

# Radius

Newsletter of the University of Sydney *Medical Graduates' Association*

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Lessons for the Future > 9

Professor Frank Fenner MBE, CMG, AC



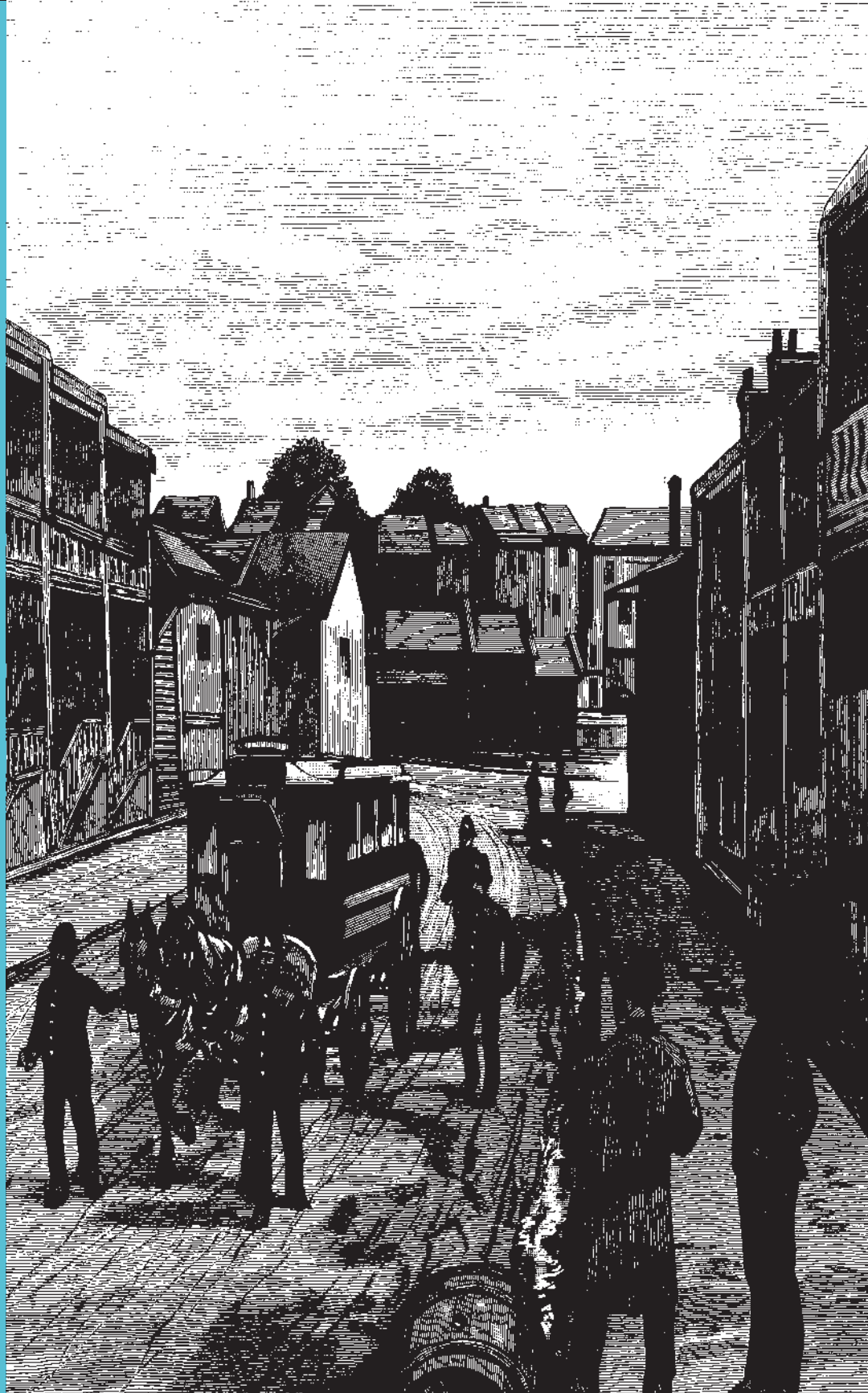
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# Editorial

## The economic determinism of euthanasia

The topic of euthanasia has attracted much attention recently. Its implications for those interested in law and ethics have clearly dominated discussion about it. Two areas that have attracted rather less attention are its implications for the emotional state of the clinicians who might have to execute the death wishes of their patients, and its economic implications.

Each of these is an important aspect that requires analysis by those who strive to reach a balanced overview of this contentious issue.

Most medical practitioners, some might argue, would find themselves better equipped to consider the topic of psychological impact upon the executioners than they would the topic of the economic implications. The virtual total absence of discussion by others of the economic aspects, however, tempts one to examine these. That absence is all the more remarkable in the face of the massive economic analysis that virtually every other human activity nowadays attracts.

Are there any economic winners or losers from euthanasia?

Most legal models appear to identify the potential candidates for euthanasia as those who suffer from serious and debilitating illness, and who expect to die

Widespread acceptance of the legitimacy of euthanasia would therefore reduce the duration of hospital treatment that a community would have to provide for the very sick who lived within it.

in the not-too-distant future. These people, by requesting the earlier termination of their lives, would thereby shorten the period of suffering that they, their relatives, and their friends, have to endure. That action would, however, also carry an important corollary. It would inevitably reduce the period of time during which they required medical care. Medical care of terminally ill people usually occurs within hospitals. Widespread acceptance of the legitimacy of euthanasia would therefore reduce the duration of hospital treatment that a community would have to provide for the very sick who lived within it. Whoever pays for hospital treatment in such a community might then expect to become an economic winner. Governments would obviously belong to the winning group in a country such as Australia where they foot such a high proportion of this bill. One might even foresee future occasions when a Federal treasurer could expand upon the topic of intergenerational change whilst delivering a Budget speech to Parliament. He might well predict huge anticipated savings over the forthcoming decade as increasing numbers of terminally ill

Australians indicated a preference 'to do the right thing'. They would thereby save the taxpayers of the country much money and so enable the government to which that fortunate treasurer belonged to promise attractive taxation cuts for the surviving healthy as part of its next election policy.

A further saving to governments should also accrue from a reduction in old age and invalid pensions. Many of those who would opt for euthanasia would be recipients of such government largesse. Abbreviation of their pensionable years would diminish the financial burden upon the long-suffering social security system. Relief for it from such burdens would inevitably improve the unit efficiency of the nation as unproductive citizens voluntarily chose to terminate their drain upon the national resources. Here, too, the prospect would exist for claims of enhanced economic management by politicians in power who could proclaim their competence in achieving improved national workplace statistics.

Governments, however, do not provide all the money that goes to deliver health care. Health insurance funds also provide their humble moiety. They, like governments, would then also become winners in a euthanastic economic system. They might even become able to suggest to their prospective clients that, if many 'did the right thing', per capita expenditure should decline and surviving members should be come eligible for reduced premiums. This indeed would be a magnificent achievement since, although many previous governments have been able to promise tax cuts, health insurance organisations have never previously found it possible even to rumour about cuts in their premiums. They and their members would therefore also become significant winners from widespread euthanasia.

Some have suggested that avaricious potential beneficiaries from deceased



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## Note from the Editor

Radius is a magazine of the Medical Graduates' Association of the University of Sydney. We aim to make this an interesting publication and encourage your contribution of news items, obituaries and letters to the editor. We do not object to controversial articles, indeed we welcome them! The true role of a university is to provide a forum for ideas. Please note however that articles should follow conventional journalistic etiquette. We endeavour to publish all articles and ideas sent to us.



estates might find themselves tempted to promote the idea of euthanasia. It is true that such people would stand to inherit the worldly goods of their deceased loved ones more quickly. As time is money, they too would become winners. They would not, however, be as great winners as might at first sight appear since they would otherwise have inherited a little later anyhow and inflation in the meantime would quite possibly have enhanced the value of the goods (especially the real estate) if they had waited patiently.

Members of the health care professions would presumably be losers out of generalised euthanasia since dying people would depart their lives sooner, requiring fewer hospital days and fewer consultations – all of which generate employment and income for the carers. Lawyers and ethicists, however, would presumably become winners as the possibility of contention and disputes

Members of the health care professions would presumably be losers out of generalised euthanasia since dying people would depart their lives sooner, requiring fewer hospital days and fewer consultations

would increase with the inevitable codification of the legalities that would have to surround any comprehensive system. It would indeed be a sad state to find such noble professions experiencing diverging interests, but perhaps that would be a price that society would have to pay for this momentous reform.

And what about those who found themselves departing speedily? They, poor souls, would be clear losers in purely economic terms. They would, throughout their lives, have paid taxes and health insurance premiums to provide for a national system of health care upon which they would anticipate having an ability to

call in times of illness. The longer the duration of the calls that they made upon it the greater the amount of money that it would have to direct toward them. The briefer the duration the less that they would receive. If they terminated their demands quite rapidly then their benefits would terminate equally quickly. They, clearly, would lose.

This rather crude economic analysis suggests, then, that even a topic like euthanasia offers the distinct prospect of economic winners and losers. The winners would become the healthy as they received the tax and premium cuts that their governments and health insurance funds secured for them, together with the administrators and lawyers who would oversee the system. The economic losers would be those who opted to be euthanased and their carers. They would pay a distinctly financial price for the prompt and efficient relief that euthanasia might provide.

Comments on the editorial may be emailed to: [radius@mga.usyd.edu.au](mailto:radius@mga.usyd.edu.au).



Dr Charles George  
Editor

## Our cover

Our cover is a reproduction of a wood engraving from the La Trobe Picture



Collection, State Library of Victoria. It is titled 'Police precautions in Bellevue Street, Sydney'.

For more information about the history of Smallpox turn to Frank Fenner's story on page 9.

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# President's Report

> Barry R Catchlove



I am delighted to welcome Paul Satchell to the MGA Council. Paul is a 1973 graduate and brings a new perspective to the

Association with his research, management and clinical background.

Within our very limited resources we are continually trying to lift the profile of the Association. The financial support we receive in the form of donations is critical to us achieving our goal. The level of donations has again tailed off causing the Council to start to think about the long-term viability of the MGA.

## Management

We remain indebted to the Medical Foundation, and particularly Wendy Marceau, for its support free of charge to the MGA. We could not have managed our limited role without this help. Hopefully we can form some sort of bridge between the Graduates and the Foundation.

On this note our second lecture was given by Professor David Celermajer. David is a Medical Foundation Fellow and Professor of Medicine at the University of Sydney. David is currently the Director of Research at the Royal Prince Alfred Hospital. He is also Director of Echocardiography and consultant cardiologist at the Royal Prince Alfred Hospital, as well as a staff cardiologist at the Children's Hospital, Westmead. David spoke on recent advances in understanding atherosclerosis. His knowledge and oratory skills made the talk an outstanding success, enjoyed, and more importantly understood, by the sixty graduates who attended.

We will be trying to assist undergraduates in organising their elective terms by putting them in contact with graduates working in the countries they plan to travel to for this part of their training.

## New look

*Radius* takes on a new and hopefully more upmarket appearance. Thanks to the hard work of Charles George and his team *Radius* appears to be attracting more attention, particularly from our overseas

alumni. *Radius* is of course only effective if our database is current and we are working hard to make sure we are in contact with as many graduates as possible.

Our new web site is now live and can be accessed directly at <http://www.mga.usyd.edu.au>.

## Assisting undergraduates

We now have a representative of SUMS on the MGA Council. The President of SUMS, Michael Stone, is helping us understand the needs of students and recent graduates. We will be trying to assist undergraduates in organising their elective terms by putting them in contact with graduates working in the countries they plan to travel to for this part of their training. Similarly I think we can be of assistance to postgraduates who are spending time working overseas.

Whether we like it or not tertiary education and medical research are increasingly competitive. The alumni of a Faculty can be an enormous force in ensuring success. We hope through the Association to promote a greater awareness of the importance of supporting our medical school and its associated Medical Foundation.

# Message from the Dean

> Professor Stephen Leeder



## With the winter solstice behind us, Spring must be in the air!

Your Faculty of Medicine is experiencing a substantial number of key staff changes in the near future. In the early part of 2003 Professor John Young concludes his term as Pro-Vice-Chancellor (Health Sciences), a position that he took up immediately after retiring as Dean of our Faculty for eight years; Professor David Tiller retires as Associate Dean for the Central Clinical School and I conclude my term as Dean on 31 December. Professor Ann Sefton retired earlier this year – there would be few who can equal her contribution to curriculum development in our Faculty and to the advancement of educational issues more widely in the University. Professor Jim Lawrence has also left us after sterling service to the Faculty; his contributions to establishing Concord as a centre of fine clinical education and to continuing education have been remarkable indeed.

## New appointments

Professor Michael Field has taken over from Professor Kerry Goulston as Associate Dean for the Northern Clinical School; Professor David Ellwood is now Associate Dean of the Canberra Clinical School following Paul Gatenby's appointment as the foundation Dean of the new ANU Medical School; Professor John Uther has taken up duties as our Associate Dean in the Western Clinical School at Westmead Hospital. Professor John Chalmers concludes as Director of Research Development within the Faculty in August this year.

Advertisements have been placed and are now closed for the position of Dean and I am assured that excellent applications have been received.

have always been of remarkable benefit to the Faculty generally and to me, personally, as Dean. David Tiller and Kerry Goulston have both brought magnificent energy, drive and enthusiasm to their clinical schools. We are fortunate that our new Associate Deans are of the same calibre. Those of you who know John Chalmers will know what an achiever he is, a person for whom no obstacle is insurmountable.

In matters rural the Faculty has been extremely fortunate to have Rick Mclean to join us as Associate Dean of the Dubbo Clinical School and Head of our new School of Rural Health. John Beard is leading the new University Department of Rural Health based in Lismore. Both have done magnificently so far and I have no doubt will excel in their exciting endeavours.

## New beginnings

Advertisements have been placed and are now closed for the position of Dean and I am assured that excellent applications have been received. Correctly, I have no role in choosing my successor! Here is an opportunity for new directions and fresh beginnings.

Next year I plan to be at Columbia University in New York, working with Professor Jeffrey Sachs and colleagues on programs for chronic disease prevention and management that can be commended to Third World countries as part of their macroeconomic development. Jeff is

To those retiring and retired the Faculty owes an enormous debt – John Young's experience and wisdom and his spectacular knowledge of the ways of the University of Sydney

special adviser to Koffi Annan on poverty amelioration and has recently moved from the Kennedy School of Government at Harvard to direct the Earth Institute at Columbia University. He is 47 and full of energy and humane concern. The Institute aims to enable physical, biological and social scientists at Columbia University to collaborate in understanding, and acting to protect, the Earth and the complexity of our relationship with it (<http://www.earthinstitute.columbia.edu/>).

While on the theme of 'new things', I am happy to report, as a Fellow of Senate, that this year has seen considerable recovery of equilibrium and constructive action under the chancellorship of Justice Kim Santow. This period of healing has been essential and I am optimistic that a productive and harmonious relationship can be sustained between the Senate and the other parts of the University.

## Education

While these changes have been occurring, the principal tasks of the Faculty in relation to education and research have continued solidly. We now have graduates from two years of the new curriculum, and they are performing well. In April we had a Faculty Retreat at Wollongong Novotel where we considered what we need to do to achieve our goals in relation to the graduate-entry program (and also in relation to our program of research development). Three things deeply impressed me.

First, younger members of the Faculty were prominent. Our educational program depends heavily on them and they now see it as theirs. The baton has been passed. This assures the new program of vitality. It will be different as a result, and that is wonderful.

## Message from the Dean (continued)

Second, we have an organisational arrangement for the management of the new curriculum that enables change to occur. Whether it is that we want to look further at how we assess students, by what process we admit them, how we teach them and what we teach them, we have groups within our organisation to lead and act on the debate. We have some distance to travel before we achieve a similar arrangement for research development.

### IT links

Third, whether it is education or research, information technology is crucial. As Sydney chokes on its traffic, our decentralised Faculty depends increasingly on high-quality IT and audiovisual linkages almost as much as we do for our connection to our new clinical school in Dubbo and Orange and our colleagues at Broken Hill and Lismore/Tweed Heads.

The Faculty is now acting on the decisions taken at Wollongong to improve our performance even further.

Exciting things? Yes! Lots of them! The new clinical school at Dubbo has taken its first students and they loved it! We have appointed great people to head up our rural initiatives. The Medical Foundation Building is now being refitted to become the hub for genomic research in the Faculty and indeed right across the University. It will link with developments in research at Westmead, the Children's Hospital, Nepean Hospital, the central campus and the Northern Clinical School.

**The new clinical school at Dubbo has taken its first students and they loved it!**

between the Faculty and its alumni.

### Review of tertiary education

Beyond the Faculty and the University, Dr Brendan Nelson in his role as federal minister for education, science and training has initiated a review of the tertiary education sector. This may well impact on how our University functions. If preference is given to supporting research-prominent universities, then we will do well. But larger questions about the function of the university sector as a whole must be addressed and the outcome of that review is quite uncertain. We need to contribute to that debate because of its importance.

We welcome our contact with you, our graduates. We have a sense of history because we number you among our community. That matters and matters greatly. Thank you for being there!

It is exciting, too, to see the Graduates Association growing in stature and confidence. It provides a vital and continuing link



# Emails to the Editor

All correspondence to the Editor should be sent to The Editor, [radius@mga.usyd.edu.au](mailto:radius@mga.usyd.edu.au)

Unless otherwise requested names and suburbs of correspondents to the Editor will be published in this column.

## Remembering Margaret Mulvey

Dear Sir,

I enjoyed Nic Jools' article about Margaret Mulvey 'The Mother of Australian Obstetrics' and was reminded of my second encounter with her, during my time as a paediatric registrar at King George V Hospital in the 1980s. I had been called to Labour Ward for a delivery and when it was all over the lady obstetrician asked me who I was. "Ah", said Dr Mulvey without a pause, "I brought you into the world right here longer ago than you can remember - what an unexpected surprise!"

**Dr E. David G. McIntosh**

London NW3 3RP, UK

## Studying Medicine just after WWII

I started medicine in 1940 but like some others, joined the Army because the War was at a critical stage and we felt that it was imperative to enlist. In College, a number received white-feather letters and we all were exposed to many friends in other faculties, like Gough Whitlam and Jim Rowland, leaving to join up.

In 1945 I was demobilised and started Medicine II with a number of ex-servicemen. We found the standard of teaching to be of very low standard. One lecturer in Anatomy apologised continually for his inept delivery; another demonstrated certain deficiencies in the text-books making a huge subject even more complex. However the tragedy was Biochemistry. The lecturer's teaching was so poor that practically the whole year went into the City to a coaching college run by a Professor's brother, the uncle of one of our fellow students! How this escaped the attention of the Faculty we will never know.

Professor Young, in his history of the medical school, alludes to the other tragic figure, who had a substance abuse problem. All these people were kind and

full of good intentions, but as one of our group who topped the year and was later a professor himself, said that we were "short changed".

However, somehow we passed our examinations and went on to the "new" Medical School and to our various hospitals to "walk the wards". The standard of teaching improved. Top of the class, I thought, were Professor Ward who taught Bacteriology and the elegant Bruce Mayes (Obstetrics). The Professor of Pathology, another charming man, mostly regaled us with anecdotes rather than teaching principles.

One wonders whether the salaries and conditions for University staff were so bad that there was a detrimental effect on Academics' morale. Certainly private practice then was not permitted.

In the end, the year has a proud record. Some became world renowned like Sir Henry Harris F.R.S., Professor Enid Fischer, Jim Lance, Malcolm Coppleson and Clem Boughton. Five received Honours from the Queen and twelve Orders of Australia.

One custom which has now petered out, was the unwritten law that the girls occupied the front seats in a lecture theatre. I back the standard of our females' lower limb elegance against all comers. We men felt sorry for our lecturers in that their primitive instincts were challenged by all those shapely gastrocnemius's. This did not prevent one lecturer marrying one of our women.

There was one Professor who terrified us. Charles Lambie, the "wee mon" insisted on the highest standards in the examination of patients. "Has anyone any criticism of his/her technique?" is still a basis for Post-Traumatic Stress Disorder in many of us. However, despite all the problems we salute and thank our teachers, all honourable and dedicated people who had so many difficulties which will not be revealed, ever.

Over the years many of us lectured to under-graduates and post-graduates almost always with the stimulus of striving not to have our students judge us the way we judged some of our teachers. Perhaps, in the end, something useful survived for the good.

**Bill Woods**

Wahroonga NSW 2076

## The Class of '35 at War

An engrossing story of a Wartime Medico, the stories that surround the Battle of the Coral Sea, and the involvement of the RAN.

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Email: [secretary@navyhistory.org.au](mailto:secretary@navyhistory.org.au)

Cost: \$35.00 plus \$5 postage and handling.





# Letters to the Editor (continued)

## Post-WWII graduates

To the Editor,

In reply to request for stories from post-WWII graduates, page 21 Radius Vol 15, April 2002, I am sending you the following.

On the Saturday evening before England declared war on Germany in 1939 my father was gravely ill with quinsy and his condition soon became desperate. The nearest doctor at Orange was called and as I left for school on Monday morning he was unconscious. When I returned home that afternoon he was sitting in the kitchen sipping warm tea. From that moment I decided I would one day become one of those doctors.

I left Parramatta Intermediate High School in 1940 aged 14 and after several factory jobs became a junior X-ray darkroom attendant at the Royal Prince Alfred Hospital and graduated as a radiographer before 'joining up' in 1944. During demobilisation servicemen were encouraged to take 'Rehabilitation' training courses and I gratefully accepted the government offer of a one year full time matriculation course at the old Pyrmont Public School under the CRTS (Commonwealth Reconstruction Training Scheme). Like many other ex-servicemen I matriculated and joined more than seven hundred other First Year Medical students at Sydney University in 1948. The number was halved in second year.

Writing stirs the memory and faint images of Rex Money, Gilbert Phillips, Herbert Schlink, Professor Lambie, Lorimer Dodds, Harold Dew, Bruce Mayes, Alan Colwell, Douglas Miller, Justin Fleming, Noel Newton and Harry Windsor come floating back through the mists of time. In third year we were invited to attend the 'A Block' lecture theatre at RPAH where a fourth year student was to address us. He spoke without notes for over thirty minutes and discussed a case with such detailed clinical knowledge and exhaustive differential diagnosis that thunderous applause followed his masterful exposition. His name was Gus Nossal.

My anaesthetics training consisted of a few cases using ethyl chloride induction and 'open ether' as a junior RMO at St Vincents. I still have the first mask I used when I went into general practice at Randwick where I assisted GP surgeons at Netherleigh and in turn became the surgeon in my own general practice at Chester Hill operating at Highbury Private and Bankstown and Fairfield public hospitals. Those were the final days of the original Australian 'General Surgeons' who prescribed for coughs, colds influenza, headaches, measles, mumps and chicken pox and operated on their own cases in Public Hospitals. Pressure from specialist surgeons ended that system and soon a new system called 'Medicare' was introduced.

I found general practice limiting and unfulfilling at that time. I had imagined treating the diseases I had learned about in medical school and hospital but in the Western Suburbs they were rare. I was dismayed by the large number of personal problems in families living in newly established 'Housing Commission' areas for which I had no effective answer. Their often silent appeals for help went unanswered because of my inability to cope with their real needs.

I chickened out and returned to more familiar territory as a Fellow in Radiology at St George Hospital. The late Jim Kalakerinos suggested that training would be better in Melbourne, so in 1958 I became a Registrar at the Alfred Hospital under the late Hal Luke. At that time X-ray equipment was primitive and little changed in concept since the days of Roentgen in 1895. If there is any benefit from war it is the accelerated technological advancement it encourages. Rotating anode X-ray tubes appeared. Hal installed the first primitive image intensifier which had a single eyepiece telescopic viewer and Bill Hare installed an automatic film processor at the Royal Melbourne. Wooden angiography film changers made up in the hospital workshop gave way to 'off the shelf' Elema-Schonander Rapid Film Changers from Sweden. We prepared our own catheters from bulk rolls of Odman tubing in three grades and shaped them using a small spirit lamp.

Remote controlled tables, CAT Scanners, radioactive isotopes and MRI entered the scene. Japanese developments in fibre optics produced that fore-runner of today's endoscopes, the gastrocamera, which was championed by Jim Kalakerinos in Sydney and I used one as Director at the Austin Hospital. We saw internal visualisation as a branch of radiology but other radiologists were not interested and endoscopy passed into other hands, just as happened to radioactive isotope imaging and cardiology as pioneered by Harry Hiller in Melbourne and Geoff Benness in Sydney.

It has been an interesting and often exciting fifty years since I saw the last mechanical rectifier dismantled at BMA House, 135 Macquarie Street; Gilbert Phillips returned to lecture us only a few weeks after a leg amputation for malignant melanoma and Harold Dew informed us that a common cause of severe acute abdominal pain after slipping on a buggy step was ruptured hydatid cyst. If there is anything I would change it would be that the humanities are a necessary pre-requisite to the study of medicine. I am glad to see this is now occurring.

**Dr Allen D Smythe**

MB.BS(Syd), DDR(Syd),FRACR,FRCR  
Mt Ommaney Qld 4074

**Dr Philip Simons**

Dear Sir,

I regret to inform you that my husband Dr P N Simons FRCS, FRCOG, died of Non-Hodgkins lymphoma on 19 January 2002 aged 89 years. He retired from the British NHS in 1977 and enjoyed a health and very active retirement. We returned to Sydney most years during December to February and kept in touch with his contemporaries.

Philip graduated in 1935 and on the 50th anniversary year of 1985 the survivors compiled short autobiographies of their careers. I understand that a bound copy of these is held by the University library. It makes quite fascinating reading of a time long passed.

**Mary Simons**

Cornwall UK TR36RB



# Eradicating Smallpox: Lessons for the Future

> Frank Fenner

Frank Fenner works at The John Curtin School of Medical Research, the Australian National University.

Professor Frank Fenner was the chairman of the Global Commission for the Certification of Smallpox Eradication of the World Health Organisation 1977-80 and subsequently authored, with DA Henderson and I Arita, the major historical work, *Smallpox and its Eradication*. Related to his work on smallpox eradication, Professor Fenner received the Anzac Peace Prize in 1980, the Stuart Mudd Award of the International Union of Microbiological Societies in 1986, a WHO Medal in 1988, shared the Japan Prize (Preventative Medicine) in 1988 with the first two Chiefs of the WHO Smallpox Eradication Unit, Dr DA Henderson and Dr I Arita, and received the Advance Australia Award in 1989.

Professor Fenner was Director of the Centre for Resource and Environmental Studies, Australian National University, Canberra 1973-79. Earlier he was Professor of Microbiology 1949-67 and Director of the John Curtin School of Medical Research 1967-73 at the same University, after joining the School as Professor of Microbiology in 1949.

Professor Fenner gave a special lecture on the global eradication of smallpox to members of the Faculty of Medicine at the University of Sydney on Monday 8 April, 2002.



## What is Meant by “Eradication”?

Early in the WHO Intensified Smallpox Eradication Program<sup>1</sup> there was considerable discussion about what constituted “eradication”, should it mean total elimination of the virus, or of the disease? and from a country, or a continent, or the world? Since at that time, during the 1960s, variola virus was being used in dozens of diagnostic laboratories throughout the world, and could be readily stored (and forgotten) in deep-freeze cabinets, it was decided that total elimination of the virus would be too difficult to certify, and because the critical requirement was to get rid of the disease, global eradication was defined as the interruption of transmission of smallpox

throughout the world. Of course this could not be achieved in one step; it was necessary to interrupt transmission in countries, then regional groups of countries, then continents and finally the whole world. These intermediate steps were called “area eradication” or sometimes “elimination”, from countries, regions or continents.

## What Features Made Smallpox Eradication Possible?

The features that made possible the global eradication of smallpox are summarized in Table 1, and are discussed below under two headings, biological features of the disease and the virus, and socio-political features.

**Table 1. Biological and socio-political features that favoured the global eradication of smallpox**

### Biological features

1. A severe disease, with high mortality and/or serious sequelae
2. There was no animal reservoir of smallpox virus
3. There were very few cases of subclinical disease
4. Recurrent disease did not occur
5. There was only one serotype
6. There were effective methods for laboratory confirmation of the diagnosis
7. An effective, heat-stable vaccine was available
8. Cases did not become infectious until the rash appeared

### Socio-political features

9. Endemic smallpox had been eliminated from many countries before the global eradication campaign began
10. There were few social or religious barriers to case-finding
11. The costs of quarantine and vaccination of overseas travellers provided a strong financial incentive for wealthy countries to assist
12. Because the goal was clearly defined and seen to be achievable, the Intensified Smallpox Eradication Program enlisted inspiring leaders and devoted health workers

# Eradicating Smallpox (continued)

## Biological Features

**1. Severity.** The importance of the first feature is obvious; the political will to launch an eradication campaign can be assured only if the disease is sufficiently serious to warrant such an effort. For example, even if it were technically feasible, it would not be possible to mobilize the political will, and therefore the funds and the dedicated personnel, to eradicate a disease as mild as the common cold.

**2. Absence of an Animal Reservoir.** The importance of this feature is best exemplified by referring to the history of yellow fever (Strode<sup>2</sup>). There is no doubt that yellow fever was and is a severe disease, severe enough to mobilize the necessary political will. The follow-up by William Gorgas of the brilliant studies of Walter Reed and Carlos Finlay had led to its elimination from Cuba, then Panama and then Rio de Janeiro, by the control of the urban vector *Aedes aegypti* (at the time the only known vector). Stimulated by this demonstration, in 1915 the International Health Commission of the Rockefeller Foundation undertook to support the eradication of yellow fever from the Americas by mosquito control. But in 1932 it was discovered that several species of South American monkeys provided a jungle reservoir of yellow fever virus, and that it was carried between monkeys, and occasionally to humans, by species of mosquito other than *Aedes aegypti*, jungle species which could not be controlled by the means then available. This meant, and means, that when an effective vaccine was developed to supplement mosquito control (and the 17D yellow fever vaccine developed by Theiler is probably the best viral vaccine ever produced), eradication of yellow fever, even in the sense of permanently interrupting its transmission, and even in a single large country, like Brazil, is impossible.

Aware of the critical importance of this factor, the Chief of the Smallpox Eradication Unit, D. A. Henderson, invited several poxvirologists to convene in Moscow in March 1969 as the "WHO Informal Group on Monkeypox and Related Viruses". Monkeypox virus was specifically considered because when it was first isolated in 1958, in a monkey colony in Copenhagen, the pocks that it produced on the chorioallantoic membrane were considered to be very like those caused by variola virus. The Group decided on what was then known of its properties that monkeypox virus was a distinct species of Orthopoxvirus, quite different from variola virus. Shortly after this meeting, in the early 1970s, the possible existence of an animal reservoir of variola virus caused considerable anxiety. This was initiated by the discovery in 1970 of cases of human disease clinically indistinguishable from smallpox in parts of western and central Africa, at a time when it was believed that smallpox had been eliminated from these areas. The investigation of these cases by the WHO Collaborating Centres on Smallpox and Related Infections in Moscow, in the Soviet Union, and in Atlanta in the United States, demonstrated the importance of the need for effective laboratory diagnostic support. It was quickly shown that these unexpected cases of smallpox were in fact caused by monkeypox virus, which was later shown to be enzootic in squirrels in the area and present in several species of monkeys. But the problem did not stop there, for during field investigations in Zaire following the discovery of human monkeypox, scientists from the Moscow laboratory reported recovering variola virus from four different species of wild animals; two species of primate, a rat and a squirrel. This was a most unexpected finding, because variola virus had been regarded as highly host-specific. Subsequently the same scientists reported that monkeypox virus gave rise to "white

pock mutants" that were indistinguishable from smallpox virus, and suggested that the animal isolates of variola virus had arisen as white pock mutants of monkeypox virus. Eventually both the animal isolates and the "white pock mutants" were shown to be due to laboratory contamination, arising in a laboratory where large numbers of specimens from smallpox patients were being examined.

**3. Subclinical Disease.** It is an advantage for successful eradication campaigns that subclinical infections should be rare, for it makes the procedure of surveillance and containment, a keystone of the smallpox eradication program, much simpler and more effective. But it is not a necessity, as demonstrated by the elimination of poliomyelitis from the Americas (1991), the WHO Western Pacific Region (1997) and the WHO European Region (1998).

**4. Recurrent Disease.** The difficulties posed for eradication campaigns of the existence of chronic or recurrent disease associated with infectivity are well illustrated by the natural history of herpesvirus infections, which can survive in very small populations for many years in the absence of apparent disease. Like emergence from an animal reservoir, the existence of latency and periodic re-emergence of virus in a way that can lead to transmission, or persistent infection with viral excretion, constitute major although not necessarily insuperable obstacles to eradication. Persistent infection with measles virus in subacute sclerosing panencephalitis (SSPE) does not constitute a problem, because infectious virus is not released from such cases.

**5. Limited Number of Serotypes.** The importance of this factor can be illustrated by considering the problems that would be posed for vaccination programs if it were considered necessary to eliminate common colds from the human population, even if the term "common



left: The after-effects of smallpox can be severe. Pockmarks are common, blindness is rare.

cold” was restricted to disease caused by rhinovirus infections, since there are over 100 different rhinovirus serotypes. However, the existence of a small number of stable serotypes does not constitute an insuperable problem, as demonstrated by the success of poliomyelitis eradication campaigns; it merely meant that three safe and effective vaccines, rather than one, were required.

**6. Effective Laboratory Diagnosis.** The importance of the availability of good laboratory support for the confirmation of clinical diagnoses has been mentioned earlier, in relation to the diagnosis of human monkeypox. It is clearly even more important in diseases in which the clinical diagnosis is not as obvious as it usually was in smallpox. For poliomyelitis an elaborate world-wide laboratory network has been established, utilising sophisticated molecular biological tests to distinguish “wild” from vaccine strains of polioviruses.

**7. An Effective Vaccine.** Vaccination is the only tool which promises to be able to achieve global eradication of a viral disease, although other procedures are effective in helminthic diseases such as dracunculiasis. A very important feature of the use of vaccine in the smallpox eradication program, and indeed in any vaccination campaign, whether for eradication or control, is that the vaccine used should be potent. For smallpox, which occurred in remote rural areas of tropical countries as well as in urban areas, a heat-stable vaccine was essential. In large-scale international programs, ensuring the potency of vaccine as it is used in the field calls for special methods of quality control, especially if vaccine is manufactured in developing countries where there may be limited laboratory expertise, and if vaccine is procured from many sources for use in country programs. Special measures were established early in the smallpox eradication program to ensure that all vaccine used was up to WHO standards, whether supplied by a local producer in an endemic country, or from vaccine that had been donated to WHO, or vaccine donated via a bilateral program arranged between a developed and a developing country. It is worse than useless to use poor quality vaccine in a disease control or eradication program, for not only does such a product fail to protect, it also destroys faith in the procedure of vaccination and the vaccination program itself. The Smallpox Eradication Unit established WHO Reference Centres for Smallpox Vaccine in



left: Modified type smallpox. Modified by vaccination, either several years earlier or, in this case, during the incubation period (see large lesion on upper arm). Vaccination during the first two or three days after exposure may completely prevent the appearance of symptoms.

Toronto, Canada, for the western hemisphere, and in Bilthoven, The Netherlands, for the rest of the world, which provided a testing service and advice for some 60 laboratories all over the world that supplied vaccine for the smallpox eradication campaign. At the time, some administrators in WHO were very concerned that the testing of vaccine that had not been donated to WHO would be seen as an infringement of national sovereignty, but in the event this did not prove a problem.

**8. Early Infectivity.** The fact that cases of smallpox were not infectious until the rash had appeared, although fever and headache were apparent two or three days earlier, made it easier to mount effective surveillance and containment programs. Indeed, this procedure was the sheet-anchor of Henderson's strategy. In this way eradication of smallpox was achieved with a good deal less than the very high level of successful vaccinations that appears to be necessary in diseases like measles, in which cases are infectious before the rash appears and before the patient is bed-ridden, or poliomyelitis, in which subclinical infection is very common, in both of which diseases the surveillance and containment strategy is not feasible.

## Socio-political Factors

It is impossible to over-estimate the importance of sufficient and sustained political will if a target like eradication of a common infectious disease is to be achieved. All the factors listed under this heading are important in generating this political will.

**9. Achievement of Country-wide Elimination.** Obviously, achievement of elimination of the disease in some countries, which historically occurred first with smallpox, then with poliomyelitis, and even more recently with measles, provided and provides a source of encouragement that helps to generate the political will to go on to country-wide, continental and global eradication.

**10. Barriers to Case-finding.** Some diseases, such as leprosy and syphilis, used to carry, and in some communities still carry, a stigma which makes case-finding and surveillance difficult. This did not apply to smallpox and does not apply to poliomyelitis and measles.

below: Smallpox recognition card. This was used by field workers when enquiring from villagers about whether they had seen any cases recently. Note pustules in palm of hands, never seen in chickenpox.





# Eradicating Smallpox (continued)

**11. Costs of Quarantine and Vaccination of Travellers.** The severity of smallpox and its capacity to spread from endemic areas to any part of the world concerned health authorities everywhere. To counter this, special programs of quarantine and inspection, and vaccination of travellers, were established in all countries, and were applied most vigorously in the wealthy countries from which most overseas travellers came (and to which they returned). This was a feature peculiar to smallpox, and the cost of such measures provided a powerful stimulus to the wealthy countries to support smallpox eradication. It has been estimated that the savings from such expenses immediately after the success of the smallpox eradication program amounted to about a billion dollars a year in the United States alone.

**12. Leadership.** International programs focussed on a critical endpoint such as global eradication cannot succeed without the devoted efforts of a legion of health workers, ranging from laboratory experts through field vaccinators to managers and coordinators. Such teams can only be recruited, and their loyalty and continued support ensured, if it is clear to all concerned that they are aiming at a well-defined and achievable goal. Throughout such programs, all personnel involved must be supported by encouragement and stories of successes issued from headquarters, that is, there must be good communications at all levels. From 1967 to 1976 D. A. Henderson, and from 1977 to 1985 Isao Arita, as successive Chiefs of the Smallpox Eradication Unit, provided the leadership necessary to eradicate smallpox and to certify its eradication.

## Certification of Eradication

The features listed in Table 1 deal with the problems associated with the actual eradication program. But the health services of countries could not base their policies for dealing with importations of a disease as serious as smallpox only on statements by other countries that they had eliminated the disease; a system of certification of eradication by independent international teams of expert epidemiologists, virologists and public health workers was required. Certification was a major component of the Intensified Smallpox Eradication Program. It began in 1973 with the visit of an International Commission for the Certification of Smallpox Eradication from South America, followed during the next six years by visits by similar international commissions to 49 countries and coordinated in the later stages by the Global Commission for the Certification of Smallpox Eradication. No visit was undertaken until the country involved had undertaken intensive investigations to demonstrate that no cases of smallpox had occurred there during the previous two years.

## Other Important Lessons

Several important lessons which have been touched on in the foregoing discussion deserve amplification, notably funding, research, quality control, a special program, and the definition of goals and objectives.

### Funding

Historically, the recommendation to provide enough "regular" WHO funds to begin the Intensive Smallpox Eradication Program in 1967 (a mere \$US2.4 million annually for ten years) was passed by the World Health Assembly by the narrowest of margins—two votes. To a large extent this reflected the disillusionment occasioned by the malaria eradication program on which WHO had embarked in 1955, buoyed up by the hope that DDT control of mosquitoes would provide the solution. A decade later it was clear that in spite of a very large financial commitment the problem was much more difficult than had been postulated and that resistance to DDT would frustrate efforts at eradication in all except small island countries. Indeed it was a common jibe that the WHO Malaria Eradication Program, by its concentration on mosquito control with DDT, had eradicated malariologists but not malaria. This experience affected funding for smallpox eradication from WHO, from national sources, and most importantly

from UNICEF, which had funded the malaria campaign generously and which was later to provide great help to the Expanded Program on Immunization and the poliomyelitis eradication program, but which provided only \$US427,878 to the smallpox eradication campaign over the whole period 1967-1979. One consequence of this was that the Chief of the Smallpox Eradication Unit had to spend a substantial part of his time fund-raising, as a necessary but inefficient use of his time and skills. The lesson is that for future efforts at disease eradication adequate funding must be assured from the outset, a lesson whose value has been demonstrated in the campaign to rid the Americas of poliomyelitis.

### Research

In the mid-1960s, when the smallpox campaign was being planned, it was assumed by many that eradication was merely a matter of applying existing knowledge, and that further research was unnecessary. Henderson did not accept this; he insisted that expert virologists should be available for meetings and as consultants, and that selected good laboratories should be enlisted as WHO Collaborating Centres, for both smallpox diagnosis and for smallpox vaccine. The importance of this move was amply demonstrated when human monkeypox was discovered, and led also to improvements in the quality of the vaccine and methods of quality control and to new, efficient methods of vaccination, such as the bifurcated needle. The necessity for continued research has been even more apparent during the campaign to eradicate poliomyelitis from the Americas.

### Quality Control

The importance of quality control was paramount in the provision of high quality vaccine, without which no campaign that depends on vaccination can succeed. However, the principle applies equally to laboratory and clinical diagnosis and the training of personnel in various procedures, such as vaccination.

### A Special Program

During the 1960s there was a good deal of opposition within WHO to the notion of "vertical", special purpose programs, in contrast to general improvements in community health. However, there is no doubt that eradication programs will succeed only if they are highly focussed, special purpose programs, as has been well demonstrated with the campaigns to eradicate poliomyelitis and measles from



the Americas. In fact, the success of the smallpox program led directly to general improvements in community health, through WHO's Expanded Immunization Program and, in the Americas, the success of polio eradication led to the active involvement of the wives of the heads of state in South and Central America becoming actively involved in promoting child health throughout the region.

### Definition of Goals and Objectives

Motivation of support staff is essential if eradication is to succeed, and this is impossible unless the goals and objectives are clearly defined—both the long-term goal of global eradication and various short-term goals that are achievable within defined time-frames.

### Eradication of Other Infectious Diseases

To what extent can the lessons of the successful smallpox eradication campaign be applied to other infectious diseases? Clearly, the smallpox campaign cannot serve as a template for other programs, for every disease has its own peculiar epidemiological features. Further, the impression of a few clearcut messages that the foregoing account of smallpox eradication may have given conceals the fact that the approach taken for smallpox eradication differed from country to country and continuously evolved throughout the campaign. However, there are some essential prerequisites if eradication is even to be contemplated. The most important are the absence of an animal reservoir and the absence of a state of recurrent infectivity in persons long after they have recovered from the initial infection (such as is seen in herpesvirus infections and Hepatitis B and C).

Interestingly, the first disease for which a policy of global eradication was launched, after the success of the smallpox campaign, was dracunculiasis, a helminthic disease in which prevention depends on provision of a safe water supply. It was confined to relatively few countries and is progressing well, but since it does not involve vaccination it will not be further discussed here. The two diseases on which attention has recently been focussed and for which vaccination is the principal tool are poliomyelitis and measles. Table 2 compares these diseases with smallpox in the features outlined as important for the success of smallpox eradication. Comment will be restricted to those features in which the comment for poliomyelitis or measles differs from that for smallpox.

**Table 2. Comparison of features that favour global eradication of poliomyelitis and measles, compared with smallpox.**

	Smallpox	Poliomyelitis	Measles
<b>Biological features</b>			
1. Severity, serious sequelae	Yes	Yes	Yes
2. Animal reservoir	No	No	No
3. Subclinical cases	No	Yes	No
4. Recurrent infectivity	No	No	No
5. Serotypes	1	3	1
6. Laboratory diagnosis	Effective	Effective	Difficult
7. Vaccine			
– effective	Yes	Yes	Yes
– cold chain needed	No	Yes	Yes
– number of doses	1	4 (of 3 types)	1
8. Early infectivity	No	Yes	Yes
<b>Socio-political features</b>			
9. Eliminated from countries	Many	Some	Very few
10. Barriers to case-finding	No	No	No
11. Financial incentive (for wealthy countries)	Strong	Moderate	Moderate

### Features in which Poliomyelitis and Measles differ from Smallpox

#### 3. Subclinical Cases.

The existence of subclinical cases, which are common in poliovirus infections but very rare in smallpox and measles, complicates both assessment of the status of eradication programs and the process of certification. Nevertheless, it does not constitute an insurmountable barrier.

#### 7. Vaccine.

A good vaccine is a prerequisite for any program of control or eradication, and substantial heat stability is a highly desirable but not essential feature. Much effort has been devoted to increasing the heat stability of polio and measles vaccines, but their heat stability does not approach that of freeze-dried smallpox vaccine, so that a substantial effort was

necessary to ensure the effectiveness of cold chains, so as to be confident that vaccine was potent at the site of delivery. One of the major features that makes the eradication of poliomyelitis the next item on the global agenda is the existence of a very effective oral vaccine, which has made possible the development of National Immunization Days (NIDS), during which millions of children have been vaccinated.

#### 8. Early Infectivity

The delay between the onset of illness and the development of infectivity of cases seen in smallpox made surveillance and containment a very effective strategy, but this is not essential for a successful eradication program. However, it is a factor that will make it much more difficult to eradicate measles.

# Eradicating Smallpox (continued)

## Socio-Political Factors

Few common viral diseases evoke the fear that smallpox did, and there are currently insuperable technical problems in mounting an eradication campaign for those that do, like HIV-AIDS. However, measles is a very important disease in many countries, and infantile paralysis is a greatly feared disease because it affects mainly children and leaves many survivors with severe sequelae. Effective campaigns for the eradication of both these diseases are being mounted in the region of the Americas and a global eradication program for poliomyelitis is proceeding well in many parts of the world.

## The Post-Eradication Threat: Smallpox as a Bioweapon

As mentioned in the introduction, it was decided that the criterion for certifying the eradication of smallpox would be interruption of transmission. However, after the case of accidental infection from a laboratory source in England in 1978, the last case in the world, WHO initiated an effort to prevent the reappearance of smallpox by recommending that all research on the virus should cease and that all known stocks should be destroyed or transferred to one of the two WHO Collaborating Centres in Atlanta and Moscow. These efforts were successful, and in the early 1980s WHO addressed the matter of the destruction of these stocks. However, this was delayed pending DNA cloning and sequencing of selected strains to archive the genetic information of variola virus.

In the late 1980s opposition to destruction surfaced, partly from scientists who thought that further study of the virus might provide insight "to a cure for cancer or AIDS" and partly from the intelligence agencies of the United States and the

United Kingdom, which voiced concerns for defensive research because of its potential as a weapon for bioterrorism, using possible clandestine sources of the virus. The scientists' objections were ridiculous, but the threat of smallpox for biowarfare or bioterrorism was not. For those who were involved in the eradication campaign, and for the world generally, one of the most disappointing and worrying revelations of recent years has been the fact that just after the declaration of the global eradication of smallpox at the World Health Assembly in May 1980, the Soviet Union included smallpox virus in its array of biowarfare weapons. The size of the effort is well described by a Soviet official, Kanatjan Alibekov, now known as Ken Alibek, who defected to the United States in 1992 (Alibek<sup>3</sup>). In April 1992 President Yeltsin signed a decree banning offensive biological warfare research, but that opened up the possibility that some of the now unemployed scientists would seek employment in other countries, carrying a tube of freeze-dried variola virus with them. Nevertheless, the World Health Assembly carried a resolution for destruction in 1996, but in 1999 President Clinton reversed the 1996 vote of the United States and announced that specimens would be retained in Atlanta for research that might help save lives should the disease reemerge. In May 1999 the Assembly recommended postponement of destruction until the end of 2002, and established a committee of experts to oversee research by American and Russian scientists. It is now clear that the United States and Russia are going to continue to carry out research on variola virus for an indefinite period. The reactions to these events are summarised in papers by Henderson,<sup>4,5</sup> who was head of the Center for Civilian Biodefense Studies at the Johns Hopkins University, and in a book produced by the United States Institute of Medicine<sup>6</sup>.

## References

1. Fenner F, Henderson DA, Arita I, Jezek Z, Ladnyi ID. Smallpox and its eradication. Geneva, World Health Organization, 1988.
2. Strode GK, ed. Yellow fever. New York, McGraw-Hill, 1951.
3. Alibek K. Biohazard. New York, Random House, 1999.
4. Henderson DA. Bioterrorism as a public health threat. *Emerg Infect Dis* 1998; 4, 488-492.
5. Henderson DA, Inglesby TV, Bartlett JG et al. Smallpox as a biological weapon: medical and public health management. *JAMA* 1999; 281, 2127-2137.
6. Institute of Medicine. Assessment of future scientific needs for live variola virus. Washington, DC, National Academy Press, 1999.



# Sesquicentenary Celebrations

> Dr Robin Fitzsimons

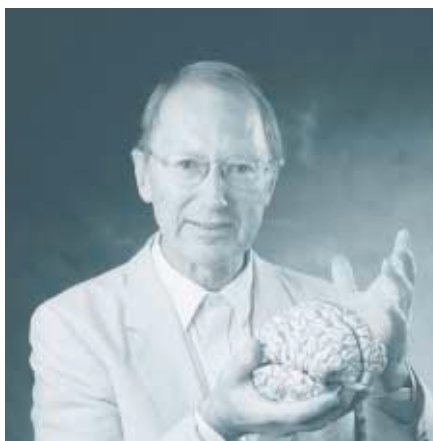


1852 was an important year for universities. Cardinal Newman, of Oxford and Irish fame, delivered five lectures, later immortalised in print as 'The Idea of a University'. He insisted that a university is a place of liberal education and not just of vocational training. Students were to imbibe a broad and 'universal knowledge'. Meanwhile John Stuart Mill was giving evidence to the Royal Commission on Oxford. And on the other side of the world the first lectures were being given at the embryonic University of Sydney, then sited at The Sydney Grammar School.

Australian medical students have generally been more fortunate than most medical students in places like London, because at least the first three years at university were in the company of students from other faculties. To greater or lesser degree we at Sydney were exposed to the concept of 'universal knowledge' and the 'mind-training' for medicine paradoxically imparted by some non-vocational study. The university sesquicentenary celebration weekend in October gives a splendid opportunity to revisit this domain and renew old friendships.

Sunday, 13th October will be an Open Day. Bring your family to visit departments, listen to debates and other activities at Manning, watch the cricket, or simply imbibe the air of the quadrangle.

Saturday, 12th October will focus on the 'Academy', with a highlight being an evening dinner-forum in the MacLaurin Hall on 'The Idea of a University'. Six outstanding Sydney graduates will grapple with the modern often conflicting functions of our university - a discussion rendered all the more timely because of the Federal Government's major enquiry into Higher Education currently being conducted by Education Minister, Dr Brendan Nelson. The function of a modern university is no less contentious and its future not necessarily more secure than it was in Newman's day.



top: Adam Spencer, left: Max Bennett, right: Jim Spigelman.

From the medical faculty, Professor Max Bennett will consider the role of research. Other Sydney graduate speakers at the Forum will include NSW Chief Justice (and former SRC President) Jim Spigelman, architect and journalist Dr Elizabeth Farrelly, Sydney Grammar headmaster and classicist Dr John Vallance, science Professor Margaret Burchett, and businessman Angus Taylor - a Sydney economics medallist and former Rhodes Scholar. Television scientist Adam Spencer will 'MC' the evening, and the Vice-Chancellor Professor Gavin Brown will welcome.

Professor Max Bennett joined the University's physiology department in 1968, and in 1982 became the second individual ever appointed to a Personal Chair at the University (the first having been Lord May, currently President of the Royal Society). He has given numerous prestigious international lectures, and received national and international distinctions related to his seminal work on synapses, particularly during development. He heads the University's Institute for Biomedical Research, and is currently launching a multidisciplinary Brain and Mind Institute which will bring together the university's outstanding strengths in psychiatry, neurobiology and cognitive neuropsychology.



There will be plenty of time for audience participation over coffee and dessert. If you think that your university is not what it was, or (for better or worse) that it is still what it was, this is an opportunity to tell us. Graduates are very much part of the university, and we will continue to need your input, direction and support if our alma mater is to remain an outstanding international institution. Bring your friends (\$70-00 per head) for what should be a wonderful evening.

**For the Forum booking and update/details of other sesqui events, see The Gazette, or contact Richard Hunter (Events Manager) on R.Hunter@vcc.usyd.edu.au; phone 9351 3541 / 9351 8976**

**Or see sesqui website  
[www.usyd.edu.au/sesqui/news/shtml](http://www.usyd.edu.au/sesqui/news/shtml)**

## Planned for the New Year

Professor Frank Billson will deliver a major public University lecture on the contributions made by our graduates and staff to international ophthalmology. From Sir Norman Gregg and rubella to the Save Sight Institute in Bangladesh, and high tech research. Please come.

**Send your email address to the Medical Graduates' Association for more information about this and future events.  
[mga@med.usyd.edu.au](mailto:mga@med.usyd.edu.au)**

# Responding to illicit drugs as a health and social issue

## Advance Australian health

> Dr Alex Wodak



Thirty years ago, life expectancy in Australia was lower than most other industrialised countries. In only a handful of other rich

countries do men and women now live longer than their Australian counterparts. Even better, Australia has an extremely high international ranking for years of life without disability.

Few Australians realise how well their health sector now performs. Australian men today live two years longer and Australian women one year longer than their counterparts in the United States. These excellent results are achieved while national expenditure on health is only average for an industrialised country. Australia's capacity for self-congratulation regarding sporting prowess seems nauseatingly boundless, yet these substantial health triumphs are virtually unknown. Australia also performs well in medical research, especially considering her relatively small population and modest financial resources.

Many factors probably contributed to the improvement of health outcomes within a generation, including Australia's economic well-being and relative equality, favourable climate, reasonable standards of housing, the adoption of a Pharmaceutical Benefits Scheme providing funding for important evidence based medicines and the excellent national health research performance. The adoption of universal health care during the 1970s has probably been the most important factor. It would be rash to assume that universal health care is now a secure part of the Australian landscape. The United States is the model for health care for many Australians and even for some doctors.

Great progress has been made in reducing problems resulting from alcohol and tobacco in Australia in recent decades, although problems related to illicit drugs have continued to deteriorate.

achieved with expenditure of about 8% of GDP, the United States allocates 14 % of GDP to achieve far inferior results.

Many factors contribute to the poor health outcomes of the United States including the lack of a universal health care system, considerable economic inequality, gun laws that make highly lethal weapons readily available and drug laws which attempt to defy economic gravity. Individual freedom is regarded as paramount over other priorities except when it comes to mood altering drugs and the pursuit of happiness.

### The contribution of alcohol and drugs to health problems in Australia

Almost three in every four Australian men smoked cigarettes half a century ago. In 1977, a Senate enquiry concluded that alcohol problems in Australia were endemic. Great progress has been made in reducing problems resulting from alcohol and tobacco in Australia in recent decades, although problems related to illicit drugs have continued to deteriorate.

Australia lagged behind many other western countries in the development of a scientific base for tackling alcohol and drug problems. In 1984, some colleagues and I began advocating for the establishment of alcohol and drug prevention and treatment research centres to raise national academic and

Few realise how poorly the United States performs in comparative health outcomes despite considerably outspending all other nations on health care. While Australia's excellent health outcomes are

professional standards. These efforts led in 1987 to the establishment of a treatment effectiveness research centre in Sydney and a prevention research centre in Perth.

Only a decade and a half later, Australian alcohol and drug research is now highly regarded internationally. Practical benefits are now starting to flow from this research investment. A strong research base has been the foundation for building efforts to reduce alcohol and drug related problems in Australia and is the basis for enhancing other neglected or new areas in health.

### The beginnings of the HIV epidemic that Australia did not have to have

Soon after the AIDS epidemic was first recognised, it became apparent that injecting drug users had played a critical role in spreading infection in some countries. In 1982, I became director of a hospital based alcohol and drug service near Kings Cross, the national epicentre of Australia's AIDS epidemic. This area has the largest population of gay men and injecting drug users in the country. It seemed that if effective prevention strategies were not implemented vigorously and expeditiously, Sydney would follow the path of cities like New York, Geneva or Milan with a major HIV epidemic among drug users threatening the general population. Once the genie escaped from the bottle, there would be no putting it back. I called a meeting of drug users and health professionals working with drug users. We sat as equals; all committed to controlling HIV in Australia however much we differed otherwise. The frame of reference changed critically from 'them' and 'us' to just 'us'.



It was self evident that needle syringe programmes were needed quickly. The numerous proposals I submitted for a pilot programme were rejected for diverse and spurious reasons. Evidently, authorities were never going to endorse even a pilot programme. So in November 1986, several colleagues and I started an unsanctioned pilot programme using our own funds.

A few days later, health department officials informed me that this pilot programme breached legislation. By now there was no turning back. I was conscious that the considerable privileges of being a doctor also carried additional responsibilities. Colleagues claimed that the pilot programme undermined their nearby methadone unit and pressed for the needle syringe programme to be closed. I offered to compare urine drug analysis results of the methadone programme before and after the pilot needle syringe programme had commenced to test whether an increased availability of sterile needles and syringes corresponded with increased drug use. This was my first taste of the abuse of due scientific process to protect the status quo in drug policy.

It took more than six months before my research proposal was finally approved. After some time I was offered verbal approval but not the required written confirmation. Written approval was only provided after I complained to a very senior figure in the health system about the abuse of a research ethics committee for political purposes. Naturally this complaint did not endear me to some. This study was ultimately published and is one of only a few papers in the world to demonstrate that increasing the availability of sterile injecting equipment does not increase illicit drug use.

Several lessons emerged from this experience. First, the critical role doctors have in protecting the interests of low status members of the community. Second, the need for doctors in the contemporary world to learn how to use the media, the most powerful health tool of our time. Third, the fundamental role of medical research in achieving progress in health care. Fourth, the occasional abuse of scientific process by those with powerful interests to protect.

While on sabbatical leave in 1987 examining injecting drug use and HIV infection in Western Europe and North America, I spent an evening in the basement of a dilapidated tenement building in Brooklyn, New York. It was a life changing experience. For several hours I watched four drug users inject speedballs of heroin and cocaine in a setting of utter misery and degradation. Candles provided the only illumination. Rubbish littered the floor. There was total disdain for hygiene. Although I had seen Palestinian refugee camps and slums in India, such wretchedness in the richest country on earth was deeply shocking. Here was behaviour likely, perhaps even certain, to spread HIV. Why was such hazardous behaviour seen in New York but rare among drug injectors in Sydney? The drugs were similar; the people were much the same. The fundamental difference was the extremely repressive legal environment in New York compared to the somewhat gentler surroundings in Sydney. This was the night I began to understand that the mortality and morbidity from illicit drugs is only partly explained by the pharmacological properties of the drugs, but much more by the arrangements communities make in response to the perceived threat from these drugs. I began to think that it would be better to try and search for humane and compassionate ways of providing drugs to people who were determined to obtain these substances whatever steps communities took to make them unavailable. Could the health problems associated with illegal drugs, I wondered, be any worse if doctors and nurses lawfully provided these drugs rather than criminals and corrupt police?

I began work on an international study of HIV and injecting drug use organised by the World Health Organisation. The striking finding was that there were many commonalities and few major differences in the demographic characteristics of the drug users, the types of drugs that were used and even in the reported risk behaviour.

The prevalence of HIV among drug users between the participating cities differed far more than any other data. The most plausible explanation was the very different legal and policy environments existing in these cities. In some cities, local authorities had reacted pragmatically to the threat of an HIV epidemic, preferring to be roughly right rather than perfectly wrong. In other cities, moral outrage was the major determinant of the response of local authorities. Cities where authorities reacted with moral outrage generally paid a heavy price. The United States provided valuable information for policy makers around the world by allowing their drug users to be used as the negative control for prevention of HIV.

In 1989, I established a government-funded organisation for injecting drug users, the first such organisation in Australia. One powerful way of improving the health of a marginalised group is engaging members of the population in decisions made about their own health. The NSW Users AIDS Association (NUAA) is now probably the largest organisation of its kind in the world and widely recognised to have made an important contribution to HIV prevention in Australia.

### **The origins of the prescription heroin trial controversy in Australia**

Conscious of the numerous previous enquiries conducted into illicit drugs and drug policy in Australia, a committee of the ACT Legislative Assembly asked me in 1990 what recommendation would make a real difference. I recommended a scientific trial of prescription heroin and explained the potential benefits. This was the beginning of a controversy yet to be concluded 12 years later. Support for a heroin prescription trial is now very strong among senior doctors, law enforcement officials and other community leaders while community support is now almost level with opposition to the trial. The only serious opposition to a prescription heroin trial comes from a Prime Minister who has begun speculating publicly about the timing of his retirement. It is no longer a question of whether Australia will conduct a prescription heroin trial but when.

Consideration of a trial of prescription heroin moved from mere contemplation to majority support by national police and health ministers in about six years. The Ministerial Council on Drug Strategy, Australia's paramount national drug policymaking body, approved a trial by six votes to three on 31 July 1997.

# Responding to illicit drugs as a health and social issue (continued)

Three weeks later, Federal Cabinet aborted the trial speculating that it would 'send the wrong message'. The Prime Minister wanted to preserve illicit drugs as an area for moral outrage quarantined from rational or empirical consideration.

Although drug overdose deaths increased in Australia from only six in 1964 to 600 in 1997, the most powerful politicians in the country sought to protect drug policy from scientific scrutiny. Little recent progress would have been made in Australia in fields such as breast cancer, heart disease or diabetes if previous Prime Ministers had decided which scientific research projects were or were not acceptable on the basis of messages they sent. This experience illustrates the importance of separating medical research from political influence in health areas where progress is badly needed.

## The establishment of Australia's first medically supervised injecting centre

In the early 1990s, the commercial sex industry in Kings Cross began to rent rooms to drug users to inject drugs. This and other developments led to the NSW Royal Commission into Police Corruption in 1997. One of the recommendations of the Royal Commission was that consideration be given to the establishment of an injecting room. The NSW Government established a parliamentary committee of enquiry. Although the majority of committee members voted against a trial because of pressure from their political parties, the committee's report made a compelling case for a trial of an injecting room. In late 1998 I began to meet with colleagues planning to establish an unsanctioned injecting room at the Wayside Chapel, Kings Cross.

The "Tolerance Room" was opened in May 1999 but forced to soon close following several police raids. The objective of ensuring that further consideration was given to a trial of an injecting room had been achieved. A trial was subsequently recommended by a majority of delegates at the 1999 NSW Drug Summit. This experience demonstrates the occasional need for civil disobedience, even in health, when all other channels are blocked. The trial also demonstrated the lengths to which prohibition supporters will go to prevent a scientific trial of an intervention that does not meet their approval. The same Prime Minister who opposed Australia's record on the rights of indigenous people or asylum seekers being subjected to international scrutiny nevertheless invited condemnation of a scientific trial of an injecting room by the International Narcotics Control Board.

At a private luncheon at St. Vincent's Hospital, the Sisters of Charity nuns celebrated their involvement in the decision to establish the injecting room. One of the nuns described how her congregation was initially torn by the proposal to be involved in setting up an injecting room. The nuns, following their traditions to ensure that they were making the right decision, considered what Jesus Christ and their founder (Mary Aikenhead) would have done under similar circumstances. Their conclusion was a commitment to support the establishment of the injecting room. Subsequently the Vatican directed that the nuns (and therefore St. Vincent's Hospital) could not be further involved in such a project at this time. The nuns were subsequently inundated with messages of support from all over Australia and seemed surprised to discover how highly they were regarded by the nation.

## Social determinants of drug use

Some years ago I visited a needle syringe programme in a desperately poor Brazilian village, home to about 8,000 people. The village men had no jobs other than trafficking cocaine. Apart from the few women who worked as servants for rich families in the valley below, most women earned their living buying and selling cannabis. There were no other realistic

Mood-altering drugs have been consumed in virtually all cultures and will presumably continue to be consumed for the foreseeable future. Drugs, like the poor, will always be with us.

options to generate income. The difference between the situation in that Brazilian village and parts of Australia where high levels of youth unemployment have been endemic for decades is one of degree. When legal sources of income

have disappeared, young people will turn to illegal source of income, choosing to traffic drugs for \$30 an hour despite some risk rather than search for the unlikely opportunity to stack supermarket shelves for \$4 an hour. In the search for effective ways to diminish the demand for drugs, the time to think outside the square has arrived. Overcoming youth unemployment and improving educational opportunities is probably more important than generously providing strict drug education or battalions of sniffer dogs.

Mood-altering drugs have been consumed in virtually all cultures and will presumably continue to be consumed for the foreseeable future. Drugs, like the poor, will always be with us. Current understanding of the waxing and waning of drug use is limited but communities are able, if they allow themselves, to reduce problems resulting from drugs. For both legal and illegal drugs, it is the politics of drug policy which usually prevents communities from achieving better outcomes.

## How effective is our current drug policy?

The most important indicators of the effectiveness of a drug policy are deaths, disease, crime and corruption. Drug overdose deaths in Australia increased from 6 in 1964 to 958 in 1999. Overdose caused 8 in every 10,000 deaths in the 15 to 44 year age group in 1964 increasing to 726 of every 10,000 deaths in the same age group in 1997.

HIV is still under good control among injecting drug users in Australia. This important public health triumph was achieved by harm reduction. If HIV spread widely among injecting drug users, an epidemic in the general population would follow with substantial health, social and economic costs. More than 90% of the 11,000 new cases of hepatitis C infection in Australia each year are associated with injecting drug use. Each year, a substantial number of young Australians using drugs develop major social problems and severe physical and mental health conditions including depression, major physical disfigurement and unemployment. It is difficult to establish which crimes result from drug use. Nevertheless, it is generally agreed that drug related crime in Australia is common and increasing. Pervasive police corruption was documented in two state Royal Commissions during the last 15 years and largely attributed to attempts to enforce drug prohibition.

Many parents are concerned about drugs affecting their children. There is also considerable anxiety in the community about drugs and the steadily increasing drug consumption of recent decades. The range of different types of drugs and the number of young people using drugs has been increasing while the purity of street drugs has steadily increased and their cost decreased.

### Defining the nature of drug use

Once considered a health and social issue, drugs gradually came to be defined as a criminal justice problem in Australia as demonstrated by an increasingly harsh and punitive rhetoric and the growing allocation of government resources to law enforcement rather than health or education. Harm minimisation became Australia's national drug policy in 1985 and is now defined officially as a combination of supply reduction, demand reduction and harm reduction. But drug policy has been recognised increasingly as a resounding failure because of the high and growing costs, deteriorating outcomes and often-counterproductive results.

According to the most recent authoritative estimate available, expenditure of Commonwealth and State governments in response to illicit drugs in 1992 amounted to \$A 536 million which was allocated

overwhelmingly (84%) to drug law enforcement, with the residual allocated to drug treatment (6%) and prevention and research (10%). More recent estimates are unavailable but would probably show that funding is still overwhelmingly allocated to supply control though proportionately less than in the early 1990s.

There are several major empirical limitations of supply control. Geographical redistribution involves the displacement of drug trafficking or use from more intensively policed area to less intensively policed areas. Demographic redistribution involves the displacement of drug trafficking from adults to children or from one ethnic group to another. Pharmacological redistribution involves more dangerous drugs replacing less dangerous drugs. Bulky, smelly, opium for smoking was driven out of Asia and replaced by compact, almost odourless, injectable heroin, providing the conditions for a major HIV epidemic in the most populous region of the world.

**Harm minimisation became Australia's national drug policy in 1985 and is now defined officially as a combination of supply reduction, demand reduction and harm reduction.**

Supply control is less cost effective than treatment. A well known RAND study found a 15 cents per dollar benefit for coca plant eradication, 32 cents benefit per dollar for interdicting cocaine trafficking between South and North America, 52 cents benefit per dollar for United States customs and police and a \$7.46 benefit per dollar for cocaine drug treatment. Yet 93% of United States government funding was allocated to law enforcement with only 7% allocated to drug treatment. Even though economic theory suggests that falling prices of drugs should result in increased consumption, in practice the relationship between the intensity of drug law enforcement and drug prices is poor and drug prices are often poor predictors

of drug consumption. While cocaine prices fell dramatically during the 1980s and 1990s in the United States, the estimated number of cocaine consumers declined sharply rather than rising as economic theory might suggest.

There are also major theoretical limitations of supply control. Enough cocaine, heroin and cannabis to supply world demand can be produced from an area twice the size of the ACT. If authorities cannot ensure that even maximum-security prisons are drug free, how can communities be made drug free? Increasing the emphasis on law enforcement has the unintended effect of increasing the income of drug traffickers. The price of drugs increases 200-300 times when transported from Asia to Australia. The more severe the penalties, the steeper the drug price gradient, and the steeper the gradient, the more willing some traffickers are to take the risks. Increased compensation for increased risk entices more drug traffickers attracted by more lucrative profits. When demand is strong enough, a source of supply will virtually always emerge.

### Demand and harm reduction

Research evaluating drug education shows that only 27% of youth campaigns reduce drug use. Drug consumption is only reduced by 3.7% and even this benefit soon dissipates. Drug education is still worthwhile but expectations are usually unrealistic. The RAND study found a \$2.60 benefit per \$1.00 spent on drug education for cocaine. Small benefits from multiple interventions are often useful in aggregate.

Drug treatment can substantially reduce demand if a large proportion of drug users are attracted and retained in treatment and especially if severely dependent drug users are effectively targeted.



# Responding to illicit drugs as a health and social issue (continued)

As the Drug Czar in the recent film 'Traffic' noted, thinking "outside the box" is needed. Could a greater emphasis on early childhood interventions reduce the demand for drugs? Could a sustained improvement in youth employment and educational opportunities reduce the demand for drugs? Would policies emphasising the benefits of non-drug use be more effective than current approaches emphasising increased health, social and economic costs of using illicit drugs?

Attempts to reduce drug related harm are usually successful while attempts to eradicate drug related harm virtually always fail and are often counter-productive. It is better to aim for and attain modest targets than set out but fail to reach utopian targets. Harm reduction for drugs is the same as the approach used generally in clinical medicine and public health where the only available choice often lies between two less-than-ideal alternatives. Should communities prefer needle syringe and methadone programmes OR an HIV epidemic?

## What stops communities getting better outcomes from drug policy?

The major obstacle preventing better outcomes is fear. A mediocre fear campaign usually beats a sound, evidence based approach. Fear delays but does not ultimately prevent change. Until recently, support for reform seemed a political liability while support for the status quo appeared a political asset. Times are changing. Drug policy reform remains politically difficult because many benefits are delayed while some transitional problems may occur soon after reform. Politicians now often lag behind their communities. Majorities supported reform in 17 out of the 19 state based drug policy ballot initiatives in the United States since 1996. In California in 2000, 61% voted to shift \$US 120 million from drug law enforcement to treatment. In Switzerland in 1997, 71% of voters in a national referendum supported continuation of a heroin prescription option for treatment refractory drug users.

There has rarely been such an exciting time to begin a career in medicine as the last few decades. Recent decades have seen some great achievements but there are still many significant challenges ahead.

Prohibition supporters try to frame drugs as a moral, not a health and social issue as was shown by Mr. Howard's use of the phrase "sending the wrong message". While drugs are considered a moral issue, law enforcement is the logical major response. In a zero tolerance environment, medical research on drugs does not have to follow the rigorous scientific and ethical traditions required for other health conditions.

## Conclusions

Efforts to improve outcomes for drug users, their families and the community are part of a broader effort to treat all citizens equally. Men and women who chose to use drugs should always remain our sons and daughters or brothers and sisters. Half a century has been long enough to conclude that a drug policy based on morale outrage has failed. Science, public health and human rights are the core values for a more effective drug policy of the future.

If one of our family was found with a small quantity of heroin or cocaine, would we prefer the matter to be dealt with by a health professional or referred to the police? Almost everyone prefers the health professional option for a family member. Why then prefer police, courts and prison for other members of the community?

There are two worlds in the drug policy debate. One argues that drugs are essentially a moral question and therefore primarily an issue for law enforcement. Advocates of this view see drugs policy as older generations sending messages about moral behaviour to young people while defining the presence of illegal molecules in the blood stream of a young person as a harm in itself. Drug users are 'them', not 'us'. In this perspective, reducing harm means reducing, or better still, eliminating use regardless of cost.

Outcomes, evidence, science and research are all subordinate to the larger question of eliminating the use of certain drugs. Others see drugs as neither intrinsically good nor bad, but as problems which have to be managed. The proper target for community action, in this approach, is considered to be reducing the health, social and economic problems resulting from drugs, legal and illegal. Reducing consumption or demand is considered a possible means to an end rather than an end in itself. Drug users are regarded as both 'us' and 'them'.

Over the last several decades, a drug policy relying heavily on supply control has brought increasing deaths, disease, crime, corruption and increasing drug use. While efforts to reduce demand and supply have only been marginally successful, direct efforts to reduce harm have been, almost without exception, remarkably effective. The best way to reduce harm would be to accept that drugs are primarily a health and social issue. Funding for health and social measures should be increased to the level of law enforcement. We have nothing to fear from this approach but fear itself.

There has rarely been such an exciting time to begin a career in medicine as the last few decades. Recent decades have seen some great achievements but there are still many significant challenges ahead. Human behaviour is going to become increasingly critical in public health in the future. Obesity and physical inactivity are looming as one of the major public health issues of the coming decades in Australia. There are many similarities between the behaviour of commercial organisations selling alcohol and tobacco and those selling convenience foods and the way that governments respond to these commercial organisations. The battle against obesity in Australia will have many similarities with the battle to control alcohol, tobacco and other drugs. Progress made in our efforts to reduce alcohol and tobacco problems in this country in recent decades, and our record in responding to illicit drugs should help to guide future efforts to control obesity.





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# Notes from our peripatetic correspondents

## From India

I am now working for the World Health Organisation's Revised National TB Programme. I am located at Bhopal in the state of Madhya Pradesh in India, after spending two and a half years at Shimla and looking after the programme of 3 states including Jammu and Kashmir and one Union Territory. Miss you Sydney.

### Dr Vandana Joshi

Thatipur Gwalior  
India

## From Strathfield, Sydney

In the President's report of the current *Radius*, it is requested we submit our email addresses to you. Where in the magazine should we do this? Where is the personal details update? All I can find is in the insert which continues on from tax-deductible gifts. Perhaps this would suffice. My graduation and practice name has been Newman for the last 40 or so years. Since my retirement I have tended to use my married name, Cummins. Let me know if you want more information.

Dr Rohma Newman Cummins  
Strathfield NSW 2135

**Editor's note:** *We always like to hear from our colleagues. We are at your service to publish any printable information of interest to long lost friends and to others that you care to submit. Email your letters/notes to Alumni News [mga@med.usyd.edu.au](mailto:mga@med.usyd.edu.au) or complete the details on the enclosed donation form and send it by post to the Medical Graduates' Association, Edward Ford Building A27, University of Sydney NSW 2006.*

## From Zimbabwe

I have just received the latest *Radius* which I always read from cover to cover with great interest. I have been living in Africa for the last 40 years. I arrived in Southern Rhodesia, now Zimbabwe, in 1960, spent 7 years at a mission hospital out 'in the sticks', married and went to South Africa. Returned to Malawi with my 2 children after my husband's death again to a mission hospital. Some time later remarried and came to live in South Africa but remaining very involved on the church mission scene particularly in Mozambique which I visited many times in the 90's. Lived through, and survived, our emergence as a so-called democratic country ('democracy' being a very relative term on this continent) - but slowly, o so slowly, we are getting there. At present involved with the local HIV/Aids action doing blood testing and counselling, making a tiny tiny difference in a pandemic in Africa and esp. this country of mind-boggling dimensions.

I would appreciate an invitation to any function you may organise this year I am coming on a visit in July so if it is later in the year it is unlikely that I could come but you never know.... I plan to be in Sydney from July 29 to 2 August which will include, hopefully, a bridge climb and also lots of visiting.

Greetings

### Audrey Muller

E-mail: [audreym@adept.co.za](mailto:audreym@adept.co.za)

## From Queensland

I wish to notify the death of my husband Tony who died on the 10th December, 2001. Anthony Carl Thomson MB BS 1961 and DPH 1973 died at home in Kenmore Queensland of intestinal carcinoma. Kindly place this advice in the appropriate notices please.

### Barbara Thomson

## Masters Degree in Medical Humanities

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Email: [jillg@med.usyd.edu.au](mailto:jillg@med.usyd.edu.au)

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[www.medicalhumanities.med.usyd.edu.au](http://www.medicalhumanities.med.usyd.edu.au)

# Reunions 2002-2003

Let others know of your planned or past reunion by sending in a notice or short report (and photos!) of your celebrations. The MGA can assist in organising your reunion by publishing the date of your reunion, pleas for help in planning your reunion, and in contacting graduates from your year. Contact the MGA:

Phone: (02) 9351 8947

Email: [mga@med.usyd.edu.au](mailto:mga@med.usyd.edu.au)



## Upcoming Reunions

### Graduating Year of 1958

When: 8 February, 2003

Where: American Club

Contact: Brian J Parker Tel: (07) 5525 2887 Fax: (07) 5525 2345

### 40th Anniversary of the Graduating Year of 1962

This is your 40th anniversary year of graduation. Anyone who is interested in helping to organise a reunion for graduates of 1962, please contact the Medical Graduates' Association on 02 9351 8947 or by email: [mga@med.usyd.edu.au](mailto:mga@med.usyd.edu.au).

### Graduating Year of 1972

Scientific Weekend

When: October 5-7, 2002

Where: Cypress Lakes, Hunter Valley

Contacts: Dr Harry Merkur [hmerkur@bigpond.net.au](mailto:hmerkur@bigpond.net.au)

### Graduating Year of 1973

When: Saturday 28 March 2003

Where: Great Hall, The University of Sydney

Contacts: Phil Cocks (02) 9689 3638 [pcocks@ozemail.com.au](mailto:pcocks@ozemail.com.au)

Carol Clifford (02) 9807 6975

### Graduating Year of 1977 – 25 Year Reunion

Date: Saturday 30 November 2002

Venue: Great Hall, University of Sydney

Time: 7.00pm Cocktails in Quadrangle and Photo

Cost: \$120.00 per person (Partners invited)

Send cheques to "25 Year Med Update"

C/- Dr George Quittner, 90 Avenue Road, Mosman NSW 2088

Or Email: [gyuri@clinipath.com.au](mailto:gyuri@clinipath.com.au)

Further information:

Dr Tony Joseph, Emergency Dept, Royal North Shore Hospital,  
St Leonards, NSW 2065

Ph (02) 9926 7921 Email: [tjoseph@med.usyd.edu.au](mailto:tjoseph@med.usyd.edu.au)

### Attention: Graduates of 1982

It is 20 years since we graduated and time that we got together to celebrate!!!! Anyone who is interested in organising a reunion for the class of 1982, please contact Lyn Hayes on (02) 4365 1824, or email the MGA at [mga@med.usyd.edu.au](mailto:mga@med.usyd.edu.au).

### Graduating Year of 1983

Is anyone organising a 20-year reunion for the graduating class of 1983? If so, please contact Titia Sprague on (02) 9977 3546.



# Recent Reunions

## Fifty year reunion of 1952 Medical Graduates

When 140 old doctors got together at Royal Sydney Yacht Squadron on a perfect summer day, they roared their appreciation when greeted with the words – “what a wonderful day”.

Fifty years since graduation we met old friends like Loraine Hibbard, Frank Haddan from Toowoomba, and Margaret Sheldon from Wagga Wagga. Monica Bullen's diligence in finding us paid off once again - we had 190 replies to our invitations.

A remarkable lot, our year produced lecturers – professors - administrators - AMA presidents (and a Secretary General), pathological types, extra-ordinary practitioners, one priest, three missionaries and five neurosurgeons!

Now that our average age is 75, what are we like? Many answered their invitation by Email. Our photographs were taken by Geoff Bernays' and Ken Merten's digital cameras with the images burnt onto CDs or sent via the internet. Our master file of addresses is now on three different discs for safe-keeping and our grandchildren can fix any problem we may have with our IT stuff. But a common complaint was 'trying to make the computer do what I want.'

When asked how many spare parts our bodies contained, excluding the obvious, surprisingly few hands went up admitting to knees, hips and pacemakers, so we're a healthy lot.

And what are we doing? Some are still working with 35 in full-time, part-time or medico-legal practice. Among the retired, golf and gardening came about equal, with 'keeping alive', music, travel and bridge close seconds. We have a few farmers, a philosopher, a painter, two bush-regenerators and three bird-watchers. And some just sit and think.

Gil Wallace has passed first year at the ANU studying the physics of gasses, and Bill Lyons belongs to the Mars Society and is interested in Space Travel. Pam Donnelly tap-dances and Kevin Willoughby flies his Tiger Moth. Three maintain vintage cars, but Kevin Coorey didn't come in his Cadillac, it was starring in Matrix 11 at Fox Studios. Jimmy Rae plays the organ in Grafton Cathedral, and Geoff Diethelm thinks he is our oldest first time grandfather at 82.

Two gentlemen admit to cooking, Rene Manning specialising in cakes and puddings along with Economics, Chinese poetry, the clarinet and (optimal) control? Others do so much that just reading their list was exhausting.

Back to our luncheon, one unfortunate spent the entire day in the men's room having been poisoned by Ciguetera the night before. He was discovered late in the day when his family rang and asked where he was!

But for the rest of us three hours was long enough and, completely talked out, we wandered off into the afternoon sun feeling pretty happy with ourselves.

Joan Croll

## Reunion of Class of '47

The class of '47 met at The Royal Automobile Club on 4th May 2002 to celebrate its 55 years since graduation. The weather was fine, the venue relaxing and good food and drink made for a most pleasant time.

Kevin Byrne and Peter Crowe carried on as convenors in the tradition of the late Bill Bryan. Some seventy five attended, 44 members of the original class 27 of whom were accompanied and the convenors had invited the spouses of 5 deceased members, this was a very popular decision.

There were a number of apologies, and a number came from interstate, but the representatives present, who had a mean age of 78 recapitulated the past and contemplated the vicissitudes of the future. Some have been attending AMA continuing Medical Education courses so ensuring maintenance of their medical registration.

After a very successful reunion, those present thanked the convenors for their efforts in keeping us all in contact and planned to meet again at luncheon in two years.

Tom Reeve



above: l to r. Jim Schofield, Ruth Schofield, Pat Chapman, Meg Collins, Gerry Walters, Shirley Walters.



above: l to r. Ruth Fowler (widow of the late Frank Fowler), Peter Crowe, John Roarty.

# Recent Reunions (continued)

## There is nothing more agreeable than a group of old gateaux and tortes

### The Med 61 Alumni Dinner

**During 2001 a ring-around seeking Med 61 Alumni for an organising committee, met with a mixed reception.**

Mention of the 100 years Federation received raspberries, but the offer of a silver-service dinner at St Andrew's College with subdued lights to hide wrinkles did the trick. The evening Senior Common Room photo of 24th August did justice to the striking figures of Maynards, Stuarts, Whites, the Payne Killicks, the short and long of it in Don Quek and Vince Munro, and the wayward, hysterical figure of David Brender (he had been to a previous party). We were short of entertainment when Margaret Llewelyn turned-up without her harem pants, until Bryan Yeo came late with dripping scalpel. The Committee ate well and decided on a proper re-union, roughly without frills or invited speakers. Yeo suggested an updated, annotated exhibition of pictures scanned from the Year Book ("when we were young"), for which he got the clap, and the vote to organise it. It was to be in the Refectory, Holme Building, Sydney University Union, on November 9th, 2001. We knew Mrs Nicholas was in a Bronte Nursing Home, but disabled, and unable to come. So we sent her some flowers on her birthday late in October with the promise we would toast her health and her wonderful support in the 50's.

On the night, 96 of us gathered in suits and pearls. Name tags with large printing were essential. The incidental music for drinks was volunteered by Judith Maynard, who reported the usual group of Curran, Despas, Pauline, Raven, and Utley hanging around the piano. Recognition was not good and an assembly of Castle, Condoleon, Cary James, Honner, Jones, Marshall and Kashyap asked Ram Pal Singh to introduce them to

each other. After a few drinks Ram Pal went and asked Frank Cheok for help, but Frank said he played squash and not soccer. Bill Zylstra said the Dutch introduce themselves. Meanwhile, Yeo launched the Exhibition much to the astonishment of everyone, because it was spectacular reading about the diverse paths that the pilgrims had taken. It was also sad contemplating the gaps. Bryan had put bound copies on the tables. The call to dinner by the black-shirted Chairman Mal Stuart was also a great success. Mal welcomed us all, particularly those from distant Western Australia (Marsh, Raven, Grauaug) and those from overseas, and said Jill Forrest expected us to sing well on demand if she was going to play the piano. We enjoyed a series of short, punchy, dissertations from a cross section of our friends interrupted by excellent salmon and fillet, and gateaux and tortes. These were accompanied by superior reds and whites, Gaudeamus, The Varsity, and Marching through Medicine. It was Vince Munro who read the apologies from 39 distant friends, amongst them Deck, Hammett, Brotchie, and Uberall (who sent a copy of her book on modern health care) from the USA, Kitty Lim from Singapore, and Jael Robinsohn from the UK. Joan Killick complimented the words in a Toast to Absent Friends, among whom 20 were deceased. Jim Friend Toasted our Med 61 Alumni (all 184 on our books), and we agreed we had made a contribution to Australian society, and indeed, to international teaching and research in medicine (see below). Bob Dick and Joan Mowles, all the way from the United Kingdom replied to the Toast with grace and humour. It was at this time that Rod Kater and Stuart Mitchell noted that Frank Stening had arrived at a function on time.

Back from the Gateaux and Tortes, Margaret Burgess proposed the Toast to the University and amongst other things

our old teachers, and Saxon White replied. He apologised he did so only to symbolise the new movement in medical education initiated within the University system. The University of Newcastle Medical School had led the way, where the Dean, and five of the eight foundation professoriate, were of our times and were Sydney University graduates (in 1976, average age about 42 yrs). Sydney University itself had now made the change, and the influence of these changes had swept the world. We then Marched Through Medicine with Forrest at the musical helm, and Ben Barrie and Mike Deacon were taller, Alan James wider, Ted Rowland and Gytus Danta slimmer, and Frank Lumley louder. Over fresh-brewed coffee and mints, plus the last of the red, we listened to Don Lawrence give an amusing vote of thanks, and issue a call to arms for the next re-union in 5 years time. It was a fine night, as Lloyd Hughes commented to Gytus Danter, as they staggered out the door, looking at the row of women Med61 Alumni in the front of the Group Photo. There stood Llewelyn, Payne Killick, Biggs Burgess, Forrest, Howard, Evans, Bird and McMahon. Real pearls said Lloyd, squinting. I must get one said Gytus.

But the event did not stop there. Elizabeth Reiss Levy went afterward and told Mrs Nic about the Dinner, and later called the Convenor and convinced him we could do something to help this now partly helpless Valkyrior. After all, explained Liz, Mrs Nic had gathered we heroes from the field of battle to feast in the Holme Building forever, or at least until Mal Stuart indemnified our return to the practice of medicine. So we raised some money and bought her a bath chair and some long-term physio, on behalf of the many heroes that went through her gentle hands.

### SW White

Dinner Convenor, for the Committee, Med 61 Alumni, Feb 02

# Join us on a learning journey

The Medical Graduates' Association in partnership with the Centre for Continuing Education at the University of Sydney is offering tours to medical graduates and their friends.

The first of these tours departed Sydney for a tour of Greece and Turkey on 31 August 2002. Expressions of interest in a tour of Arnhem Land and the Top End in July 2003 are currently being sought.

## About the Centre for Continuing Education's study tours

Each year, the Centre for Continuing Education at the University of Sydney conducts around 20 study tours to Europe, the Middle East, Asia and Australia. Each tour has a special focus, ranging from ancient history and archaeology to art, language learning, creative writing and gastronomy.

Group size is limited to 12-24. Fees range from \$3,300 to \$9,900 and include airfare, accommodation, all sightseeing, tuition and selected meals.

As a tour participant, you enjoy the company of like-minded people who want more out of their travels than just a catalogue of names and places. We select expert tour leaders, many are lecturers at Sydney University and/or teachers at Continuing Education who guarantee a stimulating and memorable experience.

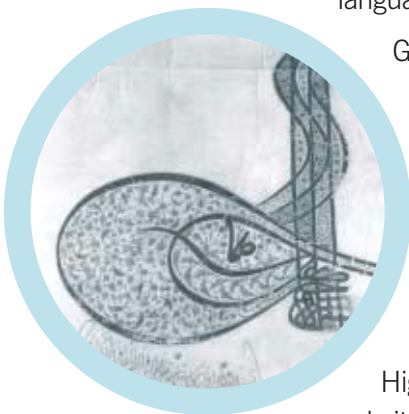
Highlights of each tour and tour leader biographies are available at our website, [www.usyd.edu.au/cce](http://www.usyd.edu.au/cce). Detailed day-to-day itineraries are available six to nine months before departure.



Visit the Continuing Education website at [www.usyd.edu.au/cce](http://www.usyd.edu.au/cce) and follow the prompts to the Study Tour Program



A group of medical graduates with family and friends have already set off to experience the beauty of Greece and Turkey.



**The University of Sydney**



# Tour Arnhem Land and the Top End in 2003

Centre for Continuing Education in association with the Medical Graduates' Association present

## Aboriginal art and culture in Arnhem Land and the Top End

10 days from 22 to 31 July 2003 with Dr Garry Darby

Tour code: 036 0702

Maximum group size: 12

Price guide: \$6500 per person (twin share) includes domestic air travel, all accommodation, all excursions, entrance fees and selected meals.

Travel in a private chartered aircraft from Darwin to remote communities in the

Northern Territory and the Kimberley Ranges in Western

Australia. The group will visit

artists at work and enjoy some remarkable scenery. This small group tour includes the Tiwi islands, Turkey Creek, Maningrida and

Kununurra. Highlights also include a

two-day 'safari camp' at Mt

Borridale and an overnight camp in the Bungle Bungles.

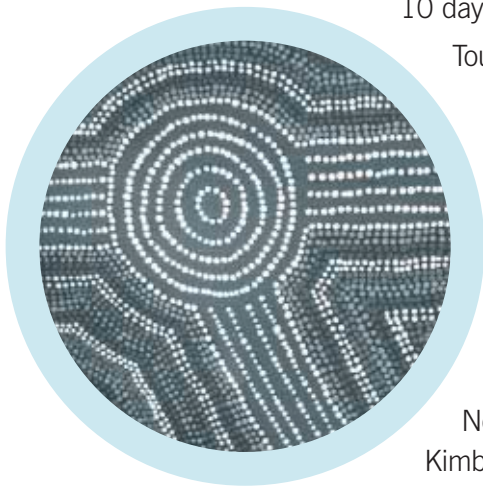
Opportunities will arise throughout the tour for those interested in purchasing the works of various artists.

To register your interest in the above tour, contact

Continuing Education on phone: **9351 2907**

or email: [info@cce.usyd.edu.au](mailto:info@cce.usyd.edu.au) and quote tour code: 036 0702.

Detailed day-by-day itinerary available 9-6 months before departure.



**The University of Sydney**

# Calendar

## of events

The Medical Graduates' Association will host two lectures in 2002 as part of its aim to foster relationships between medical graduates, the Faculty of Medicine, the Medical Foundation and the wider university community. A simple lunch will be provided prior to the November lecture so that graduates will have an opportunity to catch up with fellow graduates and staff.

All graduates and staff of the Faculty of Medicine at the University of Sydney are members of the Medical Graduates' Association.

### **MGA Lecture Series**

14 November 2002, 12.30pm - 3.00pm

Lunch and Seminar

**Professor David Handelsman will talk on Hormones and Male Ageing.**

*David Handelsman is Professor of Reproductive Endocrinology & Andrology at the University of Sydney and Director of the ANZAC Research Institute. His expertise covers all aspects of male reproductive health, medicine and biology. From a background of medical training (Univ of Melb), postgraduate training as an endocrinologist and research training (NHMRC Neil Hamilton Fairley Fellow, Wellcome Senior Research Fellow) and work in USA, Australia and Germany, he was appointed to a Personal Chair at the University of Sydney in 1996 becoming Australia's first Professor of Andrology. In 1998, he was appointed inaugural Professor/Director of the ANZAC Research Institute and created the country's first hospital Andrology Department at Concord Hospital. He was awarded the 1994 Susman Prize for original research by the Royal Australasian College of Physicians. Over a 20-year career, he has made over 460 scientific contributions including 220 scientific papers.*

To book your place contact the MGA by phone: 02 9351 8947 or email: [mga@med.usyd.edu.au](mailto:mga@med.usyd.edu.au).

### **The Postgraduate Committee in Medicine – 2002 Short Courses**

These short courses are designed by general practitioners for general practitioners. Application will be made to the RACGP Continuing Professional Development program for 2 points per hour.

#### **General Revision Course**

Monday 30 September – Wednesday 2 October 2002, 9:00am – 5:00pm

Stephen Roberts Lecture Theatre, Eastern Avenue, University of Sydney

#### **Dermatology Update for GPs**

Saturday 9 November 2002, 9:00am – 5:00pm

Eastern Avenue Lecture Theatre, Eastern Avenue Lecture Theatre Complex, Eastern Avenue, University of Sydney

To enrol, or for more information, please contact the Postgraduate Committee in Medicine at the University of Sydney on:

Ph: 02 9351 3526 Fax: 02 9351 4160

Email: [pgcm@med.usyd.edu.au](mailto:pgcm@med.usyd.edu.au) Internet: <http://www.pgcm.usyd.edu.au>

### **Coming Up in 2003**

#### **Annual General Meeting**

As the University Finance departments follow the calendar year the next annual general meeting will be held on 16 April 2003.

