the Department for several years, contributing much with her teaching and her general medicine, and she continues as a part-time lecturer.

When David Penington left to be Vice-Chancellor of The University of Melbourne at the end of 1987, he had cemented the University Department of Medicine's place in the Hospital as contributing substantially to patient care, graduate training, clinical developments and 'technology transfer'. His policy of linking academic to hospital developments served both the University and the Hospital well. These achievements complemented his major contributions to the University as Dean of the Faculty of Medicine from 1978 to 1985, and to public health and community service in many areas, especially as Chairman of the AIDS Task Force from 1983 to 1986.

The most recent changes in the Department have been the appointments of Professor T.J. Martin to the Chair and Kong Wah Ng as Senior Lecturer, both coming from the University's Department of Medicine at the Austin and Repatriation General Hospitals, and bringing with them clinical expertise in the metabolic bone diseases and research in bone and tumour cell biology and the mechanisms of action of hormones. Jim Best, appointed in 1989 as Associate Professor (Clinical), brings his research in insulin secretion and lipid metabolism and clinical expertise in endocrinology and diabetes. Professor Martin also occupies the position of Director of St Vincent's Institute of Medical Research, succeeding Frank Morgan in that position. This dual appointment is fostering scientific links between the Institute and the Department of Medicine, and between the Institute and the Hospital, in ways which would most likely please the late John Hayden.

An exciting new development for the Faculty and for the Departments of Medicine and Surgery at St Vincent's Hospital, is the establishment of sections of these Departments at the Geelong Hospital. We have, therefore, become the Department of Medicine (St Vincent's Hospital and Geelong Hospital), with Professor Geoffrey Nicholson of the University of Western Australia taking up the position of Professor of Medicine at Geelong in January 1991. A senior lecturer will be appointed and two sections of the Department will be closely linked in many of their activities.

*T.J. Martin*  
Professor of Medicine  
Director, St Vincent's Institute  
of Medical Research

## 1991 Highlights

### Seminar

#### Issues in transplantation Aspects of supply

*Convener: Professor Emeritus Richard Lovell*

**Friday 2 August 1991**

**2.00 pm to 5.00 pm**

**Sunderland Theatre, Medical Building  
The University of Melbourne**

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## Centenary Celebration 1891-1991

### Women Medical Graduates The University of Melbourne

**Friday 18 October 1991**

#### Seminar

*Is there a doctor in the house?*

**2.00 pm to 5.00 pm**

**Sunderland Theatre, Medical Building  
The University of Melbourne**

*Sponsored by the School of Medicine  
in conjunction with  
the Key Centre for Women's Health in Society*

#### Dinner

**7.30 pm for 8.00 pm**

**Ormond Dining Hall, Ormond College**

*Sponsored by the Friends of  
the Key Centre for Women's Health in Society*

ENQUIRIES: Medicine (03) 344 5888

Key Centre (03) 344 4333

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## Continuing Medical Education Courses

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### UMMS 1991 Lecture

*Details to be announced*

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**GENERAL ENQUIRIES**

**(03) 344 3888**

## Profile

by Harold Attwood



Mollison at work 'in the bush'.  
Photograph courtesy of Keith Bowden.

### 'Mollie' 1863-1949

*Rosy and round with a twinkling eye,  
He calls the roll as the class tramps by.  
With a fatherly smile at his little Meds.,  
He waves a revolver at our heads!*

Crawford Henry Mollison is sonorous and a suitable name for someone who was the forensic expert in Melbourne for over half a century. His nickname was 'Mollie'. How could such an appealing name be given to such a formidable personage?

A curriculum vitae can be readily given. He was born in Bendigo in 1863 into a pioneering family which arrived in Australia in 1835. He went to a number of schools both in England and in Melbourne and graduated MBBS (Melbourne) in 1885 taking the highest honours in final year. After serving as RMO at the Melbourne Hospital he went to England and took MRCS in 1887. In Vienna, he did postgraduate work with the famous dermatologist Hebra, perhaps intending to specialise in that discipline. However on his return to Melbourne he went into general practice in Balaclava until 1891, and dermatology was never pursued.

In 1893 he became Coroner's Surgeon and an examiner in Forensic Medicine and Psychological Medicine for his medical school. In 1904 he succeeded James Edward Neild (see *Chiron* 1990, p.29) as Lecturer in Forensic Medicine. Neild had held the post for 39 years and Mollison was to do likewise — he retired in 1943. Mollison was Coroner's Surgeon for 55 years —

retiring one year before he died at the age of 86.

Mollison was equally enduring in other positions — Treasurer of the Medical Society of Victoria/Victorian Branch of the BMA for 55 years and Chairman of Directors of the British Medical Insurance Company for 22 years. He was also pathologist to the Melbourne, the Children's and Women's Hospitals for most of his life. 'Well done thou good and faithful servant' could be the only assessment; but why was he also well-loved?

The legal profession certainly held him in high regard. Sir Charles Lowe considered him to be the best medical witness he had heard for 'he always put the court in possession of the facts in simple language and in no uncertain fashion'. Some barristers called him 'non committal Mollie' for his habit of waiting until the court recorder had taken down the question in full and then giving a brief, quite often monosyllabic, answer. He was, nevertheless, not immune to pointed cross examination and after one particularly savage mauling he said quietly to a colleague, 'I had always thought Maxwell was a very fair man.' In his paper to the Medico Legal Society of Victoria, Mollison had this to say of such jousts:

I am, however, naturally of a forgiving nature and I bear no malice either for what they said to me in the box or for what I hope they thought they were justified in saying in the interests of the accused about my evidence afterwards, in addressing the jury, though I must confess I feel the long bow was sometimes rather stretched.

A gentle summary of some painful experiences.

Gentleness and geniality Mollie had in abundance and these are even depicted in the fine line drawing of the face in *The Speculum* cartoon reproduced in last year's *Chiron*. On one occasion when calling the names for attendance at his class no answer was forthcoming to one name repeated three times. Mollie looked up over his glasses and said very, very meekly, "hasn't this man any friends?"<sup>2</sup>

Mollie beams from nearly every photograph. In one where he is caught in a high-bibbed cloth apron testing a urine at the Women's Hospital, the beam is still there despite the uroscopist's stance. Moreover, his usual description of a normal urine was 'limpid'. His reputation of never being wrong in his histopathological opinions is based on reports such as 'simple tumour' or 'malignant tumour', all done on frozen sections cut by his own hand using an ether cooled Cathcart microtome now held in the Medical History Museum.



'Limpid'.

Mollie never missed a Melbourne Cup, attended the cricket regularly and, though small and rotund, he must also have been agile as he was a champion player of Royal Tennis.

Keith Macrae Bowden, who worked with Mollie in his latter years, describes him as a gentle man who worked on into his eighties, when he had sometimes to be supported by his technologist, Harry Quigley, while he completed a post-mortem. Bowden also recalls bidding him farewell on Saturdays by saying 'See you Monday'; he received from the beaming Mollie the gentle response 'I hope so!'

Are there still characters in our school and faculty to match Mollie? 'I hope so.'

#### References

1. *The Speculum* c.1930.
2. This story is based on an account given by Dr Phillip Thomas, Western Australia, in his book *A Doctor Looks Back*, 1984, p.85. A similar story has been told of other lecturers — the vocabulary varying according to the common usage of the person and by no means always said 'meekly'.



## Annual General Meeting 1991

The 1991 Annual General Meeting was held at 6.30 p.m. on Tuesday 7 May 1991 in the Sunderland Theatre, Medical Building, The University of Melbourne. The meeting was preceded by the Dean's Lecture 'Stress ulceration of the stomach — the enigma continues', delivered by Professor Donald MacLellan of the University Department of Surgery, Repatriation General Hospital.

The Minutes will be published in the 1992 issue of *Chiron*.

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## Minutes of Annual General Meeting 1990

The Annual General Meeting of the University of Melbourne Medical Society (UMMS) was held at 6.30 p.m. on Tuesday 8 May 1990, in the Sunderland Theatre, Medical Building, The University of Melbourne. The meeting was preceded by the Dean's Lecture entitled 'Tuning in on the brain: brain imaging from Roentgen to magnetic resonance'. This was delivered by Professor Brian Tress, Department of Radiology, The Royal Melbourne Hospital.

### 1. Minutes of the Annual General Meeting 1989

The minutes of the 1989 Annual General Meeting, published in *Chiron*, 1990, were adopted as an accurate record of the proceedings.

### 2. Chairperson's Report

• Special thanks were given to Mr Peter Jones, Co-Editor and Mrs Margaret Mackie, Co-Editor and Designer of *Chiron* for another excellent production. The Chairperson acknowledged the Medical Defence Association of Victoria (MDAV) for its much appreciated sponsorship of *Chiron* again this year. The MDAV's donation of \$25,000 towards publication costs of *Chiron* has enabled the continued production of the Journal at its present high standard. The MDAV has also undertaken to underwrite the new edition of the Faculty Research Booklet with a generous donation of \$15,000.

• The Chairperson noted the current membership of the Society as 1,994.

• The UMMS B.Med.Sc. Prize for 1988 was awarded to Mr Stephen Lewis Rosen for his study entitled 'Immunological analysis of tumour associated antigens'.

• Activities during 1989 included the very successful UMMS Function and Seminar with Professor Ian Gust and Professor Priscilla Kincaid-Smith entitled 'AIDS 1989: A scientific and political update'.

• A special feature of the Dean's Lecture Series in 1989 was the seminar entitled 'Resource constraints and the practice of medicine: everything that might be done can't be done'. The proceedings of this seminar were published in *Chiron* 1990. A similar seminar entitled 'Privacy in medicine: issues old and new' will be held on Friday 27 July at 2.00 p.m. in the Sunderland Lecture Theatre. This will also be convened by Professor Emeritus Richard Lovell.

• Details of UMMS reunions currently being organised are published in *Chiron*. Assistance with reunions is available through the UMMS office. There will be another UMMS lecture and function held this year, details of which will be made available later in the year.

### 3. Financial Report 1989/90

The financial report for 1989/90 was presented by the Honorary Treasurer Mr David Westmore. The satisfactory state of the finances of the Society was noted, with an income of \$73,637 and an expenditure of \$34,062 during 1989/90 leaving a balance of \$39,575. A motion to receive the report was carried.

### 4. Change to the Constitution

Following the amalgamation of the Faculty of Medicine with the Faculty of Dental Science to form the Faculty of Medicine and Dentistry, comprising the School of Medicine and the School of Dental Science, the following resolution to amend the constitution was proposed:

That where the word 'Faculty' appears it is changed to 'School', and where the word 'Dean' appears it is replaced by 'Head'. That the opportunity also be taken to replace the word 'chairman' by 'chairperson' and that the generic 'he' is replaced by 'he or she'.

This resolution was carried.

### 5. General Business

The Chairperson noted with deep regret the passing of Professor Emeritus Sir Douglas Wright, Inaugural President of the Society and member of the Executive Committee. A motion to adopt the minute of appreciation published in *Chiron* 1990 was carried.

It was noted that Sir Douglas's death created a casual vacancy on the Executive Committee of the Society and the Chairperson invited expressions of interest in this position.

There being no further business the meeting closed at 6.45 p.m.

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## UMMS B.Med.Sc. Prize 1989

### Sarah Louise Larkins

for her study entitled

### The role of the genitofemoral nerve in testicular descent

Sarah Larkins, who was a third year medical student, completed a B.Med.Sc. during 1989 in the Surgical Research Laboratory, Department of Paediatrics, under the supervision of Mr J. Hutson. Sarah's project was to look at the genitofemoral nerve, to see if it could act as a 'second messenger' for androgen in the control of testicular descent. The study involved fluorescent labelling of the nerve in neonatal rodents by either retrograde or antegrade transport of dyes. This required considerable skill in microsurgery. In addition, she learnt immunohistochemical techniques and applied these to a range of possible neurotransmitters. She found that the genitofemoral nerve has an indirect course, and is in a position from which it could provide directional information for the gubernaculum during its migration from groin to scrotum. A specific neurotransmitter was identified within this nerve in two-fold greater quantities in male animals than female animals or testicular feminisation syndrome mutants. This highly successful project has led since to further studies which suggest the particular neurotransmitter may be useful in the treatment of undescended testes.

## Reunions — Think Ahead

*When did you graduate? Is next year your 5th, 10th, 15th, 20th, 25th, 30th, 35th, 40th, 45th, 50th, 55th, or more since graduation? It is best to plan your reunion well ahead of time. Some of your class mates will be overseas and some interstate. Overseas and interstate graduates do travel to Australia for reunions if they have enough advance notice.*

*Venues also need to be booked well ahead.*

*Please let the UMMS office know of your plans — we would like to include information in Chiron. We can obtain, on your behalf, a list of graduates from your year and a set of address labels from the Alumni office. We will also advise you on the alternatives you may wish to explore and give any assistance we can regarding venues and speakers.*

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### 1991 Reunions

#### 20th Year Class of '71

Date and venue to be advised

Contact: Michael Wilson  
(bh) (03) 848 6611 or 490 2441

#### 25th Year Class of '66

Date and venue to be advised

Contact: Andrew Roberts  
(bh) (03) 459 6144  
(ah) (03) 836 2612

#### 30th Year Class of '61

Date: 23 November 1991

Venue: University House

Contact: Graeme Ryan  
(bh) (03) 344 5894

#### 30th Year Class of '61

##### Women Graduates Reunion

Date and venue to be advised

Contact: Theresia Rush  
(bh) (03) 616 7777  
(ah) (03) 836 6697

#### 35th Year Class of '56

Date: 15 November 1991

Venue: Royal Melbourne Zoological Gardens

Contact: Henry Burger  
(bh) (03) 648 8827  
Jack Hansky  
(bh) (03) 648 8400

#### 40th Year Class of '51

Date: 26 October 1991

Venue: Regent Hotel

Contact: Brian Entwisle  
(bh) (03) 862 2111 or 589 6944  
(ah) (03) 853 5152

#### 50th Year Class of '41

Date: 4 October 1991

Venue: University House

Contact: James Guest  
(bh) (03) 419 3982

### 1992 Reunions

#### 20th Year Class of '72

Date and venue to be advised

Contact: Lachlan de Crespigny  
(bh) (03) 417 6788  
(ah) (03) 822 3280

#### 25th Year Class of '67

Date: October 1992

Venue: To be advised

Contact: Phillip Harris  
(03) 890 0648  
Deanne Wilson  
(03) 895 7642  
Andrew Tonkin  
(03) 450 5934

#### 30th Year Class of '62

Contact: George Santoro  
(bh) (03) 509 3322  
(ah) (03) 827 6775

### MBBS Graduate Anniversaries in 1992

10th Year Class of '82

15th Year Class of '77

20th Year Class of '72

25th Year Class of '67

30th Year Class of '62

35th Year Class of '57

40th Year Class of '52

45th Year Class of '47

50th Year Class of '42

### UMMS OFFICE

C/- Graduate and Community Relations

School of Medicine

The University of Melbourne

Parkville 3052

Telephone (03) 344 5888



(Standing) Norman Wettenhall, Pat Cody, Graham McKenzie, John Cahill, Ken Davidson, Bill Rigg, Alastair Campbell, Ted Spring, Chris Christie, Albert Piper, Buddy Burton, Roy Phillips, Murray Verso, Ken Morris, John Bignell, Alex Tait Smith, Ian Wilson, Jack Rutter, John England, Ken Brennan, Lin Irwin, Bill Rose.  
 (Seated) Basil Conlon, Ross Morris, Gladys Simpson, Mary Irvine, Lesley Vincent, Sheila Lusted, Jean White, Elizabeth Turner, Sam Mecoles, Lloyd Morgan, Warwick Rosenthal, John Murphy, Les Moran.  
 (Front) John McMahon, Howard Hoban, Don Fleming, Geoff Goding, Edward Ryan, Harry Jackson, Toby Beatty.

## MBBS 1940 Fifty Years Reunion University House The University of Melbourne 9 November 1990

There was a good turn-up. The 'class' photograph shows how we look now — forty-two of the 60 who remain of the original 108 graduates, came from almost every State, including a full muster from Western Australia, and Mary Salvaris (nee Irvine) came from Greece. Almost every branch of medicine was represented, though most but not all, have retired from active practice.

The excellent dinner was preceded by a tour of the Medical School, led by the Dean, Professor Graeme Ryan, and a visit to the

Medical History Museum (in the Brownless Library) hosted by the Curator, Professor Emeritus Harold Attwood. Some commented that it was very different from the 'old days', but were pleased to see some familiar specimens!

There was no special guest nor speeches, but conversation flowed freely, and the whole occasion was thoroughly enjoyable. A 'keepsake' booklet was compiled from curricula vitae, and has since been distributed. (Norman Wettenhall)

## Reunions

### **MBBS 1970** **Twenty Years Reunion** **9 Darling Street, South Yarra** **24 November 1990**

The evening was a huge success. One hundred and ten graduates and partners (and the list has mysteriously disappeared) wined and dined to the music of a string quartet, and later danced to a sixties rock band. Photographs accompanied by a list of 'highlights' and 'lowlights' since graduation were displayed on large pinboards around the venue and were very popular, as were the photographs taken by a professional photographer and sold at the end of the evening. We are very keen to celebrate our twenty-five years reunion along similar lines. (David Bracy)

### **MBBS 1955** **Thirty-five Years Reunion** **Melbourne Club** **16 November 1990**

Sixty-two graduates (listed) attended a most successful reunion, including Wally Schnur from America, and from interstate Don Webb (WA), Jennifer (Banfield) O'Brien (Qld), Heather (Hosking) Bartram (NSW), Ian Maddocks (SA), Adrian Lowe (NSW) and Barbara Sawyer (Corowa, Vic). During dinner, which followed champagne and aperitifs in the garden, each guest said a few words about their work and anything else of interest to fellow graduates. (John O'Brien)

George Awburn, Charlie Barbaro, John Barker, Heather Bartram, Marcus Benjamin, Reginald Berkley, Joan Bradley, Geoff Buckwell, Jenny Banfield, Doug Callister, Hershel Cohen, John Coldbeck, Peter Curwen-Walker, Paul Dolphin, George Drieberg, Doug Gee, Kevin Green, Matt Green, Leo Grogan, Mary Grogan, Bob Gunter, Frank Ham, John Henderson, Bob Hill, Don Hopkins, Tony Horgan, Ron Hurley, Phil Joshua, Peter Kudelka, Fred (Flossie) Lang, Gerry Little, Adrian Lowe, Frank Lyons, Noel Mackey, Ian Maddocks, Peter Mangos, James Matar, Frank McDermott, Ian (Cas) McInnes, Ursula (Jackie) McKenna, John Mitchell, Cedric Naylor, John Newton, Alan Nicholson, John O'Brien, Frank O'Rourke, Bob Oliphant, Peter Pierotti, David Race, Brian Rodan, Alexander Ross, Boyne Russell, Joe Russo, Barbara Sawyer, Wally Schnur, Garrie Smith, Graham Syme, Chester Troy, Ching Tsiang, Don Webb, Geok Hua Wong, Red Wright-Smith.

### **MBBS 1945** **Forty-five Years Reunion** **Committee Room, Melbourne Cricket Ground** **16 February 1990**

This year's function (our ninth reunion) was indeed very enjoyable — black tie, about fifteen partners present, no speeches — good food, reasonable prices and, because of previous dinners in the same place, some degree of continuity. The room was dominated at one end by a huge (100 cm x 60 cm) blow-up of our year photo, flanked by easily read information about apologies, non-replies, deaths and those present.

Our chief 'guest' was Mary Levenson (nee Bennett), who was on holiday from England and making her first appearance at a reunion. Others who had travelled from afar were George Pestell (surgeon) and Mrs Pestell from Perth, John Little (pathologist) from Brisbane, retired radiologist Gwen Pinner from Canberra, Ross Hayes (pathologist) from Sydney and King Stevenson (GP) from Albury.

In view of advancing years, it was decided that the next reunion should be in three years and thereafter at two-yearly intervals. (Donald Cordner) Present were:

Tom Antonie, Paddy Barrett, Mary Bennett, Allan Bignell, Donald Cordner, Jack Critchley, Jim de Crespigny, Harry Cumming, Bill Etheridge, Shirley Francis, Jim Gardiner, Harold Grinblat, Ross Hayes, Don Hewson, Des Hurley, Dorothy Hurley (Menzies), Paul Jeffery, Peter Jones, Arthur Keech, Jim Keipert, Ron Kingston, Iris Leber (Solomon), John Little, Walter Lowen, Ian Mackay, Bert McCloskey, Greg McCloskey, Stuart Menzies, Walter Moon, Joan Mowlam, Luke Murphy, Nate Myers, Dick Newing, Jenny Pascheove (Gardiner), Gwen Pinner, George Pestell, Chan Piercy, Des Prentice, Don Rush, Kurt Schwarz, Michael Shoobridge, King Stevenson, Jack Swann, Eric Taft, Keith Torode, Gordon Trinca, Sam Troski, Jim Troup, Tom Walsh, Rowan Webb, Gerry Westmore, Bill Wilkinson, Betty Wilmot, Stathy Shannos (Zavetchanos).

### **MBBS 1942** **Forty-eight Years Reunion** **Royal South Yarra Tennis Club** **2 June 1990**

Fifty-six graduates (listed) and spouses attended, and a most enjoyable evening of fellowship and reminiscences resulted. We hope to repeat this for our 50th in 1992 (God willing).

Looking at descriptions of other reunions, I was interested in that of MBBS 1949 — I see the average grandchildren per graduate is 4.15. I don't know what our average is, but one of our graduates has difficulty in remembering the birthdates of all her grandchildren — she has 28! (John Zwar)

Jim Bottcher, Graham Brooke, Ian Chenoweth, Brian Clerehan, Noel Colyer, William Cooper, Ted Cordner, Lloyd Dixon, Stewart Esnouf, Ruth Farrer (now Chenoweth), Robert Fleming, John Gardiner, John Gooch, Hyman Hoffman, Malcolm Leembruggen, Bray Lewis, Austin Ley, John Monk, Douglas Pearce, Colin Richards, Len Satchell, Arthur Schweiger, John Shelton, James Sinclair, Lorna Sisely, Lyn Thomas (now Billings), John Tucker, Quin Whitehead, Alan Williams, Percy Zerman, John Zwar.

### **MBBS 1935** **Fifty-five Years Reunion** **The Naval and Military Club** **30 November 1990**

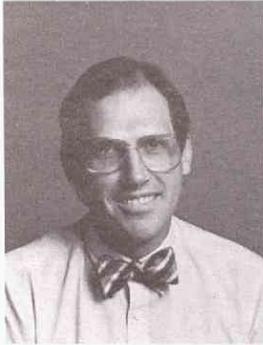
Of the 70 graduates of fifty-five years ago, 26 are known to survive (one has been 'lost' for many years) and 20 were present at the Naval and Military Club, where we have held all our reunions — 25th, 40th, 45th, 48th and annually since the fifty years reunion.

Brian Courtney and Alan King flew over from Perth, Colin Juttner drove from Woodside in South Australia, and Vin Youngman from Queensland joined us again, having missed for the first time in 1989 due to the pilots strike. Unfortunately, Edward Gallagher (our last New South Wales representative) was prevented by last minute illness from joining us.

Since the report of our Jubilee gathering, several have passed on and others have retired and/or joined the Honourable Company of Octogenarians. One, Howard Williams keeps active — in 1989 he published an historical review of Ella Latham's Presidency of the Royal Children's Hospital, *From Charity to Teaching Hospital* (Book Generation, Melbourne).

Others present were Rod Andrew, Mick Dunn, Bill Gayton, Alan Jackson, Geoff Kurrle, Alison Mackie, Frieda Plarre, James Riddell, Dick Salts, Tam Steel, Syd Sunderland, Boyard Taft, Chris Trood and Alison Wright.

The really important part of the gathering was the camaraderie and our pleasure in meeting colleagues of our student and professional days. (James Smibert)



Prof. Hugh Ringland Taylor



Dr Elizabeth Mara Dax

**GRANDSON SUCCEEDS TO CHAIR  
CO-FOUNDED BY GRANDFATHER**

Anderson is one of the best known names in the history of ophthalmology in Australia. Archibald (Archie) Simpson Anderson (MBBS 1915), Joseph Ringland Anderson (MBBS 1917), and Esme Vivienne Anderson (MBBS 1921) were all graduates of this University and, over some fifty years, leading figures in the eye world.

Joseph Ringland Anderson was awarded a Military Cross in the First World War, and he pursued postgraduate studies in Britain before returning to Melbourne where he was appointed Ophthalmic Surgeon to the Alfred Hospital. He developed an enormous practice, but still found time to write many papers, monographs and several books which gained an international reputation both for him and for Australian ophthalmology.

Ringland was a prime mover in the advancement of his speciality — he was one of a group which established the Ophthalmological Society of Australia and, later, the Ophthalmic Research Institute. He and his many supporters raised funds and persuaded The University of Melbourne and The (Royal) Victorian Eye and Ear Hospital to join with the Institute in founding the first Chair of Ophthalmology in Australia which, appropriately, bears his name.

Two of his less academic interests were ballet and cinematography and, as the owner of one of the early 16 mm cameras in Melbourne in the 1930s, he united these interests in what is now regarded as invaluable archival records of Diaghilev's Ballet Russe on stage in Melbourne.

In 1990, Ringland's grandson, Hugh Ringland Taylor (MBBS Melb 1971), returned to Melbourne to occupy the Ringland Anderson Chair of Ophthalmology at The University of Melbourne. Hugh Taylor decided early in his career to specialise in eyes. After training in this city, he went to The Johns Hopkins School of Medicine in Baltimore, USA, where he held various posts during the next thirteen years — he was Associate Professor for seven years and eventually Professor of Ophthalmology. Hugh has worked in epidemiology for many years, with a special interest in tropical eye disease. He is a member of the Board of the International Organisation against Trachoma, and the WHO Committee for Control of Onchocerciasis and Filariasis. With the very generous support of the Lions Club International and under Hugh's direction, the Lions Eye Bank will open soon at The Royal Victorian Eye and Ear Hospital providing a regional base for the collection and distribution of corneas for transplantation.

Elizabeth Mara Dax (MBBS Melb 1971), Hugh's wife, was Assistant Professor of Medicine at Johns Hopkins, as well as Laboratory Chief, Neuroendocrinology/Immunology and AIDS Co-ordinator, and returned to Melbourne to take up the appointment of Director, National HIV Reference Laboratory, Fairfield Infectious Diseases Hospital.

Elizabeth is the daughter of Eric Cunningham Dax, AO (Hon. MD Melb), well known during his long and distinguished career in psychiatry, and particularly as Chairman (1952-69) of the Mental Health Authority, Victoria.

**DONATIONS TO SCHOOL AND LIBRARY**

Elizabeth Turner (MBBS 1940) has donated her cartoon depicting the history of women's progress towards a medical career in Melbourne. She was inspired to draw this in 1987 when the School celebrated the Centenary of Women entering the medical course at this University. The cartoon takes pride of place on the 'cartoon wall' in the Sanderson Room.

In 1990 the 40th anniversary year of his graduation, Donald McLean (MBBS 1950), Professor of Medical Microbiology, The University of British Columbia, presented the Brownless Medical Library with a copy of *Medical Microbiology Synopsis*, a textbook developed from lectures on medical microbiology delivered each year to UBC medical undergraduates. 'Within my own career,' he wrote to the Dean, 'this textbook parallels a comparable project by our obstetrics teachers in the late 1940s. They issued cyclostyled lecture notes which were subsequently transformed into a textbook directed by Sir Lance Townsend and others.'

**RSL PRIZE**

Sir William Refshauge, AC, CBE, MBBS (1938), a former Second World War medical officer, was awarded the prestigious 1990 Returned Services League Anzac Peace Prize on 24 April 1990, in recognition of his outstanding service to the community.

**ROAD-SAFETY CAMPAIGNER HONOURED**

Gordon Walgrave Trinca, AO, OBE, MBBS (1945), FRACS, National Chairman of the Road Trauma Committee RACS since 1975, was appointed an Officer of the Order of Australia in the 1991 Australia Day Honours.

**HUSBAND AND WIFE TEAM RECEIVE  
AUSTRALIA DAY HONOURS**



Drs Evelyn & James Billings  
Photograph courtesy of *The Age*

On 26 January 1991, an event unique in the history of this School of Medicine took place — John James Billings (MBBS 1941) and his wife Evelyn Livingston Billings (nee Thomas) (MBBS 1942), were both appointed Members of the Order of Australia for services to public health.

John is Consulting Neurologist to St Vincent's Hospital, where he was a former Dean of the Undergraduate Medical School within the Faculty of Medicine of The University of Melbourne. He is Physician Emeritus to the Royal Victorian Eye and Ear Hospital. 'Lyn' took the Diploma of Child Health (London), and for many years was a senior demonstrator in histology and embryology in the Department of Anatomy of this University. She is Consultant Physician to the Family Planning Clinic of St Vincent's Hospital.

As early as 1953, John was working on a natural technique for regulating fertility, and in 1964 published *The Ovulation Method*, now in its 7th edition. About this time the husband and wife collaborative effort began, which led to refinement of the ovulation method, now commonly known as the 'Billings method'. In collaboration with a medical journalist, Ann Westmore, Lyn wrote *The Billings Method*, which has been translated and published in a dozen languages. Together, John and Lyn have established centres for the teaching of the ovulation method in more than seventy countries.



1977 Final Year Class. Sir Lance Townsend fifth from left, front row.

## Letters

### Geelong Hospital staff

from Euan MacLean, MBBS 1936

In the photograph on p.58 (*Chiron* 1990, 'Memoirs of Oliver Paul Burger'), from L to R are Dr Aitken, myself, Dr David Alan (Bill) Kidd, and Dr Oliver Burger.

Bill Kidd died on 13.11.89. Dr Aitken was only at Geelong Hospital for a short time before entering the 2nd AIF. He died a few years later. Bill Kidd mostly lived out, and the full-time resident staff consisted of only three, all of whom began in December 1938. The photograph was taken in January 1940.

When we (O. Burger, R. Waddell and myself) began in December 1938, we replaced the three who moved out together — Doctors Seward, McLean (no relation) and Kaw. Bill Kidd was always excellent, as was the white-haired Matron, Miss Ross.

I do not know where Bob Waddell is now. As for me, I am practising part-time at home, having earlier been in the Mental Hygiene Dept. for 33 years.

I seem to remember that our pay was £2 per week, rising to £3 after one year. All three of us had graduated on 19.12.38 at Melbourne University (in the old Wilson Hall). Bill Kidd addressed us when we arrived later that December, telling us that we would be on duty twenty-four hours of each day, seven days weekly, and that any time he gave

us a half day or a weekend off it was a privilege and not a right. To this he added that he would address us as 'Dr Burger' etc. and expected the same from us, but that after 12 months this may change. It did, and late in December 1939 it became (when he gave the word) Christian names all round.

### More about the Wends

from John Zwar

... I was most interested to read in 'Memoirs of Oliver Paul Burger' (*Chiron*, 1990) that the Burgers arrived in Adelaide on December 24th 1850 on the three-masted barque 'Helene' — the same ship and voyage as the Zwars did!

### 1977 Final Year Magazine

from Rob Simpson

... 1977 was the first (and, to my knowledge, the only) year in which such a [Final Year] magazine has appeared at the University of Melbourne ... Bill Twycross and I put the magazine together during the course of the year and gave a copy to every final year student.

We managed to get about 75 per cent of final year students to come to the year photo by leaking a rumour that Professor Townsend was going to discuss the exam questions at the O & G lecture that morning. Of course this did not occur, but we convinced all the students and Prof. Townsend to stay for the photo ... 1977 was Prof. Townsend's last year as Dean and the beginning of the Penington era.

### Multiple Choice MBBS, Dec. 1977

It had always been electric, doing exams in this hall. But this was something else. The boys weren't even stopping for a piss or a smoke. His mind wandered back — the thalamus, Jack Legge's question on ouabain and that pharmacol. paper where they had spent more time smiling than thinking. And up on the wall, that ugly bloody mural.

It reminded him somehow of 'The Pilgrim's Progress' and the Slough of Despond. A lone pilgrim progressed awkwardly past him up the aisle towards the toilet. Thank Christ someone's kidneys are still dripping, he thought. He bent back to his paper, where the words 'Lasix, 40 mg I-V' caught his eye. He blanched, rose quickly, turned on a sixpence and scissored his way up the aisle. No multiple choice about having a leak ...

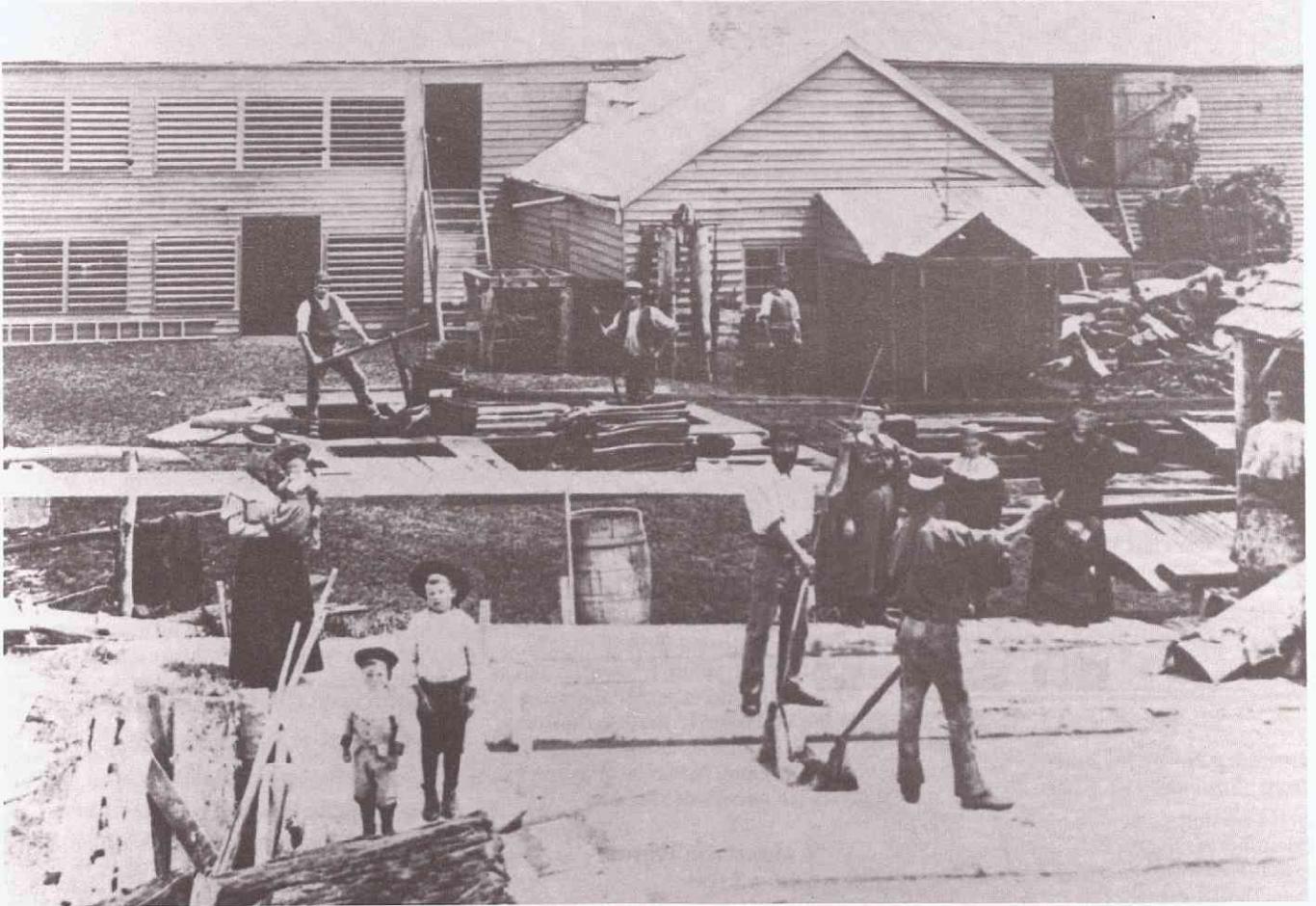
Anon

# Two Country Surgeons

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## Sam and David Fitzpatrick

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Heyfield Tannery 1895 – family, friends and workers.

*Many Melbourne medical graduates who were born and bred in the country returned to their country environs to practice their profession whilst other young doctors, attracted to rural life, chose the country town for their workplace, despite the likelihood of isolation and physical hardship, particularly in the early years of this century. Some later gained international recognition, perhaps most often by working outside of Australia – a notable exception was Sir Macfarlane Burnet, born in 1899 in the Victorian country town of Traralgon, who received the highest accolades (Nobel Prize and Order of Merit) without ever moving for any length of time from Melbourne. Most spent long and happily useful lives. They were, as well, intelligent observers of human behaviour and of the environment; their diaries and records are a mine of information for writers, historians and other researchers.*

*Practising medicine in rural areas developed self-reliance and initiative, sharpened commonsense and broadened clinical experience and surgical skills. A competent country doctor held a high place in the public eye and could recruit ready assistance to solve personal and community problems. As an educated, energetic individual – usually supported by an equally energetic wife and family – the doctor perforce became heavily committed to community affairs with church, social and educational responsibilities. Sam and David Fitzpatrick were two such country surgeons. David died in 1985 and, writes Mrs Betty Fitzpatrick, 'At a Thanksgiving Service at St Columba's, Sale, there was an overflowing church with every section of the community represented.'*

*This brief history of Sam and David Fitzpatrick's full and richly varied lives was compiled by Harold Attwood from material written by Mrs Betty Fitzpatrick (widow of David), Dr Janet Fitzpatrick, MBBS 1959 (daughter of David and Mary), and Dr Timothy Fitzpatrick, MBBS 1984 (grandson of Sam).*

*There is much to be learned from reading these biographies and we thank them.*

## The Family

Sam and David Fitzpatrick were both born at Heyfield, Victoria, the fourth and sixth sons of John and Ada Fitzpatrick. Their father, John, was the fourth son born to Charles and Jane Fitzpatrick, who were married in the First Presbyterian Church in Geelong on 30 April 1848. Charles had come from St George, East London. He became a successful builder in Geelong and was one of the founders of the Egerton mine; Jane came from Paisley, Scotland. John was born at Mount Egerton and, as a boy, apprenticed to a blacksmith in Melbourne, where he shod for Cobb & Co. Later, he travelled by boat to Port Albert, by coach to Sale and then walked the 18 km to Stratford where he started work as a blacksmith. In 1883 he married Ada Rosina Imrie, the first-born to James and Emily Imrie at Port Albert in 1853.

John Fitzpatrick worked in the tannery at Stratford until 1891 when big floods washed most of the tannery down the Avon. The family moved to Heyfield, where John bought a tannery, and there Sam and David spent their childhood. They both attended the primary school in Heyfield and secondary school at Sale Agricultural High School. They boarded in Sale during the week, cycling 45 km from Heyfield each Monday morning and returning the same way on Friday evenings.

### Samuel Charles Fitzpatrick, CBE, MBE MBBS 1915, 1892-1991



**S**AM, perhaps more sophisticated than his younger brother David, had a childhood passion for painting and sketching but was advised by his headmaster (and future father-in-law), Jack Refshauge, to study medicine. He commenced study at Queen's College, The University of Melbourne, in 1910 and in that year was bow oar for Queen's 1st VIII in its victorious crew. On 5 August

1914, Sam wrote of an evening at College:

*We trooped into tea light-heartedly as usual and stood to await the Master to take his seat at High Table. But he remained standing until all were silent. Then in a few unforgettable words he said: 'War has been declared with Germany. What this will mean to us all, none can foresee. Things can never be the same again.' The rest I don't remember.*

In March 1915, Sam passed his final exams and was offered a 'house' job at the Royal Melbourne Hospital but, with the increased threat of war in Europe, he elected to work in Warrnambool Base Hospital before enlisting with the AIF. In June of that year he was commissioned as a Captain in the Australian Army Medical Corps and in August arrived, via Suez, at the First Australian General Hospital, Heliopolis, Egypt. From there he wrote:

*I have not met or heard of any Heyfield men and regret that time does not permit me to learn other than medical details about the patients. One must pass on quickly after deciding on treatment to get through. It is startling, terrible, interesting but almost hope-killing to hear the stories from the tired,*

*listless, deaf or blind chaps just back from the Peninsula.*

The following month he was on the Gallipoli Peninsula, where he remained until the final secretive evacuation in December 1915. Sam recorded that 'Pills' was one of his more presentable nicknames among the 'diggers'. A sergeant told him that 'for bouts of dysentery such as nearly everyone had with flies and open latrines', he had given him 'a total of 156 pills, one of these and two of those' for his many bouts.

In March 1916, Sam travelled from Alexandria to France with 1500 army personnel on the ship, all of whom were to have typhoid and antityphoid A & B inoculations. The first injection was to be given during the first 24 hours, the second before disembarking – 3000 hypodermics to be given in eight days.

*I was the only MO on board with several medical details to help. The equipment consisted of about half-a-dozen hypodermics and a bowl of needles. When half the needles had been used, they were taken and boiled up while we went on.*

During this voyage, a transport ahead signalled the need for an MO. Sam went aboard and found two soldiers with about 20 pustules around their eyes and a few scattered elsewhere.

*I had never seen confluent smallpox except in illustrations. Enquiries showed that these two men had purposely dodged vaccination in Australia and Egypt.*

In France, Sam was stationed initially at Armentieres, then at Pozières where he was later awarded the Military Cross:

*All knew that the Division was 'in for it', a tough job, that Pozières had been attacked several times but not held, it was the hanging in that was to count. 5.9 shells hour after hour cutting us off from the front line and the front line from us . . . all the trenches wiped out, men buried then dug out and buried again, those who dug them out in turn being buried, the possibility of being shelled by our own guns.*

Sam returned to England in March 1917, where he spent twelve months with the Third Australian Military Hospital. In July of that year he received his Military Cross from King George V at Buckingham Palace and, in the following month, was promoted to the rank of Major. From there, in 1918, he was stationed with the Ninth Field Ambulance in the 'Last 100 Days' leading to the attack on the Hindenburg Line.

Following Armistice, Sam spent three months at the mouth of the Somme as MO to the Australian Corps School. Whilst there he spent much of his time attending to German POWs in the adjacent camp and at the same time studied German. In February 1919 he applied for educational leave and became resident at the Royal Free Hospital, London. On 18 July 1919, Sam and Moree Refshauge were married; they had become engaged shortly before the war and Moree travelled to London to be near him.

After gaining the first part of his FRCS in England, the couple returned to Australia. Sam worked briefly in Wentworth, rowing across the Murray to get to work. During 1920-21 there was a shortage of cars, so he rode a bicycle and hired a car for long-distance calls.

In October 1920, Sam took up the position of Medical Superintendent to Hamilton Hospital and Benevolent Asylum (later Hamilton District and Base Hospital). With a history of staff dissent, the atmosphere at the hospital at that time was uneasy; but Sam persevered (having survived a real war and its hardships) and in time he felt at home.

In Hamilton, Sam was responsible for setting up its first private hospital. In 1927, together with local graziers and

### From Sam's diaries

As he was travelling in an open mail-car to Wentworth, dressed in his only 'civvie' suit, dark blue and unsuited to the heat, an Irishman jumped on the running board and grasped his hand.

'How are ye father?' he asked.

'I'm afraid you've made a mistake.'

'What is your name?'

'Fitzpatrick.'

'That is right' he enthused, 'welcome to the presbytery.' By now the car had stopped in front of an interested crowd at the hotel.

'But I am the doctor taking Dr Cheney's place.' The disappointed parishioner faded out to raucous laughter.

businessmen, he set up a private company, bought land and built a single-storey hospital, *Kia-Ora*, based on the design of the Mayo Clinic in Rochester, USA. *Kia-Ora* was open to all doctors in the area. In 1928 he became a Foundation Fellow of the Royal Australian College of Surgeons.

### From Sam's diaries

In 1930, a circus made its annual visit to Hamilton – casualties were expected. A man with a worn face came to Dr Samuel Fitzpatrick's waiting room and complained of bad headaches.

'What is your job?'

'I work at the circus.'

'What at?'

'The big gun.'

'What part do you play?'

'I am the cannon ball.' (at last we are getting to the facts)

'What exactly do you do?'

'I climb into the gun. It is fired. There is an explosion of small charge; a lot of smoke is blown out and the spring on which I stand forces me out through the barrel and into the air. I am caught in a net to prevent me from hitting the ground.'

(To prevent the recurrent headache, Sam recommended a rest from being the human cannon ball.)

'Try pressing the trigger instead.'

'I'll see the boss' was the reply, 'he presses the trigger.'

(Said the circus manager to the human cannon ball, 'You can't retire, where would I find another man of your calibre?')

In 1940, *Kia-Ora* was bought by the Base Hospital, which had been receiving private patients. At about the same time, the Hamilton Medical Group was formed, instigated by Sam with the aim that all practitioners unite and protect each other's interests rather than operate in competition.

Hamilton adopted as its slogan 'Wool Capital of the World'. Sheep are the common host for the cystic stage of the small tape worm *Echinococcus granulosus*, which normally

inhabits the small gut of the dog. The carefree feeding of raw sheep offal to dogs encourages the transmission of the cystic stage of the parasite (hydatid disease) to humans. Hydatid disease was prevalent in the Hamilton district. Sam, following study at the Royal College of Surgeons, Melbourne, became skilled in the surgical treatment of this protean disease. Eventually, he treated over 350 patients.

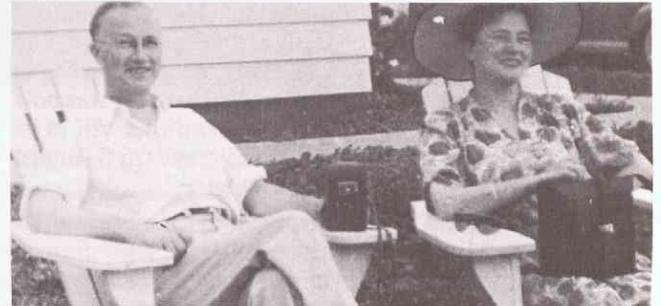
Sam's reputation for the treatment of hydatid disease spread. In the Punjab, India, in 1958, Rajindera Uppal, a medical student, developed incurable hydatid disease of the spine. His uncle, a doctor, wrote world-wide for help – eventually, the Edinburgh College of Surgeons recommended a surgeon in 'country Australia'. Sam was contacted and Rajindera arrived in Hamilton in October 1958. After five operations and bone grafts the young man recovered sufficiently to take up work as a chemist. He remained in Australia and surgeon and patient became life-long friends – Moree and Sam stood in as the groom's parents at Rajindera's wedding in 1968.

Sam lectured on hydatid disease throughout Australia, New Zealand and the USA. He learnt Spanish for his trip to Mexico to lecture at a World Conference in 1970, in the same year as he retired after fifty years of service to Hamilton and district. In 1971 he completed his manuscript *Hydatid Disease*, to which Keith D. Fairley (MBBS 1920) contributed Chapter 3 'Laboratory Aids to Diagnosis'. It was never published and a copy is now held by the National Library, Canberra.

In 1972, at the age of eighty, Sam did a locum in Queensland. He recorded that the list of cases he saw included:

. . . a frank hyperthyroid with exophthalmos, trichomonas and moniliasis, eczema, acute lower back pain, hiatus hernia, renal colic, urethral bleeding, coronary ischaemia, fractured wrist, intestinal obstruction, strangulated RIH at 11.20 pm and alleged rape at 2.30 am . . .

At that time he was brushing up on his Spanish by listening to language records in preparation for a trip to the USA and Latin America.



Sam and Moree, 1949.

In Hamilton, Moree and Sam were active community workers. Sam was a committed church member and a Rotarian. In 1965, he received a VEF Community Services Award; he was a Trustee of the Hamilton Art Gallery; and he continued to paint and sketch until about 1988. He received an MBE in 1967 and CBE in 1977. In 1982, the Hamilton Base Hospital named its new wing in his honour and Sam made a speech at the opening.

Moree and Sam had three children – Mary, Elise and Ian, eight grandchildren (Barbara, Sue and Tim are medical graduates), and 14 great grandchildren. Moree died in 1970 and in 1974 Sam married Marnie, the widow of his friend and colleague, Dr M.H. O'Sullivan of Casterton.

Samuel Charles Fitzpatrick died in his 99th year just as *Chiron* was going to print.

David Imrie Fitzpatrick, MBE  
MBBS 1923, 1899-1985



**D**AVID Fitzpatrick was a country man all his life. Larger than his older brother, Sam, he was of quiet and thoughtful disposition and dearly loved his garden, his farm and his books.

The precepts of his deeply religious parents influenced David's whole life. He was active in and held office for the Methodist Church before joining the Uniting Church. He

entered heartily into any activity, be it work, study or sport. A son-in-law was heard to say that David had been taught to work but never taught how to stop.

David started High School in the agricultural course but finding it undemanding – and inspired by Sam – he decided to try to do medicine. He competed successfully at sports but also worked hard at his studies and won a Senior Government Scholarship. Science was not taught at Sale High School, so for one year David boarded with a relative and attended all levels of physics, chemistry and mathematics at Melbourne High School. In 1919, his first year in medicine, he achieved a *proxime accessit* in Natural Philosophy (physics).

As a resident of Queen's College, David was duly initiated by being painted all over and, with a group of naked, similarly painted 'cobbers', was sent along College Crescent at 1 a.m. to gain admission by the next gate. His College years were happily busy with study, athletics, sports, teaching Sunday School in Carlton with Bertie Coates (later Sir Albert) and lifelong friendships were formed. David loved rowing and the pewter cups awarded to the College crews (1920, 21, 22) and the oars that hung high on the wall of his study for many years (now in Suggett Hall, Queen's College) bear witness to this.

Graduating MBBS in 1923, he became a junior medical officer at the (Royal) Melbourne Hospital, riding his bicycle the 200 km from Heyfield to Melbourne to take up the appointment.

After a year as a houseman at the Royal Melbourne Hospital, David married Dr Mary Waite (MBBS 1924) and they bought a practice in New Norfolk, Tasmania. It was an adventurous time – David purchased his first car in Hobart and, never having driven before, returned to New Norfolk with the assistance of two hitch-hiking sailors. During one period he was called out 18 out of 22 consecutive nights and his notes illustrate some of the drama.

At New Norfolk, despite the drama, David generally enjoyed country life – he established a rowing club, which competed successfully in Hobart regattas, and played football. Perhaps because of the pressure of work, David started to smoke and continued to do so until 1962 when, in one week, he saw three patients with lung cancer. He stopped smoking immediately.

In 1929, after five years in Tasmania, the practice was sold and David, Mary and their children, Mildred and David, set off for England in the *Largs Bay*. During the voyage, Alistair McEachern (Adelaide) and David studied for their FRCS exams.

There were three happy years in England, despite the fact that lack of money for travel meant life was nearly all work. Their car cost thirty pounds and after three years it was sold

for three. On gaining his FRCS, David worked as a Casualty Surgeon at Beckett Hospital, Barnsley, Yorkshire, and then did several locums. Mary did anaesthetic work but was mainly occupied in caring for their children. On one occasion, the family were separated when an epidemic of meningitis in the area prompted Mary to take the children to a bedsitter in Blackheath.

In 1932, the family travelled back home, via Panama and Vancouver, on the Swedish cargo vessel *Parakoola* – a few passengers were carried and David was ship's surgeon. This was to be the last holiday for some time. The family settled in Sale, where David remained for more than forty years, practising as a general surgeon and general practitioner and, until 1960, as an obstetrician.

David bought the practice of a Dr Ebsworth, and after a few months was invited to form a partnership with Dr G.A. Hagenaur (MBBS 1895). In 1935 he was elected a Fellow of the Royal Australasian College of Surgeons; in the same year he was commissioned in the Australian Army Medical Corps and appointed Medical Officer to the 4/19th Prince of Wales Light Horse Regiment.

These were busy years for Mary and David, with three daughters – Judith, Janet and Philippa – born in 1933, 1935 and 1937. Their family had now grown to five children. They altered and extended their house with a very modern surgery; even by today's standards, it was excellent, with a

#### From David's diaries

1. 'Jim' 19/6/29: Urgent call to Tyenna, 30 miles away, where a young man had cut his throat, the larynx was visible through a wound into the pharynx. Made a splint to hold his head forward, using cardboard softened in hot water, then took him to New Norfolk Hospital in car. Never seen a tracheostomy done, but read it up in "Emergency Surgical" and had instruments ready when Jim obstructed a few days later. The assisting sister said "He's gone" but thought may as well finish the procedure. Jim took a gasp and recovered.
2. P.P. 35-mile trip to a timber mill where a 45 year old man was partly conscious, uraemic, with free peritoneal fluid, from a ruptured bladder. Had to use a railway trolley to get patient out between timber stacks and railway trucks.
3. Needled and drained empyema at patient's home. A few days later a huge hydatid cyst was withdrawn. One day, nurse was doing his dressing when he coughed and the forceps fell into the cavity.
4. Late one evening a bright moonlit night, with snow all round, called to Moogara, 12 miles out in the hills for a mid. It was a long wait, and while waiting was called to another 200 yards away. It was no bother and I returned to the first. Finally the membranes ruptured, hydramnios bathed my feet and a huge anencephalic babe was born.

separate X-ray and developing room and a small laboratory for specimen testing.

Mary died in 1941 after suffering from Hodgkins disease for two and a-half years. In 1942 David married Betty Nairn, a radiographer, and their son, Robert, was born in 1945. With the surgery attached to the house, the family was to see more of the patients than present-day medical families. Seldom was an appointment made: the patients usually came and sat down and waited. Often David would say, 'Just go and see my wife and have a cup of tea,' not always at a convenient moment for his family.

For over twenty years, the Sister-in-charge of theatre was invaluable. She recalls a morning when the surgeon was more than irritable in theatre. She snapped at him. No more was said. However, he returned later and, poking his head round the door, said 'Sorry, Sister, you did right to pull me up.' The Sister remembered that incident with admiration (after thirty years) and also recalled that the next day one of his little girls, Judith, died.

David had the capacity to inspire great loyalty – one Sister was in the surgery for sixteen years and another for ten, and each was 'one-eyed' about her boss. Theatre work consisted of most general procedures and could include thyroidectomy, bunions, gastrectomies, caesars, reduction of fractures, tonsillectomies and cholecystectomies.

As in New Norfolk, medical practice in and around Sale was not without drama. Not long after settling there, another doctor had a severe gastric haemorrhage. This was to be the first blood transfusion given in the district. A donor was found, the blood matched visually on a slide, then all the gear carried up narrow backstairs to the doctor's bedroom. The patient had hiccups for several days after but recovered. The next attack came about ten years later and by then David was able to match and give a safer transfusion: the old doctor (the patient) lived to well over ninety.

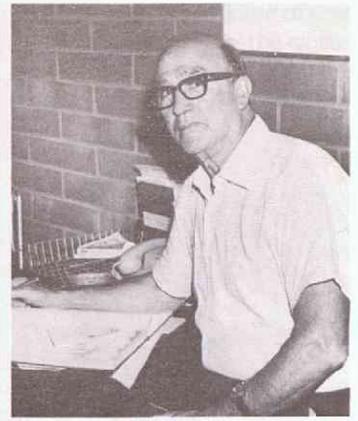
During the Second World War, with the establishment of RAAF bases each side of Sale, many more wives and children were seen and, in addition to his own practice, David stood in for the off-duty surgeon at the small RAAF hospital adjacent to Gippsland Base Hospital.

On Boxing Day 1943, a very unusual accident occurred at Seaspray Beach. The beach was crowded with bathers, when a plane, practising target shooting with another plane, swept along the beach with an unretracted drogue at the end of a long wire. A man of fifty-nine and a girl of seventeen had both their legs amputated by the wire. A police car raced David to Seaspray (23 miles) where he was the first to arrive and treat both patients who had been carried to a cottage. Dressings were applied and plasma given before the patients were transferred to Gippsland Base Hospital, where repairs went on for many hours. Both patients recovered and on several occasions David took them to Melbourne in his own car to have fittings for artificial limbs. Thereafter, both were often seen walking round the streets of Sale. The man lived to old age and the woman is still able to walk on much improved limbs.

There were not so many country calls as at New Norfolk in Tasmania but, when the Dargo Bush Nurse was heard on the 'phone, it usually meant a trip of sixty-nine miles up the very rough winding road to Dargo. In 1944, a call came from Dargo at midnight, when David was at the Hospital Ball. He rushed off with a friend to find the patient had a gastric haemorrhage. He had taken plasma with him and the patient recalls that David asked for wood, hammer and nails and soon made a frame to hold the flask, all being hammered to a window frame. He went down next morning to Sale for blood for a transfusion, which was left for the Bush Nurse to manage. The patient recovered but bled again some years



David, the cyclist.



David, Dec. 1973 – last day at work.

later – this time David took along a nurse, a donor and a pathology technician: the patient recovered again and, with little further illness, still lives at Dargo and is over eighty. A short time later, her son of twelve had a similar episode and he too recovered well after a transfusion and is now married with a family.

On such trips, the doctor usually lodged at the one hotel, which had no modern conveniences in those days. The Licensee would light the copper for the doctor's bath – but David would be up early and have a swim in the river.

Even in old age, David never refused to attend a patient because of a difficult trip. Probably the last such trip was by helicopter, on a foggy night, to be landed on a Bass Strait oil-rig and to be transferred by a swinging basket to a French lighter. He found the patient had suffered an epileptic fit but by then had recovered. ('The man should not have been there with that condition.')

David never hesitated to refer patients to specialists if he thought it was in the patient's best interests or at the patient's request. Usually, if the decision was to operate in a city hospital, he would be present at the invitation of the specialist surgeon. Throughout his life, he continued to read his many journals, keep abreast of contemporary treatment and took every opportunity to attend special courses and conferences.

David was Secretary and, later, President of the Gippsland Sub-Division of the British Medical Association, Health Officer to the Rosedale Shire and President of the Sale Ambulance Service (later the East Gippsland Ambulance Service). In recognition of over twenty-five years work for the ambulance service, he was elected a Life Member and a Life Governor. He was an Honorary Surgeon and later a Consultant Surgeon at the Gippsland Base Hospital for a total of fifty-three years. He was also a long-serving member of the Committee of Management of the Hospital. In 1973, for services rendered to the Hospital and to the community, he was made a Member of the Most Excellent Order of the British Empire.

He also had a remarkable record of community service. A member of the Council of Sale High School for many years, he worked hard for the development of the school grounds; the Sale Arboretum is named after him; he was an enthusiastic member of the Sale Field Naturalists Club and spent much time planting and tending native trees beside the lake in the centre of Sale. He was an active Rotarian and a Trustee of the Methodist (now Uniting) Church.

One of David Fitzpatrick's great loves was his farm property. He bought his first dairy farm in 1940 and several more were purchased later. With the help of faithful and competent share farmers, who stayed for many years, the farms flourished. He knew the many milkers by name and meticulous records were kept of each cow's production. When 'off duty', Saturday would be a day at the farm.

The seven Fitzpatrick brothers always had a close association – David and Sam corresponded regularly – and there was no happier occasion than when they met as a family. As each brother turned seventy, a grand family party was held. David was very proud of his children and all five are university graduates – Mildred (science), David (veterinary science), Janet and Robert (medicine), Philippa (architecture). Once the family was established, David and Betty travelled extensively in Australia and overseas.

With increasing deafness, David retired at the age of seventy-four and turned to his garden, where he could be found hoeing and weeding the large vegetable plots. There was always too much produce for the family and quantities would be given to friends. He loved to exhibit his favourite flowers at the Horticultural Show.

Always a reader, David seldom went to sleep before reading a few pages – if fascinated, sometimes he would read until 2 a.m. After retirement he took a course in bookbinding

and travelled for three years with a friend, by train or by car, to the College of Printing and Graphic Art in North Melbourne. Bookbinding brought him great pleasure, for he was able to repair the books of his many friends – who also arrived with family furniture to be mended.

After a heart attack and a slight stroke, David's activities slowed down but, with great determination, he learnt to write with his left hand and then, rather painfully, with his damaged right hand. But he was no longer able to do the precise work needed for bookbinding, nor was he able to drive a nail and this was particularly annoying to him. He did manage to return to his beloved garden and worked there until a few months before his death on the 16th of November 1985.

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## THE LATIN SCHOLAR

John Patrick Horan, MBBS 1930

*His story, as told to the Curator of the Medical History Museum, Harold Attwood, early in 1991.\**

'I wish I had something to read,' I said to Padre Owen Cosgriff who was the Catholic chaplain to the 2/4 Australian General Hospital – the hospital in Tobruk during the siege. 'There is absolutely nothing to read,' I continued. We were in the beach section of the hospital and the patients were housed in brigaded tents which we sunk slightly below ground level, and as the earth was hard and rocky and difficult to dig they were sand-bagged for a foot or two above ground level outside. Camp beds with legs folded under were used on the bare earth of the tent floor. Slit-trenches were scattered over the ground outside the tents for ambulatory patients. The officers and some of the staff slept on the beach in dug-outs between the wards and the sea. These dug-outs were about seven feet long and four feet deep and were covered with timber and galvanised iron and then a layer of sandbags. At each end of the dug-out, just above ground-level, was an opening, one on either side, through which a man could slip in or out. The purpose of the two openings was to allow the occupant to get out of the dug-out if, by chance, one was blocked during an air-raid. No lights were allowed on the beach at night, not even for smoking. If one walked inadvertently from a tent with a lighted cigarette in his mouth it brought a deliberate command from a sentry: 'Put that cigarette out!' The response was always immediate. It was spat out and stood on. When daylight failed we usually sat and talked for an hour or so before turning in. We preferred a night with no moon as it meant there would be no air-raids that night. In the stillness of dawn in the desert we could often hear the enemy starting up their engines for the first air-raid of the day.

It was true that there was absolutely nothing to read. I had been reading the Agatha Christie that had been going the rounds. In my dug-out one day I read till the late afternoon light failed. I put the book on the sandy ledge above my head and it was during the night that the little desert rat came, on this occasion not to nibble my hair, but to chew up the last four pages of the Agatha Christie.

Padre was sympathetic. 'Try this,' he said reaching into his kit-bag and tossing over a slim, blue book, Horace's *Odes*, Book 3. 'Latin,' I said, 'I couldn't read Latin though I did do it at school.' 'Well, you have nothing else,' he said. 'That's true,' I replied. So I took the book. It had notes and a vocabulary at the back. I worked on it day in, day out. I started to enjoy it – the grammar, the syntax, the choice of words, the nuances. I learnt much of it by heart. So began an abiding interest in the Latin of Horace and his *Odes*.

When we first captured Tobruk we took over an Italian hospital and its staff. In the town section of the hospital two wards were given over to the care of Italian prisoners. They were looked after

by captured Italian doctors who were quartered in rooms near their patients. Some of the Italian doctors spoke English, others French, so I was able to communicate with them. I heard the padre of the Italian section of the hospital carrying on a conversation with Padre Cosgriff in Latin. I used to listen to them and try to follow what they were saying. One day the Italian padre said: 'Hodie unum nostrum sepilivi et machinam retuli'. When he said 'machina' the padre was referring to the truck which he was returning. Two thousand years ago, Horace had used the word 'machina', which is translatable as 'any artificial contrivance for performing work'. 'Solvitur acris hiems grata vice veris ot Favone trahuntque siccas machinae carinas' (Hor. *Ode I*, iv, 1). That is: When keen winter is loosening its grip at the pleasant change to spring with a west wind and windlasses are hauling dry barges towards the beach.

The 9th Division was relieved in Tobruk by the Poles. Padre Cosgriff told me that at a meeting held between Australian Catholic chaplains and their Polish counterparts concerning their duties and the day-to-day management of their affairs, the discussion was carried out in Latin.

When the 2/4th AGH left Tobruk it went to Jerusalem, there to take over two hospitals, one Italian, one German, both in the Street of the Prophets. Some of the houses along the street were used to accommodate hospital staff. One night I was in my room when Lt.-Col. C.G. McDonald called. He was from Sydney and prominent in the affairs of the Royal Australasian College of Physicians. I knew him before the war, but until then had not seen him in the Middle East. He had been in the Greek campaign and had returned from Greece and Crete to Jerusalem. He asked me what I was doing and I told him that I was reading Cicero. On coming to Jerusalem I had bought the other three books of Horace's *Odes* and some books of Cicero. He picked up the book I was reading and saw that it was 'De Senectute'. He said that it contained the speech of the dying Cyrus to his sons and he began to recite it, 'Nolite arbitrari, O mihi carissimi filii' as I turned to Chapter 22 and followed the speech which he delivered slowly and impressively. I was so taken with his performance that I decided to learn the speech off by heart also. C.G. McDonald became the President of the Royal Australasian College of Physicians and was subsequently knighted.

Horace in particular has continued my education and I turn to him often. Since the war, I have always carried a book of Horace in the glove-box of my car.

\* This year, John Horan is repeating Advanced Latin, for pleasure – he has already gained an Honour in the 4th year examination.



*'Medicine tends to run in families.'* (Chiron, Vol.1 No.5 1987) In May 1989, the Editors received a letter referring to the Medical Genes series, asking: 'I wonder, are you aware that older than most of these families are the Ryans, as medical practitioners in this State?' The scent was out and the literary hounds responded. A year and a half later, over the hills and through the dales of Barkers Road and Collins Street, one indefatigable hound sighted the quarry — Edward Ryan was bearded in his lair. The prize, a very bushy tale, is a valuable addition to our growing collection of medical history documents.

## The Ryan Family by Edward D. Ryan

The history of medicine in Victoria continues to be told. In 1987, the Editorial Board of *Chiron* decided that families whose services to medicine have been long and, at times, distinguished, should be encouraged to publish at least an outline of the lives of these early doctors and of their descendants.

Settlement in Victoria is barely one hundred and fifty years old, yet over this time, medicine has evolved from what was truly a 'horse and buggy' set-up to undreamed-of sophistication — extending from anaesthesia, antiseptics, the germ theory, X-rays and antibiotics to all the facilities of a modern general hospital. Confronted by these innovations, our medical pioneers surely never had a dull moment.

The Board also decided, for practical reasons, to limit the series to graduates of this School of Medicine, which was founded in 1862. Nevertheless, I am compelled to start with the story of John Pearson Rowe, the progenitor, directly and indirectly, of some fourteen doctors who have worked in this State over the last one hundred and fifty years.

### John Pearson Rowe, 1810-1878

John Rowe was born at Aintree, near Liverpool, and was educated by the Jesuits at Stoneyhurst. Rowe's father, Frank, was a Collector of Customs at Liverpool, and it is not without interest to find him complaining in a letter to the Minister of Stoneyhurst about the high fees and suggesting some moderation. How times have not changed!

Apprenticed to a Dr Pearson, Rowe worked at the Liverpool Infirmary. Evidently, he was a devoted and skilful practitioner, for there is a letter dated 1828 in which the grateful citizens of Liverpool sent him twenty pounds in recognition of his outstanding services during the typhoid epidemic of 1827. The money, it was suggested, might be spent on a trip around the world and that is exactly what he proceeded to do. In late 1828 he arrived at Hobart in the ship *Marianne*.

Remaining in Hobart he was apprenticed to Dr Crowther, a greatly respected practitioner in the pioneering times. In those days, it was almost the rule for young men to interest themselves in the economic affairs of the rapidly developing colony and Rowe became involved in land dealings from which he made a considerable amount of money. In 1837 he married a Hobart girl, Mary Lowe, who lived until in her mid-nineties and was a pioneering figure in the early history of Victoria.

From across Bass Strait came exciting news of the newly-discovered fertile plains of Australia Felix and Rowe decided to become a pastoralist. In 1847, having moved to Victoria, he took up land on the Devil's River (the present Delatite) and for the rest of his life, like so many squatters, moved across Victoria from one holding to another — Terek Terek, Pyramid Hill, Albacutay, Isis Downs (Queensland), Mount Battery and Seven Hills. Mount Battery station at Mansfield was perhaps his longest held property

and, from there, he became famous, developing vast areas in the north-east of Victoria.

Despite his pastoral work, Rowe, like so many early doctors such as Thompson and Curdie, never forgot that he was, first, a doctor, and was always ready to assist the sick and disabled. The times were exciting and it is recorded that, alarmed by a report of horse stealers in the back paddocks above Mount Battery, Rowe and the local Mansfield policemen set out, to be confronted by Power the bushranger and the young Ned Kelly. Shots were exchanged: the bushrangers rode off and no one was injured.

As a member of the University Council and the Medical School Committee, John Rowe was one of the founders of the Melbourne School of Medicine. He stood twice, unsuccessfully, for Parliament. His town house was at Heyington in Toorak and, on the paddock sloping down to where the present Kooyong courts are sited, he grew grapes successfully until they were overwhelmed by phylloxera in the 1880s. For his services to medicine and the church, Pope Pius IX made him a Knight of Saint Gregory.

On his property at Terek Terek, he persuaded the Swards of Ballarat to build a small hotel designed to cater for the travellers coming down to Victoria during the gold rush. Around this grew the city of Rochester — named after Rowe by Governor Latrobe. In 1848, Rowe brought out his brother, George, to be the first pharmacist in Melbourne, where he set up his establishment in Collins Street on the western hill. Sadly, in 1852, George had his head blown off in a gambling quarrel in the Crown Hotel in Lonsdale Street. John Pearson Rowe died in 1878 after a fall from his horse at his property at Seven Creeks.

After this era the medical saga skips a generation to Denis Rowe, a prominent orthopaedic surgeon who served with a distinction in the North African campaigns in the First and Second World Wars. He was also well known in Sydney racing circles.

John P. Rowe's second daughter, Frances, married Denis MacCarthy O'Leary in 1884. He was a Trinity College law graduate and practised at Wangaratta. Their daughter, Leonore Helen, married Edward Ryan (i) in 1912.

### Edward Ryan (i), 1860-1939 MBChM 1884, FRACS

Edward Ryan was the eldest son of Michael Ryan, of Ararat, the first architect in the Wimmera. Michael, a graduate of Dublin, had worked on the drawings of the New York State Opera House and, on his arrival in Melbourne, helped with the plans for St Paul's Cathedral. This was an exciting time and like so many young men, Michael was caught up in the gold rush and travelled to Maryborough where he worked on designs for mines. Finally, he settled in Ararat and many of the present public buildings in Stawell, Ararat and Horsham were built to his drawings.

Michael sent his son, Edward, to board at St Patrick's College, East Melbourne; but in 1877 Edward moved to the newly-founded Xavier College in the country at Kew, 'to be away from the temptations of the great city'. Edward was the first Dux and Captain of the school and Xavier's first student to enter The University of Melbourne. After graduating MBChM, he applied for and accepted the position of doctor to Nhill, a primitive and struggling farming town without a rail service, and in desperate need of a doctor. Obviously, the position was not attractive as several doctors before him had served briefly in the town and then retired in haste. The previous incumbent had left rapidly in the night, escaping in a stolen buggy at Cove on the South Australian border.

Over the next twenty years, Edward Ryan built up a thriving practice. William Osler's injunction — that young doctors should not become involved in civic affairs — had not reached Nhill and Ryan became President of the Racing Club, Chairman of the Art Society, Patron of the Town Band and Secretary of the Golf Club. In 1887 he played in what was probably the first inter-town golf

competition in Australia outside Melbourne, when Nhill challenged Hopetoun on a course of sand, mallee scrub and rocks. Nhill won by a match and the *Beulah Times* remarked that 'Ryan's play was superior to anything he had previously shown.' The Nhill side included J.W. Trumble, progenitor of the famous cricketing family. In those days, the local doctor was a central and fascinating figure and the *Nhill Free Press* chronicled with delight the assorted surgical difficulties of the local citizens:

Mr Wilson, who suffered a terrible accident working on a hay-making machine, is much better since Dr Ryan removed his leg.

In 1898, Edward Ryan decided to devote the rest of his life to ophthalmology, which was probably the first specialty to diverge from the practice of general medicine. He sailed for London, and worked at Moorfield's Hospital where, for a while, he was Out-patient Assistant. At that time Vienna was the centre of modern medical thought, so Edward set off on a bicycle across Europe. The trip was not without incident: he rescued two Americans from a ledge in the Alps and the commemorative plaque they gave him is still held in the family records.

Ocular surgery had always interested him and, in Vienna, he learnt the arts of cataract extraction and ocular plastic surgery. In 1899, he returned to Melbourne where he set up as an ophthalmic specialist.

Edward was probably the first eye specialist in Australia. Previously, it had been customary to combine ophthalmology with ENT practice. His friends predicted disaster and, Edward used to say, he did not think he saw more than twenty patients in his first year of practice. However, he worked away quietly, joined the staff of the Victorian Eye & Ear Hospital and finally became eminently successful.

In 1900, on the advice of Sir John Madden, Chairman of the National Trustees, Edward bought No.33 Collins Street, a double frontage block, for which he paid nineteen thousand pounds. He practised there for the next thirty years. He installed an operating theatre, complete with sterilising equipment, special lighting and a massive Haab magnet, used for extracting metallic intraocular foreign bodies. Day-patient intraocular surgery is now becoming popular but, in those days, Ryan did cataract extractions in 33 Collins Street and on the same day sent the patient to convalesce in his private hospital, a converted terrace building near to where the present St Vincent's Private Hospital now stands. Edward was invited to join the first Medical School at St Vincent's Hospital and worked there until his retirement in 1926.

Trachoma was the eye scourge of the early colonists: in fact, it was presumed that every patient from north of the Dividing Range was afflicted. It was as a trachoma surgeon that Ryan made his reputation, performing the triple surgical manoeuvre of tarsectomy, peritomy and blepharoplasty. In 1928, after studying with Professor Gonin in Switzerland, Edward returned to perform what was claimed to be the first successful operation for retinal detachment in the country: he had learned that success could only be achieved after sealing off a retinal hole.

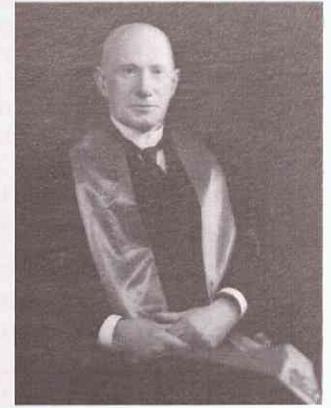
Through prudent land deals, Edward acquired sizeable properties, including a farm at Christmas Hills, ten thousand acres in the Mallee and the well-known house in Studley Park Road, *Tara Hall*, which he bought from Count O'Loughlin in 1927. It was a massive building, with some forty rooms, a tennis court and a turf cricket pitch — excellent facilities for his large family of seven children. Edward was also a discerning patron of the arts and his collection of period silver was considered to be amongst the finest in the country.

Despite a busy and varied life, Edward Ryan was essentially a private person. He wrote little and he did not appear upon public platforms. Sport fascinated him and he never missed a public school match in which Xavier College was involved. He gave the school a rowing eight and was president of the Old Xaverian's Association on two occasions. From boyhood he was a proficient field shot and, with Sir Hugh Devine, also a country-bred boy, spent many happy days shooting quail over their dogs across the western plains.

He became a greatly respected business man and was on the Committee of the National Trustees. Two of his children became doctors. He died in 1939.



Edward Ryan (i)



Thomas Ryan

### **Thomas Francis Ryan, 1862-1951** MBCM 1886, FRACS, FACS

Thomas Ryan, Edward's younger brother, graduated from The University of Melbourne in 1886 and, after working at the (Royal) Melbourne Hospital and with J.P. Ryan of 20 Collins Street, he accepted the position of doctor at Kaniva in the Mallee, some forty miles north-west of Nhill. He worked there for the next forty years and achieved a reputation extending beyond the colony, even as far as New Zealand.

Although basically a surgeon, Tom managed to eliminate almost completely, the prevalent typhoid epidemics which killed so many of the early settlers and their children. He followed the advice of Osler in using conservative treatment and hydrotherapy. In the 1891 epidemic, thirty-two of his patients were admitted to hospital and, of these, only two died, both of whom had a perforated bowel on admission.

People flocked to Nhill and, while waiting to see 'the great man', they stayed at Rowntree's Hotel in what was known as the 'Ryan Wing'. No surgical problem daunted him and, by the turn of the century, he had a massive list of 100 appendectomies — and not a patient was lost. All aspects of surgery interested him. To acquire skill in mastoid surgery, he spent many hours in Adelaide with Professor Archibald Watson, watching stonemasons using their chisels on the War Memorial. It is claimed that he had the first X-ray machine in Victoria outside Melbourne: it was energised by wet batteries and housed in a lead-lined hut. The story goes that the townspeople proudly gathered to watch the first demonstration of the new magical machine and the patient, Fitzgerald — a professional invalid — was brought in on a shutter. By the light of the first flash of sparks and the crackle as the machine roared into life, the delighted spectators watched a terrified Fitzgerald scamper up the Kaniva Road at a steady two miles an hour — clearly a triumph for modern science. In 1898, when Edward left for Europe, Tom took over the practice at Nhill and he too worked there for the next thirty years. For his services to medicine and to his church, he was awarded, as was his predecessor, the Order of a Knight of St Gregory. He retired early to his boyhood home at Ararat, where, until his early nineties, he continued to play golf on the family golf course near Chalambar.

A bachelor, Tom Ryan was able to devote much of his fortune to medicine. The Ryan prizes of Medicine and Surgery, and many local nursing scholarships awarded throughout Western Victoria, are ample proof of his interest in medicine and his wish to encourage young people.

### **Eugene John Ryan, 1901-1977** MBBS 1925, FRCS (Ed.), FRCS

John was the only son of Daniel Ryan, solicitor, who practised at Yea. He was born in 1901 and educated at Xavier College and Queen's College at The University of Melbourne. During the First World War he interrupted his medical course to enlist in the

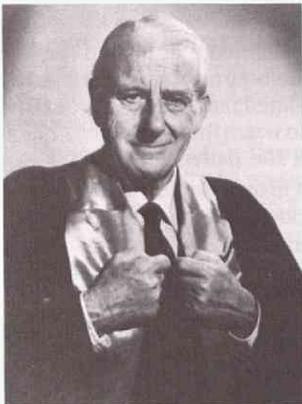
Australian Flying Corps. It is reported that he and his instructor from Point Cook were forced to make an emergency landing on Geelong Grammar's sports oval. Mr Brown, the headmaster, welcomed 'the daring young men' and took them up to his study where he revived them with brandy. In the Middle East, John was injured in a plane crash but survived to graduate at Melbourne in 1925 and do his residency at the Alfred Hospital. In 1926 he joined Tom Ryan at Nhill. It would seem that the general set-up was grim, stern and surgically almost obsessive. In any case, John left quickly for London where he became a specialist in gynaecology and obstetrics and was a Fellow of the Royal College of Surgeons of Edinburgh. He died without children.

### **Michael Hugh Mulvihille Ryan, b.1912**

**MBBS 1936, FRCS, FRACS, FACS,  
DOMS(Lon.), DO(Melb.), FRACO**

Michael Ryan's son, Gerald, was also a well-known architect. He had a son, Hugh, born in 1912. Hugh was educated at Xavier College and The University of Melbourne. His medical course was marked with distinctions — the prize in Pathology, the Beaney Scholarship in Surgery and he came first in his final year. After residency at St Vincent's Hospital, where he worked in Sir Hugh Devine's unit, he joined the Royal Australian Air Force and ultimately became Consultant Specialist in Ophthalmology to the DGMS with the rank of Group Captain. During the Japanese raids on Darwin, Hugh led a team investigating problems of night-blindness and night-flying. After the war, he became a Fellow of the Royal College of Surgeons and later of the Royal Australian College of Surgeons and the Royal Australian College of Ophthalmology. For his original work on the pathology of retrolental fibroplasia, the American College of Surgeons awarded Hugh a Fellowship. He succeeded Kevin O'Day as Ophthalmologist to St Vincent's Hospital.

Hugh is regarded as one of the pioneers in corneal surgery and in the treatment of juvenile squints. He has found time to involve himself in medical administration and is a past-President of the Royal Australasian College of Ophthalmology. He is a member of the Metropolitan Golf Club, the Melbourne Cricket Club and the Melbourne Club. Golf and painting are the hobbies in which he excels; he exhibits regularly and, at Flinders, where he has a country house, his study is adorned with sporting trophies.



Michael Hugh M. Ryan



Edward D. Ryan (ii)

### **Edward Donough M. Ryan (ii), b.1913**

**MBBS 1940, BA, DO, FRACS, FRACO**

Son of Edward Ryan, Edward Donough was born in 1913. He was educated at Xavier College where he was Dux of the school in 1931. After an arts course in history and English, he became a medical student and graduated in 1940.

He completed his residency at St Vincent's Hospital and joined the Royal Australian Airforce serving in the south-west Pacific, where he commanded an airborne hospital. For his work in the landing at Hollandia he was mentioned in Despatches. Like most of the family, he has always been interested in sport and represented

Melbourne University twice in interstate matches. His hobbies are field-shooting and golf; he is a member of the Royal Melbourne Golf Club, the Melbourne Club, the Victoria Racing Club and the Geelong Football Club, where he has helped look after the health of the playing members for many years. He jogs daily, is the oldest surviving member of the original Old Xaverians' Amateur Athletic Club and has twice been President of the Old Xaverians' Association.

Edward (ii) has written a number of articles on the history of medicine and continues to take an active part in medical history in Victoria. He is a member of the Archives Committee of the Royal Australasian College of Surgeons. Pathology of the eye always interested him and he worked for many years for the late Hugh Greer, at the Royal Victorian Eye & Ear Hospital. After Hugh Greer's death, Edward was acting Pathologist for some two years. He is currently an examiner in pathology for the Royal Australian College of Ophthalmologists.

### **Ellery Arthur M. Ryan, 1917-1970**

**MBBS 1941, FRCS, FRCS(Ed.), FRACS**

Ellery was the second son of Edward Ryan (i). He was educated at Xavier college and Newman College and did his medical course at The University of Melbourne. He was a remarkable athlete and the winner of the Public Schools' bowling average; in 1939, he was acclaimed by the press as the outstanding amateur centre footballer in Victoria. He represented The University of Melbourne many times and holds a full Blue.

After doing his residency at Royal Hobart Hospital, Ellery joined the Royal Australian Airforce, where he served in the south-west Pacific. In England, he acquired Fellowships of the Royal English and the Royal Edinburgh Colleges and, in Australia, became a Fellow of the Royal Australasian College of Surgeons. He worked at St Vincent's Hospital as an out-patient surgeon. A man of singular charm and intelligence, his untimely death in 1970 was an occasion for great sorrow. He was a member of the Melbourne Club, the Royal Melbourne Club and the Victorian Racing Club.

### **Edward Michael Ryan (iii), b.1946**

**MBBS 1974, BMedSc**

Edward Michael Ryan (iii) is the eldest son of Edward Donough Ryan and was educated at Xavier College and The University of Melbourne. He was the third of the family to serve in St Vincent's Hospital. Edward decided, like his ancestors, that country practice was the finest of all options in medicine (he may well have been right). He and his family settled at Skipton where, like his grandfather and great-great-grandfather, he built up a formidable practice. He understood the people and they came to him from all over Victoria. However, as his family grew, problems with school facilities forced Edward to move. He now lives at Mosman in New South Wales, where he has built up a busy general practice. He is a member of the Royal Sydney Golf Club and the Union Club.

### **Peter Francis Julian Ryan, b.1948**

**MBBS 1971, FRACP, FACRM**

Edward (iii)'s youngest brother, Peter, was born in 1948 and educated at Xavier college and Monash University. After completing his residency at the Alfred Hospital, he went to London to study for his Membership. At school he had developed an unusual facility for leg break bowling and, in England, this skill earned him many happy days playing for Guys Hospital up and down the rural cricket grounds of England. He is now a physician at the Alfred Hospital and an examiner in medicine for the Membership. Golf is his hobby and he is approaching a single figure handicap. He is a member of the Royal Melbourne Golf Club, the Melbourne Cricket Club and the Melbourne Club.

*Here ends Edward Ryan's story, for the time being. There is another line, through Rowe's daughter, Winifred — they are mostly Keogh's; but that is another story. (Harold Attwood.)*



All medical students who passed their finals were asked to offer their services to the Defence Department or to arrange to relieve RMOs so that they could go to the front. The Minister recognised that, as a result of the War Office call, many hospitals would encounter difficulty in obtaining a sufficient number of RMOs, but he believed that 'all medical men will feel that the call of their country comes first.'

In the same press statement reference was made to instructions issued by the Acting Director-General of Medical Services that fourth and fifth year medical students were not to be enlisted in the ranks of any Australian units. However, despite this injunction, three fourth year students (J.N. Brown, W.E.J. Harrison and R.F. Le Souef) did manage, subsequently, to join the AIF. They were among the 46 Melbourne University medical students who enlisted in 1915 (see *Chiron*, Vol. 2, 1989, p.51). All three were recalled to finish the course.

The *Argus* kept the public informed of the progress of the War Office appeal by publishing articles under the heading 'DOCTORS FOR THE FRONT'. On 6 March 1915, it reported that already three doctors (Ashley, Lorimer and McShane) had left for England, and printed the names of another nineteen (including the four RMOs who had just resigned from the Alfred Hospital) who had been accepted for active service on behalf of the RAMC. This article went on to say that the defence authorities knew that a number of medical students about to sit for their final examinations were most anxious to go on active service. On 13 March the Honorary Secretary of the Medical Students Society called a meeting of final year students at the Melbourne Hospital to discuss the call for doctors and to take the names of intending volunteers.

On 17 March, the *Argus* highlighted Sydney University's response with these headlines: 'MEDICAL STUDENTS VOLUNTEER. SYDNEY'S FINE EXAMPLE'. It was reported that Sir Thomas Anderson Stuart, Dean of the Medical Faculty:

... had taken a very keen interest in securing the medical students for active service, and his delight may be well imagined when in response to the call 43 out of the 60 'passes' stood out and volunteered for immediate service. The result of the call in Sydney has given the greatest satisfaction to the military authorities, and it is recognised that if the response at the other universities is proportionate to that made in Sydney the necessary 100 doctors will be raised in a fortnight.

Among those who graduated in Sydney and volunteered for service with the RAMC were two women, but the British War Office was quick to inform the Australian Government that it could not 'utilise' the services of women doctors. In 1916 the shortage of medical officers in the armed forces became so acute that the War Office was obliged to reconsider its position regarding women medical officers and invited medical women to join the RAMC (see *Chiron*, Vol.2, 1990, p.51).

Twenty-eight of the 73 who graduated MBChM\* at the University of Sydney in March 1915 became members of an elite group which came to be known among themselves as 'Kitchener's Hundred'; some enlisted on the very day their degree was conferred. A further fifteen, ten of whom graduated in 1914 and five in 1913, made up the 43 representatives from the University of Sydney. Five members of Kitchener's Hundred (J.B. Dawson, C.F. Drew, R.B. Lucas, H.J. Penny, and B.W. Wibberley) had graduated from Adelaide University and three (T.E. Ashley, R.O. Bridgman and W.C. Marsden) had British qualifications.

In Melbourne on Thursday, 1 April 1915, at a special ceremony performed by the Vice-Chancellor, Dr J.H. MacFarland, fifteen successful medical students were presented by the Dean, Professor Sir Harry Allen. After the conferring Sir Harry said that all of the young men had been

accepted for service in France with the RAMC and would be leaving Australia by the next two mail steamers. Ten of the fifteen were actually at sea when the annual conferring of degrees took place on 17 April 1915. The remaining five, together with two who graduated *in absentia* at the main ceremony, were on their way to England before the end of the month. One other medical graduate of that year was included in the Hundred, making a total of 18 out of 51 men and five women who qualified MBBS (Melbourne) in April 1915.

Although the rank and pay were inferior to those pertaining in the Australian Army, the War Office call was no less appealing to some of the 1914 graduates who were shortly to complete their hospital residency. As noted previously, the Alfred Hospital management was particularly inconvenienced when four of the five members of the resident staff resigned in the first week of March 1915. At the outbreak of war the Alfred Hospital's resident medical officer (RMO) staff comprised a medical superintendent (MS), one senior medical officer (SMO) and four junior medical officers (JMO). When the Medical Superintendent (R.S. Whitford) enlisted in the first month of the war, R.M. Clarke, the SMO, assumed the office of MS, but on 1 March 1915, he resigned in order to respond to the urgent appeal of the Imperial War Office and informed the Alfred Hospital Board of Management that he would be leaving in two days. During the same week, three of the remaining four RMOs (N.H.M. Puckle, C.T. Stephen and H.C. Colville) likewise resigned and left the hospital at short notice to join the RAMC. The Board of Management, while recognizing the serious inconvenience that such short notice on the part of four members of the Resident Medical Staff involved, resolved to let them go as they desired. At the Melbourne Hospital, where the resident medical staff comprised an MS and ten RMOs, two of the latter (C. Checchi and H.R. Dew) sought, and were granted, leave of absence from their duties for the remainder of their term of office on account of war service with the RAMC.

The sudden resignations at the Alfred Hospital left A.H. O'Hara Wood as the sole RMO. He acted as MS until July 1915, when he left for England to join the Royal Flying Corps (RFC) in a non-medical capacity. Arthur Holroyd O'Hara Wood had been a brilliant student at Melbourne Grammar School where he passed eight matriculation subjects at the age of 14, won the Government Prize for Science, gained First Class Honours at Matriculation and was equal Dux of the School with H.C. Colville (qv) in 1908. At the University, his brilliance as a scholar was equalled by his prowess on the sports field. He was a triple University Blue in tennis, cricket and rifles, and despite his intense involvement in College and University sports, obtained Honours and the Forensic Medicine Prize in final year. At tennis he was outstanding being, in turn, University, Victorian and Australasian champion. O'Hara Wood saw the possibilities of aviation and believed that he would be of greater service to the Allied cause as a flying man than as a medical officer. He served with great distinction in the RFC, became a flying instructor and was mentioned in Despatches. While leading a patrol above St Quentin one month before the Armistice his aircraft was accidentally hit by another RFC machine and he was killed.

Cedric Alwyn Stewart, the next MS at the Alfred Hospital became another tragic war casualty. He was a JMO at the Melbourne Hospital before spending two years as MS at the Alfred Hospital. In final year he performed brilliantly, obtaining First Class Honours in all three major subjects of Medicine, Surgery and Gynaecology, sharing the Exhibition in Surgery. He gained his MD by research on cerebrospinal meningitis undertaken with Neil Hamilton Fairley. He enlisted in the AAMC in February 1917, and was killed by a

high-explosive shell in France in April 1918. Stewart's successor was H.C. Colville, one of Kitchener's Hundred, who returned after completing one year's service with the RAMC.

Kitchener's quota of one hundred medical men was quickly filled and all left Australia before the end of April 1915. The great majority sailed in groups on the passenger liners *Malwa*, *Medina*, *Mongolia*, *Orontes* and *Orsova*. A few travelled on the *Ballarat* and *Morea*. Three were appointed medical officers, for the voyage only, to the *Runic*, *Argyllshire* and *Star of England*. R.O. Bridgman, appointed the Medical Officer to the *Star of England*, was injured in an explosion and had to be replaced by M.J. Gallagher. Bridgman rejoined the RAMC later and sailed in the *Malwa*.

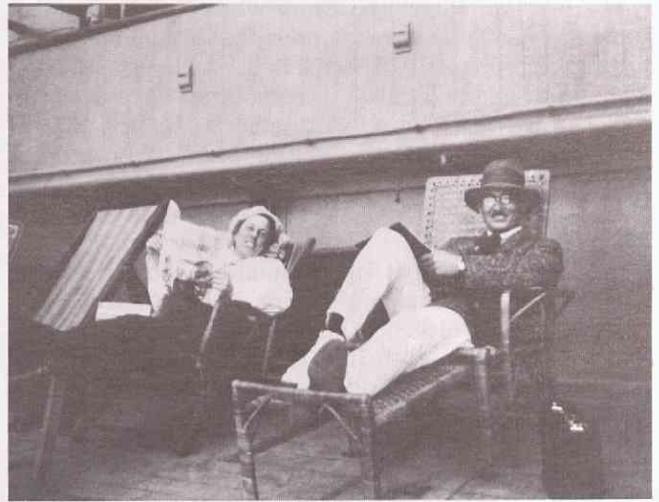
Although the Director-General of Medical Services (DGMS) announced on 8 April 1915, that the selection of one hundred medical men for the RAMC had been completed, his office continued to receive many requests to join the RAMC. When informed of these requests, the British War Office expressed pleasure at the prospect of a second hundred RAMC Australian doctors, but there was no further official appeal for volunteers.

Exactly half (50) of the members of the Hundred had attended The University of Melbourne, including W.C. Marsden who completed his course in England. A further 47 Melbourne graduates joined the RAMC — some were undertaking postgraduate studies in London or Edinburgh when war erupted, while others travelled independently to England, preferring service abroad to uncertain enlistment at home. Herbert Moran, for example, dreaded being in camp in Australia for a long heart-breaking period, so decided to go to London by the then quickest route, via USA. Two of Kitchener's Hundred, J.W. Farrar and A.J. Trinca, had already seen service in the Royal Australian Navy on the Hospital Ship *Grantala* which took part in the action at Rabaul in September 1914.

Several members, after completing their contract with the RAMC, joined the AAMC. One, H.A.C. Wall, after being invalided to Australia from Lemnos, regained his health and again responded to the call to arms. He re-enlisted in the RAN and saw further service in the Mediterranean. Some were still fit and active at the outbreak of the Second World War and offered their services again. Outstanding among these was Charles Huxtable, MC & Bar, who at the age of 48, joined the AIF (13 AGH), was captured in Malaya and survived the agonies of being a Japanese POW, despite contracting tuberculosis.

Cyril Checchi, today the sole surviving member of Kitchener's Hundred, left the Melbourne Hospital three weeks before his residency was due to end. He was one of a group of twenty Melbourne doctors who sailed on the *SS Orontes* to join the RAMC. They left Melbourne on 14 April 1915, travelling first class as civilians and were required to dress for dinner each night. The ship was unescorted and there were no war-time restrictions. It was like a peace-time voyage with the passengers enjoying all the luxuries. They were in the Mediterranean when the landing at Gallipoli took place. After disembarking at Plymouth, they travelled by train to London where they were not expected and nobody seemed to know what to do with them. Eventually the Australian Agent-General found them accommodation. They were given a week's leave, during which time they were outfitted with uniforms. They then went to the RAMC training unit at Crookham, near Aldershot, and some were fortunate enough to be billeted in private homes near the camp. The training was strict — drill starting at 6 a.m., route marches, horse riding classes, but no clinical work.

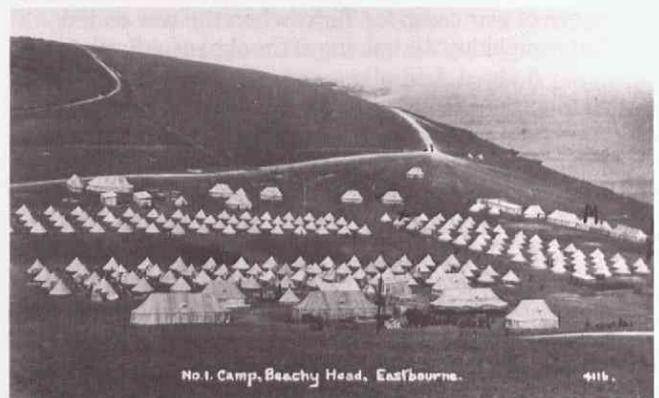
Another group underwent similar training, except for the riding classes, at the Field Ambulance group at Eastbourne.



Dr C.G. McAdam on board the *RMS Morea*, April 1915.  
Photograph courtesy Mrs C.G. McAdam.

Dr Cecil Gordon McAdam, one of the fifteen to graduate at the special ceremony in Melbourne on 1 April 1915, recorded his experiences in a diary from the time of his embarkation on the *Morea* on 20 April until his departure from Eastbourne for the front on 31 August 1915. To McAdam it was a 'great adventure' with 'duty the key'. He was accompanied by five other RAMC recruits (R.W. Hogg, J.D.H. Hughston, C.H. Lloyd, R.B. Minnett and A.E. Stenning). The voyage took exactly six weeks and was uneventful. His medical activities consisted of smallpox vaccination and typhoid inoculation of members of the crew and the treatment of occasional minor illnesses. Prickly heat was a common complaint and McAdam himself was severely affected by it. While travelling through the Suez Canal they heard that the *Medina*, which was ahead of them and carrying fifteen of the Hundred, had narrowly missed a Turkish mine.

After landing at Tilbury, McAdam spent a week in London sightseeing, ordering his uniform and arranging pay, before travelling, with his five companions from the *Morea*, to Eastbourne, where they were attached to E. Division 54th Field Ambulance. Here they came across several other members of the Hundred. They were quartered in two-man tents and each had a batman, who prepared a daily bath at 6 a.m. There was an hour's drill before breakfast, then lectures interspersed with field work. The lectures were on sanitation, hygiene, 'diseases affecting troops', correspondence in the field, military law, law of evidence, courts martial, organisation of the British Army, duties in hospitals, gas defence, field work, accoutrements, field ambulance work, ambulance equipment and map reading. The field work included exercises, drilling and marching, stretcher drill for collection of the wounded, semaphore drill, learning bugle calls, wagon drill, tent pitching and striking, digging latrines, urinals, grease traps and incinerators.



There was a stir at the camp when it was reported erroneously in the Australian press that Roy Minnett, the former Test cricketer, had been killed in action at Gallipoli. Minnett was very much alive at Eastbourne and cables were hastily sent to rectify this shocking mistake. Minnett was the last Australian to leave Eastbourne for the front and survived the war.

A special Act of Parliament was passed in the House of Commons to legalise the medical registration of McAdam and those other members of the Hundred who had left too hurriedly for Australian registration to be effected. With respect to his commissioning in the RAMC, McAdam proudly noted in his diary dated 21 June 1915: 'I was gazetted in *The Times* today.' Towards the end of July, McAdam was seconded at short notice to the Transport Section of the War Office to relieve the medical officer in charge of the transportation of wounded men arriving at Victoria Station.

Major Dunhill, an Australian who was later to become Sir Thomas Dunhill and Surgeon to the King, was McAdam's superior officer at the Victoria Street office. Among the 33 wounded Australians from the Dardanelles was Colonel G.A. Syme, who was suffering from cellulitis of the arm. One of McAdam's less arduous assignments was the delivery of a letter to Buckingham Palace, believed to contain an invitation for the King to visit Harefield Park, a convalescent hospital for wounded Australians.

On his return to Eastbourne, McAdam was bitterly disappointed to find that all his fellow Australians, with the exception of Minnett, had already left with their ambulances for the front. Some time previously, Cliff Scantlebury was mistakenly included in a group of Canadians ordered to the Mediterranean at short notice. The authorities discovered the mistake, but Scantlebury insisted on going and ended up at Cape Helles. Three others, C. Checchi, N.L. Prichard and H.A.C. Wall, also served with British units at Cape Helles during the disastrous Gallipoli campaign. Cyril Checchi remained on the Gallipoli peninsula until the successful evacuation of all forces in December 1915. He subsequently enlisted in the AAMC, but his service with the RAMC was not recognised and he found himself junior in rank to many who joined up after him or had been on the Reserve awaiting training, let alone having seen active service.

Many times in his diary McAdam expressed frustration at the delay in posting him to the front. He was often very homesick and sometimes philosophical: 'If I fall I shall have done all that I can do for my Country and I shall have given all I can give. The sacrifice can never be too great.' McAdam served with the RAMC on the Western Front, Salonika and Palestine and had attained the rank of major at the time of his demobilisation in August 1919. He was in France in September 1915 during the memorable Battle of Loos, where he estimated that the British casualties were 60,000. He was wounded at Salonika and invalided back to Australia, but later returned to the Middle East and was Medical Officer at a prisoner of war camp for Turks when the war ended.

After completing the training at Crookham or Eastbourne, the newly-fledged Australian members of the RAMC were posted to various British Army units. Most of them went to front-line field ambulances operating in the battlefields of France or the Balkans. Some served in casualty clearing stations, hospitals or on hospital ships, while others acted as regimental medical officers. Several served in more than one of the main theatres of war — Flanders, Salonika and Mesopotamia. At least three (G.A. Birnie, W.A. Bowman and F.E. Keane) underwent the ghastly experience of Passchendaele in 1917. Birnie, who had two lengthy stints in the front line and was severely wounded on each occasion, has left a vivid account of the appalling conditions under

which the infantry fought in France. Early in 1916, after his regimental aid post received a direct shell hit, Birnie notes:

It was a ghastly business. I think there were about eight of us, mostly wounded men we had been dealing with, and my sergeant and myself, but there were only two survivors — one soldier who lost an arm, and myself with a G.S.W. wound left shoulder.

After recovering from this wound Birnie returned to France, spent some time at an uncongenial Stationary Hospital, and was then posted to a front-line regiment which was subsequently decimated in the futile Allied offensive at Passchendaele. Birnie recorded that on the day 830 men of his regiment went 'over the top', only 94 were not killed or wounded. He received a bullet wound in the neck and was awarded the Military Cross for his courageous efforts in alleviating the wounded under heavy fire on the day 'our battalion was sacrificed'.

The awards for bravery and the decorations won by this select group of one hundred make an impressive list. No fewer than twenty were awarded the Military Cross (including two bars), seven were mentioned in Despatches; there were, also, one Distinguished Service Order, one *Croix de Guerre with Palm*, one *Medaille d'Honneur* and one Italian Silver Medal for Military Valour. Of the fifty Melbourne members, 11 were wounded on the field of battle and two were gassed; five of these were invalided out of the Army as a result. One such was Reginald Morley Clarke who, as previously mentioned, resigned abruptly as Medical Superintendent at the Alfred Hospital to join the RAMC. During devoted service in France with the British Expeditionary Forces, Clarke's health was seriously undermined by prolonged exposure to poison gas and he was declared unfit for active military service. He died suddenly in January 1921, leaving a young family of three. His two sons, Maurice Vivian Clarke, CBE, and Denis Morley Clarke, became distinguished members of the medical profession in Melbourne.

Another invalided out of the RAMC was Oswald Barton, a graduate of the University of Sydney and a son of Sir Edmund Barton, the first Prime Minister of the Commonwealth of Australia and, subsequently, a Justice of the High Court. In a letter to the Acting Prime Minister, Senator Pearce, dated 9 May 1916, Mr Justice Barton expressed concern that his son Oswald, who, having regained his health after spending many arduous months in the British trenches and desiring to join the AAMC, would not have his service with the RAMC recognised in terms of seniority. Barton's request to have such British service equated with AIF service was turned down. At an earlier date, 1 April 1916, the Australian Defence Department received a cable stating that a number of Australian Medical Officers who had completed one year's service with the RAMC, wanted to enlist in the AIF in England. The matter was referred to the DGMS who stated in a minute to the Secretary of the Defence Department dated 20 April 1916:

... If we begin accepting Australian Medical Officers in England for the AIF, similar procedure might be pressed in the case of other Australians in the branches of the Imperial Army for the object of obtaining higher rates of pay and pensions. It would also block promotion of men now serving with the AIF.

Since the AIF then had sufficient medical officers for its needs, the Australian doctors serving abroad with the BEF were informed that if they wished to transfer to the AAMC they would have to return to Australia and be placed on the AAMC Reserve with seniority from that date. It is no wonder that Justice Sir Edmund Barton was constrained to write in his letter of 9th May:

It would be beyond measure strange if he could not now take service with the Australian Section of his countrymen under a



Marseilles Stationary Hospital, 2 May 1917. Capt. A.J. Trinca, extreme left middle row. (Trinca Collection)

British General without losing a seniority which he has gained with the British section of his countrymen. For the British Isles are the origin of all of us, and the Empire is our common country.

Several outstanding sportsmen were among Kitchener's Hundred, including Test and Sheffield Shield cricketers, league footballers and State tennis players. Roy Baldwin Minnett played for Australia in nine Test Matches in 1911-12. He made 90 in his first Test, sharing a sixth-wicket partnership of 109 with Victor Trumper. He was top scorer in two other innings in the 1911/12 series. Charles Francis Drew played League Football with North Adelaide and represented South Australia in both cricket and football. Norman McAlister Gregg represented New South Wales in both cricket and tennis and was in the team captained by his hero, Victor Trumper, which toured Tasmania early in 1915. Ernest Robertson represented Victoria in tennis. Several others received University Blues or featured prominently in College teams. In rifle shooting, Henry Cecil Colville was champion of The University of Melbourne.

Two Melbourne members of Kitchener's Hundred were killed in action, namely, Johnston D.H. Hughston (at Salonika in September 1918, after being wounded in France) and William Rogerson (by shrapnel in France in August 1918, previously mentioned in Despatches). Two Sydney members (N.W. Broughton and A.C.A. Jekyll) died on active service. R.B. Lucas, an Adelaide graduate, died of wounds in a German hospital shortly after being taken prisoner in 1916. Of the ninety-five who survived the war, some remained in England after the termination of their service with the RAMC. One of these was Raymond William Ryan who joined

the Royal Air Force Medical Service when it was formed in 1919. Subsequently, he became Air Commodore and President of RAF Medical Boards. In the Second World War, Ryan was successively the first Director of the Royal Canadian Medical Services, Air Officer Commanding the Central Medical Establishment, and later Medical Adviser to the Guild of Air Pilots. Another was Norman Edward Packer, who was killed in a riding accident whilst serving with the British occupation forces on the Rhine in 1922.

Of the fifty Melbourne doctors selected for Kitchener's Hundred, 14 served for one year in the RAMC, 9 served two years, 14 served three years and 12 served four years; the service record of one (M.E. Robinson) has not been located. M.H. Sorokiewich, one of the fifteen to graduate at Melbourne on 1 April 1915, changed his surname to Southwick on his return to Australia at the end of 1918.

After completing one year's satisfactory service in the RAMC, the doctors were duly promoted to Captain, but remained inferior in rank to their AAMC colleagues who were commissioned Captains and became Majors on first promotion.

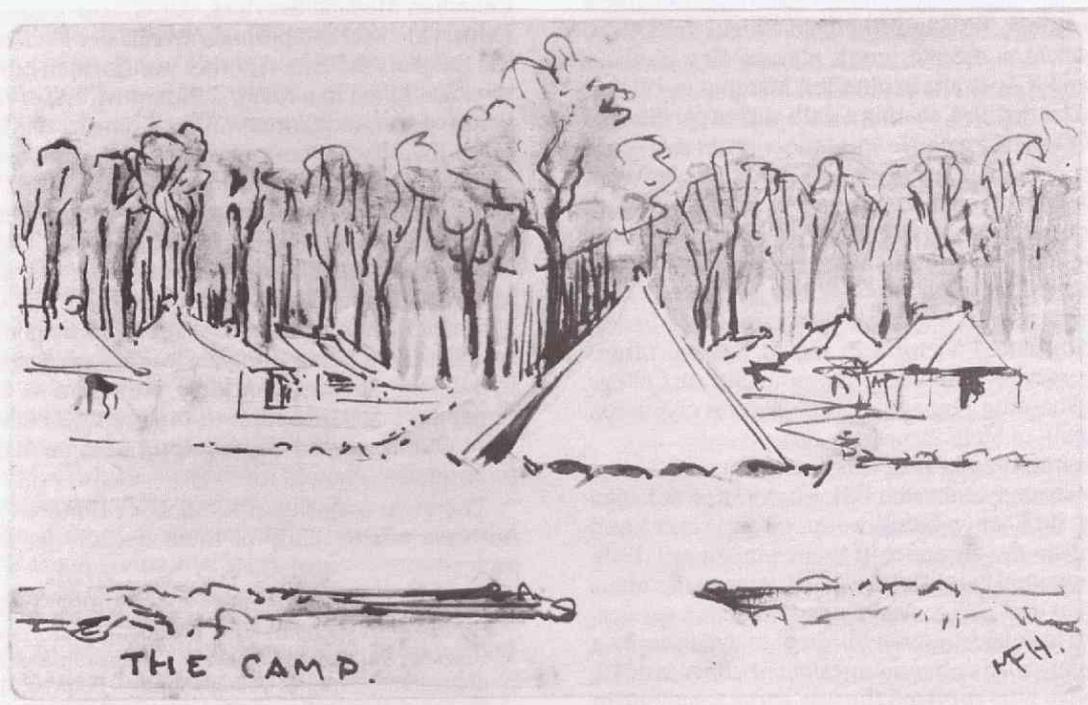
The great majority of Kitchener's Hundred returned to Australia where many of them became leaders of their profession:

- A. (Archie) S. Anderson, CBE, MBBS, DOMS, FRCPs: Ophthalmic Surgeon, Vice President, Victorian Eye & Ear Hospital; Foundation Chairman, Ophthalmic Research Institute of Australia; Ormond College Council; Board of Management, Victorian Eye & Ear and St Andrews Hospitals.
- G.A. (Alec) Birnie, MC, MDBS, DPH (Eng), FRACP: Physician, Alfred Hospital; Council Vic. Branch, BMA.

- E.P. Blashki, MC, MBChM, FRACS: ENT Surgeon, Royal North Shore Hospital.
- B.M. Carruthers, OBE, MBChM, FRSanI: Director, Tasmanian Hospital & Medical Services.
- C.K. Cohen, MBChM, FRACS: Ophthalmic Surgeon, Sydney Hospital.
- K.G. Colquhoun, MDBS, FRACP: Dermatologist, St Vincent's Hospital, Melbourne, and Repatriation Department.
- H. Cecil Colville, KB, MBMS, FRACS: Paediatric Surgeon, Alfred Hospital; First President, AMA; Gold Medallist BMA and AMA.
- Harold R. Dew, KB, *Medaille d'Honneur*, MBBS, FRCS, FRACS: Professor of Surgery, Uni. Sydney; Surgeon, Royal Prince Alfred Hospital; Hunterian Professor, Jacksonian Prize, Royal College of Surgeons; Syme Prize, Uni. Melb.; Sims Travelling Scholar; wrote authoritative books on hydatid disease and malignant tumours of the testicle.
- Charles F. Drew, MC, MBBS: BMA Council, South Australia, Vice-President.
- Norman McA. Gregg, KB, MC, MBChM, DOMS, FRACS, FRCOG, FRACP: Ophthalmologist, Royal Prince Alfred and Royal Alexandra Hospitals, Sydney; President Ophthalmological Society of NSW; Shorney Prize; James Cook and Addingham medals; Britannica Australia Award in Medicine; discovered the link between maternal rubella and fetal abnormalities — the Gregg syndrome.
- C.R.R. Huxtable, MC & Bar, MBChM, FRACS (Edin): Royal Flying Doctor Service; Officer of Rhodesian Legion of Merit.
- C. Gordon McAdam, MBBS: co-founder of Lord Somers Camp and Power House; Honorary MO YMCA.
- W.S. (Bill) Newton, KB, MDBS, FRACP: Physician, Board of Management, Alfred Hospital; Faculty of Medicine; council member RACP; Anti-Cancer Council; Consultative Council on Tuberculosis.
- L.J.J. Nye, MBChM, FRACP: Physician, Brisbane General Hospital; Council Queensland Branch of BMA & AMA; Member University of Queensland Senate; Prisoners Parole Board.
- Alan Pryde, MBBS: Surgeon, Launceston General Hospital; President Tasmanian Branch of BMA.
- H.N.M. Puckle, MBBS, FRCS (Edin), FRACS, Italian Silver Medal for Military Valour: Surgeon, Victorian Eye & Ear Hospital.
- S.W.G. Ratcliff, OBE, MBChM: Chief Executive Officer, Royal Alexandra Hospital, Sydney; Consultant NSW Hospitals Commission; Chairman, NSW Consultative Council for Physically Handicapped.
- G.C. (Cliff) Scantlebury, MBS, FRCS (Edin), FRACS: ENT Surgeon, Royal Melbourne Hospital.
- J.G. Sleeman, MDBS, FRACP, FCCP: Physician, Royal Adelaide Hospital; CMO Tuberculosis Services.
- Alfred J. Trinca, MDBS, FRCS, FRACS: Pathologist & Surgeon, Alfred Hospital; Anti-Cancer Council; Consultant, Baker Institute.

The complete list of Kitchener's Hundred follows. Graduates of The University of Melbourne are indicated by an asterisk \*.

- C.G. Adams, A.S. Anderson\*, J.T. Anderson, C.H. Armitage, T.E. Ashley, O. Barton, G.A. Birnie\*, R.K. Birnie\*, W.A.H. Birrell\*, E.P. Blashki, W.A. Bowman\*, A.W. Bretherton\*, R.O. Bridgman, N.W. Broughton, G.C. Bury\*, B.M. Carruthers, R.B. Carter, C. Checchi\*, R.M. Clarke\*, B.W. Cohen\*, C.K. Cohen, K.G. Colquhoun\*, H.C. Colville\*, L.B. Daly\*, E.P. Dark, J.B. Dawson, H.R. Dew\*, J.L. Digby, C.O.G. Donovan, C.F. Drew, W.A. Edwards, J.F. Fahy, C. Farren-Ridge, J.W. Farrar, D.F. Finlay, A.D. Forbes, M.J. Gallagher, T.E. George\*, W.E. Giblin, W.H. Godby\*, N. McA. Gregg, C.M. Harris, W.S. Hawthorne, W.A.L.H. Henderson\*, R.W. Hogg\*, J.D.H. Hughston\*, C.R.R. Huxtable, J.I.M. Jamieson, A.C.A. Jekyll, F.E. Keane\*, C.H. Lloyd, F.H. Looney\*, G.N. Lorimer\*, R.B. Lucas, C.G. McAdam\*, J.B. MacCulloch, C. McShane\*, W.C. Marsden, C.H. Martin\*, A.H. Melville\*, R.B. Minnett, F.H. Moran\*, J. Morlet\*, A.W.G. Murray, W.S. Newton\*, L.J.J. Nye, J.J. O'Neill\*, N.E. Packer, H.J. Penny, L.M. Pigott, E.T. Pinhey, F.W.A. Ponsford\*, N.L. Prichard\*, A. Pryde\*, H.N.M. Puckle\*, S.W.G. Ratcliff, A.W. Raymond, G.A. Renwick, R.W. Richards, A.T. Roberts, E. Robertson\*, M.E. Robinson\*, E. Rogerson\*, W. Rogerson\*, R.W. Ryan\*, G.C. Scantlebury\*, J.G. Sleeman\*, M.H. Sorokiewich\*, A.E. Stenning\*, C.T. Stephen\*, F.W. Stone\*, N.C. Talbot\*, A.J. Trinca\*, C.A. Verge, G.D.K. Waldron, H.A.C. Wall, H.W. Ward\*, A. Weigall\*, B.W. Wibberley, W.F.S. Yeates.



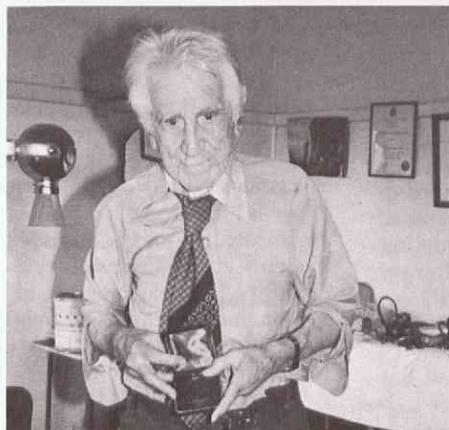
Rouen 1916, No.12 Stationary Hospital. Watercolour sketch by Myra Harward (Trinca Collection).

## Author's note

I first came upon Kitchener's Hundred when searching for information about my father's war service (*Chiron*, Vol. 1, 1987, p.24). I never heard him use the term, so I was surprised to find it mentioned in an obituary to Jack Morlet who was among the twenty RAMC recruits, including my father, who left Melbourne in the *Orontes* on 14 April 1915. Subsequently, I found three other references to Kitchener's Hundred:

- Dr C.R.R. Huxtable (Med.J.Aust. 2, 1956, p.86) in an obituary to Dr Jack Morlet wrote: '... As an old friend, and as a fellow member of Kitchener's Hundred, as we used to call ourselves, ...'
- Dr Kevin Byrne (Med.J.Aust. 1, 1950, p.819) in an obituary to Dr H.A.C. Wall wrote: he 'left as one of Kitchener's Hundred Doctors.'
- Dr Cotter Harvey (Med.J.Aust. 1, 1981, p.200) in an obituary to Dr Charles Huxtable wrote: 'He was recruited into the British Army as one of 'Kitchener's Hundred' young doctors sought from overseas.'

I became fascinated by the story and in the months that followed I managed to trace the names and careers of this unrecognised group of Australian doctors. When I searched the Roll of Honour at the Shrine of Remembrance I was disturbed to discover that the names of thirty-seven of the fifty Melbourne members of the Hundred were missing, presumably because they spent their entire war service with the British Army. Furthermore, the Australian Army Records Department has no record of their service with the RAMC and the War Office in England lost many of their records during air raids in the Second World War. Thus, there are only the documents held in private family collections to prove that these gallant men ever volunteered and served overseas in the Allied Forces.



Dr Cyril Checchi proudly displays his Gallipoli Medal (Trinca Collection).

Cyril Checchi and the fellow Australians who served with British units in the Dardanelles campaign were not considered eligible for the Gallipoli Medal awarded to the Anzacs who fought on the Gallipoli peninsula. The Australian authorities denied Checchi's requests for recognition and it was only through the efforts of RSL Victorian President, Bruce Ruxton, that sixty years later Cyril Checchi, CBE, became the proud owner of the Gallipoli Medal.

Although Alfred Trinca acted as Surgeon Lieutenant on the Hospital Ship *Grantala* and wore the uniform of a RAN Officer, he was classified as a civilian surgeon and not given a service number. His active service with the Australian Navy is not recognised and his name consequently does not appear on the Honour Roll at the Shrine of Remembrance, although he devoted four years of his life in the service of the Allied cause. The British Ministry of Defence has no record of his three-year service with the RAMC, as is revealed in the letter, dated 27 July 1987, from the Departmental Record Officer (Archives):

We regret however that despite extensive investigations we are unable to locate any service records relating to Alfred John Trinca.

The Australian Department of Defence has little more to offer as the following extract from a letter, dated 25 June 1987, to the author shows:

Navy Office records indicate that your father was not a member of the Royal Australian Navy, he was appointed as a civilian surgeon for a specific period. Not many details are held on him. However, with little information we have, a Statement of Service is enclosed ... In respect of his service he qualified for the following campaign awards: 1914-15 Star, War Medal, Victory Medal.

The failure of responsible Australian and British authorities to keep records of service of Kitchener's hundred doctors is deplorable. These men responded to the 'call' promptly and unselfishly. Many of them were willing to forgo the invaluable experience of hospital residency, others the prospect of a promising medical career. Some made the supreme sacrifice, while others had their lives shortened or their health impaired as a result of war service. This article is the first published account of Kitchener's Hundred, and is an attempt to give due recognition, though belated, of a noteworthy group of Australian doctors.

\*The Sydney MBChM became MBBS in 1927.

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## Acknowledgements

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*John C. Trinca, MBBS (Melb) 1942, FRACP, former Medical Director, Commonwealth Serum Laboratories; Senior Research Fellow, Department of Medicine, The University of Melbourne (1973); served in the Royal Australian Air Force during the Second World War.*



## Syd's Book

by Ian Darian-Smith



Sir Sydney Sunderland and Dr Geoff Kenny, former Deputy Chairman, Department of Anatomy.

### **Nerve Injuries and Their Repair A Critical Appraisal**

by Sir Sydney Sunderland  
Churchill, Livingstone, New York, 1991  
pp.538, 158 illustrations

Sir Sydney Sunderland CMG, Professor of Anatomy and Experimental Neurology from 1938 to 1976, and Dean of the Faculty of Medicine of this University for eighteen years, recently published a new monograph *Nerve Injuries and their Repair: A Critical Appraisal*. This is no ordinary monograph. It reflects the author's quite incomparable experience in the laboratory and clinic, extending over a period of fifty years, with human nerve injuries, their recovery and repair. In 1968 Sir Sydney published his classic *Nerves and Nerve Injuries*, which was immediately acclaimed for its encyclopaedic coverage and profound good sense. That edition was reprinted, as was the second edition, which was published in 1978. The present monograph is not just a new edition with a few additions here and there. Instead, Sir Sydney has written an up-to-date appraisal of nerve injuries and their repair, which will be welcomed in both the laboratory and clinic.

Sir Sydney is a familiar figure in the Department of Anatomy, greatly respected and loved by all who work with him. One of my pleasures is to talk with him in the corridor during his regular Tuesday visits to the Department. We discuss the rusting roof at Lorne, Weber's 2-point discrimination test, university administrators past and present, a patient Sir Sydney studied fifty years ago, regeneration within the central nervous system, or some recent experimental neurological data — he is always interesting, often amusing, self-effacing, and sometimes quite profound.

Sir Sydney's unique knowledge and experience with nerve injuries has been

widely recognized, so that in the fifteen years since his retirement he has been in constant demand at international meetings, and has become a very experienced traveller. Lady Sunderland, his most ardent co-worker, has accompanied him on the 4-6 overseas trips each year. One such meeting which Sir Sydney attends every year or so as its guest-of-honor, is of the Sydney Sunderland Society, made up of a group of American and European neurosurgeons. Recognizing his great wealth of experience with nerve injuries, the members of this society have seen fit to tap the fountain at regular intervals, and, of course, have given Sir Sydney much pleasure in doing so.

### **The Florey — The Story of the Sheep Hilton**

by Tim Hewat  
Introduction by Robyn Williams  
Angus & Robertson, Australia, 1990  
pp.211, illustrated, index

This is a wonderful addition to the recent history of medical sciences in Australia. Eminently readable, it is difficult to lay aside — even Robyn Williams admits this.

Biochemical problems are clearly described and surprisingly easily digested (even by an anatomical pathologist). The excitement of the chase comes through and hastens the reading. Throughout, the illustrations are excellent and often endearing: Florey holding a piece of apparatus, 'Pansy' (Sir R. Douglas Wright) seated in his office, Sylvia and James Tait (both FRS) gazing delightedly at a complex glass apparatus, one of the experimental sheep pondering over Sir Robert Menzies and Sir Howard Florey — both in academic dress, and John Coghlan and Derek Denton with Chinese visitors.

The scientific narration is excellent, but the biographical data, although often segregated in panels, is rich and always readable. Most of the leading names in Australian medical research are there including an excellent portrayal of 'Professor Pansy' in all his complexities, and throughout it all the figure of the wordly wise, politically astute and scientifically gifted Derek Denton.

This book should be in all libraries. Anyone interested in medical history will enjoy reading it.

### **Speculum 1990**

Congratulations to Chris Jackson, Alex Sapozhnikov and their team of contributors for this very welcome *Speculum* (last published by MMS in 1987). It is a good one.

Once and for all the cover should set to rest the curious notion that there was a gynaecological connotation in the name of this venerable journal. *Speculum* was always a mirror for the views of Melbourne

medical students and the front cover of this issue depicts a male medical student looking at a skeletal image in a cheval mirror; on the back cover a female medical student looks at a similar skeletal image but the lettering and image are in mirror-image form. The whole idea is excellent.

Some recycling of cartoons and articles from previous *'Specula'* are interspersed and included is 'Syd' Sunderland's 1968 article on the 'new medical school' — the photographs on this page are appropriately up-to-date. Dr J.R.L. Forsyth, in 'A Ten Dollar Passport to Anxiety', has written a very characteristic and useful article about travel and potential dangers from infectious diseases.

All articles are worth reading. Two were of particular interest to me and both were by the editors. Alex Sapozhnikov's thoughtful article 'On Transition' is a review of some of the problems faced by medical students and some that now face the medical profession in general. There are both quotes from well-known writers and original statements that give food for thought and are worth quoting.

Your ethics will clash vigorously with the ethics of most other people, and a pain-and-discomfort setting does not promote rational analysis or foster altruism in anyone.

... if the gods wish to destroy someone they place him or her on a public hospital waiting list.

On the other hand, Chris Jackson's seminal article 'The Functional Histology and Pathophysiology of the Party Gland' must be submitted to Olympus for a Noble Prize in Physiology. It is in every way all embracing. The party gland is populated by 'hedonocytes' which proliferate under the influence of 'partimedin' to produce 'hedononin' which has a range of effects from 'firing up' through 'titanic logorrhea' to 'quite violent behaviour'.

An interesting aside is that hedononin has some endorphin-like properties, the fine details of which are yet to be elucidated due to technical difficulties. (How do you tell if a guinea pig is having a good time?)<sup>†</sup> The reference is of course from Hamstead and Wiesel: *Rodent Hedonics*, 1982, OUP.

The major sponsor of this *Speculum* is the Medical Defence Association of Victoria. Chris Jackson has very correctly pointed out that a 'benign hedonocytic adenoma is a quite pleasant disorder; patients have been known to sue for inadvertant destruction of these growths in X-rays or chemotherapy for other conditions.' MDAV take note! Such a case would be indefensible.

Personally, I missed a 'Spicula'. For many years 'Spicula' has provided historical vignettes and *bon mots* without a need for additional writing. This is a small matter. This is a good *Speculum* made even better by the provision of advice about how *Speculum* can be produced regularly. I hope this advice will be taken up.



A warm Saigon welcome, 4 October 1964.

## AUSTRALIAN SURGICAL TEAM PROJECT IN SOUTH VIETNAM 1964-72

D.G. Macleish

### Introduction

*Many graduates of The University of Melbourne Medical School participated in the civilian surgical team project in South Vietnam. In 1991, when attention is focused on the Middle East, when South Vietnam no longer exists, and when the significance of the 17th parallel is lost, it is interesting to look back on the origins and nature of this venture. Australia's contribution began with one team in 1964, gradually increased to a maximum of four teams (at Long Xuyen, Bien Hoa, Vung Tau, and Ba Ria), then withered on the vine, ending in 1972.*

### Origins

Under the terms of the South East Asia Treaty Organization (SEATO), Australia and South Vietnam were allies, and a SEATO aid program was established in 1956. In 1964, South Vietnam had some 700 doctors to serve a population of

fifteen million. Civilian medical services were depleted by the need for many doctors to care for the sick and wounded in the South Vietnamese army. At that time, South Vietnam had 40 small provinces, in 28 of which there was a hospital with a surgical suite, many of them built by the United States Operations Mission (USOM). The South Vietnamese government sought help from other countries to staff these surgical suites. It was as a result of such an invitation that the Australian Department of External Affairs put the idea to a number of hospitals. At a meeting of its honorary medical staff in July 1964, the Royal Melbourne Hospital was the first to accept. Quite rapidly, a team was assembled and arrived in South Vietnam on 4 October 1964. Surgical teams from the United States of America, Great Britain, New Zealand, Japan and the Philippines were already there. Nevertheless, the Australian team received a warm welcome and proceeded 160 km west of Saigon, to the town of Long Xuyen, near the apex of the Mekong delta.

## Why surgery?

Many queried the wisdom of surgical rather than medical assistance in a country where endemic disease and public health measures numerically constituted a far greater problem. As became patently obvious, confidence in orthodox medicine was not widespread, and much more faith was placed in such measures as cupping and acupuncture. Many were dying from acute surgical problems which had not received attention. It was possible to promote confidence in orthodox measures by removing large lumps — many of them huge goitres, which had proved to be paramedical failures — and this was gradually achieved. A successful thyroidectomy on a lady with a huge goitre, known at the market place as 'Mrs Big Neck', was an effective advertisement for the Long Xuyen hospital.

The concept of relieving abdominal pain by using a knife was less readily accepted. In the first month, the average duration of symptoms before operation for patients with bad appendicitis was twelve days. Many of them died. By the end of three months, the average duration of symptoms of this condition had fallen to two days.

## Patient clientele

The spectrum of work varied a good deal, depending on time and place. Some of the admission diagnoses would be unfamiliar in Parkville, Fitzroy or Heidelberg, and yet diagnoses such as 'tossed by buffalo', ascaris perforation, and scalp avulsion had reasonably specific implications. The latter problem was the result of long hair becoming entangled in the long rotating propeller shafts of flat boats, but lent itself well to repair and skin grafting, which had not previously been available. During the Tet (New Year) Offensive of 1968, the proportion of war injuries increased dramatically. Over the years, the major source of trauma was motor vehicle accidents (usually with less momentum involved than is the case in Australia), industrial accidents, and minor guerilla offensives when the home-made bombs used were designed as much to maim as to kill. At times of major offensives, more serious wounds had to be dealt with.

Naturally, there was a lot of advanced malignancy for which nothing useful could be offered, and it was important not to embark on surgical procedures which had no reasonable chance of success. Acute abscesses were common; chronic sepsis provided some major challenges, but healing was usually straightforward and wound infections did not constitute a major problem. Although many problems were novel to the clinicians concerned, it can be said that application of the principles learned in Australian universities proved reasonably successful. (For a description of the surgical case load see References 1, 2.)

## Blood bank

Without a blood bank, the scope of surgery would have been very limited. Original advice about starting a blood bank was all very pessimistic. Religious and health reasons were raised as difficulties. Convincing proof of the need was clearly necessary, and luckily this came on 22 October 1964 when a very sick man was admitted with multiple bullet wounds in the abdomen. He had been regarded as hopeless, but some Australian, some American, and some Vietnamese blood was rapidly obtained and administered — they all proved quite miscible. Fortunately he recovered and blood transfusion was accepted as practical. The original fee offered to a donor was a bottle of Coca Cola and a cigarette, later increased by the Province chief to a large meal. In time, an Australian Red Cross badge and a packet of iron tablets were the most keenly sought rewards for donating blood. From an auspicious start,

the blood bank continued and was subsequently run by Vietnamese staff.

## Simplicity

While versatility was clearly necessary, there was never a greater need to adhere to the KISS principle — Keep It Safe and Simple. There were many reasons, not the least of which was financial. Perhaps one of the best examples of the principle was the widespread use of the Epstein-MacIntosh Oxford (EMO) anaesthetic vaporiser. This machine had been developed for the European conflict of 1939-45, and many were available at low cost. Ether was freely available, while sophisticated and expensive anaesthetic agents were not. Dr Jim Villiers introduced this vaporiser at Long Xuyen, and taught the Vietnamese how to use it. His first pupil, the shy and retiring, but able Miss Chau, eventually became an anaesthetic teacher at courses for Vietnamese nurse anaesthetists.

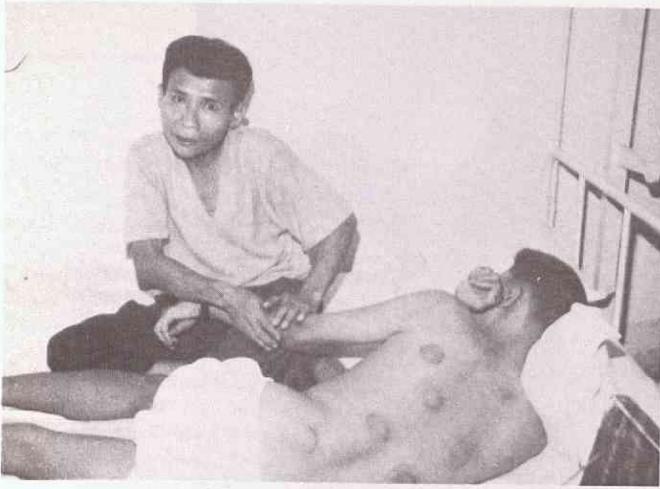
## Standards

Surgical team members worshipped at the shrine, not of perfection, but of high and reasonable standards. It came as something of a surprise, therefore, when a senior American nurse visited the team at Bien Hoa as a hospital inspector and submitted a strongly adverse report concerning the Australian team's activities. The grounds for her concern were that the team did not perform a chest X-ray, a full blood examination, and have the serum electrolytes measured before *every* operation. This is unnecessary, even in East Melbourne, and quite inappropriate, for example, on a Saturday afternoon in Bien Hoa, when 3 fractures, a ruptured spleen, and 8 acute abscesses were being dealt with. It took a strongly worded counter-attack to have this spurious form of 'quality assurance' withdrawn.

On another occasion, microbiological standards at Long Xuyen were criticised. Pigs are useful scavengers, and a useful source of protein. They are part of the way of life in Vietnam. Sr Clothilde was in charge of all domestic arrangements at Bien Hoa hospital and looked after a number of orphans. Her well-fed pigs roamed within the hospital compound. The American view was that these pigs were incompatible with a 'regular surgical set up'. Energetic bargaining ensued. For his part, the Civilian Aid Officer required that the pigs be removed from the hospital compound. For her part, Sr Clothilde required 10 bags of cement to build borders for her hospital garden. The cement bags mysteriously materialized. The pigs were removed from the hospital compound, to graze henceforth on the other side of the hospital fence, and Sr Clothilde still made her profit when the animals met their doom just before the New Year celebrations.

## Atrocities

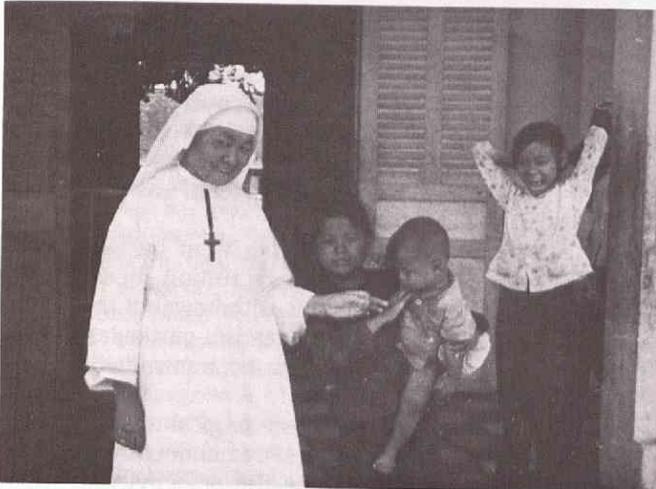
Readers will remember the wide-spread publicity which, appropriately, was given to the massacre at My Lai, when a young American officer, in a district which harboured Viet-Cong, lost his cool and ordered indiscriminate shooting. Surprisingly, no publicity was given to atrocities against the South Vietnamese by Viet Cong. Surgical teams encountered a number of these victims, usually the family of a minor civilian authority — a postmaster, schoolmaster or a tax collector. The two young sons of a local schoolmaster were brought in after a grenade attack on his home: one soon died from a perforating injury of his spine; the other was badly injured but survived. On another occasion, the young son of a postmaster was brought in with an arm blown off. Sometimes dismembered bodies were brought to the hospital mortuary, with writing in lipstick on the trunk. A senior



1.



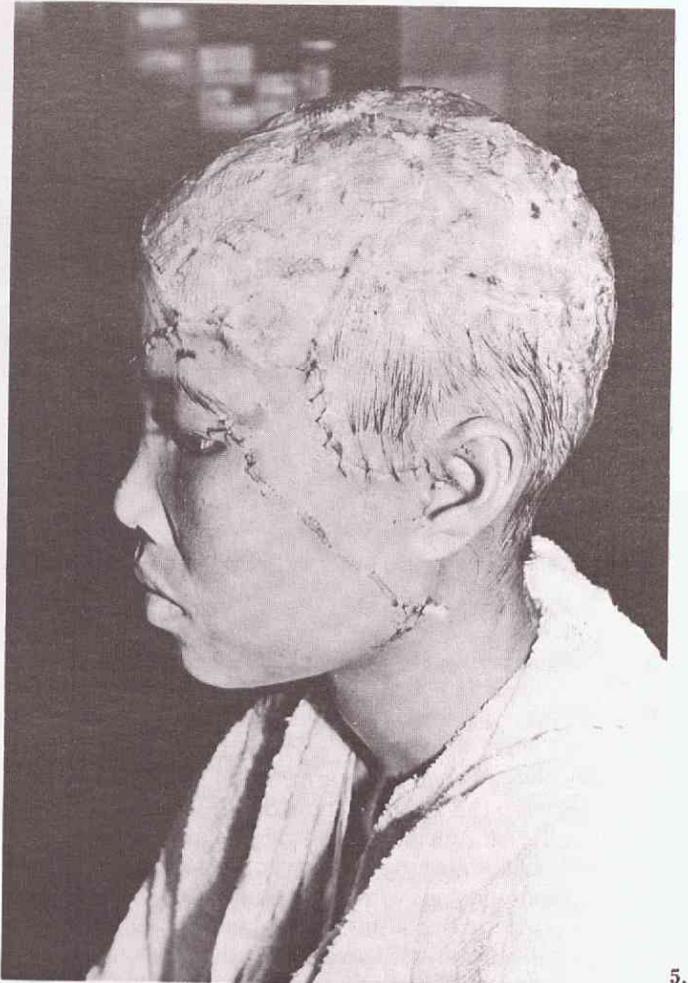
2.



3.



4.



5.



6.

1. Cupping.  
 2. Acupuncture.  
 3. Sister Clothilde and small charges.  
 4. Pigs are useful scavengers and part of the way of life.  
 5. Scalp avulsion lent itself well to repair and skin grafting.  
 6. The first three interpreters appointed in November 1964.

1. Cupping.

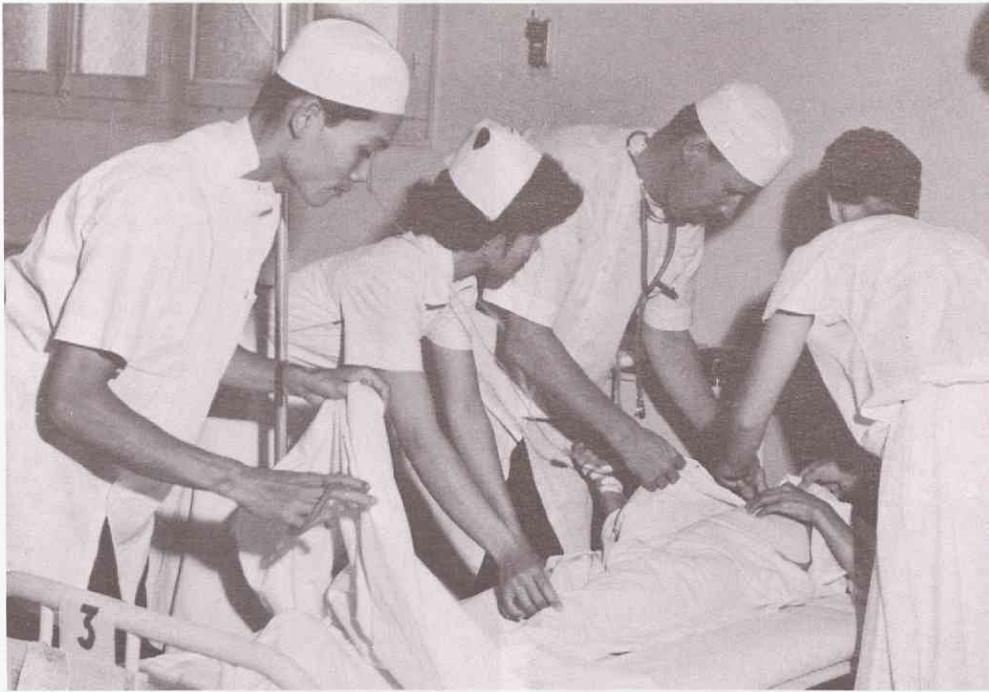
2. Acupuncture.

3. Sister Clothilde and small charges.

4. Pigs are useful scavengers and part of the way of life.

5. Scalp avulsion lent itself well to repair and skin grafting.

6. The first three interpreters appointed in November 1964.



Australian surgical team with their Vietnamese counterparts.

nurse, when asked what the writing meant, translated 'This is for supporting the government of South Vietnam'.

This is not the forum for arguing the pros and cons of how Vietnam should be governed. However, most team members formed firm friendships with many South Vietnamese and when the problems of South Vietnam became too great for her allies, and outside assistance was gradually brought to a halt, most had an unpleasant feeling that their South Vietnamese colleagues had been let down.

### Language difficulties

The majority of team members were on short-term commissions of some three months duration. Others were in a position to stay longer, for up to a year. For virtually none was this long enough to become fluent in Vietnamese, a tonal language, in which it is easy to make mistakes. We were very dependent on interpreters, and the first three were appointed in November 1964. Some were very competent; others were barely passable. One of the most astute was Thanh, who was quick and to the point. On the rare occasions when he hesitated, and perhaps was thought to be having trouble with a medical term, it was usually because he was searching for 'the implied meaning of the phrase', which he always sought to convey. Team members appreciated the pertinence of such matters to the solution of medical problems, and wondered how much more they must have applied to the deep-seated complex political problems existing then, and which continue in various parts of the world.

### In perspective

The civilian surgical team project was but a fraction of an enormous attempt to aid South Vietnam. The Australian military forces in Vietnam had their own medical officers, and a sophisticated service was provided for the rapid evacuation and treatment of military casualties. (That, too, is beyond the scope of this article.)

The Australian surgical teams were responsible, diplomatically, to the Australian Government. However, they were dependent logistically on the USA aid program. It was not possible to go far without meeting Americans, and many firm friendships were established with them. Particularly in

the early days, the help rendered by members of the Military Advisory Command Vietnam (MACV) at Long Xuyen was indispensable, and without it, the mission would have faltered.

Surgical teams carried a busy (sometimes uncomfortably busy) service load. Nevertheless, every attempt was made to collaborate with their Vietnamese counterparts and to teach those who would carry on when the surgical teams were withdrawn. These efforts were very well received, and reasonably effective. The teams varied in size and composition, depending on local conditions. In October 1965, St Vincent's Hospital teams took over Long Xuyen. In January 1966, the Alfred Hospital began activities at Bien Hoa, and in November 1966, New South Wales teams staffed a service at Vung Tau. Shortly after, a team was established at Ba Ria.

All teams prospered, but as time went by, diplomatic uncertainties developed, and recruiting became an increasing problem. Regrettably, withdrawal of the teams became a somewhat careless exercise, particularly with regard to statements of intent to be transmitted to our Vietnamese counterparts.

Be that as it may, virtually every surgical team member found the stay in South Vietnam of tremendous interest and considerable enjoyment.<sup>3</sup> While the objectivity of team members may be questioned, there can be no doubt that from the points of view of medical assistance and friendly diplomacy, their efforts were successful notwithstanding the collapse of the country whose call for help they answered.

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*D.G. Macleish, MBBS 1952, MS 1958, FRACS 1985, Honorary Consultant Vascular Surgeon (Royal Melbourne Hospital), Past-President RACS, Leader, First Australian Civilian Surgical Team to South Vietnam (October 1964).* ■

### **Peter R. Bull 1919-1990**

Following graduation in 1943 and a resident year at the Alfred Hospital, Peter enlisted in the RAAF, serving as a medical officer from 1945 to 1946. Upon discharge, he joined the resident staff of the Austin Hospital, with Drs Sheila Clifton (Clerehan) and Jim Madigan and superintendent Dr Vin Bristow. Together they shared responsibility for some 400 patients.

During 1946-1960 Peter rose to the position of Medical Officer in Charge of the Thoracic Unit. He was then appointed Deputy Director of Tuberculosis, succeeding to the position of Director in 1978. As a resident, a staff physician, in latter years as Senior Thoracic Physician at the Austin Hospital, and in his position in the Health Department, he was greatly respected for the outstanding quality of his work and meticulous attention to detail — both in administration and in the care of patients.

Peter's Wednesday conferences really did begin at 8.29 a.m., as scheduled, and demonstrated his capacity not only to bring together senior representatives of the various disciplines involved in chest disease, but also to obtain the highest standards of commitment from all associated with the unit. He was equally at home with surgeons, physicians and pathologists as with the nursing and physiotherapy staff, welding them into a team, of which he was the acknowledged leader.

As the Austin Hospital progressed from the care of terminal patients to chronic diseases to become a general hospital and then a University clinical school, he remained at the forefront of each advance.

In tuberculosis, Peter Bull's contribution was outstanding: he established the surgical service at the Austin Hospital and co-ordinated a team which achieved results in the surgical management of tuberculosis unsurpassed then, and probably to this day.

He was a world authority on anti-tuberculous chemotherapy, representing Australia internationally in this subject. His reputation saw him appointed as Regent of the College of Chest Physicians. To all of these interests he contributed greatly with his knowledge and industry — to each he added considerable stature.

While still active in clinical medicine, a cerebral haemorrhage took him back to the Austin Hospital, where he died several days later. He is survived by his wife, Thelma. We share her loss, and like all who knew him, are the richer for his having walked among us. (LS)

### **Jean Littlejohn, CBE, OBE 1899-1990**

*We thank Dr John Thomson and the publishers of Sight and Sound, The Royal Victorian Eye and Ear Hospital, for their kind permission to reproduce this 'Vale' (April 1991).*

Jean (or Dr Jean as she was universally known) died in Melbourne in December 1990 after a long illness. She was born in Nelson, New Zealand. The family moved to

Melbourne where her father, William Littlejohn, was Principal at Scotch College. Her life spans the period of Australian history since the inception of the Commonwealth, and her attainments reflect the changing social pattern as well as her own incisive personality.

Graduating in 1922 following a five-year medical course, she applied for a resident post at The Royal Victorian Eye and Ear Hospital, and after waiting four months for a vacancy, became one of the two RMOs at the Hospital. In the following year she was appointed Medical Superintendent, and in the years ahead progressed through the ranks. She practised in both disciplines, but with a preference for ENT (Dr Esme Anderson was her corresponding number on the eye side). She was reported as saying: 'I loved the work and was most grateful to be allowed to stay.' Her salary was 150 pounds per annum. Her mentors included Drs Percy Webster, Maurie Lynch, James Ruddall, Rudolph Orr, Sawrey, Bissett, John Box (father of the late John and Bill), Sir James Barrett and many others. She remembered them with kindness and gratitude: 'such kind and dear men they were, although some were martinets.' Her beloved 'honoraries' then set her up as a specialist in Collins Street as an Eye, Ear, Nose and Throat Surgeon — 'me nigh on 25 years old without a brass razoo, not to worry.' (Happily, these traditions persist in Melbourne.)

In time, Jean became a Senior Surgeon of the Hospital — 'far too young at thirty-four years of age, but I loved the work and I loved the Hospital.' Jean served eighteen years as Senior Surgeon, collaborating with Ken Howsam, Peter Howson, Fred Fenton and Ron Lowe to lay the foundations of the modern Hospital. After she retired in 1952 she busied herself in the establishment of an infant deafness clinic which was the forerunner of the Jean Littlejohn Deafness Investigation and Research Unit. She retired from the Infant Deafness Clinic in 1959, having reached the age of sixty, but continued in private practice. Following a serious illness in 1978, she was forced to retire completely. She received the OBE in 1962 and CBE in 1975. She was a member of the Committee of Management, The Royal Victorian Eye and Ear Hospital, 1946-1959. In May 1958 the Deafness Unit was formally opened and named by Dame Pattie Menzies, 'The Jean Littlejohn Deafness Investigation and Research Unit.' (JT)

### **Ian Alexander McDonald 1922-1990**

*On 12 September 1990, Dr Keith Cockburn delivered the eulogy for Ian McDonald to a 'packed' Scots Church, Melbourne — it was also 'a good sing'. We thank Dr Cockburn and the Royal Australian College of Obstetricians and Gynaecologists for their kindness in permitting us to reproduce extracts from the eulogy. The full text was published in the November 1990 issue of the RACOG Bulletin (pp.21-22).*

Ian Alexander McDonald graduated MBBS from Melbourne University in 1946, gaining an Exhibition and

First Class Honours in biochemistry. He was a Resident Medical Officer and later Gynaecological Registrar at the Royal Melbourne Hospital until 1948. It was as Resident in 1947 that he married a beautiful physiotherapist, Roberta Whiteside.

After seeing service with the Occupation Forces in Japan, he left for England for postgraduate training. For four years he trained successively at Queen Charlotte's, Chelsea, North Middlesex and Samaritan Free Hospitals for Women. It was during this time that he gained his FRCS in 1949 and his MRCOG in 1952. He then returned to Australia and in 1953 gained the FRACS, his FRCOG in 1963, FAGO in 1974, and became a Foundation Fellow of the Royal Australian College of Obstetricians and Gynaecologists in 1979. In 1982, he with great pride obtained the MGO (Melbourne).

Following his return to Australia in 1952, his major hospital appointments were at his old alma mater, the Royal Melbourne Hospital, firstly as an Assistant Gynaecologist, but from 1966 till retirement in 1982, he was Honorary Gynaecologist and Gynaecologist in Chief. He subsequently was a Consultant Gynaecologist.

Ian's enthusiasm and skills inspired great loyalty, not only in the medical personnel, but also the nursing staff. It was his example and personal interest in those around him that instilled a reverence and adoration that was a revelation to me.

The physical skill that I admired was his surgical prowess . . . facile hands, dancing fingers, agile speed, deft technique with that inborn sensitivity to the patient's feelings produced a great surgeon.

He was an innovative thinker. The two types of McDonald suture (cervical cerclage) which he devised will forever maintain his place in the world history of obstetrics. The result has been pregnancies salvaged and countless children saved.

He was a great College man — he, with Bobbie and even the children, devoted an enormous amount of time and energy to facilitate the progress of the Royal College of Obstetricians and Gynaecologists in Australia. He was elected members' representative for Victoria in 1957 and served on Council continuously until 1978. He was Secretary for two terms and finally was elected President in 1973. The only position he never held was that of Treasurer. When asked why, he replied quaintly: 'They were very wise, as I never really understood money.' Even so, during his Presidency, the College became financially secure, remaining free of government support and thereby influence.

He was always fascinated by history. He was a member of, and at times Chairman, of the Archival Committee of both the Royal Australian College and the Royal College of Obstetricians and Gynaecologists, as well as the Archival Committee of the Royal Melbourne Hospital.

His power with words was legendary, ever entertaining. A raconteur extraordinaire, and a man of piquant repartee and riposte, I suspect with puckish humour he listed his recreational activities as, and in this order — singing, swimming and public speaking. Indeed he was fun to know. He was an orator of note. He was the Burns Orator to the Melbourne Scots in 1972 and the Arthur Wilson Memorial Orator at the Royal College of Obstetricians and Gynaecologists meeting in Perth in 1976.

. . . He had an intellect that smacked of genius, a camaraderie that had a tinge of rumbustiousness and an infinite capacity for loving his fellow man that was truly Christian.

## Margaret Alison Mackie, CMG 1910-1991

Alison Mackie, MBBS 1935, spent a lifetime caring for women, especially during their child-bearing years. She amassed a wealth of experience and expertise, particularly in the years of the Second World War, when most of her contemporaries were serving in the Forces. From 1940 to 1945 she was Medical Superintendent of the Royal Women's Hospital and throughout the remainder of her long, distinguished professional life, maintained strong links with the Hospital — in 1948 she was the first woman to be appointed to the position of Honorary Out-Patient Gynaecologist and, eleven years later, the first woman to be appointed Honorary In-Patient Obstetrician (1959-70).

She taught by precept and example and many of today's obstetricians and gynaecologists owe much to her teaching, her influence and her readiness to help and encourage.

She built up a large private practice and cared for all her patients, public and private, with great skill and compassion. Despite her demanding lifestyle, she was always ready to listen and to advise. Her calm, considered opinions and comments were greatly valued by her medical colleagues and by members of St Andrews Hospital Board, of which she became Chairman in 1965, serving in that capacity until 1972.

It was for her work in hospital administration, as well as in obstetrics and gynaecology, that she was awarded the CMG in 1975. She was an early member of Soroptomist International of Chisholm, which club she served faithfully and well in many ways, not the least being the opening of her home to visits from the elderly and infirm residents of the Henry Pride Geriatric Centre, who thoroughly appreciated the attractive and comfortable surroundings.

Alison had a great love of classical music, attending operas, concerts and the ballet regularly. She travelled widely with great enthusiasm and interest in all she saw and the people she met. She found pleasure and relaxation in her garden, which she tended with her customary skill and care.

The admiration, regard and affection with which she was held by members of the medical, nursing and allied professions, and her innumerable patients and friends, was very evident at the crowded Thanksgiving Service at the Toorak Uniting Church.

She was a great woman. (DGR)

## Geoffrey James Royal 1939-1991

The recent death of Geoffrey Royal brought to an untimely end the life and career of a remarkable and very talented man.

He graduated in Medicine from The University of Melbourne in 1964, obtaining the Exhibition in Medicine, the Jamieson Prize, the Keith Levi Scholarship and the Robert Gartly Healy Scholarship. He did his post-graduate training at the Royal Melbourne Hospital and was appointed an Associate Surgeon and Acting Surgeon to outpatients there before moving to Geelong in 1970. He went on to become a Senior Surgeon at the Geelong Hospital in 1976 and held many senior positions there including the Chairmanship of the Medical Staff Group.

He was an outstanding surgeon and his surgical technique and clinical judgement were exceptional. He set himself extremely high standards and he recorded every private surgical operation that he ever did, and coded these operations in relationship to aetiology, procedure and outcome.

He was a source of great encouragement and inspiration to medical students, resident medical staff and to young surgeons. As a teacher he was unsurpassed. This talent was recognised in his appointment as the Foundation Clinical Sub-Dean for The University of Melbourne at the Geelong Hospital in the St Vincent's Hospital and Geelong Hospital Clinical School.

He was a member of the Victorian State Committee of the Royal Australasian College of Surgeons for eight years and its Chairman for two years. His chairmanship was marked by his progressive thought, his accurate summing up of often difficult situations and his considered decisions.

As well as his commitment to Geelong Hospital Geoff had very close links with St John of God Hospital over many years, and was profoundly moved when he was presented with the keys to the property recently acquired by that hospital and informed that the hospital wished to name this building after him.

His talents were multi-faceted and he had a wonderful enquiring mind with amazing general knowledge about almost everything. He was a lover of English and Australian history, literature, and poetry in particular. In addition he was a musician, an artist, a singer and a breeder of racehorses. He was a veritable encyclopaedia of horse breeding and form. He was a natural leader who had a genuine love and concern for his colleagues, his patients and all those with whom he came in contact, but above all, for his family.

We extend our sympathy to Geoff's mother, Isabel, his wife, Ann, and children Simon, Kate and Campbell. His bravery and the maintenance of his sense of humour in the face of great suffering and adversity are an example to us all. His achievements were extraordinary but he was above all a very caring man and in every way an outstanding human being. (TJ)

## Robert Southby, OBE 1895-1990

When someone dies in their nineties it is no surprise that he or she had achieved seniority in some field of endeavour. Robert Southby (MBBS 1921, MD 1923) was our senior medical graduate when he died in December 1990. He was also the most senior President of the AMA (Victorian Branch). However, 'Bob' Southby is best remembered as a very gentle man and a well loved doctor.

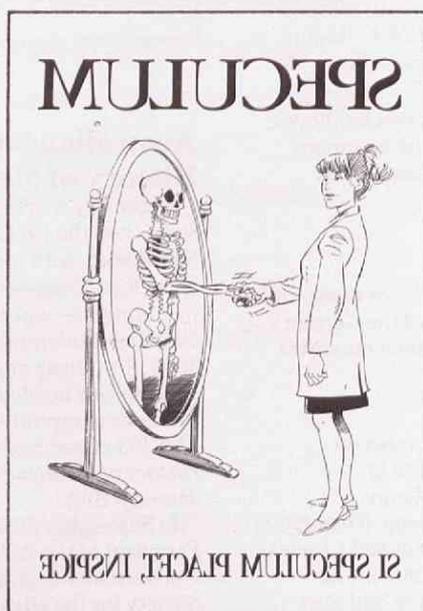
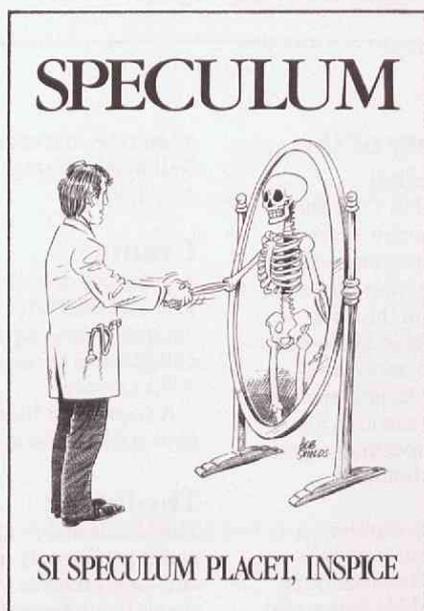
His last appearance in public was in August 1987 as guest of the Faculty at the dinner to celebrate the 125th Anniversary of the Medical School. Bob and his wife Irene (who died before him), enjoyed that memorable evening to the full.

For most of his professional life, Bob worked at the (Royal) Children's Hospital where he was an Honorary Specialist Paediatrician from 1925 to 1958. Late in his life, he was asked to write a description of Hutchinson's teeth — evidence of congenital syphilis — so that younger colleagues could learn from his experience.

In his 'retirement', he became a Consultant to the Victorian Department of Health (1961-74) and acted as Secretary to the Perinatal Mortality Committee. His quiet efficiency and wisdom wrought from experience greatly assisted their deliberations and the production of their reports. Shortly after he retired from that position, his many contributions to medicine were recognized when he was appointed an Officer of The Most Excellent Order of the British Empire.

Bob was a quiet man who liked to tell humorous tales to which his friends appreciatively listened. His small patients were at ease with him and he with them. He was an active member of the Wallaby Club for many years, and one honour he greatly prized was an Honorary Life Membership of that club (which is itself close to its centenary).

All those who knew Bob Southby will cherish their memories of him. (HA)



*The Speculum* 1990, front and back covers – see Books, p.64.

## Report for 1990

This was another busy year:

### Exhibition

Members of Faculty, following the first meeting of the year, viewed the new display, 'A Woman to Remember', based on Dr Carolyn de Poi's BMedSc biographical account of Mary Clementina De Garis (1881-1963). This display created considerable interest during Discovery Day and by request interested groups, including some senior medical ladies from the Lyceum Club, were conducted round the exhibit. Some of the members of the Lyceum Club had known Mary De Garis and there was, from them, general approval that a fair view had been presented.

### The Collection

The value of the collection is becoming increasingly recognised. Early in the year, the Medical History Unit lent a set of amputation instruments (c.1800) used in the Peninsular War, together with some copies of Charles Bell's illustrations of wounded during that war, to the Waterloo Exhibition in the Irving Benson Hall of La Trobe Library.

### Acquisitions

Donations continue to come in, and three particularly notable ones are:

- The (smoked) drum inscribed by members of the Physiology Department and presented to Professor R.D. Wright when he resigned from that Department. Donated by Meriel Wilmot Wright.
- A unique donation of a caul reliably dated to 1802. From Dr R.W.K. Rogers.
- A Cary pocket microscope. From Mr James Minifie.

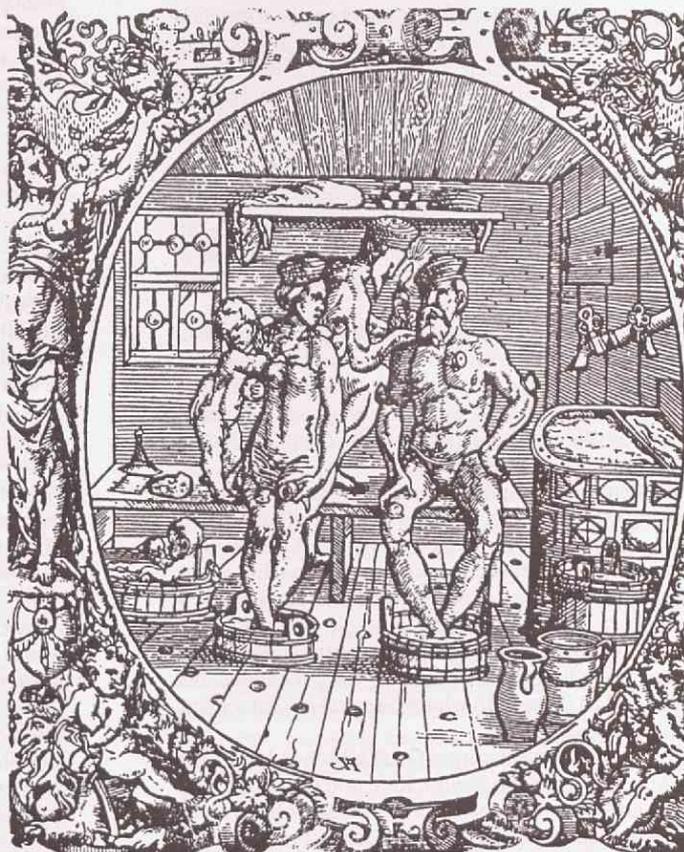
A cataloguer has again been employed, part-time, to reduce but by no means clear, the backlog of uncatalogued acquisitions.

### Archives

Many requests were made for research material and not a little of the Curator's time was taken up with such enquiries.

### Lectures

Seven undergraduate lectures on medical history were given in association with Drs G. Kenny (Anatomy), Richard Gillespie (History and Philosophy of Science) and Charles Guest (Community Medicine). The Curator gave three of these and also took part in a joint lecture with Richard Gillespie.



## Bleeding, Cupping and Purging Ancient Therapeutic Arts

A Special Exhibition now on view in the  
Medical History Museum

### Australian Society of the History of Medicine

This Society was formed in 1986 and since then the Unit has acted as the Secretariat, with much assistance from Edna Bird. Considerable time was spent in editing the papers from the First National Conference held in Sydney in 1989. (Curiously enough, more proof reading was needed due to modern methods of reproducing manuscripts.) The 303 paged *New Perspectives on the History of Medicine* was bound in January 1991.

In September 1990, the Curator, as President of the ASHM, attended the Antwerp meeting of the International Society for the History of Medicine, and at the Annual General Meeting was able to extend an invitation to delegates to

attend the Australian Society's Second National Conference in Perth in July 1991.

### Grants

A generous donation of \$9,000 was given by the Potter Foundation to complete the copying of the Ann Tovell collection of archival material in the AMA Library.

A request for funding to stabilise the Unit is still under consideration.

### The future

The Unit is an integral part of Faculty and is particularly important to alumni and their archives. Amalgamations currently under way could increase the importance of the Unit in an increasingly diversified Faculty.



## THE MEDICAL DEFENCE ASSOCIATION OF VICTORIA

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## DOCTORS FOR THE FRONT.

### DEGREES CONFERRED.

Degrees were conferred at the Melbourne University on Thursday on 15 students who were successful in passing in the examinations for final year medicine and surgery. The ceremony was performed by the Chancellor (Dr. J. H. MacFarlane) and the students were presented by Mr. Allen. After the ceremony the students will be called for their final examinations at the War Office.

## DOCTORS FOR THE FRONT.

### NO DIFFICULTY ANTICIPATED.

As stated in "The Argus" yesterday, medical officers throughout the Commonwealth are coming forward readily in response to the War Office call for 100 doctors for the front. Already three have left for England—Dr. Ashley, from Sydney, and Drs. McShane and Lormer, from Victoria.

Colonel Fetherston, acting director of the Commonwealth Army Medical Service, announced yesterday that the folk medical practitioners had been accepted for active service on behalf of the Commonwealth.

Victoria—Drs. H. Peckle, Birnie, P. E. Keene, Ward, Stevens, Keith Colquhoun, and New South Wales—Drs. Waldroon, Roberts, Farrar, Giblin.

It is known to those who are fitting for their final examinations in the next few months' time, are ready for active service, and 100 doctors required for the front are ready assured.

"The Argus"

## DOCTORS FOR THE FRONT.

### MEDICAL STUDENTS VOLUNTEER

### THEY'S FINE EXAMPLE.

Students at the universities of the Commonwealth have just concluded their final examinations, and to those upon the final (pass) the call for their services has been received from the War Office, London, has had a fine example. The Royal Army Medical Corps has had a great reinforcement of the Allies, and it is expected that the young doctors of the Commonwealth are responding to the call.

## DOCTORS FOR THE FRONT.

Of the 100 medical practitioners required from the Commonwealth by the Royal Army Medical Corps for active service in Europe, 25 have already been accepted, and many others are coming forward. One party of 20 left for London last week, and Dr. Stephens, Colville, Allan from Victoria, and Dr. Drew from South Australia, will leave next week. One party of 20 is now sitting for the final examination (pass) will meet the hon. secretary of the Medical Students' Society at the Melbourne Hospital at half-past 9 o'clock on Monday morning, March 13. At this meeting the names of doctors will be discussed, and the names of intending volunteers will be taken.

It should be noted that applicants for active service with the Royal Medical Corps should not be over 40 years of age.

"The Argus" March 13, 1915