

THE HEART OF MEDICINE



**Portraits commissioned for the
150th Anniversary of the Faculty of Medicine**

Paintings by Simon Fieldhouse

Text by Lise Mellor



The University of Sydney

THE HEART OF MEDICINE

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Contents

ABOUT THE AUTHORS	ii	ASSOCIATE PROFESSOR CHRIS ROBERTS	71
FOREWORD	1	PROFESSOR BRUCE ROBINSON	74
PROFESSOR BRUCE ARMSTRONG AM	2	MR TOM RUBIN	77
PROFESSOR ARTHUR (BARRY) BAKER	5	PROFESSOR PHILIP SAMBROOK	80
PROFESSOR FRANCIS (FRANK) ALFRED BILLSON AO	8	PROFESSOR ANN ELIZABETH SEFTON	83
PROFESSOR PHILIP BOYCE	11	PROFESSOR DAVID SILLENCE	86
PROFESSOR WARWICK BRITTON	14	ASSOCIATE PROFESSOR IAN SPENCE	89
PROFESSOR DAVID BURKE AO	17	PROFESSOR BRIAN TRUDINGER	92
PROFESSOR JOHN CHRISTODOULOU	20	PROFESSOR JOHN UTHER AO	95
PROFESSOR ANDREW COATS	23	PROFESSOR BILL WEBSTER	98
RIA DEAMER	26	ASSOCIATE PROFESSOR SIMON WILLCOCK	101
PROFESSOR DAVID ALAN ELLWOOD	29		
PROFESSOR MICHAEL FIELD	32		
PROFESSOR JOHN FLETCHER	35		
PROFESSOR BEN FREEDMAN	38		
PROFESSOR DAVID HARRIS	41		
PROFESSOR RICHMOND JEREMY	44		
PROFESSOR MICHAEL KIDD	47		
PROFESSOR NICK KING	50		
PROFESSOR RICHARD GEORGE MCLEAN	53		
PROFESSOR REBECCA SARA MASON	56		
PROFESSOR CRAIG MELLIS	59		
PROFESSOR CHRIS MURPHY	62		
PROFESSOR KATHRYN NORTH	65		
PROFESSOR MICHAEL PEEK	68		

About the Authors

Simon Fieldhouse is a Sydney-based artist. Simon began his artistic career with the University of Sydney drawing for *Honi Soit* and *Sydney University Dramatic Society* when he was an undergraduate in the Faculty of Arts. He practised as a solicitor and worked in an architectural office before returning to painting and exhibiting full-time in 1991. Since then he has produced many architectural paintings of historic buildings in Australia, including many at the University of Sydney as well as historic buildings in Sydney, Melbourne and Canberra. His international paintings include buildings in Paris, New York, New Delhi and Shanghai. Simon's portraiture includes his co-authorship of *Portraits on Yellow Paper* with former Supreme Court of New South Wales judge, Roderick Meagher. In 2006 he was commissioned by the Faculty of Medicine to produce 35 portraits of Professors of Medicine, following in the footsteps of Lionel Lindsay in 1916. Simon continues to paint for the University of Sydney.

Dr Lise Mellor is a University of Sydney graduate with degrees in Anthropology and Gender Studies. Her early career spans professional photography, gallery management and magazine production. Since graduation, she has worked as a freelance researcher for various government bodies as well as spending 10 years engaged in education research at the University of Sydney. In 2005 she came to work for the Faculty of Medicine to produce *150 Years, 150 Firsts: The people of the Faculty of Medicine* as part of the Faculty's 150th anniversary celebrations. She is now a research manager in the Faculty, engaged in historical research producing exhibitions, history publications and an online museum as well as recording oral histories of our senior Faculty members and alumni.

Foreword

The Faculty of Medicine formally came into being on 13 June 1856, initially for the purpose of conducting examinations for award of the degrees of Bachelor and Doctor of Medicine. Twenty-five years later the Medical School was opened and began the task of training doctors for the growing colony of NSW. In 1883 when the Faculty took first enrolments there were only four students taught by the Dean, Professor Thomas Anderson Stuart Kt, in a tiny cottage located near the Footbridge entrance from Parramatta Road.

Since these modest beginnings, over 24,000 students have graduated and have gone on to achieve a diversity of accomplishments that have impacted upon the lives of many in extraordinary ways, both in Australia and elsewhere in the world. In 2008 there are 3171 enrolled students and almost 1000 full-time academic and general staff, supported by many others in the medical and health professions. Throughout the decades, this Faculty has been lucky to have welcomed so many remarkable people who have been passionate about the Faculty and medical education.

This collection of 34 individual portraits was commenced in conjunction with the Faculty's 150th anniversary celebrations in 2006 and continued into 2007. At that time, these were some of our leading people who kept the Faculty alive and flourishing. They formed the heart of the Faculty, pumping life blood throughout to ensure that this dynamic entity keeps thriving.

As contemporary as the portraits are, they represent a long legacy both inside and outside of this academy. In 1916, (Sir) Lionel Lindsay was commissioned by the student medical organisation (MedSoc) to produce numerous caricatures of key Faculty of Medicine lecturers and professors. Lindsay's brief was that his artworks were "not tinged with bile and malice, but with bonhomie and goodwill."¹ MedSoc, not the Faculty, paid for the portraits, noteworthy in itself in the midst of war. Those caricatures have been reproduced time and time again throughout the *Medical Society Journal* and were used to illustrate numerous *Senior Year Books* for decades. They have become iconic for their representation of that time in our lengthy history.

Ninety years later, Sydney artist, and University of Sydney alumnus, Simon Fieldhouse was commissioned to carry on this legacy and produce a series of portraits of key Faculty members. However, the legacy that he depicts is far more diverse than Lindsay's commission.

In one portrait, Professor John Uther is pointing to the earlier Lindsay representation of his grandfather Dr Francis Sandes. In another, Professor Andrew Coats sits like Rodin's *The Thinker* contemplating a contemporary model of the heart, with a framed Leonardo da Vinci's drawing of the heart hanging on the wall behind him. Professor Bill Webster is depicted cradling his favourite lab rat in the style of da Vinci's *Lady with an Ermine*. The references to the past are not merely artistic. Fieldhouse playfully pays homage to the history of medicine. Professor Chris Murphy stands before a state of the art microscope, flanked by pictures of microscopes from the 19th century. The motif of the old and the new is utterly appropriate for this Faculty. It reminds us of our place within the history of medicine, inside and outside of this academy.

Fieldhouse prefers the term 'psychological portraits' rather than caricatures, yet like those produced by Lindsay, Simon has generously depicted some of the quirky individualism of these 34 subjects. As idiosyncratic as the subjects may be, collectively they present a typical picture of the Faculty; many diverse and interesting individuals working alongside each other, all with a shared enthusiasm for the delivery of good medical service, practice and knowledge. Each portrait stands on its own merit, yet together they portray a significant historical moment in the Faculty of Medicine as it celebrated its 150th year.

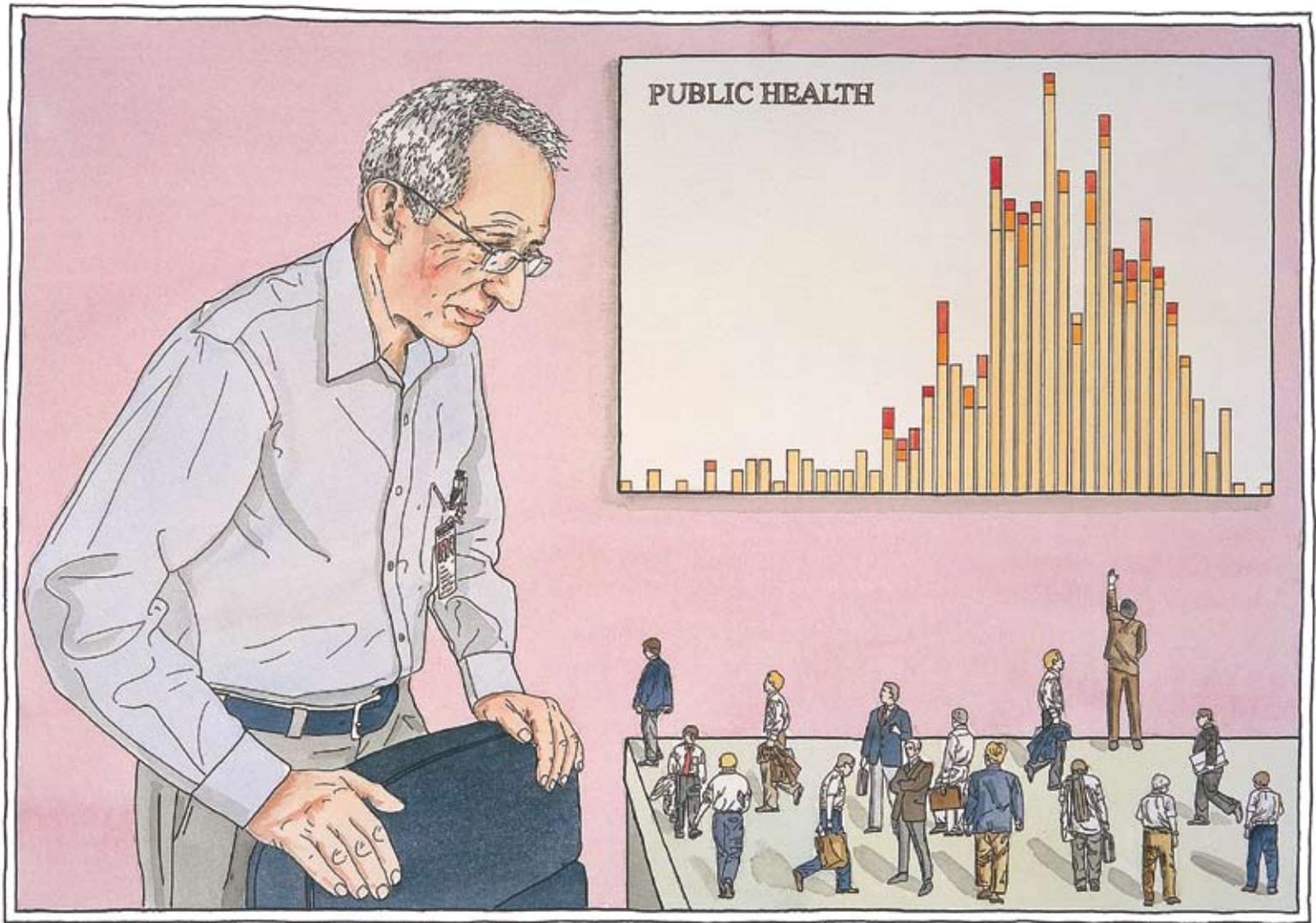
Dr Lise Mellor has interviewed each of the subjects and has written a textual vignette to accompany each painting. As you read through their individual stories, you will not only gain a fuller picture of this Faculty during this phase in our history, but you will discover something of their own hearts and what drives their passion for the advancement of medicine and medical education.

I am sure that you will enjoy both the paintings by Simon Fieldhouse and the text produced by Lise Mellor, assisted by Pip Hooper.

Professor Bruce Robinson
Dean, Faculty of Medicine 2008

¹ *Sydney University Medical Journal*, vol. XI, part 1. June 1916, p. 74 (Held in University of Sydney Archives).

Professor Bruce Armstrong AM



Professor Bruce Armstrong - Public Health - Faculty of Medicine - University of Toronto

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PROFESSOR OF PUBLIC HEALTH, DIRECTOR OF RESEARCH, SYDNEY CANCER CENTRE

FAA BMEDSc MBBS WA DPHIL OXON, FRACP FAFPHM

Professor Bruce Armstrong was Head of the School of Public Health 2002–2006. In 1998 he was appointed Member of the Order of Australia for services to medicine through research in cancer epidemiology. He was elected a Fellow of the Australian Academy of Science in 2000, awarded the Australian Centenary of Federation Medal in 2003 and was the inaugural recipient of the New South Wales Premier's award for Outstanding Cancer Researcher of the Year in 2006. Professor Armstrong is an internationally pre-eminent cancer epidemiologist, acknowledged as a passionate, inspiring leader in cancer research and management. Professor Armstrong pioneered research into the link between sun exposure and skin cancer and is now considered an international expert on the causes of skin cancer and melanoma. He is also known for his work on asbestos and lung cancer, and he helped to develop Australia's cervical cancer screening program.

Bruce became interested in Public Health from an early age after reading about diet and cardiovascular disease as a teenager.

I was brought up a Seventh Day Adventist and it is part of their belief system that you avoid alcohol, smoking and practise vegetarianism for health reasons. Reading about why vegetarianism might be healthy for you, I discovered information about the links between cholesterol and heart diseases. I was also an avid reader of the Reader's Digest and it often had very informative medical stories that I found fascinating. Because of my church background, I had heard endless stories about medical missionaries doing good work so I had a humanitarian interest in going into medicine.

Bruce spent six years at the University of Western Australia, completing both a Bachelor of Science degree and his MBBS. Before the end of his third year in medicine, he'd begun working for the Head of Haematology at the Royal Perth Hospital doing tests of vitamin B12 absorption. Being vegetarian he had a personal interest in vitamin B12 absorption (vegetarians get less) and the premise of his Bachelor of Science thesis was an investigation of alternative sources of B12. During this time he began research with Seventh Day Adventists, carrying out comparative studies of blood pressure of vegetarians and non-vegetarians.

Bruce then began his internship at Royal Perth Hospital where he remained until 1972. He became restless though, with the emphasis on clinical practice and little time for research. Deciding to enrol in a PhD, one of his senior colleagues, Michael Hobbs, advised him to

travel to Oxford and work with Sir Richard Doll. His intention was to research diet and vascular disease but when he found that everybody was working on cancer he began researching diet and cancer instead. Concurrently he was also an honorary registrar and locum consultant physician at the United Oxford Hospitals.

Returning to Australia in 1976 he took up the post of senior lecturer in internal medicine at the University of Western Australia. Yet by this stage he was sure that clinical medicine was not where his heart was and after a year he was seconded to the role of Director of Research and Planning for the Health Department. He continued his research at the University, saying,

By then I had begun some epidemiological research investigating the health of migrant populations in WA and a case-control study of oestrogens and endometrial cancer. I was also doing record linkage work trying to document the incidence of new cardiovascular disease in WA. This was probably the first project in Australia where we were linking routine records, such as hospital admissions, deaths, etc. It enabled us to see connections between people being admitted to hospital, what they were diagnosed with and what they died of. There was a lot to do. I would go to work at the health department at 8am, work until 4pm, and then go to University to do my research and do a small amount of teaching.

After two years at the Health Department, Bruce was appointed as the first Director of the NHMRC Unit in Epidemiology and Preventive Medicine at the University of Western Australia. He spent nine years in that role and initiated important studies on the epidemiology of melanoma and other skin cancers, amongst other things.

It was really quite an important time though: epidemiology was in its infancy and the Unit played a significant role in the development of modern epidemiology and chronic disease epidemiology in Australia.

In 1985 Bruce took a year's sabbatical within the Department of Epidemiology and School of Public Health at the University of Washington. There he voluntarily taught a course on exposure measurement in epidemiology and then co-authored a textbook with two other colleagues so that the work could continue. Returning to the University of Western Australia in 1987 he took on the dual roles of Head of Social and Preventative Medicine and Foundation Professor of Epidemiology and Cancer Research.

It seems that Bruce makes good judgements about moving into innovative roles: in 1988 he accepted the challenging role of Commissioner of Health for Western Australia. He says of this time,

There had been a substantial review of health services and I went in there to implement the change, which I did successfully. We became a national leader in terms of the quality of public health and health promotion services, and we began the process of bringing the teaching hospitals into the area structure. I think I created a much greater level of public confidence in the health system too. I had a high profile in the media and was willing to go out there when things went wrong.

Attracted overseas in 1991, Bruce became Deputy Director of WHO's International Agency for Research on Cancer. He returned to Australia in 1994 to become the Director of the Australian Institute of Health and Welfare, where he initiated the first national health and welfare information plans. Whilst there he also fostered development of the existing national health data dictionary into a model that placed health data in the context of modern information science and technology thinking, and led to incorporation of health metadata into a knowledgebase on the World Wide Web.

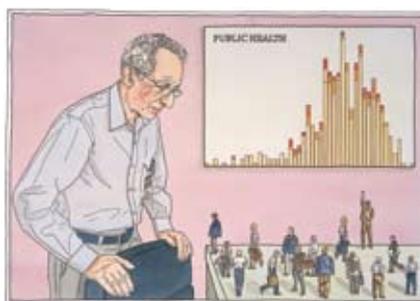
Two years later he took the role of Director of the Cancer Research and Registers Division of the NSW Cancer Council. During his six-year tenure, he greatly increased the output of research and produced

numerous special reports compiled from cancer registry information: prostate cancer, melanoma, rectal cancer, cancer survival. He reflects that it was an enormously productive time, in terms of new research, including the development of cancer health services research, and the use of cancer registry data.

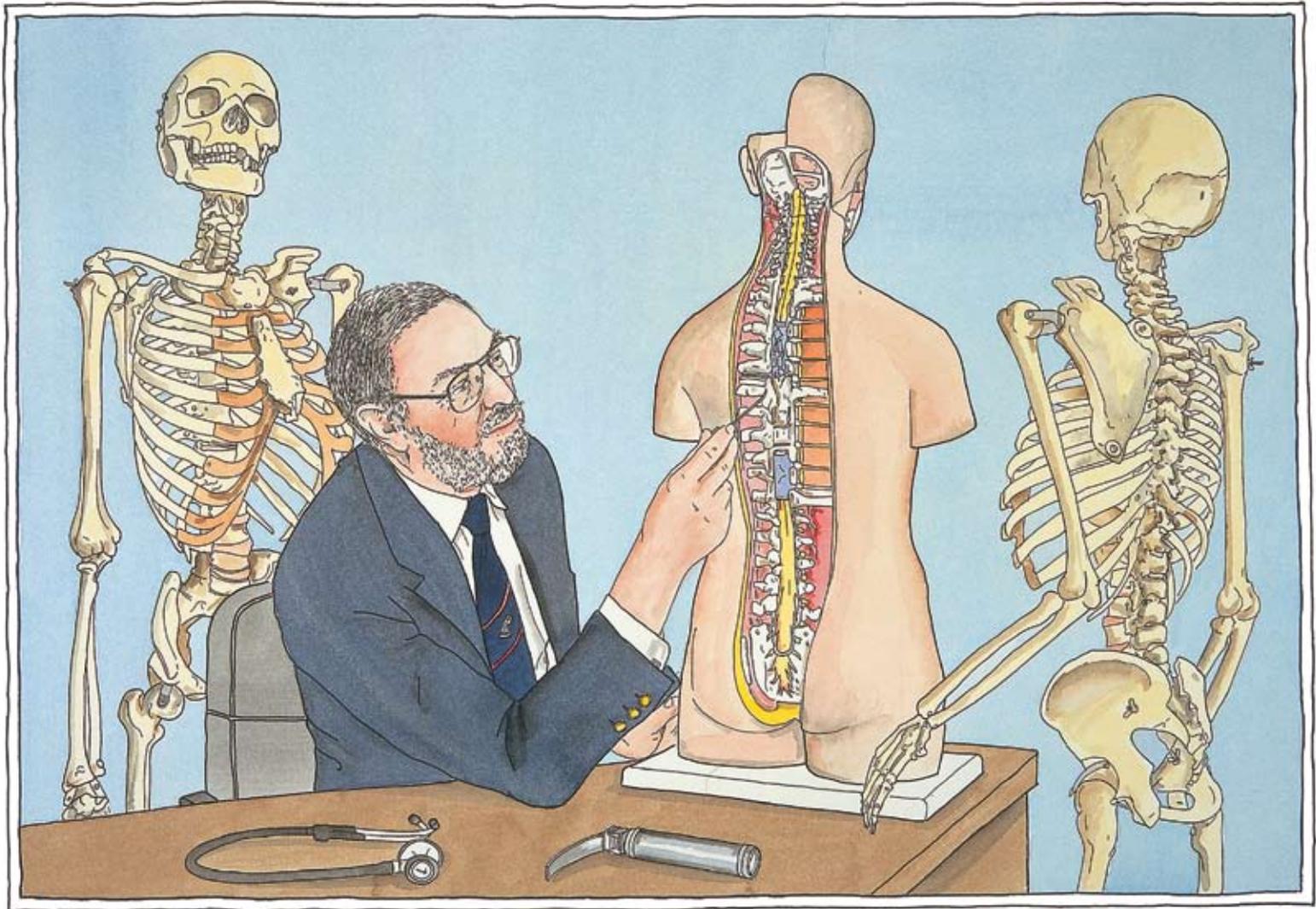
When Bruce came to work for the School of Public Health in 2002 he immersed himself in both administration and research, working from 7am to 1am most days.

I think we did some really good things during that period. We put in place a proper administrative structure for the school with a head of school, a person responsible for business administration, a person responsible for research and a person responsible for the teaching program. The Director of Research has been able to do important things like invest money in supporting research students. Staff and students now have the financial opportunity to go to conferences or to fund some research assistance. We started a program of lectures for research students about ethics committees, writing grant applications and other essential academic skills. On the teaching side we went from absolutely no use of web resources to extensive use of the web for online courses, and also to support teaching.

In 2006 Professor Armstrong became the Director of Research for the Sydney Cancer Centre but remains a Professor within the School of Public Health.



Professor Arthur (Barry) Baker



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EMERITUS PROFESSOR AND HONORARY CONSULTANT, ROYAL PRINCE ALFRED HOSPITAL MBBS QLD DPHIL OXON, FANZCA, FJFICM, FRCA, DHMSA

Professor Barry Baker was the Nuffield Professor of Anaesthetics from 1992 until his retirement in 2005.

Barry studied medicine at the University of Queensland Medical School, graduating MBBS in 1963. He recalls,

We were first generation doctors or medical students with parents who had been through the Depression and the Second World War. I think we were all quite moulded by that. It was a pretty tough course too; in my particular intake there were about 350 of us and only 30 or so got through without any problems.

He completed his internship at Royal Brisbane Hospital and remembers the wards being “choc-a-block, beds down the sides, beds down the middle and the verandahs full as well”. His initial training was in general medicine, then paediatrics, anaesthetics and orthopaedics. These were the days, he says, before modern anaesthesia and it was all “a bit rough and ready”. He recalls learning how to do open ether anaesthesia – “holding a mask over the patient’s face and pouring a bottle of ether until they lost consciousness”. Yet even though other forms of anaesthesia were beginning to come into practice, Barry says that these early skills in anaesthesia stood him in good stead for further work in the area. He could foresee the field of acute medicine and intensive care was going to grow and it “fascinated” him.

One of the things I liked about it was that you had a very immediate interaction with the patient physiologically and pharmacologically. Everything you did to the patient was immediate – you had an immediate response; whereas in general medical treatment principles you give a patient a drug and tell them to come back in two weeks and see if it worked. It’s a much slower process. So the acute medicine and the pharmacology and the physiology appealed to me. And then there was the technical thing. I had started in surgery and switched when I became an anaesthetic resident and there are quite a lot of technical things in anaesthetics to satisfy my surgical desires.

In 1968 Barry travelled to the University of Oxford – “which was the Mecca of anaesthesia in those days” – and completed a research project investigating the physiology of artificial ventilation. In collaboration with a colleague he developed and built a flow generator which produced an inspiratory flow which allowed the inspired gas flow to the patient to operate in different ways. The first machine is now in the museum of the College of Anaesthetists in Melbourne.

Barry graduated DPhil Oxon in 1971, making him the first Australian anaesthetist to complete a PhD. Returning to Brisbane in 1972, he accepted the inaugural position of Reader in Anaesthesia within the Department of Surgery at the University of Queensland which meant that he also did some teaching, some research and retained clinical duties. At the Royal Brisbane Hospital he was in charge of the Intensive Care Unit and he also had appointments and one neonatal anaesthetic session per week at the Royal Children’s Hospital. Barry recalls that when he began the hospital unit was transforming from a respiratory unit which had been significant in the treatment of polio during the epidemics in the 1950s. But the availability of a vaccination for polio meant that they were seeing far less of it in the hospitals.

In 1975 Barry applied for the position of Foundation Professor of Anaesthesia and of Intensive Care at Otago University in New Zealand, greatly lured by his love of the outdoors and the New Zealand wilderness. During this time he was also Director of Anaesthesia of the Otago Hospital Board and Foundation Director of the Combined Intensive Care Unit. “It was quite a big department even then; we had about 20 anaesthetists, six trainees, some research technicians, a couple of secretaries and about 10 anaesthetic technicians.” During this time he was also able to carry on his research into respiratory and cardiovascular physiology, looking at what happens to the respiratory and cardiovascular system under the “manipulation” of anaesthesia. Barry notes that anaesthesia and monitoring of patients developed further and this enabled surgeons to do “bigger and better things”.

When we first started off we really had our finger on the pulse and measured the blood pressure, looked at the colour of the patient and that was about it. The more you can measure quickly, the more sophisticated and safer it is for the patients. Pain management for long-term chronic pain – as opposed to acute pain from surgery, emerged during this period too.

In 1992 Barry was “enticed” back to Australia and became the Nuffield Professor of Anaesthetics at the University of Sydney and, from 1993, Chairman, Department of Anaesthetics at the Royal Prince Alfred Hospital (both roles he remained in until 2005). Taking over after Douglas Joseph’s retirement, Barry feels that one of his major achievements was to develop the research profile and output of the department, acknowledging that teaching was already very strong. During his tenure in the department he substantially broadened the approach to anaesthesia.

I always viewed anaesthesia like cooking; keep the basic science right and then what makes it an art form is how you do it – and there are lots of different ways of doing things. I think the department now does things in a much wider way and that provides a broader spectrum for trainees.

He says that during his tenure at Royal Prince Alfred Hospital the major change of the time was in the development of automated recording of all the monitoring throughout anaesthesia.

At the end of an anaesthetic we push the button and then we can confirm what went on and the patient's anaesthetic history is recorded. That change has meant that now we have a type of black box so that if there is any query you can track what happened.

Whilst acknowledging that litigation has become more of an issue, he states that monitoring and recording is predominantly about the patient's safety and that having good patient history records also enables us to learn from studying the patient data.

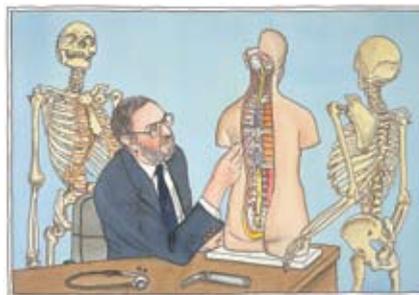
Barry is a prolific writer and historian. Aside from numerous academic papers and chapters, he has produced two historical books, *50 Years History of the Faculty and College of Anaesthetists* for the Australian

and New Zealand College of Anaesthetists and *Australia's First Anaesthetic Department – 75 Years at the RPAH*. He credits his early PhD research for igniting his passion for reading and writing history. The first chapter of his thesis "became a famous article in *Medical History*". During his time at RPAH he realised that the Department of Anaesthesia would turn 75 while he was there, so he delayed his retirement in order to write the history and "pull together" the bits and pieces of historical research he had done over many years.

Barry views the Faculty of Medicine at the University of Sydney as being the premier faculty of medicine in Australia, partly because of its long history but he professes that the achievements of the Faculty have added to the strength of that tradition throughout the years. He is quick to add, however, that the Faculty will always need to be flexible and continue to respond to the changing needs of society.

Professor Barry Baker retired in 2005.

Simon asked Barry to show him where you give the epidural anaesthetic. "Just there," he said. "And the end of the needle has to be curved, you must get that right."



HEAD, DEPARTMENT OF CLINICAL OPHTHALMOLOGY AND EYE HEALTH

MBBS MELB, FRANZCO FRACS FRCS EDIN FRCOPHTH FRCS FACS

Frank Billson is Foundation Professor and Head, Department of Clinical Ophthalmology and Eye Health, Chairman Foresight Australia, Foundation Director Save Sight Institute, Director Sight for Life Foundation and Director Lions NSW Eye Bank. Frank has worked in Bangladesh for more than 25 years and his work has been influential in developing countries such as India, China, Papua New Guinea, Sri Lanka, the Solomon Islands and East Timor. He served on the Advisory Committee for the WHO Prevention of Blindness program until 1992 and later as consultant to WHO. He served on the executive Board of the International Agency for the Prevention of Blindness until 1999, concluding as Chairman of the West Pacific Region with the launch of WHO Vision 2020 initiative in Beijing, China. He has been the recipient of numerous awards including an Officer of the Order of Australia in 1987, the Sir Edward "Weary" Dunlop Asia Medal in 1994, the Knight of Grace in the Order of St John in 1999 for services to St John Ambulance Australia over a 20-year period, the Claude Worth Lifetime Distinction Medal for contributions to paediatric ophthalmology in 2004, the Jose Rizal Medal (APAO) in 2005 for recognition of excellence in Ophthalmology at an international level over 27 years, and NSW Senior Australian of the Year in 2006.

Frank Billson began medicine at Melbourne University in 1952 but soon contracted tuberculosis. This experience gave him an interesting insight into medical and doctor behaviour and the recognition that doctors needed to be able to understand the other person's reality. Returning to his studies, Frank recalls the "privilege" of being taught by eminent doctors such as Sir Frank Macfarlane Burnett, Kate Campbell and Weary Dunlop, whom he describes as "heroic in surgery and war".

Graduating in 1958, he became Junior, then Senior Resident Medical Officer at the Alfred Hospital, Melbourne.

Training to be a physician in a hospital setting you deal with people at the end of their life with terminal organ function and it disappointed me if they'd go out and come back. When I went down to the eye department it was an astonishing experience because here were patients who had cataracts removed and were able to see; it was almost biblical. It seemed to offer many things, relevance to the patients, the sense I could contribute to diagnosis and the immediate rewards of sight-saving surgery or interventions that

were finite. It dealt with children and they have been a strong love of mine. I was fascinated with child development and the interface of that with disease.

The following year, Frank became Prosector at the Royal College of Surgeons, England, which housed the John Hunter Museum. Many of the dissections had been made by Hunter, the Father of British surgery and Frank recalls going into the museum at night and "sitting reading and feeling part of history". Concurrently, he was Clinical Assistant at Moorefields Eye Hospital. In 1962, Frank gained his Diploma of Ophthalmology from London University and was granted Primary Fellowship with the Royal College of Surgeons. During the 1960s he became Fellow of the Royal College of Surgeons Edinburgh, the Royal College of Surgeons London and the Royal Australasian College of Surgeons.

In 1962, Frank became Trainee Registrar in Ophthalmology at Leeds General Infirmary, a position he held for four years before becoming Tutor in Ophthalmology.

I enjoyed it because there was a professor of paediatrics and children. I was doing research with them on the oostrophcolitis and the ocular complications of some 600 things and that was significant.

Wishing to return to Australia, he came to Melbourne University a year later as Research Associate in the Department of Ophthalmology and Associate Ophthalmic Surgeon Head at the Alfred Hospital, Melbourne. By 1969, Frank had also become the Head of the Division of Paediatric Ophthalmology at the Royal Children's Hospital.

We built the department; we had referrals from all around the world. The board provided funding for a paediatric fellowship. I introduced microsurgery to the Children's Hospital. I brought back the indirect thermoscope, which enabled you to stand from a distance and hold the lens near the eye, without putting drops in the eyes. At that time, the major practice and research interest was children's cataract and children's glaucoma and associated syndromes. There is a syndrome named after Margaret Hallaman and myself, which is a particular form of hereditary-based cataract. The gene is being recognised so that's exciting.

Frank was also neonatal ophthalmologist at Mercy Maternity Hospital and Royal Women's Hospital until 1976. He remembers the first case

of retinopathy prematurity that he saw in 1972. "We were powerless to do anything, we hadn't developed a therapy. Now we have the laser and cryotherapy, it's all happened since I've been in Sydney."

During this period, Frank was made Fellow of the Royal Australian College of Ophthalmologists, the American College of Surgeons and the American Academy of Ophthalmology.

In 1977 Frank was appointed Foundation Professor of Clinical Ophthalmology at the University of Sydney and Consultant Ophthalmologist to the Sydney Eye Hospital and Royal Prince Alfred Hospital. He describes the early department as "just myself, money for a lecturer and two technical officers and a half-time secretary". When he was offered the position, Frank negotiated that he was also able to have an establishment with the Children's Hospital. His aim was to develop the Eye Hospital and to establish research on the human eye. His early research focus was on development of human retina – 40 percent of new blindness is retina related. As neonatal ophthalmologist in the intensive neonatal care unit, Frank's research remained focused on children. Later, he studied the degeneration of retina. "We were the first to recognise a therapy for aged-related macular degeneration which was the commonest cause of untreatable blindness in Australia."

In 1977 he became Chairman of Foresight Australia, an Australian international non-government agency for overseas prevention of blindness programs. He recalls,

There was a meeting of ophthalmologists and we recognised that the major cause of blindness in the world was treatable or preventable and we had the skills and the tools to cure this if we had the will. We recognised that the resources existed in the developed world

and the need existed in the developing world. Sir John Wilson, a blind lawyer and an inspirational man, asked us to respond to the call from Bangladesh as it is a country of 90 million people with a million people blind. From the start, our philosophy was to empower people with education and skill transfer so that they become part of the solution, not part of the problem.

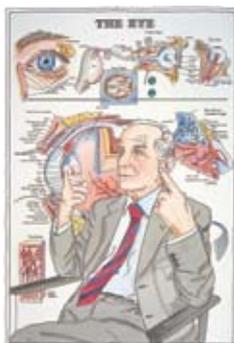
From 1978, Frank led Australian teams to Bangladesh, developing the Chittagong Eye Hospital and Training Complex, and donated funds for a Chair of Community Ophthalmology. He developed the first Diploma of Community Ophthalmology which was gazetted in 1983.

Asked why he has been drawn to this kind of work, he says,

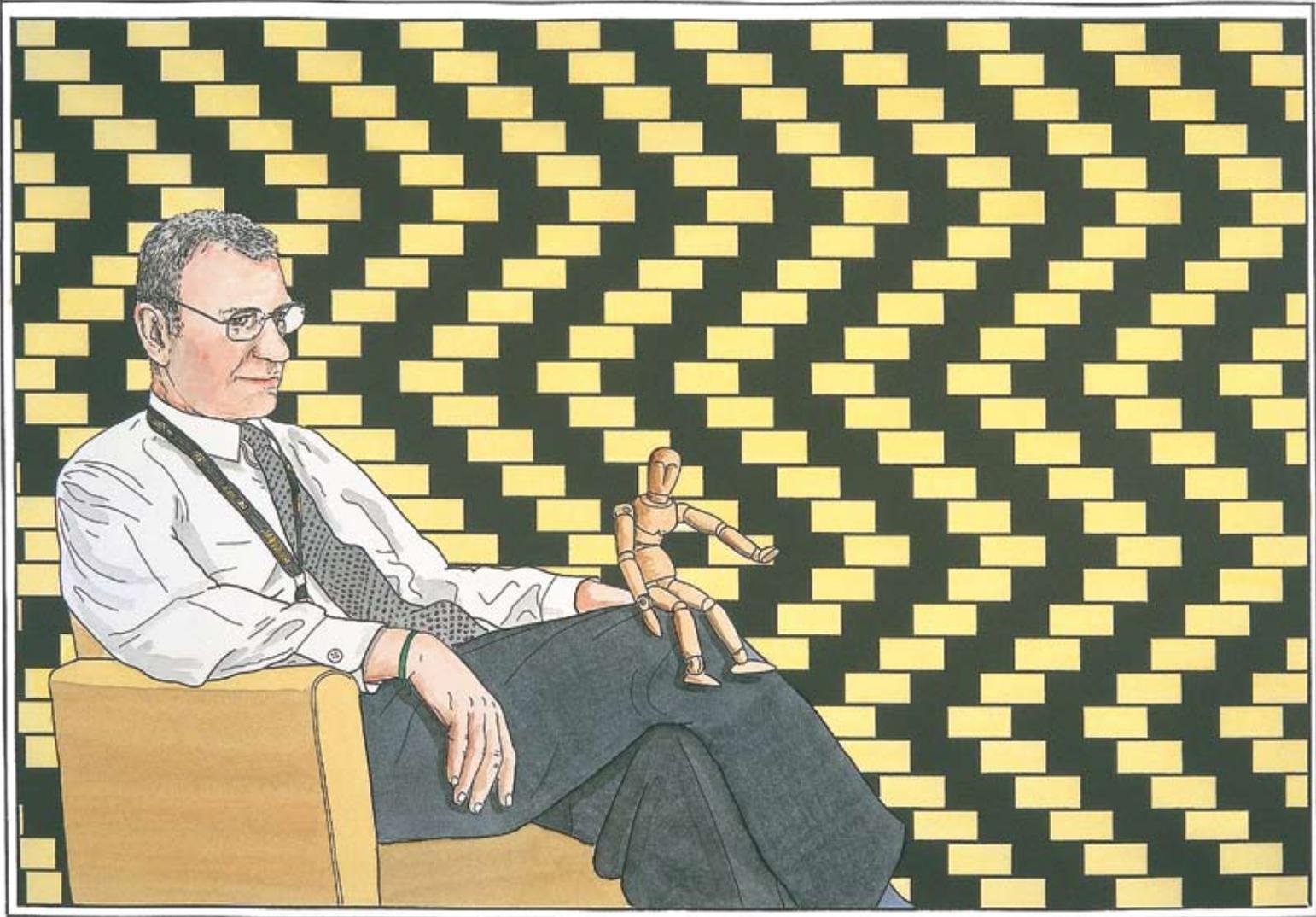
I can't help going. It's marvellous to go to places and suddenly feel relevant. I found the people just so loveable, especially the children, they laugh through adversity and the local people call you in for a cup of tea even if it's all they have.

In 1985 he became Foundation Director of the Save Sight Institute after receiving funding from the Lions Clubs of NSW and Lions Save Sight Foundation. The same year he became Lions Professor of Eye Health. In 1996 Frank was appointed Director of the Lions NSW Eye Bank, overseeing the increasing provision of corneas and leading the initiative to establish the organ culture of cornea for transplantation. Two years later, Frank helped to create the Southwest Eye Bank at the Third Military Medical University in China. In 2004 Frank was appointed Founding Director of the Sight for Life Foundation, another institution initiated to foster research and provide further ophthalmic services to the public.

In 2008, Frank Billson formally retired from the Faculty but he continues to offer his services to communities where needed.



Professor Philip Boyce



HEAD OF DISCIPLINE OF PSYCHOLOGICAL MEDICINE

LRCP MRCS MB BS LOND D_{PSYCH} ADEL MD UNSW, FRANZCP

Philip Boyce is the Head of the Discipline of Psychological Medicine at the University of Sydney and the Professor of Psychiatry at Westmead Hospital. In 1984 he was the recipient of the Junior Organon Research Award. In 2001 he was President of College of Psychiatrists. He is currently President Elect of the RANZCP and the President of the Marcé Society.

Philip Boyce undertook his general medical training at Guy's Hospital Medical School in London, which he describes as a "very classical London medical school founded in the 1720s with a strong clinical input". His internships in Kent and Penbury Hospitals were an apprenticeship where he worked 80 to 100 hours a week – "It was pretty tough, you had to live and work the job, that's all you did."

Philip says that he always wanted to do psychiatry and that his appetite was whetted when he went to stay in a psychiatrist's house as a student in London who encouraged him and invited him to attend his lectures. At Guy's Hospital, he was lucky enough to be in the last group of students to study with the Head of Psychiatry, David Stafford-Clarke, who was passionate about psychiatry and also fairly well known as a TV doctor of the time. He recalls this time in psychiatry as "intellectually very stimulating and a time when some of the orthodoxies were being challenged".

There were still the traditional medical hospitals around with the big rooms and hundreds of patients but the anti-psychiatry movement had begun in the late 1960s and people were fighting against patients being incarcerated in psychiatric hospitals. There were also concerns that people were really being incarcerated for political reasons – as they were in the USSR. It was also a time when some pivotal films about mental illness came out and popular culture began to represent mental illnesses like schizophrenia, for example. Out of these concerns arose a real interest in trying to understand what causes mental illness and raising questions about how families and communities contributed to psychiatric wellbeing. It was all very provocative.

Philip began his specialist psychiatric training in London at St Olaves Hospital and begun to trial some really interesting new behaviour therapies. One example he recalls was the treatment of spider phobics with a combination of behaviour therapy and a beta-blocker. He tells, "I had to get spiders from London Zoo to use to desensitise the patients. I had to play with the spiders and show the patients that they were safe and would not do any harm, which was a

bit daunting with the larger spiders." Although Philip recalls this as a "very exciting time", his wife was living in Australia so he joined her, and continued his psychiatric training. He successfully applied for a job at Morrisset Hospital (near Newcastle) and found himself in a "big forensic unit and long-stay ward for some fairly dangerous people".

It was a real eye-opener for me. I landed at Morrisset and found that I had no registrar and no consultant. On my first day 30 patients were transferred to me from a mental retardation hospital in Newcastle, none of whom could speak. We also ran an inpatient alcohol unit so I'd be admitting about 50 alcoholic patients a week, many of whom were under the Inebriates Act. I was 24 years old.

The hospital also ran a marvellous collection of farms and market gardens which the patients tended. "They used to deliver fresh flowers and vegetables and they had a dairy herd." One day Philip suggested that they discharge a particular patient who seemed to be quite ok, but hospital staff advised against it.

They said, "You can't discharge him – he's our best milker." This was the reality of life for many of the patients. They had grown up in the institution of that hospital, had a job there and a good sense of community. The shift away from institutions to community care and "half-way houses", created an extremely difficult transition for many patients.

After six months further training at Parramatta Psychiatric Centre Philip moved to Adelaide and became Staff Specialist Consultant Psychiatrist at Hillcrest Hospital. The Hospital later developed an Affective Disorders Unit of which Philip was Director. He credits the unit as being highly innovative, particularly in its "psycho-educational" treatments and cognitive behaviour therapies for people with bipolar disorder. Philip's early research at this time was investigating the effects of light and the interaction between melatonin levels and depression.

In 1984 Philip returned to Sydney and took up the position of Lecturer at the University of New South Wales which gave him the concurrent duties of Consultant Psychiatrist at Prince Henry Hospital. Working under Gordon Parker he set up a new disorders unit with Philip Mitchell, Henrick Brodaty and Kay Wilhelm. They all had beds in the wards and lectures five mornings a week as well as the supervision of students. At this time Philip had begun his major research into personality and depression.

I was trying to identify the personality style of people who were prone to becoming depressed. We developed a concept of "interpersonal sensitivity" where we found that some people who get depressed are oversensitive to the behaviour and feelings of other people. They gauge their own behaviour by the cues from other people; they don't assert themselves if other people upset them and then they become mortified by it and become depressed. So we developed a scale for measuring this and administered that scale to all patients coming into the mood disorder unit and compared the results with that of the control groups. The key thing I had to do was find a group that had never been depressed and see if they could be tested when they were vulnerable to becoming depressed. I had treated quite a few women with post natal depression and realised that childbirth was a major stress. So we measured the interpersonal sensitivity within women who were pregnant and we found that those with very high levels were 10 times more likely to get depressed at about six months after the birth of the child. It was a really important piece of work for me.

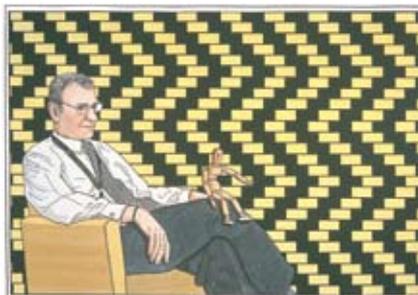
In 1990 Philip took on the foundation academic appointment at Nepean Hospital as Associate Professor in Psychiatry with clinical responsibilities at Nepean and as Director of the Mental Health for Wentworth Area Health Service. Since 1998 he has been the Head of the Discipline of Psychological Medicine. In 2003 he moved to Westmead Hospital to take up the Chair of Psychological Medicine.

Philip sees patients at the hospital as well as running the department and continuing his clinical research.

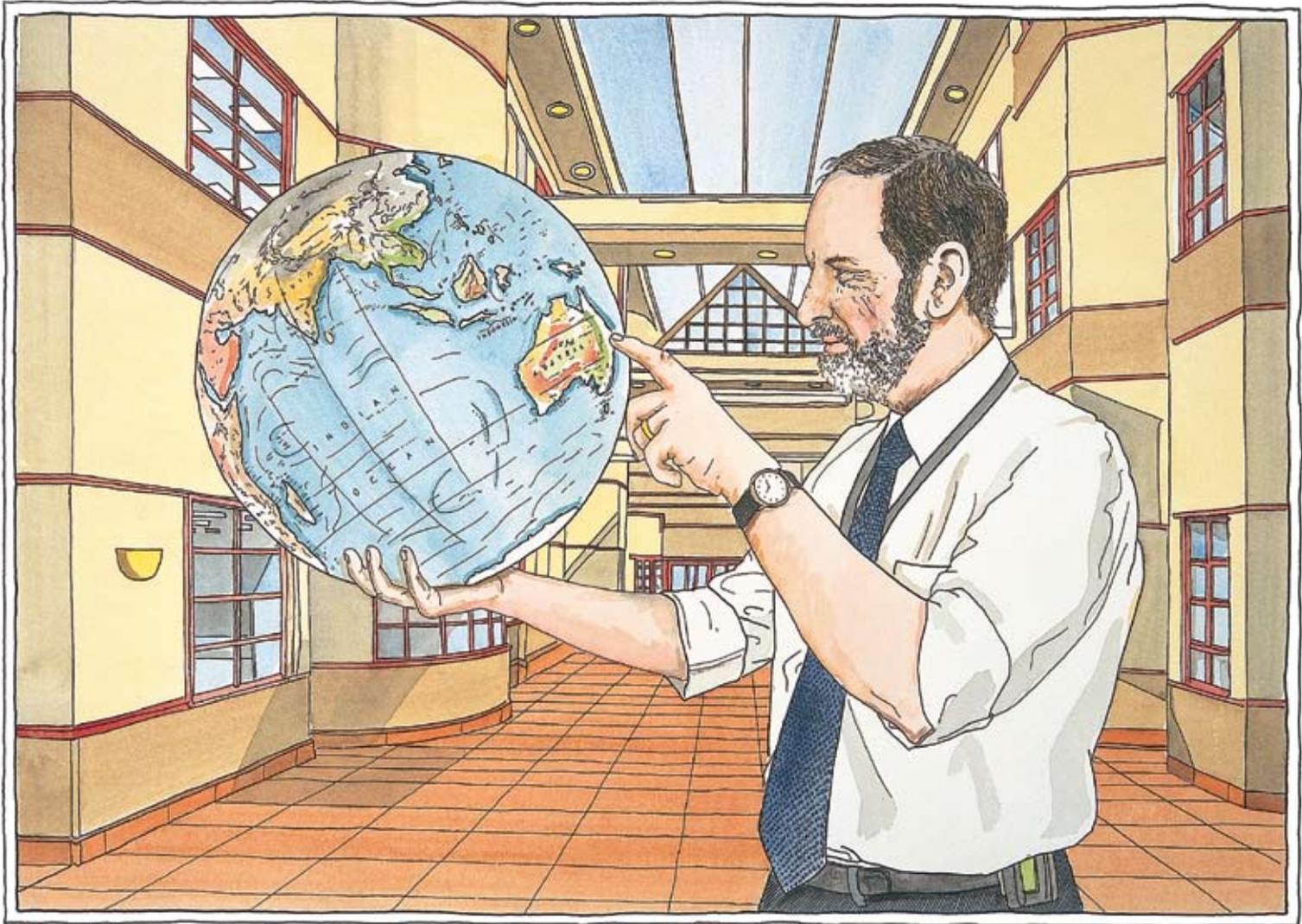
Much of the research is in peri-natal psychiatry now. We are interested in how we manage women during pregnancy if they have a mental illness particularly, the drugs that could cause harm to the baby. We're also concerned with how you should look after these women so that their symptoms don't worsen after childbirth. So we are now extending our investigation to see how they cope with and look after their infant. It's fascinating work, recognising that women with schizophrenia, for example, may have new problems after the birth of their infant as schizophrenia affects how they perform tasks.

Reflecting back on his arrival in the Faculty, Philip says that he arrived at a "brilliant time" just after the instigation of the Graduate Medical Program.

I got very involved and found a strong, collegial atmosphere in those early years of development. I was chairing one of the major committees and it was wonderful to suddenly start talking with all the other disciplines. I think it was a great journey for all of us at that time. That's the enduring image I have of the Faculty. I think we need to continue that kind of congeniality and keep making sure that we're at the cutting edge in the way we deliver our teaching.



Professor Warwick Britton



BOSCH PROFESSOR OF MEDICINE, CHAIR AND HEAD CENTRAL CLINICAL SCHOOL AND INFECTIOUS DISEASES AND IMMUNOLOGY; SUBDEAN (RESEARCH)

MBBS(HONS) BSc(MED) PhD DTM&H, FRACP FRCPA FRCP

Warwick Britton has spent time working in Nepal and is considered a leader in the knowledge and treatment of leprosy. Since 1990 he has been Head of the Mycobacterial Research Group of the Centenary Institute of Cancer Medicine and Cell Biology.

Warwick entered the medical program at the University of Sydney in 1966, wanting to complete his medical studies and work overseas in a missionary hospital. He had planned to go Nepal and work in a missionary hospital during his elective term, but the war in Bangladesh and East Pakistan hindered that, Warwick travelled to Thailand instead, working in three different hospitals in the 11-week period. "I wouldn't say I loved it, but I certainly enjoyed it and I knew even then that I wanted to take my skills and work in the Third World."

Warwick came back to Australia and completed his internship training at Royal Prince Alfred Hospital. His overseas work had shown him that to work in the Third World he needed to be well trained in paediatrics, so after a year at RPAH he went to the Royal Children's Hospital in Melbourne for paediatric training.

A large amount of health care and acute medical problems in a small hospital in the Third World relates to paediatrics – that's still the case today – so I needed to be confident in paediatrics and at that time Melbourne Hospital was the best place for me to be.

After 12 months he returned to Royal Prince Alfred to complete his training as a physician. He remained as Medical Registrar until 1976.

That year, he and his wife (a physician who had trained in neurology rehabilitation) travelled to Papua New Guinea as Warwick took up the post of Medical Registrar at Port Moresby General Hospital. It was the year after independence so, he says, it was an interesting time to be there. That same year he completed a Diploma of Tropical Medicine and Hygiene in England. In 1977 he returned to Royal Prince Alfred Hospital and became Gastroenterology Registrar and Assistant Clinical Superintendant (Medical).

The following year Warwick and his wife moved to Nepal, both to work in a missionary hospital. He says of this time,

I had joined a couple of missionary societies and I had a very close friend who lived in Nepal. He wrote to some people on my behalf. We could have gone somewhere else but Nepal had (and still has) huge needs. At the time we went, there was something like 250

doctors in the country for 15 million people. We were in Nepal for four months and learnt to speak Nepali and then we went to work in a hospital which was in West Nepal. It was rural, 300 kilometres from Kathmandu so there were no Westerners there apart from those who worked in the hospital.

The illnesses we saw were mostly illnesses of poverty. At about 5000 feet above sea level we used to see some tropical illnesses but it was mostly pneumonia, diarrhoea, a lot of tuberculosis, leprosy, infectious diseases, a lot of trauma and a lot of childhood diseases. It was a 100-bed hospital and we had one surgeon and between four and six doctors there at different times. We trained medical assistants to work with us and we really relied upon them! In the time before I left we were seeing about 600 outpatients a day. I did general medicine and paediatrics and my wife did obstetrics. We defined what we could do and tried to do that well, but if someone came in with a condition we couldn't treat we had to send them away. That was hard.

After four years, Warwick came back to Sydney and worked in the Department of Gastroenterology at RPAH and as a Clinical Lecturer in General Medicine and Gastroenterology in the Faculty. Concurrently he enrolled in a PhD (as a National Health and Medical Research Council Research Scholar). Working with Ann Woolcock he developed a study of asthma epidemiology (it later became known as the Belmont Study). However, he realised his major interest was in basic science and started working on the immunology of leprosy with the intent of applying science to the problems of Nepal. After completion, he was asked to review a leprosy research project in Nepal.

My wife and I had never worked with a leprosy mission so we went back to Nepal. Half the time I ran the research project and the other half I ended up teaching medical students physiology and biochemistry. The leprosy hospital was about 15 kilometres south of Kathmandu so we lived in Kathmandu and I used to ride a motorbike out three days a week and teach, and then the other three days I was working in the leprosy hospital.

When we started in Nepal we were beginning to see resistance to Depsone – the drug used to treat leprosy – and by the mid-80s when I went back it was really a problem. A multi-drug therapy has been implemented throughout the world very successfully over the last 20 years. Leprosy is a real success story.

In 1990 Warwick came back to the University of Sydney as a clinical academic in Immunology. The same year he became Head of the Mycobacterial Research Group of the Centenary Institute of Cancer Medicine and Cell Biology (where he remains today). He initiated immunology programs for medical and science students within the Faculty, which grew rapidly. In 1994 he worked to implement the medical programs at Royal Prince Alfred Hospital and became Subdean, Central Clinical School of RPAH. He remained in this role for six years and recalls his time fondly.

I am very loyal to RPAH; they always took me back after I'd been away overseas. Even there, it's just like Nepal, what you achieve you achieve not as an individual but through a group of people.

Warwick became Professor of Medicine and spent the next four years promoting the combination of the study of infectious diseases and

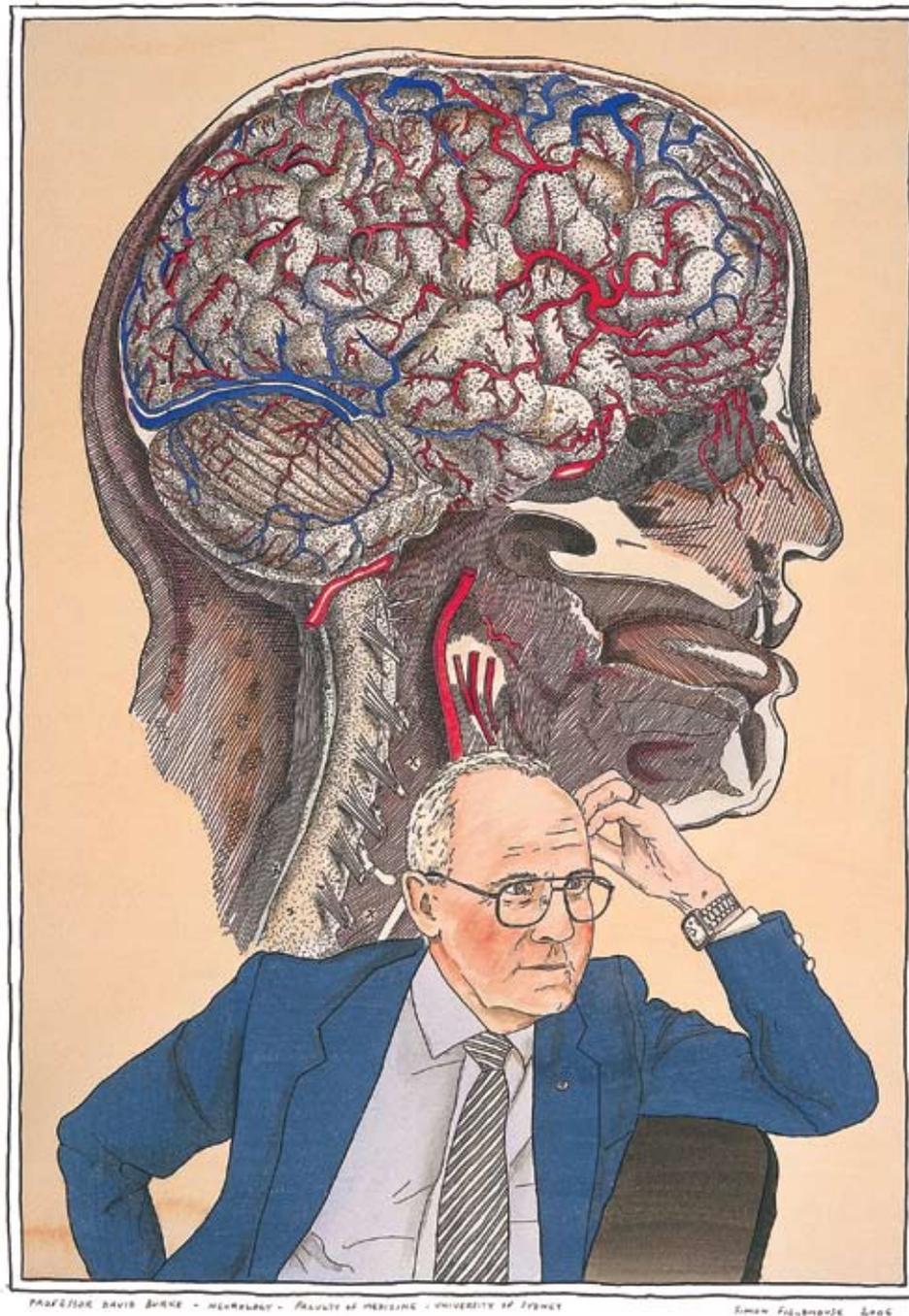
immunology. In 2002 he became Head of the Discipline of Medicine for the Central Clinical School, in 2005 he became Bosch Professor of Medicine. He retains both of these roles today.

Warwick acknowledges though that working in the University setting has made possible a diversity of experiences and challenges that wouldn't have been possible from another base. When asked whether he plans to work overseas again soon he says,

I enjoy my research and looking after patients here and at the same time I'm still committed to trying to improve Third World health methods. This is the longest time we've been in one spot, but I need to spend a few more years here. Yet, my wife and I agree that we're still capable of learning new things and doing something new and having new experiences.



Professor David Burke AO



PROFESSOR AND DEAN, RESEARCH AND DEVELOPMENT (HEALTH); DIRECTOR OF RESEARCH, FACULTY OF MEDICINE

MD DSc UNSW MBBS, FAA FTSE FRACP

Professor David Burke became Dean of Research and Development for the Health Faculties of the former College of Health Sciences and Director of Research for the Faculty of Medicine in 2002. He is a Fellow of the Australian Academy of Science and of the Australian Academy of Technological Sciences and Engineering and is currently President of the Australian Association of Neurologists. David has been the recipient of several major distinctions. In 1999 he was appointed Officer of the Order of Australia (AO) for his "service to science and medicine, particularly in the field of clinical neurophysiology in the areas of research and education and to the community through medical charities and lay organisations".

David graduated in 1967, undertaking his internship at Royal North Shore Hospital. After completing terms in internal medicine and psychiatry he carried out research for his MD in motor control neurophysiology, working with distinguished neurologist and Sydney graduate, Professor James W Lance at the Prince Henry Hospital. This was the first of many occasions where David credits his career success to "happenstance".

After my second postgraduate year I decided to pursue a medical doctorate and I applied to Jim Lance for a research position that he had advertised to work on migraine. I wasn't successful for that post but Jim asked me to apply for another scholarship because he needed someone to work on neurophysiological projects and he thought that I might like it more. He had more insight into me than I did.

David's MD thesis, *The Role of The Muscle Spindle in Spasticity*, investigated motor control and reflex responsiveness in patients with spasticity due to spinal cord injury. This early research area has remained one of David's major interests. In 1971, in another "defining moment", David was asked to address an International Congress of Clinical Neurophysiology in Brussels in place of Jim Lance who was unable to attend. At the end of the congress he took the opportunity to travel to Sweden, saying that motor control work was strong there, particularly in the areas pioneered by one of the fathers of spinal cord physiology, Australian Nobel Laureate, Sir John Eccles. "I wrote to my wife that I wanted to become a neurologist and clinical neurophysiologist." On his return David underwent clinical training as a physician and neurologist.

I did it in an unusual sequence but it has worked out well for me. Most people do their doctorates at the end of their clinical training. By that stage they've accumulated dependents and mortgages

and that makes it financially difficult. For me, another advantage of undertaking research before clinical specialisation was that all the research that came from the doctoral studies was published before the end of my clinical training, so I already had some kind of standing in the field when I applied for overseas positions. You also bring to your clinical training the benefits of having undertaken research; the ability to appraise the literature meant that, when studying for the College examinations, I could read things with far greater insight.

In 1975 David took up a CJ Martin Travelling Fellowship from the National Health & Medical Research Council, and spent two years in Uppsala, working with Professor Karl-Erik Hagbarth, one of the pioneers of "microneurography". This is a technique for recording from single nerve fibres and involves putting microelectrodes into the nerves of living human subjects. "That meant that we could study the neural traffic in subjects performing tasks under normal conditions. This technique became the driving force behind my research when I returned to Australia."

In 1978 David resumed research in motor control and began practising as a clinical neurophysiologist at the Prince Henry Hospital, and in 1980 became Senior Staff Neurologist and Associate Professor of Medicine at the University of New South Wales. In 1987 he was appointed to a personal Chair, as Professor of Clinical Neurophysiology – the only such Chair in the southern hemisphere. When his mentor and friend, Jim Lance retired in 1991, he became the Professor of Neurology in the Prince of Wales Clinical School and Chairman, Department of Neurology of the Prince Henry and Prince of Wales Hospitals. He was also then appointed Director of Clinical Research for the newly formed Prince of Wales Medical Research Institute. Subsequently he became Director of Clinical Neurosciences in the hospital group.

Most of my work has remained clinical neurophysiology and, although the field has changed as a diagnostic speciality, the need to quantitate function will always be important in monitoring treatment. The big things in my research studies have involved understanding how things occur rather than developing cures. I have been responsible for developing diagnostic procedures, some research procedures and intraoperative spinal cord monitoring procedures. We have gained a lot of insight into mechanisms by which we move and what happens when people develop disorders of movement due to stroke or spinal cord injury. That knowledge ultimately affects how you manage and care for patients.

In 2002 he took up his present position at the University of Sydney. Although he is Dean of Research for the five Health faculties, his primary location and most of his work is within the Faculty of Medicine.

Approximately 50 percent of the research productivity of the entire University comes from the Faculty of Medicine; the Faculty is a powerhouse of research activity in a highly research-active University. My major role is the development of health and medical research, recruiting research-active staff and helping existing staff to identify new research directions. As research priorities and funding mechanisms change, researchers need to reconceptualise their research directions to encompass a bigger picture. Governments and funding agencies are now interested in focusing on big questions where multidisciplinary teams come together to address questions that are important to society.

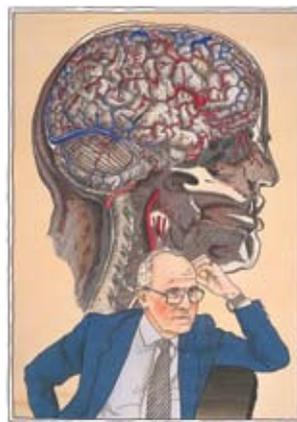
“Big picture” research is one of the key strengths of the Faculty’s legacy according to David. He also cites the Graduate Medical Program as the “best medical training program in Australia for the next generation of medical healthcare workers”. He lauds the School of Public Health for its strong influence and contribution to healthcare policy and asserts that, since he has had the opportunity to work at the University of Sydney, he has come to appreciate

the need for “academic Public Health”. Although a biomedical scientist himself, he says that a biomedical approach will not solve healthcare problems.

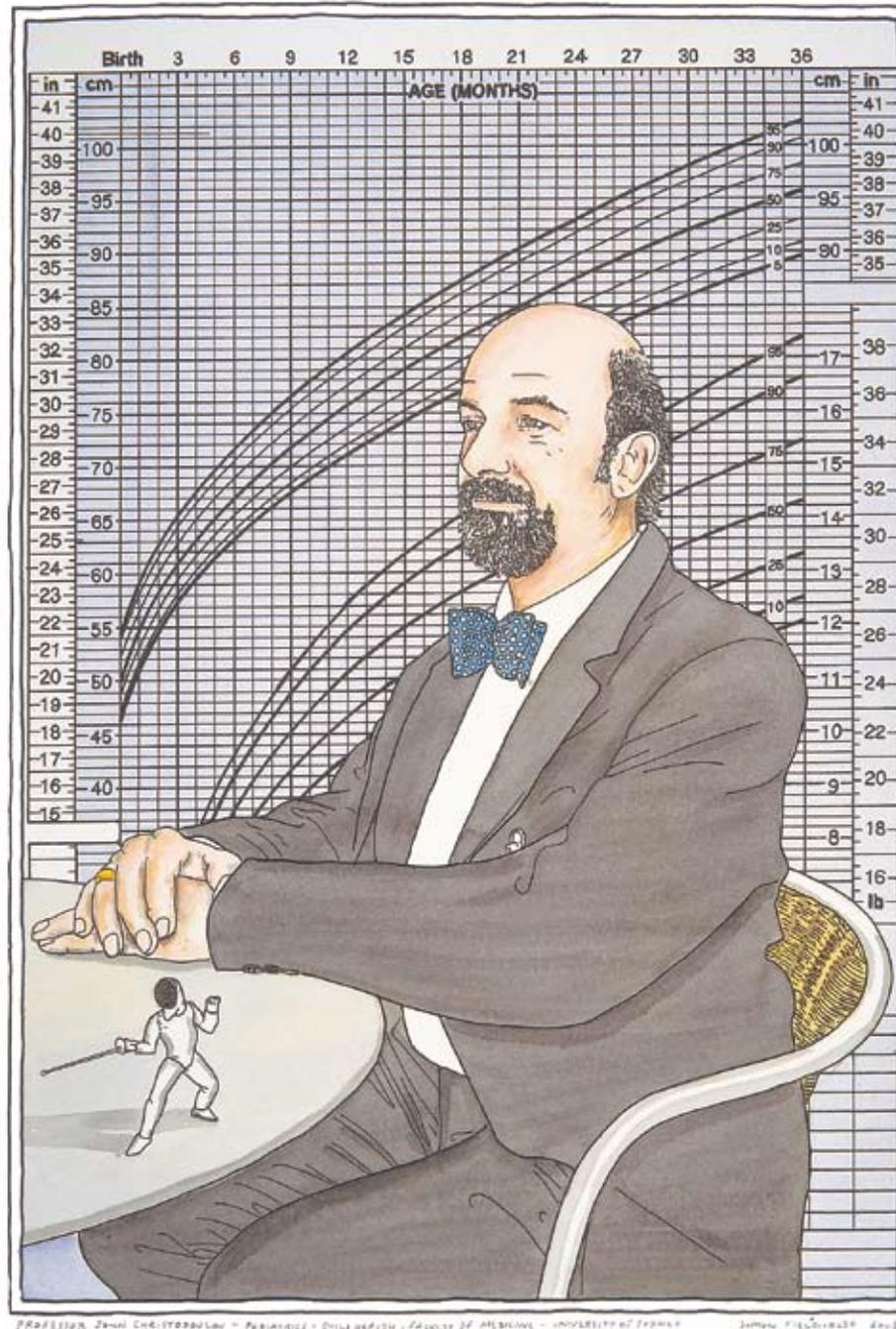
I firmly believe that we will only solve important healthcare issues by eliminating the diseases that we cause ourselves. If we eliminate this wasteful burden, not only will we improve the health of society, but also we might then be able to afford expensive, high-tech medical science. If we didn’t have obesity, if we didn’t have hypertension, if we didn’t have car accidents, if we didn’t smoke, society would save so much money that perhaps we could afford high-tech, expensive hospitals and the latest biomedical advances. So a preventive approach to disease is fundamentally important – and perhaps the only way to solve our healthcare funding crisis.

POSTSCRIPT:

In January 2008, David was appointed to the Bushell Chair of Neurology at Royal Prince Alfred Hospital and the Central Clinical School. He also became Editor-in-Chief of the international journal *Clinical Neurophysiology* and a member of the Executive Committee of the International Federation of Clinical Neurophysiology. He continues as Director of Research for the Faculty of Medicine.



Professor John Christodoulou



PROFESSOR, DISCIPLINES OF PAEDIATRICS AND CHILD HEALTH AND MEDICAL GENETICS, THE CHILDREN'S HOSPITAL AT WESTMEAD; DIRECTOR, WESTERN SYDNEY GENETICS PROGRAM, WESTMEAD HOSPITAL

MBBS PHD MELB, FRACP FRCPA

John Christodoulou is Professor, Disciplines of Paediatrics and Child Health and Medical Genetics, the Children's Hospital at Westmead; and Director, Western Sydney Genetics Program, the Children's Hospital at Westmead. Since 2002, he has been Associate Dean (Postgraduate Studies) of the Faculties of Dentistry, Medicine and Pharmacy. His major research remains focused on understanding the genetic basis of disorders that affect the brain. He has a particular interest in Rett syndrome and X-linked mental retardation. He has been accredited as a medical geneticist since 1989.

John Christodoulou entered medicine at the University of Sydney and graduated MBBS in 1981. His strongest recollections of this time were of his clinical school experiences at Lidcombe Hospital.

What I remember more than anything was the great camaraderie between the students. Being out at Lidcombe in a comparatively small hospital with a small student base, we all knew each other and there was a really good sense of togetherness. I formed friendships then, some of which have endured to date.

I also recall that my first year biochemistry lecturer made a fairly dry subject really interesting and that influenced my later choices. However, if anyone really impressed me it was Colin Clowes, one of the physicians at Lidcombe Hospital who to me epitomised the attributes a good physician should have and what I should aspire to: he was honourable, honest, had integrity; he treated patients with respect and he was knowledgeable without big-noting himself for his knowledge.

John completed his internship with highly enthusiastic people at the newly opened Westmead Hospital in 1981. At the end of his residency at the Royal Alexandra Children's Hospital, he moved to Melbourne to finish his training in paediatrics. He was interested in paediatrics even as a medical student, but the decision that this was to be his career path took shape during his intern year when he had a paediatric rotation at Blacktown Hospital. What impressed him above all else was the resilience of children and their capacity to heal so quickly.

In 1986 John began specialist training in clinical genetics facilitated through the Department of Genetics at the Royal Children's Hospital, Melbourne. He was gaining practical clinical experience in basic genetic principles through the hospital, and attending lectures at the University of Melbourne. At the same time, he started a

PhD project at the University of Melbourne studying the role of malonyl CoA in normal human metabolism with a central focus on one of the major enzymes involved in its regulation – malonyl-CoA decarboxylase (MCD). His research led to the subsequent cloning (by Dr David Fitzpatrick) of the human MCD gene. After submitting his PhD (awarded 1991), John took up a Fellowship in Metabolic Diseases in the Department of Clinical Genetics at the Hospital for Sick Children, Toronto, Canada. There he was actively involved in the clinical metabolic service and was able to obtain further laboratory experience in the field of molecular biology.

John returned to Sydney in 1992 and became Senior Lecturer in the Department of Paediatrics and Child Health at the University of Sydney and the Royal Alexandra Hospital for Children. The Senior Lectureship provided him the opportunity to continue to pursue his clinical career, to develop his own research direction and to develop a funding base for research.

From 1994 to 1995, he was Acting Head of the Department of Genetics at the Hospital, also becoming Head of the PKU (Phenylketonuria) clinic in 1995. A year later he was awarded the title of Associate Professor and became the Director of the Western Sydney Genetics Program, the only fully integrated clinical and laboratory genetics service in NSW. He recalled that when the old Children's Hospital Camperdown moved to Westmead to become the New Children's Hospital it enabled a consolidation in genetic services. The outcome was a more timely and direct interaction between clinicians and laboratory scientists and a far bigger team. "It meant that we were suddenly able to be more responsive to varied situations and disorders and provide optimal service to patients."

John's current research remains focused on understanding the genetic basis of disorders that affect the brain. Of his research into Rett syndrome, he says,

Rett syndrome is one of the most devastating disorders I have encountered. Our research is aimed at understanding its biological basis, with our ultimate goal being to design effective treatments. Rett syndrome is the second most common (after Down's syndrome) cause of severe intellectual disability in females. Mutations in the methyl CpG-binding protein 2 (MECP2) gene have been identified in most, but not all, females with Rett syndrome. Our group discovered that mutations in a second gene, cyclin-dependent kinase like 5 (CDKL5) are found in a smaller subset of more severe Rett syndrome,

in which early-onset severe seizures figure prominently. Both genes are located on the X chromosome, and how they produce the clinical features that we see, either in their own right or through some kind of interaction, remains unknown. Only when we have a deep understanding of the role that these genes play in brain development and function will we have any chance at developing specific targeted therapies.

At present, John and his team are also investigating genetically engineered probiotics as a treatment of human disease. One such disease, Phenylketonuria (PKU), if untreated, results in profound intellectual disability, seizures and aggressive behaviour. Standard treatment consists of a life-long diet which is unpalatable, and compliance tends to deteriorate with age. A collaborative group led by John, is developing a novel therapy for treating PKU. This will involve genetically engineering harmless *Lactobacillus* bacteria to produce an alternate phenylalanine-metabolising enzyme, phenylalanine ammonia-lyase. It is hoped that these engineered organisms, if given orally (as a Yakult-type preparation), would metabolise phenylalanine in the small intestine, preventing blood levels from rising. If successful, this novel form of treatment could be translated to other human diseases, and could have wide applicability in the animal husbandry industry.

Of his career, John declares that he just loves doing research. "You have the privilege of working with smart young students and established senior scientific colleagues, and such collaborations give

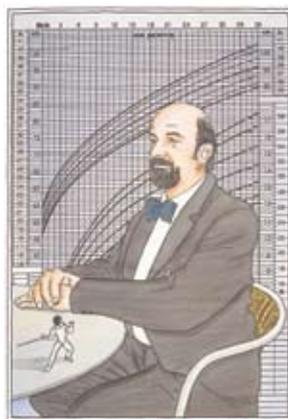
you the opportunity to undertake more ambitious research, which can have very exciting consequences."

Aside from his clinical work, he has always been very active in his various appointments at the University of Sydney and as a member of numerous Faculty of Medicine committees. Since 2000, he has been Chair of the Combined Board of Postgraduate Studies for the Faculties of Dentistry, Medicine and Pharmacy, and a member of the University's PhD Awards Subcommittee and the Research and Research Training Committee. John became Associate Dean (Postgraduate Studies) of the Faculty of Medicine in 2002, and was appointed Professor of Paediatrics and Child Health in 2004.

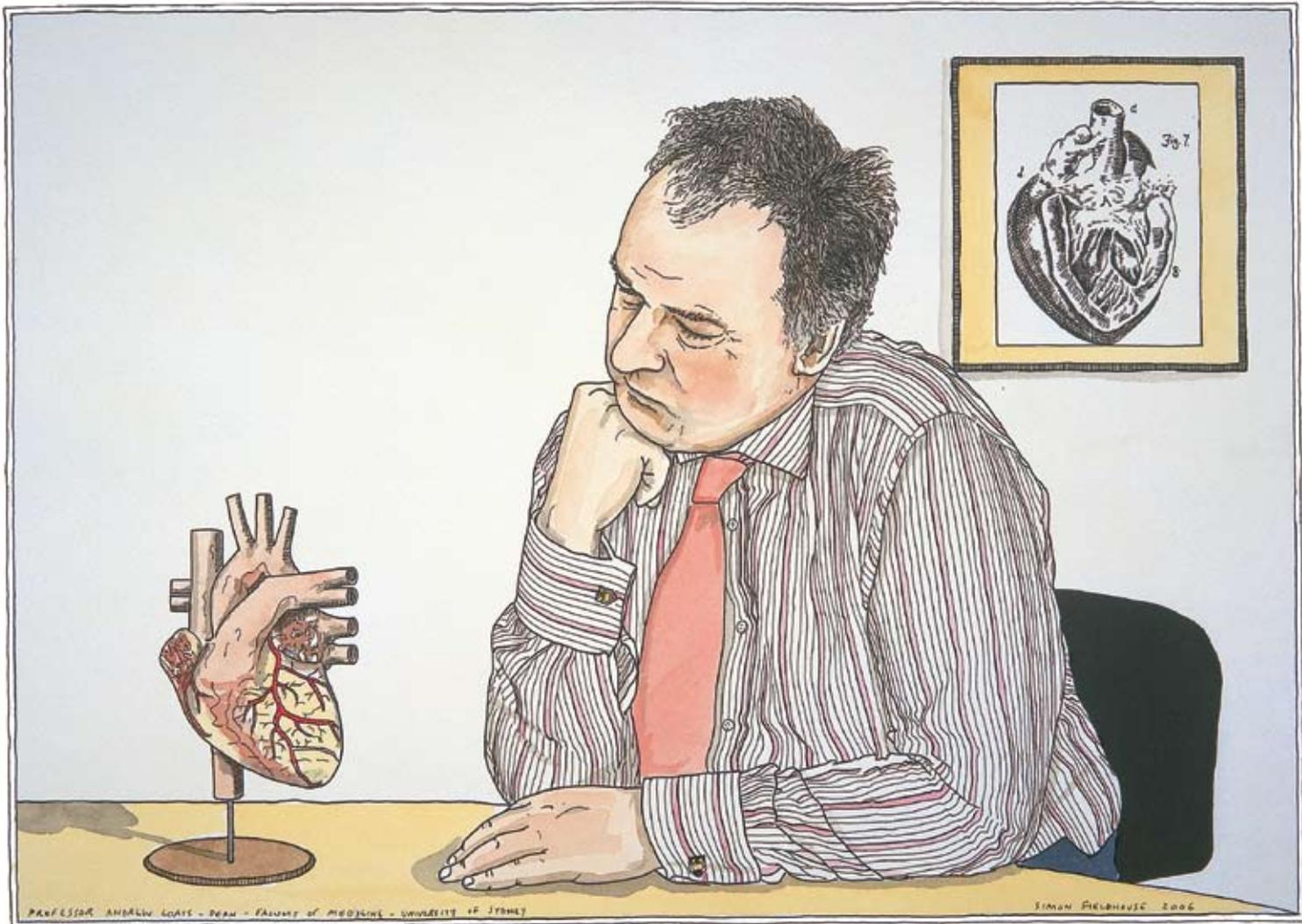
Heavily involved in the professional community, John has been a member of several genetics organisations. From 1997 to 1999 he was President of the NSW branch of the Human Genetics Society of Australasia, becoming President of the national body in 2005. That same year, he was elected to the International Scientific Advisory Committee of the Cyprus Institute of Neurology and Genetics.

Reflecting on the legacy of the Faculty, John says:

The intellectual advances that have come out of this University are astounding. Furthermore, because our Faculty has always fostered a research intensive academic environment, many of our teachers, who are also active clinical and laboratory researchers in their own right, have the capacity to engender a passion for research in our medical students, our future research leaders.



Professor Andrew Coats



DEAN OF MEDICINE 2002–2006

DM MA OXON MB BCHIR CANTAB DSc LOND MBA LONDBUS, FRACP FRCP FESC FACC FAHA FCSANZ

Professor Andrew Coats was the Dean of the Faculty of Medicine from December 2002 until September 2006. He followed the deanship of Steve Leeder and preceded our present Dean, Professor Bruce Robinson. The 150th anniversary celebrations were his initiative. His major area of research and expertise is cardiology with a particular interest in clinical integrated pathophysiological and treatment studies of heart failure. He was awarded a Doctorate of Medicine from Oxford University (1992) for his thesis *The Non-invasive Measurement of Cardiac Output* and was awarded the Doctor of Science from London Imperial College (2004) for his work *Exercise Intolerance in Chronic Heart Failure*. Among his other distinctions, in 1996 he was the First Viscount Royston Professor of Cardiology at Imperial College London, in 1998 he was the recipient of the Linacre Medal from the Royal College of Physicians of London, in 1999 he was awarded the Inaugural Michael L Pollock Award from the American Heart Association and more recently in 2000 he received Distinction in Corporate Finance for his MBA with the London Business School.

Andrew Coats has often chosen to take risks, seize opportunities and often “go against the flow”. Melbourne born, he chose to complete a Bachelor of Arts, majoring in the Physiological Sciences at Oxford University. He then entered Medicine at Oxford but completed his clinical training at Cambridge University so that he could “rush through and get on with being a doctor”. He recalls his university days in which doctors were respected and educational models were based on the “anecdotal teaching of grand professors”. His own passion for cardiology stemmed from his first week in Oxford as an 18-year-old undergraduate.

I had a tutorial on cardiovascular physiology from Derek Bergel and I was hooked. I loved the inter-connectedness of everything, the complexity of the system, the checks and balances, the reflex loops and that every action has reverberating consequences. For a brief period I considered the possibility of a career in neurology but never really doubted I would study integrated cardiovascular physiology. My latter career in management with an MBA and company director's qualifications merely extend this fascination: I study and try to understand complex systems in action; systems in which you cannot predict behaviours from reductive knowledge of the components in isolation, but in which you also need to develop a deep intuition of how complex systems work, be they fluctuations in heart rate, breathing and blood pressure, or economic cycles and how decisions get taken in large organisations.

In 1985 he obtained special approval from the General Medical Council in Britain to return to Australia and take up an internship at St Vincent's Hospital, Melbourne, his home town. There he worked with the second of his three great mentors; Professor David Pennington, the first being Derek Bergel and the third, Peter Sleight. Andrew remembers the time as “great fun” and says that both the St Vincent's nuns and the cohort of students going through were just “fantastic”. He joined that graduating year and stayed at St Vincent's for four years during which time he had manoeuvred himself into Cardiology and had worked his way to Cardiology Registrar. Again, true to form, he gained the first part of his FRACP in Australia and then gained special permission to return to the UK for further clinical research training and to get his UK registration and his FRCP. It was during this time that he devised the first ever trial of exercise training for heart failure (which has now become standard practice). “Oddly, in the end, both countries had me as a fully trained local in under the average time for either alone.”

In 1988 he took up the role of Clinical Lecturer in Cardiovascular Medicine and Honorary Senior Registrar of the Cardiac Department at John Radcliffe Hospital, Oxford. He recounts this period as an idyllic time: he cycled to work, his partner got a postdoctoral fellowship, they got married that year and had twins the following. Working alongside fellows from all around the world he carried out his formative clinical research and carried a clinical practice load in the hospital as well. Concurrently he began teaching Physiology at Oxford University and lecturing to medical students about “blood pressure, cardiac output and beta receptors and all the old-fashioned systems physiology”.

Andrew describes himself as a “born academic” and in 1991 took a position as Senior Lecturer at the National Heart and Lung Institute so that he could pursue further research whilst retaining his clinical service. It had been a dynamic era in Cardiology since the 1980s, with most of the big advances in treatment for heart attack, heart failure and low blood pressure being developed.

We had gone from no treatment that worked to eight treatments that worked and reduced mortality by 15 to 25 percent each. The role at the National Heart and Lung Institute meant that I was involved with multiple major clinical trials. I had a research group of about 25 people and we were publishing about 70 papers a year. It was a very big entity. We exercise-trained patients and by 1992 the ACE inhibitors had been developed with beta-blockers not far behind. All my own

research was on patients who had heart failure. We'd take end stage severe complicated heart failure patients, see them on a weekly basis in the clinic, bring them into hospital for a day investigation and we'd do complex investigations and devise individualised treatments.

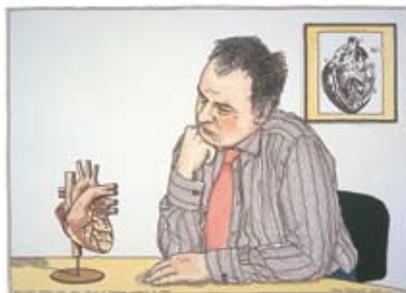
During his time with the National Heart and Lung Institute Andrew grew into more advanced and multiple roles: the Head of the Department of Clinical Cardiology, Associate Medical Director of the Royal Brompton and NHS Trust, Clinical Director of Cardiology and Director of Research and Development. In 1996, the National Heart and Lung Institute merged with Imperial College and Hammersmith, Charing Cross, Westminster and Chelsea Hospitals to form one big conglomerate and Andrew became the Foundation Viscount Royston Professor of Clinical Cardiology.

Andrew came to join us as Dean of the Faculty of Medicine at the end of 2002. He acknowledges the legacy of the two previous deans, John Young and Steve Leeder and said that when he arrived the Faculty had been through a major curriculum review and, yet, there still seemed to be energy and enthusiasm for change.

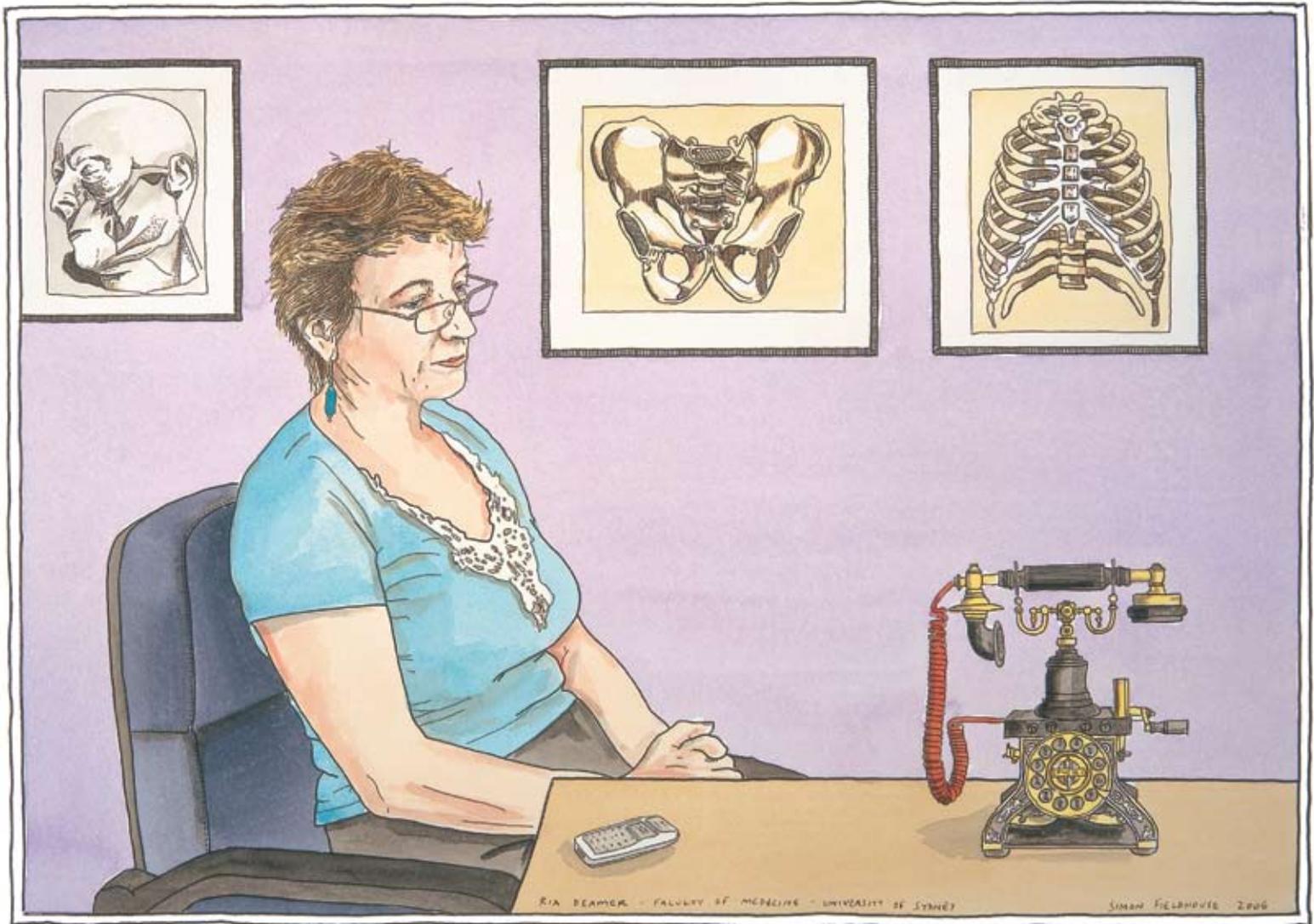
I felt that the Faculty was willing and able to be told "you're great, you're fantastic" and it was an ideal time for someone with my leadership style. The best advice I got from a wily old colleague in the UK was this: "There are two things you should know when you become Dean. One, the people you nominally supervise know their job 10 times better than you so don't tell them what to do and, two, nothing that you decide to do will happen unless you persuade someone else to make it happen on your behalf, so get good at motivating people."

It was Andrew who foresaw the importance of the 150th anniversary and led key staff in to the planning of our year-long celebrations. From his perspective, the 150th anniversary celebrations made the Faculty more proud of what it is so that now there is a greater awareness of its potential.

It's a great Faculty, producing leaders for the long-term, strong enough to be leaders of the world in Medicine, yet fleet enough to do things differently, ask difficult questions and break new ground. We are entering another great era for the Faculty – as leaders in teaching innovation, research excellence and service to humanity.



Ms Ria Deamer



FACULTY MANAGER, FACULTY OF MEDICINE

Ria Deamer is currently Faculty Manager and has worked in the Dean's office of the Faculty of Medicine since 1987. Today she works very closely with Bruce Robinson (Dean) and Tom Rubin (Executive Officer) and plays an integral role in the smooth running of the Faculty. The wide ranging tasks that comprise her role require an enormous amount of flexibility, organisation and goodwill towards staff – attributes Ria has in abundance.

Ria came to the University of Sydney "needing the money after travelling the world". Her first job was in the Staff Office in 1979 and then in 1980 she transferred into the Research Office where she worked for seven years.

We didn't have a database; we had a couple of boxes with cards in them and each card had a name on it. And we had IBM typewriters. That was about as technological as it was.

When her predecessor resigned, Tom Rubin rang Ria and offered her the job of Faculty Secretary, which she took saying, "I wanted to get into Faculty and student work so I was quite interested." At that time, Medicine was the only faculty that had an Executive Officer and a Faculty Secretary and, according to Ria, those roles had dual reporting responsibilities to both the Registrar and to the Dean. As she remembers, "We had monthly meetings with the Registrar and reported any issues around University regulations and resolutions – the Registrar had a much more active role in Faculty than he does now."

Ria came to work for the Faculty under the Dean, Richard Gye, but at that time she was a bit more removed as Tom dealt directly with the Dean, leaving Ria to attend more to student matters and supervise administrative assistants. "We were lucky if we had 60 postgraduate students then and the coursework programs were about a tenth of what we have available now."

After taking a year off with the birth of her child, Ria returned to the office and John Young's deanship. She recalls John Young as "fastidious with a passion for detail" but credits this attention to detail as one of the reasons he was successful as Dean.

He loved administration and the detail of administration including the detail of budgeting, even though we didn't have accounting systems in place that we have now or the accounting tools. But he loved all that and delving into a problem and slowly unravelling it. He was very good at it.

Ria worked alongside John Young during the initiation and implementation of the Graduate Medical Program and the establishment of the Clinical Schools.

Even though he wasn't an educationalist he supported and drove the GMP; he got the team together that could do it. The idea to establish the Clinical Schools was a good one and John Young was an eminent researcher himself so he knew how it should be done. Overall he had a great interest in this place, he was devoted to this institution even though he wasn't a Sydney graduate. I learnt a great deal from him. I learned how to write, how to write reports, how to structure a paper – there is no doubt about it, he was a fantastic teacher because he was so pedantic and he forced you to do things well.

Of Steve Leeder, Ria says that "he picked the ball up from John Young with the Graduate Medical Program and ran with it. There were aspects of it that Steve had more experience in so he was able to make a significant contribution." At that time, Tom still worked more closely with the Dean so Ria focused on attending to students with the growing student populace.

When Andrew Coats became Dean, Ria adapted herself to a new leadership style. Without criticism of his predecessors, Ria saw Andrew as "a breath of fresh air" because he came from the outside and offered a new perspective. Working more closely with the Dean, she appreciated his good humour and positivity and the way in which he "took everything in his stride".

He just really turned the whole place upside down with his energy and with his vision. Not all of it worked out, but in a sense that doesn't matter. I think he was exactly what we needed when we needed it. He shook us out of our old complacent little corner and said: "What are you doing, you're sitting here in a prestigious University with everything going for you and what are you doing? You're sitting back on your laurels. You've got to get out there and get moving and shaking. This is the modern world!" And he did that very well because of the personality that he is. He is a very, very nice guy and he really did get things moving. I think he was the right person for the time.

Ria's position within the Faculty goes deeper than the web of administrative duties she deftly handles on a day-to-day basis. Her positive attitude is invaluable in maintaining enthusiasm and momentum in a job where she frequently juggles several hybrid roles.

She has honed her face-to-face interpersonal skills as she interacts with Faculty across all levels. However complex the administrative side of the Faculty may get, Ria enjoys working with the Faculty's staff and students and seeing genuine results materialise. "People on the whole are nice, they are collegial, they are polite to each other."

Her long time with the University of Sydney has given her great expertise and experience in the areas of policy and procedural standards for the Faculty, and as such she is frequently called upon in an advisory role. The complexity of Ria's position suits her personality immensely; "I don't mind hard work, that doesn't faze me at all," she says.

On a day-to-day basis she works alongside Tom Rubin, the Executive Officer of the Faculty, a relationship she describes as "perfect".

In all the years that we have worked together, I have never ever heard a bad word from him. He's always been supportive, we can trust each other. It's actually quite amazing because I don't think you could get that very often. We've never been rivals in that sense that one is trying to outrun the other. You know, I've always been quite happy for Tom to be the senior person and he's always treated me with the utmost respect and he's been a fantastic colleague – that is all I can say.

Likewise, Ria deeply appreciates the work done in the Faculty of Medicine.

You see what they're doing, what they're facing and you know the results they are producing. I am part of this and this is really what we are here for, to provide this sort of service so that Faculty staff can produce results.

The 150th anniversary celebrations made huge demands of time and energy upon Faculty administration and Ria's juggling skills, but with typical good humour she says she vastly enjoyed the events.

We had such a fun year with the 150th. It showed us what a good Faculty we really are with all our talents and all our strengths. It was a great opportunity for us to bring all the disparate parts of the Faculty together and showcase ourselves and be proud.

Lastly, she reflects, "We've got a fantastic history to build on. That is certainly one of our strengths."

Simon has painted Ria waiting for a phone call which she says makes her laugh. "Not a minute goes by when the phone's not ringing."



Professor David Ellwood

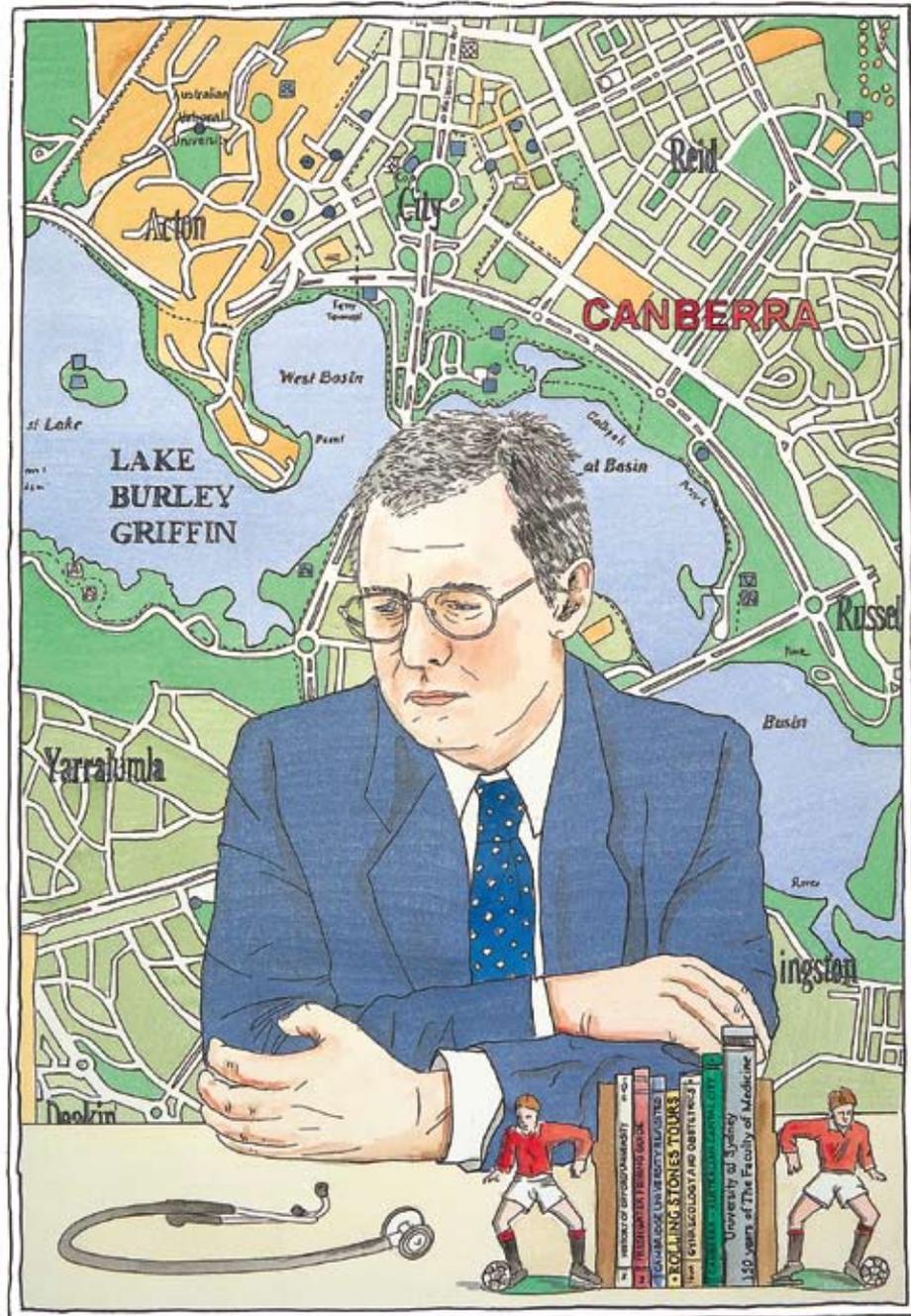


ILLUSTRATION: DAVID ELLWOOD - CANBERRA (ORIGINAL DESIGN) - ARTIST: M. HUGHES - COMPILED BY: S. JONES

**(FORMER) PROFESSOR OF OBSTETRICS AND GYNAECOLOGY, CANBERRA CLINICAL SCHOOL,
UNIVERSITY OF SYDNEY**

MA DPHIL OXON MBBS CAMB DDU, FRANZCOG CMFM

Professor David Ellwood was Associate Dean, Canberra Clinical School, from 2002 to 2006. David has a longstanding interest in maternal fetal medicine as discipline and clinical practice.

Born and educated in England, David Ellwood entered Oxford University and was awarded an Open Exhibition to read Medicine at Corpus Christi College in 1973. He gained first-class honours in his BA in Physiological Sciences and was awarded the Radcliffe Pharmacology Prize in 1976. He went on to complete his Master of Arts and Doctor of Philosophy at Oxford in 1981, with a thesis entitled *The Uterine Cervix in Pregnancy and at Parturition*. That same year he graduated from the University of Cambridge with an MBBS. Of these years, he recalls, "My strongest recollection is the extraordinary amount of anatomy that we did; dissection three times a week for three hours as well as a lot of physiology practicals, so it was a very intensive course."

David was inspired by his lecturer Anne Anderson, who was a gynaecologist and a reproductive endocrinologist.

She was involved in studies using an experimental animal model, a fetal sheep model looking at the hormonal control of the onset of labour. I found it absolutely fascinating and I certainly gained an interest in things to do with reproductive medicine. Because of that I pursued research and it was in a clinical department in the Nuffield Department of Obstetrics and Gynaecology. I also did an option with Professor Sir Jeffrey Dawes who's really one of the founding fathers of fetal physiology. The Nuffield Institute at that time was an absolute powerhouse of basic scientific research into both fetal physiology and maternal changes in pregnancy and that set the scene for what I would then decide to do in my doctorate and probably my future career.

During 1982 and 1983 David worked as a House Officer in Paediatric Surgery at the Royal Hospital for Sick Children in Glasgow, Scotland, and House Officer in General Medicine, Huntingdon County Hospital in Cambridgeshire, England.

The job in Glasgow was fantastic, I loved being a junior doctor. It was two months of neonatal surgery, two months on the burns unit and two months on the cancer unit – and just amazing people to work with and amazing children. Character building.

Following registration, he was appointed Senior House Officer in Gynaecology at the Churchill Hospital in Oxford in 1983 and Senior

House Officer in Obstetrics at the John Radcliffe Hospital in Oxford until January 1984. David says, "I went back to Oxford to do my first year of training obstetrics and gynaecology which was always something that my career path would have followed."

David's first Australian appointment was as Registrar in Obstetrics at the Mater Misericordiae Hospital, Waratah, NSW. He then became Registrar in Gynaecology at the Royal Newcastle Hospital, NSW in July 1984.

Reflecting on this time in his field he says,

The profession of obstetrics and gynaecology was quite different, the Royal Australian New Zealand College of O&G had only just started. The whole idea of having an Australian-based training program was just taking off. The practice of obstetrics was incredibly different, the caesarean section rates were about a quarter of what they are now, the whole concept of risk management was not even on the horizon let alone a driving force. The medico-legal concerns were very small compared to what they are now; there wasn't the same sort of climate of fear then. There was a much greater emphasis on natural childbirth and trying to reduce intervention. It was time when things like assisted reproductive technologies such as IVF were really just beginning.

David found an early interest in fetal medicine and the use of ultrasound as a modality to use routinely in the management of pregnancy.

The whole idea of the fetus as a patient really started with ultrasound as we gained the ability to see the fetus, to conduct non-invasive monitoring and to look at fetal behaviour and measure fetal blood flow. Prior to ultrasound you were completely surprised at the outcome for the baby, but ultrasound revolutionised the approach to the fetus as a patient and the whole idea of fetal medicine as a concept, as a discipline began.

At the end of 1985, he was appointed Senior Resident Medical Officer in Obstetrics and Gynaecology at King George V Hospital in Sydney, becoming Registrar in Obstetrics and Gynaecology in 1986, Senior Registrar in 1988 and Staff Specialist in Fetal Medicine, Obstetrics and Gynaecology at King George until January 1991.

At that time King George was really recognised as this country's leading women's hospital, both politically and professionally. There were a number of prominent people in the field – Rodney Shearman,

Peter Elliot, Ian Fraser, Rob Jansen – it was an exciting place to be. A lot of research was being done and it was a very good hospital to train in.

David was the first academic to be appointed when he became Associate Professor of Obstetrics and Gynaecology at the University of Sydney's Western Clinical School at the Nepean Hospital, Penrith in January 1991 and served in the Department of Obstetrics and Gynaecology as Clinical Director. In the same year, he was Head of the Division of Reproductive and Child Health, Penrith District Health Service. David held these positions until January 1995.

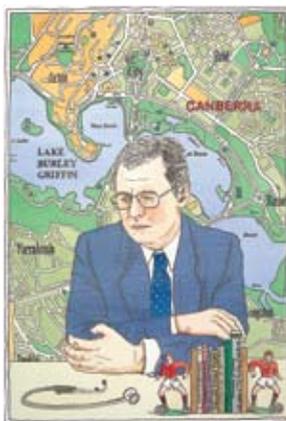
Nepean was being targeted as the next clinical school for the University of Sydney and they needed somebody to go out there and set things up. Nepean Hospital was a reasonably large district general hospital but it had no academic presence at all or research basis. The four years I was there was one of the most productive and busy periods of my academic career. We established an academic environment at Nepean and were actively involved in hospital management, we were all leading clinical departments and involved in hospital executive roles. It's very satisfying to look back on that and see how that hospital has been transformed.

In January 1995, David became Professor of Obstetrics and Gynaecology, Senior Staff Specialist in Obstetrics and Gynaecology,

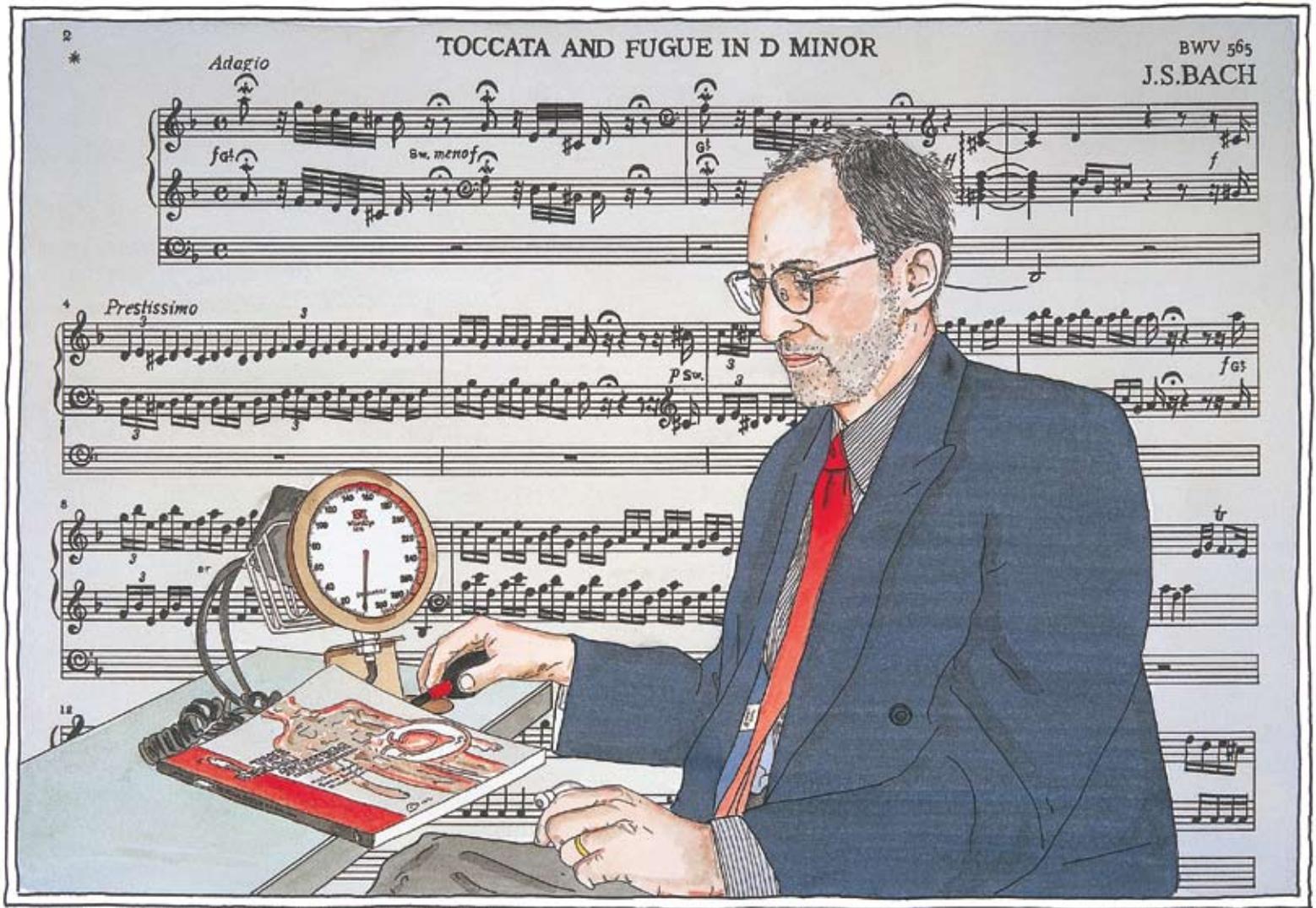
and Executive Director of Women and Children's Health Services at The Canberra Hospital, ACT. He held these positions until January 2000. When the University of Sydney was negotiating with ACT Health to develop the Canberra Clinical School, David saw it as an opportunity and challenge.

I do like starting new things and the clinical school for Sydney was a brand new venture. The O&G department was very much just a general O&G department. There'd never been a maternal fetal medicine present here, so it was starting from scratch and developing the clinical service as well as the academic role that I took on. The first five years that I was there was a period of significant growth in terms of recruitment of people across the whole clinical school.

In 2001 he served as Medical Adviser in Acute Services to the ACT Health Director of the Fetal Medicine Unit. From 2002 to 2006 David was Associate Dean, Canberra Clinical School of the University of Sydney. He is presently Deputy Dean of the Australian National University Medical School, a position he has held since May 2003. David explains, "The whole idea was that Sydney University would be phasing out the Sydney Clinical School as we phased in the ANU Medical School, so for me to take on this role as Associate Dean of the Canberra Clinical School was a natural progression."



Professor Michael Field



ASSOCIATE DEAN, NORTHERN CLINICAL SCHOOL; CONSULTANT RENAL PHYSICIAN, ROYAL NORTH SHORE HOSPITAL

MD BS BSc(HONS), FRACP

Michael Field is Associate Dean of the Northern Clinical School and a Consultant Physician in Renal Medicine at the Royal North Shore Hospital. His research background is in renal physiology and pathophysiology. He has dual interests in Nephrology and Medical Education. He has been President of the Australian and New Zealand Society of Nephrology and a member of the Executive Committee of the International Society of Nephrology, where he was Co-chair of the Education Advisory Committee of the Commission for the Global Advancement of Nephrology. He has received an Excellence in Teaching award from the University of Sydney, and has been an international consultant in Medical Education. Since 2004, he has been Chair of the Medical School Accreditation Committee of the Australian Medical Council.

Michael Field grew up in a medical household, the son of a general practitioner who conducted his practice at home.

I lived in a house where people came to the door, say, breathless after an accident. It was really that sort of old practice setting that wouldn't be tolerated these days – the family effectively acted as receptionist and support system for the practice. I was fascinated by the idea of suffering. I knew that no-one in our family had that much wrong with them – as far as I could tell. But I equally knew some patients of my father who seemed to have everything. In other words, there was the cancer on top of the heart disease, on top of the terrible accident, on top of the genetic trouble. And to me it was intolerable to just observe these things and say "bad luck" or "I'm glad, it's not me" and not know why. So the "why" question gives rise to a need for understanding the biological science behind medicine, while the desire to intervene to do something useful leads to the need to be a practising clinician. That early experience triggered a sense of injustice in me about the way the illnesses were distributed. My sense was that there were strong genetic dispositions towards illness, and this led early on to my interest in the pathophysiology of diseases and their social and biological determinants.

Studying medicine at the University of Sydney, Michael also completed a BSc(Med) year, taking the opportunity to study with Professor John Young (with whom he also played in a Baroque music ensemble). Following his mentor, his early area of interest was electrolyte metabolism and how minerals move around the body. He completed a project on how secretory glands operate, which he says "was very poorly understood at the time".

Graduating MBBS in 1976, Michael entered his internship at Royal Prince Alfred Hospital, Sydney and was one of the last intakes to work with Professor C R B Blackburn.

It was a great hospital to train in and had a leading renal disease department. The hospital had old buildings then, but it also had a lot of traditions and was very convivial. We lived in for part of the year, and interns spent many nights a week in the hospital. Although we were often exhausted, we all had the benefit of immersive learning. You coped with a lot of crises and had to deal with a lot of very sick patients. When you flopped back into the RMO quarters you had 20 or 30 others on duty with you to share notes with.

He manoeuvred himself into Renal Medicine at the hospital and worked as Renal Registrar and then Clinical Assistant Physician under John Sands and David Tiller. The Renal Unit had emerged in the early '70s and was carrying out some of the early transplants and using new anti-rejection drugs. Their proximity to both the King George V Women's Hospital and the Page Chest Pavilion meant that they were able to participate in the early work with renal and hypertension disorders in pregnant women, heart disease patients and those recovering from open heart surgery. "I had the privilege of training in a major unit at the forefront of modern nephrology. Analgesic nephropathy (renal damage from analgesics) was subsiding whilst there was an upsurge of diabetic renal disease."

Following a three-year period working at Yale University in the US on his doctoral research in renal physiology, in 1984 Michael worked briefly at Westmead Hospital as Senior Registrar in Renal Medicine before taking the position of Senior Lecturer and Consultant Physician, Renal and General Medicine, at Concord Hospital. This gave him the opportunity to work with Professor Jim Lawrence, also a nephrologist, who he credits as being "one of Australia's pioneering specialists in Renal Medicine, and a great source of support and encouragement academically". Following Jim Lawrence's retirement, in 1999 Michael successfully applied for the Chair of Medicine at Concord Hospital.

Since the mid-80s, Michael had been heavily involved in medical education and had been one of the driving forces behind the introduction of the Graduate Medical Program. In 1989 he was appointed Subdean (Curriculum) in the Faculty, and held the position of Associate Dean (Curriculum) from 1994 to 2001 as part of the team which developed and introduced the new medical course. During these years he was also influential in medical education throughout

Australia as a result of his involvement with the Australian Medical Council, culminating in his appointment as Chair of the Medical School Accreditation Committee in 2004.

Since 2002 Michael has been the Associate Dean and Head, Northern Clinical School within the Faculty of Medicine, based at Royal North Shore Hospital. He also retains Consultant Renal Physician status, and takes part in the on-call roster for acute nephrology consultations and admissions, as well as attending to his private patients. Michael also enjoys the international work he does in medical education, some of which is linked to his role with the Australian Medical Council: in recent years he has worked in Austria, Switzerland, China and Vietnam. He is on the Education Advisory Committee for the International Society of Nephrology, working to set global standards for the training of Nephrologists.

This is a real issue, especially in the developing world where there are limited resources for caring for patients with renal disease. It seems unfair that depending on where you get kidney failure, you will get a terribly different level of care, and perhaps die in many parts of the world. So my committee is involved in trying to get nephrologists trained to the same standard as is available in the West. It all comes back to my desire to alleviate the suffering of others.

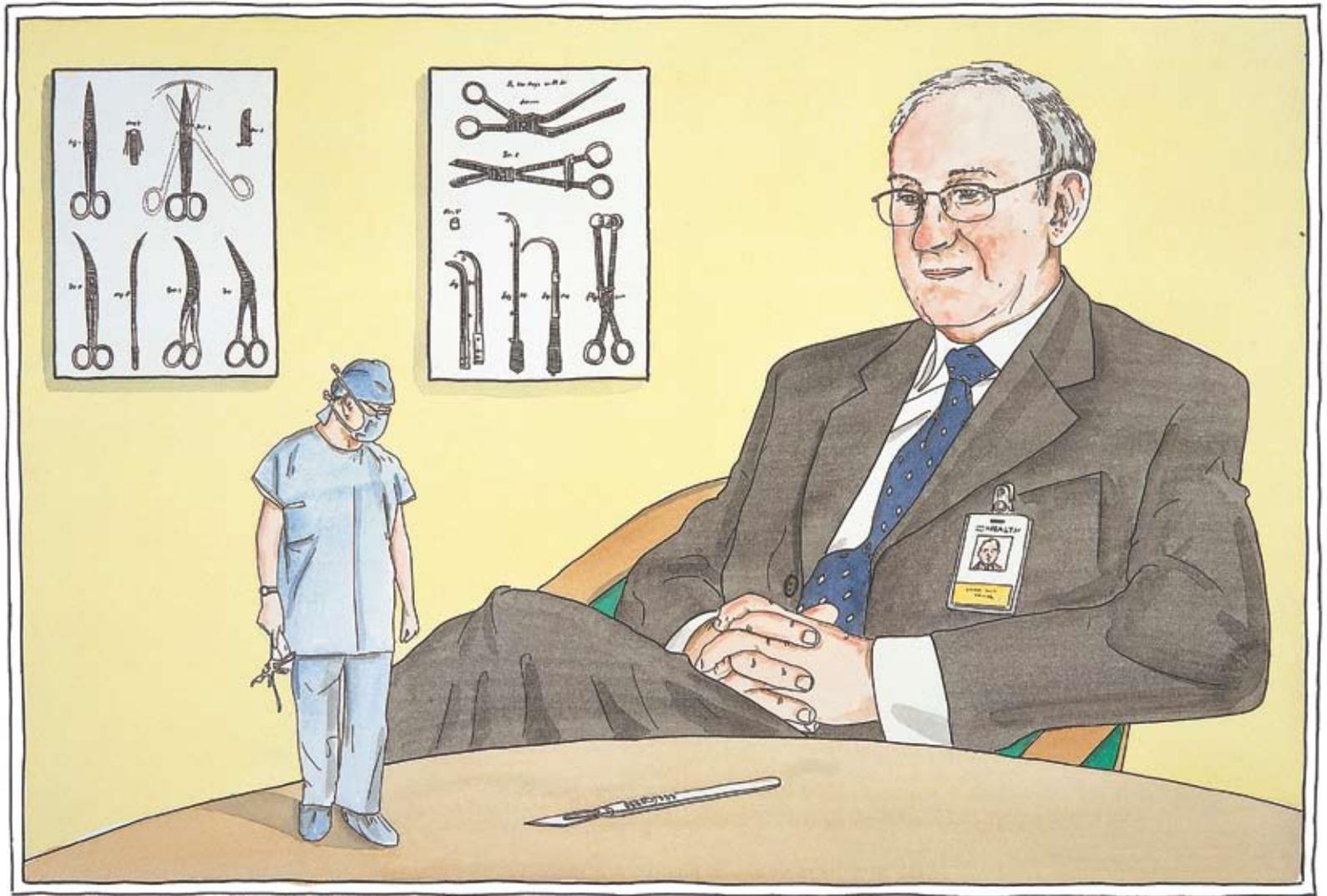
When asked about the Faculty, Michael says,

We are very privileged that we have inherited the British system of education in general, and that our Faculty was strongly influenced early on by the Scots, who happened to have one of the most enlightened education traditions in the world. We have a strongly scientific tradition and our responsibility is to make the best of it for our own people and other populations.

The portrait reflects Michael's deeply imbedded love of music. He was a member of the Australian Doctors Orchestra for many years, playing flute, and has also pioneered the study of Music and Medicine in the Master of Medical Humanities program. "I told Simon that even if I appear to be taking someone's blood pressure or reading something, I might have some quite complex music going through my head, like Bach." Simon has also painted Michael's most influential publication: *The Renal System* (2001).



Professor John Fletcher



PROFESSOR JOHN FLETCHER - SURGERY - FACULTY OF MEDICINE - UNIVERSITY OF SUSSEX

JIMMY FIELDHOUSE 2004

PROFESSOR OF SURGERY AND HEAD, DISCIPLINE OF SURGERY, WESTMEAD HOSPITAL

MBBS WA MD MS DDU, FRACS FRCS ENG

Professor John Fletcher has been Professor of Surgery since 1997 and Head of the Discipline of Surgery since 2003. At Westmead Hospital he is Chairman of the Division of Surgery, Director of Vascular Surgery and Director of the Westmead Vascular Biology Research Centre and the Westmead Vascular Laboratory. He was the first Australian and New Zealand Vice-President of the International Union of Angiology (IUA) 1998–2000 and was President of the Surgical Research Society of Australasia 1997–8. He is a member of the Court of Examiners in Vascular Surgery of the Royal Australasian College of Surgeons. He is Chairman of the Australian and New Zealand Working Group on Prevention and Treatment of Venous Thromboembolism.

John Fletcher undertook his medical studies at the University of Western Australia, graduating in 1970. He says that medicine was what he always wanted to do, “right from primary school” and credits the influence of a long line of medical people on his father’s side of the family.

At the age of 20, John was conscripted but was permitted to defer military service until the completion of his studies. He did one year of an internship at Napier Hospital in New Zealand, which he describes as a very busy, active, district general hospital. “They had good subspecialty units with involvement in some trials of the use of beta-blockers in the cardiology unit and they were one of the first centres in New Zealand to take on coronary angiography; so for a regional hospital it was quite well equipped and staffed.”

After a year John came back to Australia and joined the Army, undergoing basic training and then officer training at Healesville School of Army Health. He then completed a course in Military Medicine and graduated as Captain. John remembers the intensity of his early military work:

It was the height of the Vietnam War and I was posted to the Second Military Hospital at Ingleburn. The casualties coming in from the war needed to be treated promptly in Vietnam, with those needing a longer recovery time evacuated back to the military hospitals in Australia. So we were looking after quite severe casualties, often with amputated limbs, and the like. This was a feature of medical care in that war, firstly with rapid evacuation back to the Field Hospital, where quite a high level of surgery was able to be performed, then transport back to Australia as necessary for more treatment.

At the military hospital I was functioning very much like a surgical resident or registrar. It was a hospital, so we had people in the wards with all sorts of surgical conditions, not just those of war. But we did see a lot of patients with various sorts of trauma and people serving the military troops who got various illnesses. Then there was that strange fact that more Australian soldiers were killed on the roads in Australia during the war than were actually killed in active service in Vietnam – so we saw a lot of road accident victims.

Coming out of the army in 1972 John took the position of Surgical Registrar at Royal Prince Alfred Hospital. One of the units had a major vascular focus which suited his interests. “Jed Goldie and Nick Packham were doing Head and Neck and Endocrine Surgery so I learned quite a lot about that but I did prefer the Vascular Surgery.” In those days, he worked long hours, starting at 7am, “just keeping going until the day ended at maybe one in the morning”, plus being on call once or twice a week and working one weekend in four. In addition, he attended to his ward patients and did out-patient clinics.

John took a post as Registrar in General Surgery at Stoke Mandeville Hospital, (England) in 1975 as it was “standard” for an Australian surgical trainee to take a post in England in a “good clinical job where you did a lot of operating”. According to John, the English National Health Service structure was such that they relied on surgeons coming from overseas “to do a lot of the cutting”. In 1977 he continued to Ohio, USA to become Special Fellow in Surgery at the Cleveland Clinic.

Meanwhile the plan to open a hospital at Westmead had become a reality. In September 1978 John was appointed Senior Lecturer in Surgery at Westmead, working with Miles Little. He says of this time:

It was unreal. I was appointed in September but the doors of the hospital didn't open until the following November so there were a few of us here without patients. We spent our time setting things up. It was an exciting time; it was the first teaching hospital built in Western Sydney and there was a strong need. There were some people who felt it was going to be a white elephant, but once the doors opened the patients started rolling in because we were serving a very wide area. It was good. There were patients presenting with complications of procedures that weren't really properly dealt with previously and suddenly we had the facilities to manage them.

These early days of Westmead Hospital were filled with clinical work and left very little time for research. However, John points out that because of the large patient population they were able to accumulate experience and information "fairly quickly in certain areas". For the next decade he carried out General Surgery, mostly emergency and trauma surgery, and in 1989 became Director of Surgery. By this time he had decided that he wanted to concentrate on Vascular Surgery.

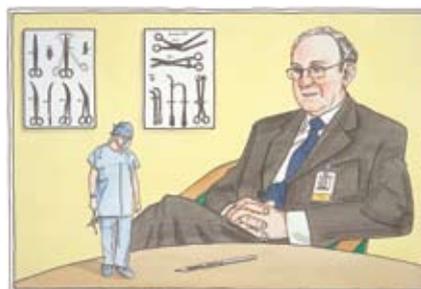
It was a natural evolution. Vascular Surgery was beginning to be recognised as a separate specialty and became a separate division in the College of Surgeons. The nature of the work had become more complex and the training needed to develop alongside it.

John reflects that there were significant changes in Vascular Surgery over this time. One was the capacity to perform endoluminal surgery from within the vessels themselves. Techniques that had evolved in the mid-90s meant that the management of abdominal aortic

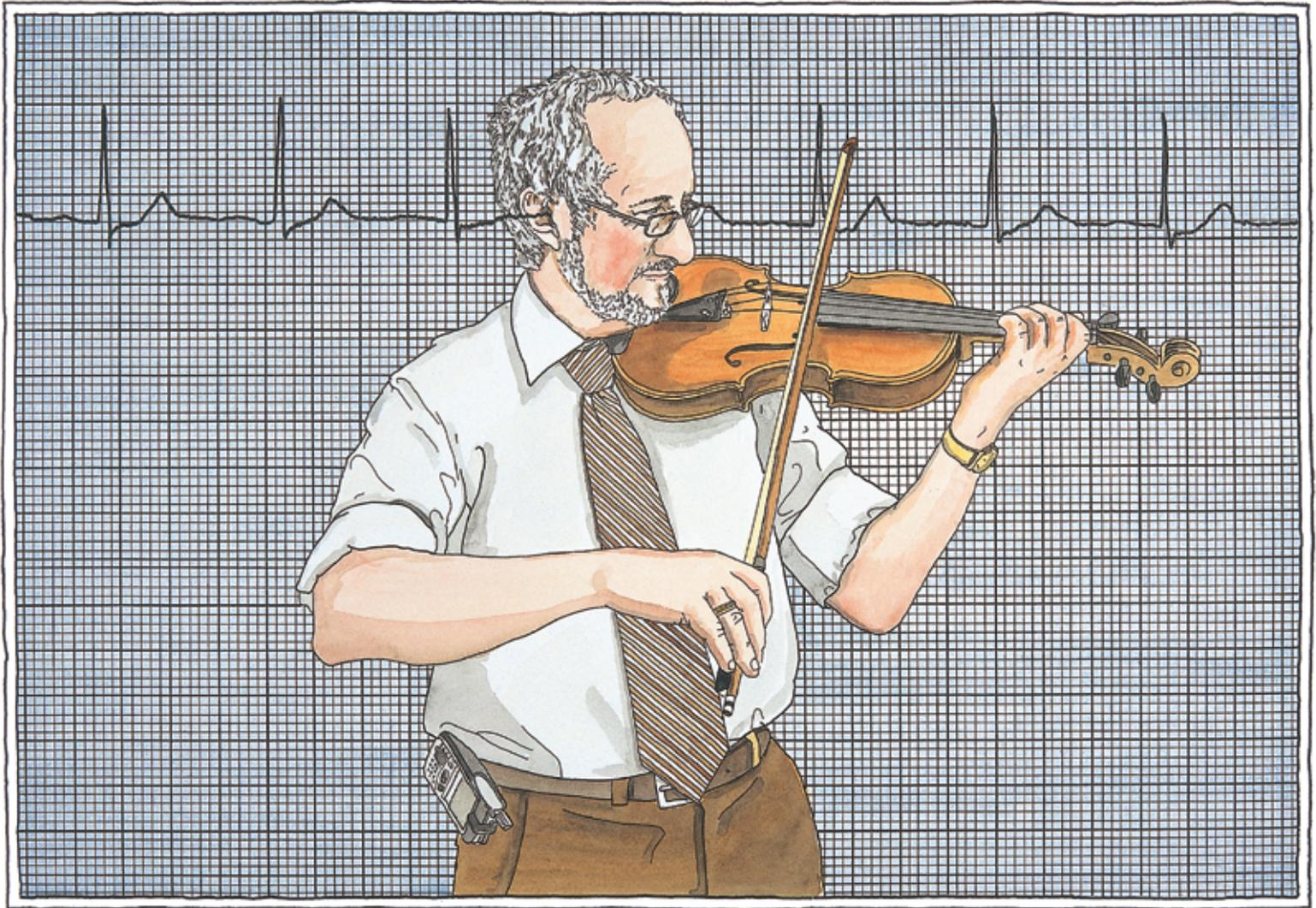
aneurysms, for example, could be managed with a couple of small cuts in the groin down to the femoral arteries. Another significant change was the development of ultrasound as a method of non-invasive investigation and follow-up.

In 1991 John became Director, Department of General Surgery, later Stream Leader, Western Sydney Area Health Service. From 1995 to 1999 he was Subdean at Westmead Hospital and then in 1997 was appointed Professor of Surgery following the retirement of Miles Little, juggling surgery and administration.

In 2006 he finally came off the call roster, saying "we've got enough vascular surgeons around now", but still sees patients in the hospital two or three days a week and operates both privately and in the public sector. John remains Professor of Surgery and Head of the University's Discipline of Surgery.



Professor Ben Freedman



PROFESSOR BEN FREEDMAN - CARDIOLOGY - FACULTY OF MEDICINE - UNIVERSITY OF SYDNEY

SIMON FIELDHOUS 2006

PRO-DEAN, FACULTY OF MEDICINE, UNIVERSITY OF SYDNEY; PROFESSOR OF CARDIOLOGY, CONCORD REPATRIATION GENERAL HOSPITAL

BSc(MED) MBBS PHD, AM_{USA} (AMEB), FRACP ECFMG USA FACC USA FESC USA

Professor Ben Freedman is Pro-Dean of Sydney University's Medical Faculty and Professor of Cardiology, Concord Repatriation General Hospital. Since 2000 he has been Chairman, Concord Hospital Research Committee and, since 2004, Head of the Vascular Biology Group in the ANZAC Research Institute. He is a member of the Executive of Concord Hospital Medical Staff Council and of the Hospital Governance Committee. His primary research interests are inflammation and thrombosis in coronary artery disease and secondary prevention after heart attack. He currently sits on the editorial board of ACCEL (American College of Cardiology Extended Learning program) and Clinical Cardiology.

Ben began his medical studies at the University of Sydney in 1966 and, the same year, completed an Associate in Music, majoring in violin. Inspired by Professor John Young's physiology lectures, Freedman chose to complete a Bachelor of Science (Medical). This early research investigated micro-puncture of kidney tubules to see how they transported amino acids. Once he had completed his Bachelor of Science (Medical) he began tutoring in Biochemistry. During these student years, Ben, with colleagues Bill Blessing and Warwick Britton, decided to poll all medical students about their experience of the medical curriculum and their work was published in the Medical Journal of Australia.

Following his graduation in 1973, he completed his internship at Royal Prince Alfred Hospital. He recalls that it was just a different pace of doing medicine. "You did drug rounds all through the night, so you would be completely devastated when you then had to work a full day." During this time, Ben and a few of his colleagues created the IRA (Incoming Residents Association) which successfully campaigned for better conditions for residents. After his intern year, he travelled to London to undertake postgraduate studies at the Royal Postgraduate Medical School, Hammersmith Hospital.

Returning to Australia in 1975, he became a Senior Resident and Registrar at the Royal Prince Alfred Hospital. By this time, he was interested in specialising in cardiology or gastroenterology and initially chose gastroenterology but he suddenly had a very bad feeling that he made the wrong decision. "So I went back and said, 'I'm sorry, I've changed my mind; I'll take Cardiology.' I have absolutely no regrets."

In 1976 Ben became Registrar in Medicine at Royal Prince Alfred Hospital, and the following year, Registrar in Cardiology. There

he began working with Professor David Kelly. Then, the common treatment for heart attacks was "bed rest". "We did do angiograms but bypass surgery hadn't really taken off at that time, and angioplasty or stenting had not been thought of. Our modern treatment of clot dissolving hadn't begun."

Inspired by the work of Professor Attilio Maseri, Ben embarked on his doctoral research into coronary artery spasm. Completing his doctorate in 1981, he then travelled to London on a National Heart Foundation Overseas Fellowship to work alongside Attilio as a Postdoctoral Research Fellow in the Cardiovascular Unit, Royal Postgraduate Medical School, Hammersmith Hospital. Of this time he says:

Maseri was an aristocrat from Italy and his wife was a countess. He was exceptionally bright and a very nice guy. Filippo Crea lived upstairs from me: he's now the Professor of Cardiology in Rome in the Catholic University. That makes him the Pope's cardiologist.

In 1984 Ben returned to Sydney, continuing his research at the Hallstrom Institute of Cardiology, RPAH. In 1985 he became Senior Lecturer and Chapman Fellow in Cardiology in the Department of Medicine. This was a joint appointment with the role of Cardiologist in the Department of Cardiology at RPAH. In 1986 he took on the additional role of Director of the Exercise Stress Laboratory in the hospital and found that the combination of clinical and academic roles would inform each other.

Ben was promoted to Associate Professor in the Department of Medicine in 1989, becoming Professor of Cardiology in 1995. That year he also became Head of the Department of Cardiology at Concord Repatriation General Hospital (CRGH), a role he held for eight years. He says, "When I began there were no academics and few consultants but over the years we developed a highly productive and awarded academic unit." A year later he became Associate Dean (CRGH) and Subdean for the Clinical School at CRGH.

Ben was busy – he was head of a department, running a new curriculum across a number of clinical schools, practising and teaching, undertaking research, and at the same time, was Secretary of the Cardiac Society of Australia and New Zealand.

During 2000 Freedman was Visiting Professor at Tufts University School of Medicine (Division of Vascular Medicine), St Elizabeth's

Medical Centre in Boston, USA. There he worked with Professor Jeff Isner on gene therapy for coronary artery disease, until the program was shut down by the FDA. During this time and on return to Australia, he was Scientific Chair of the World Congress of Cardiology. In this role he organised the scientific program of the 2002 meeting, which attracted 9000 delegates to Sydney and raised almost \$4.8M for the World Heart Federation, the National Heart Foundation of Australia, and the Cardiac Society of Australia and New Zealand.

Back in Australia, in 2003, Freedman became Pro-Dean of the Faculty of Medicine at the University of Sydney. In this role he participates on numerous high-level committees and is responsible for certain "special projects" for the Dean, including managing issues for the Faculty medical indemnity, developing the staff profile, the Northern Rivers and Broken Hill University Departments of Rural Health. He represents the Dean in a number of Faculty initiatives and stands in for him whenever he is away. In addition, in 2004 he became Head of the Vascular Biology Group at the ANZAC Research Institute.

Presently he balances administration, research, clinical practice and teaching.

I still enjoy teaching at both undergraduate and postgraduate levels – you just suddenly see the penny drop, people get switched on that's always a good kick! I still enjoy seeing patients, I definitely enjoy research [and] in administration when I convince people to give major funding ... that's always a buzz.

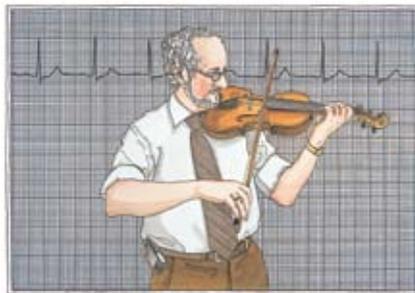
His current research interest is to devise ways of assisting patients who have been in hospital with either a heart attack or a suspected heart attack to make changes in their life that will assist them in reducing the risk of a recurrent event or dying.

We've got a fair idea of things we can do but often patients don't hear us or don't want to. If you ask young doctors who are going into cardiology where the future is they'll all tell you the newest imaging technique or interventional technique, but if we could convince our patients to do what's good for them then we'd have very few people who are needing our attention.

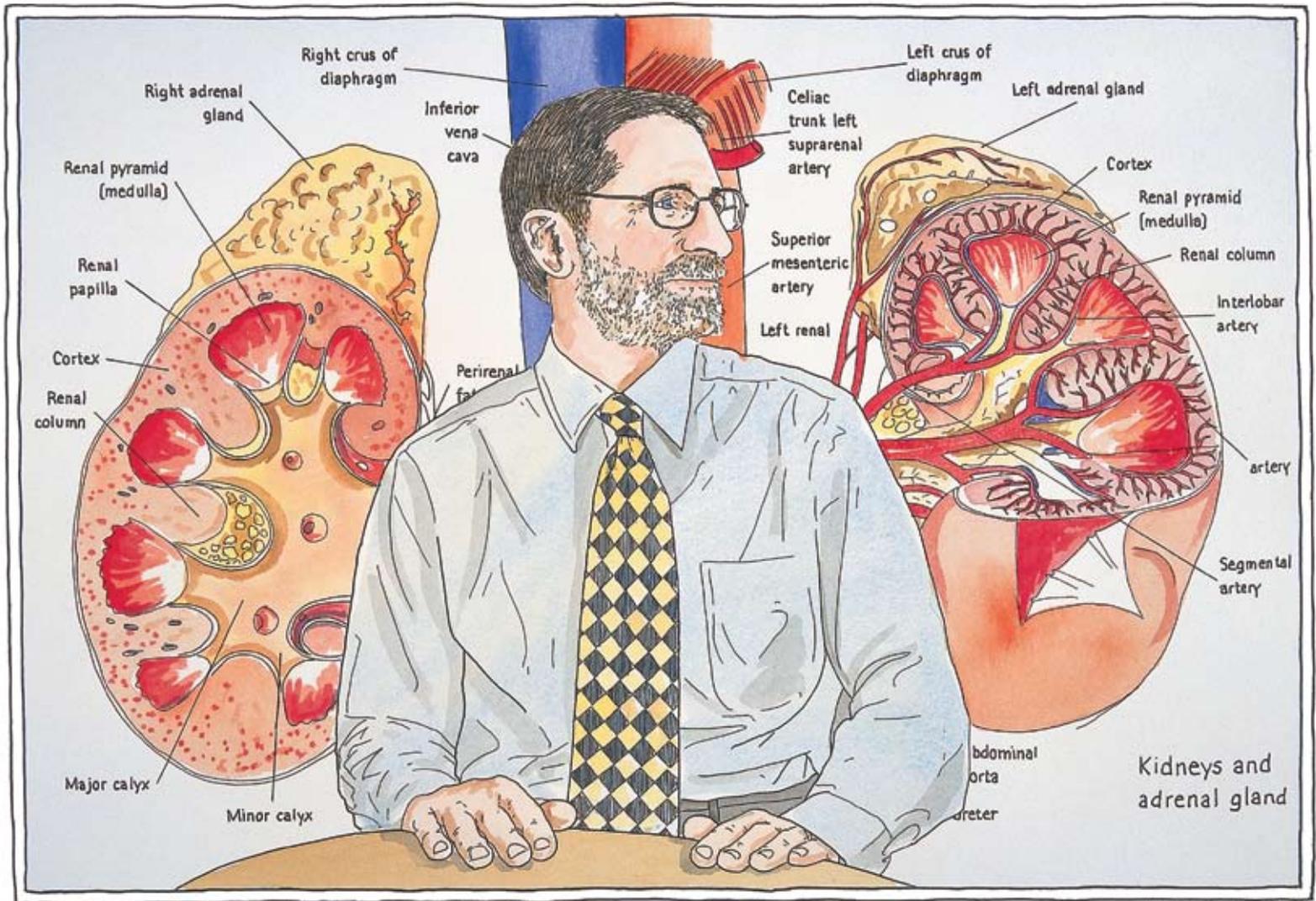
Freedman has recently played a major role in the facilitation of the new Music and Medicine combined degree program, where students with exceptional academic capabilities are able to complete an undergraduate Bachelor of Music degree followed by an assured place in Medicine at the University of Sydney. As a member of the NSW Doctors Orchestra, Freedman has maintained his interest in the violin over the years and performed last year for the Faculty's 150th anniversary celebrations.

As to the legacy of the Faculty, Freedman says:

We would like to maintain the diversity of input of people into medicine; I think it enriches the Faculty. It's a sandstone university, but it's not a sandstone culture.



Professor David Harris



ASSOCIATE DEAN, WESTERN CLINICAL SCHOOL, FACULTY OF MEDICINE, WESTMEAD HOSPITAL

MD BS, FRACP

Professor David Harris is a consultant nephrologist in Westmead Hospital, Past President of the Australian and New Zealand Society of Nephrology, Past Chair of the Medical and Scientific Advisory Committee of the Australian Kidney Foundation, Past Director of Kidney Health Australia and current Chairman of the Advisory Committee of the Australasian Kidney Trials Network. He is also a member of the Executive of the Asian Pacific and International Societies of Nephrology, and Editor-In-Chief of the journal *Nephrology*. His research interests are focused on interstitial inflammation in progressive chronic renal disease and dialysis and progressive renal failure.

David graduated from the University of Sydney with an MBBS in 1977 and underwent his internship at Royal North Shore. He remained there until 1982, and commenced his nephrology training under Lloyd Ibels, before transferring to Westmead Hospital to complete his training under John Stewart, who much later was to become Associate Dean of the Western Clinical School. He recalls,

What John Stewart and Lloyd Ibels gave me was more about them as "characters" and their clinical acumen and approach as nephrologists. But it was the intellectual side of nephrology that interested me, which said something about myself rather than them. I'd begun reading about it as a medical student. When I was a junior doctor, kidney disease was almost unique in that knowledge of the physiology of kidney function was just being applied to clinical practice and was expanding rapidly. It was also a period when the clinical practice of dialysis was taking off; it had been practised for a decade or more but it was really starting to improve. Peritoneal dialysis, a new form of dialysis had just begun. Renal transplantation had been practised for over a decade as well, but the anti-rejection drugs were improving all the time and that was really changing the practice and outcomes of kidney transplantation. So it was an exciting time in nephrology and I was excited both by these clinical advances and all the new knowledge.

From 1984 to 1987 David was a Research Fellow in Nephrology at the University of Colorado Health Sciences Center in Denver, Colorado, USA. There he was working under Bob Schrier who was one of the world leaders in nephrology. As he says, "it was a fantastic time to be working in one of the leading nephrology labs in the world. I concentrated on research but had to do a limited amount of clinical work as the scholarship funds didn't go very far. It was expected that

I gain a higher degree if I wanted to enter academic nephrology in Australia. I thoroughly enjoyed the academic environment in Denver; the new knowledge and the teaching". Whilst there, David completed the research for his MD entitled *The Role of Calcium and Phosphorous in the Pathogenesis of Acute and Chronic Renal Disease*; the degree was awarded in 1988.

Coming back to Australia he took up the position of Clinical Superintendent in Medicine at Westmead and, concurrently, Renal Physician. In 1988 he became Physician-in-Charge of Dialysis for both Westmead and Blacktown Dialysis Units. Coming back to these Units he found that Australian nephrology had progressed a little whilst he was away, particularly with the introduction of transplantation at Westmead. However, David's own focus remained on dialysis and progressive kidney disease. Throughout this time he was involved in medical education, not only teaching undergraduate students but also junior doctors. According to David, teaching has always been something he has enjoyed.

By 1993 he had become Director of Dialysis of the Western Sydney Renal Service and 10 years later the Director of Nephrology as well. Speaking of significant changes in his field, David says "in dialysis there has been improvement in technology. However, in transplantation it has been the new drugs that have made the most difference". He does note, however, that their Unit at Westmead has been a leader in kidney and pancreas transplantation but is quick to credit others in the Unit for this work. As he says, "I still get to look after transplant patients, but my personal clinical and research focus remains in progressive kidney disease and dialysis. Hopefully in the next decade we are going to start to use new treatments for progressive kidney disease, particularly for diabetic kidney disease, which is now the most common cause worldwide of kidney failure. Over the next decade I think we're going to see the clinical application of cellular and molecular therapies that my colleagues and collaborators are currently testing in the laboratory. That's very exciting."

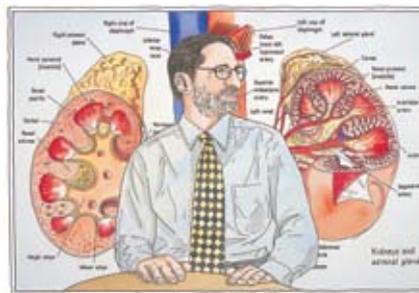
From 1994 David was appointed Associate Professor in Medicine within the Faculty, becoming Professor in 2004. In mid-2006 he became the Associate Dean, Western Clinical School. He says of this,

This is a completely new role for me. Having worked in the same area for such a long time, I wanted a change and I could see big challenges facing Westmead which I thought I'd like to get involved in. I took on

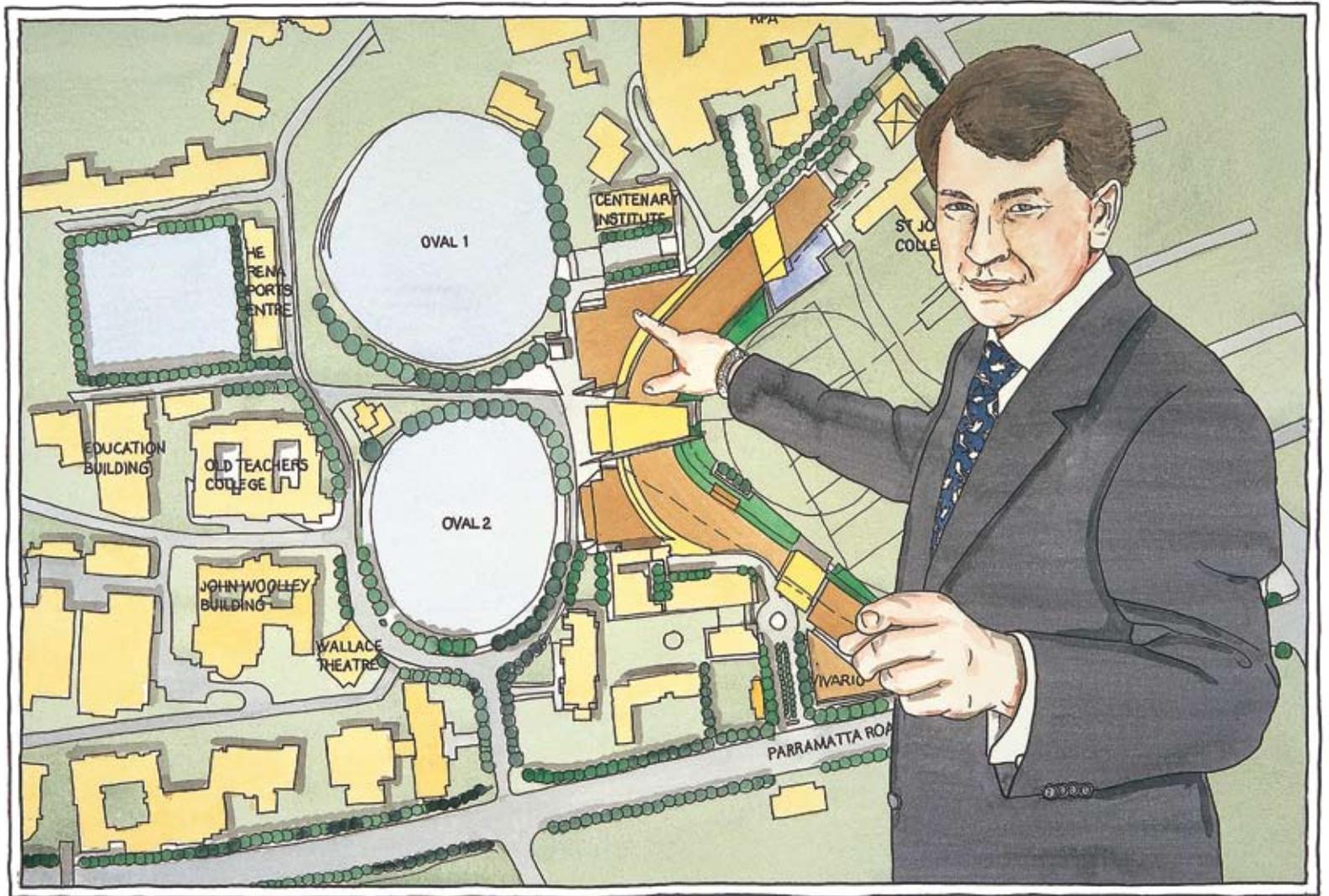
the new job with some trepidation but I'm thoroughly enjoying it. There are several large challenges here; including the competition from new medical schools (University of Western Sydney and Notre Dame) and the cramped and out-dated clinical school facilities which are in urgent need of upgrading.

David has cut his clinical practice in half to take on the role of Associate Dean but has not relinquished his clinical and laboratory research interests. He works long hours. Of this he says that "there's a job to do properly and that takes time." Aside from his Faculty involvement David chairs a committee for COMGAN (Commission for Global Advancement of Nephrology), a program of the International Society of Nephrology, an organisation trying to advance nephrology worldwide. In this regard David is mostly involved with the countries of South East Asia, and laments that "the Pacific Islands are a real challenge as there are very limited resources."

Speaking of the legacy of the Faculty, he says that he has "always had the sense of its history and its strengths and that it will remain the leading Faculty of Medicine in the country." He thinks highly of the curriculum changes brought in a decade ago, and which more recently "have helped us remain at the front of the field". David feels that one of the Faculty's strengths is its "remarkable sense of collegiality, despite being spread across several clinical schools." He also states that "we are leaders in terms of research" and is proud that the research productivity of Westmead is so very, very strong.



Professor Richmond Jeremy



PROFESSOR RICHMOND JEREMY - FACULTY OF MEDICINE - UNIVERSITY OF SYDNEY

SIMON FIELDHOUSE 2006

ASSOCIATE DEAN, FINANCE AND INFRASTRUCTURE (TO 2007)

MBBS PHD, FRACP FAHA FESC FCSANZ

Professor Richmond Jeremy is a Cardiologist at the Royal Prince Alfred Hospital. For the last two decades his major research interest has been the investigation of the effects of coronary occlusion and reperfusion upon the heart. He has completed three terms as an Associate Dean in the Faculty of Medicine, ranging from Admissions and Curriculum to, most recently, Finance and Infrastructure.

Richmond Jeremy credits his grandfather for his early interest in medicine. He says,

I remember when I was in high school and I had to do an assignment on malaria. My grandfather said, "I'll give you a book to read about it." And I remember thinking, "this is absolutely fascinating and what a hoot!"

Richmond entered medicine in 1974, choosing it over pure science or architecture. Medicine, he says, offered him the "intellect, the science, safety and independence." He also argued that medicine needs "a good scientific mind and a capacity for an element of abstract construct thought. After all, anatomy, for example, is three-dimensional human design."

Graduating in 1978, he carried out his internship at Royal Prince Alfred Hospital and recalls being strongly influenced by doctors such as David Tiller, David Burke and Ruthven Blackburn.

These men had real knowledge and understanding and wanted to build things and create things and move everything forward, not just sit where they were. There were many other influences as well, people I had the privilege of knowing through my family for years.

Richmond asserts that the secret to being a good intern in those days was to be keen and enthusiastic, to arrive early, to stay late, make sure everything was properly finished. Then, people would say "he's keen and enthusiastic, give him a go!"

He moved into cardiology in 1983 following an invitation from Lou Bernstein to join the cardiology unit as a registrar. According to Richmond, cardiology is the next best thing to flying an F18 aircraft.

It's a total adrenaline rush when you're busy and you get instant gratification. At the end of the day I go home and say, 'Yes, I defibrillated somebody; yes, we worked out their chest pain; yes, we did an angiogram and an angioplasty.' I like the immediacy of being able to fix people and the very genuine gratitude of most patients.

From 1984 to 1986 Richmond undertook a Doctor of Philosophy (Medicine) as a research fellow of the National Heart Foundation of Australia and the Hallstrom Institute of Cardiology, RPAH. His work investigated the connections between high blood pressure and heart disease, entitled *The Coronary Circulation in the Normal and Hypertrophied Heart*. The following year he left Australia to spend three years as a Fellow in Cardiology at the Johns Hopkins Hospital, Baltimore. His time there was an eye opener into life in the American health system and the "flipside of the glory of American medicine". "Hopkins was a public health hospital and it dealt with everybody out in the Eastern Suburbs of Baltimore, which was the poor Black suburbs. If you had money and if you had health insurance you were usually ok but if you didn't it's a nightmare."

Richmond returned to Australia and became Associate Cardiologist (at RPAH once again) and as a NHMRC Fellow for a year before being appointed Senior Lecturer in Medicine (Cardiology) in the Faculty of Medicine in 1992. After the new medical program began in 1995 he began sitting on the curriculum and assessment committee.

There appeared to be an opportunity for new fields of endeavour, curriculum change and new management strategies. It was a good opportunity to work cooperatively with others and that enabled me to interact with colleagues in different parts of the Faculty and showed me some of the challenges facing the delivery of the curriculum. For the first time, I really began to understand how the management of the Faculty worked.

In 2001 Richmond became the Subdean (Curriculum) for Central Clinical School and Associate Dean (Admissions) for the Faculty. From 2002–2003 he was Associate Dean (Curriculum) for the Faculty. When asked about these career leaps, he asserts, "You make your own opportunities to learn more about work and to learn more about yourself as a person." As a cardiologist, he says, "The patients want an expert with the answers, someone who is going to tell them what to do and what's going to happen. Being a manager and a leader requires a different type of person; someone much more collaborative. I learnt to switch between the two."

Richmond recalls that when he began Cardiology it was only a few years after the first Coronary Care units had opened and that the first time he went inside one he thought it looked like "something out of Star Trek". At that time there was not much you could do for a patient who presented with a heart attack beyond putting them

on lignocaine, "tucking them up in bed and hoping for the best". Now, he says, "if someone comes in with a heart attack you give them an urgent angioplasty and their arteries open up and we don't have people with cardiac shock anymore."

Richmond enjoys solving problems and improvisation. "Cardiology needs a fine line between having a mindset that is prepared to take risks without being irresponsible." He reflects that the changes that have happened in the field are "extraordinary" and recognises that it's a completely different cardiology from the cardiology he was trained in. "What I learnt was so much more advanced than what my grandfather practised."

In 2003 Richmond became Professor of Medicine and Associate Dean (Central Clinical School). During 2005 he was asked to consider taking on the new role of Associate Dean (Finance and Infrastructure).

We have a vision to achieve 1:5:40. That is, to be the clear leader as Australia's premier academic centre for health and medicine, be one of the top five medical faculties in the region and be recognised and ranked as one of the top forty medical faculties in the world. We soon realised that if we're going to achieve 1:5:40 we have to achieve an infrastructure and then resources that support that. We need good quality accommodation, good quality laboratories, sustainable financial support and the ability and flexibility to recruit, move and change around. You have to have a small team of people

who understand the academic needs and the business and financial needs and are able to marry the two things together. We started doing things in Blackburn, then Bosch and St John's precinct. We then realised that we needed to do things for the Faculty on the different campuses. When other faculties became involved, it became a plan for the whole University.

Reflecting upon the legacy of the Faculty, Richmond says:

There are generations of medical practitioners and a huge number of academic leaders that have been trained by this Faculty. That's its primary and greatest legacy by a long shot. Also, the improvement in patient care and quality of practice is really very closely linked to having an academic environment that cares about answering questions.

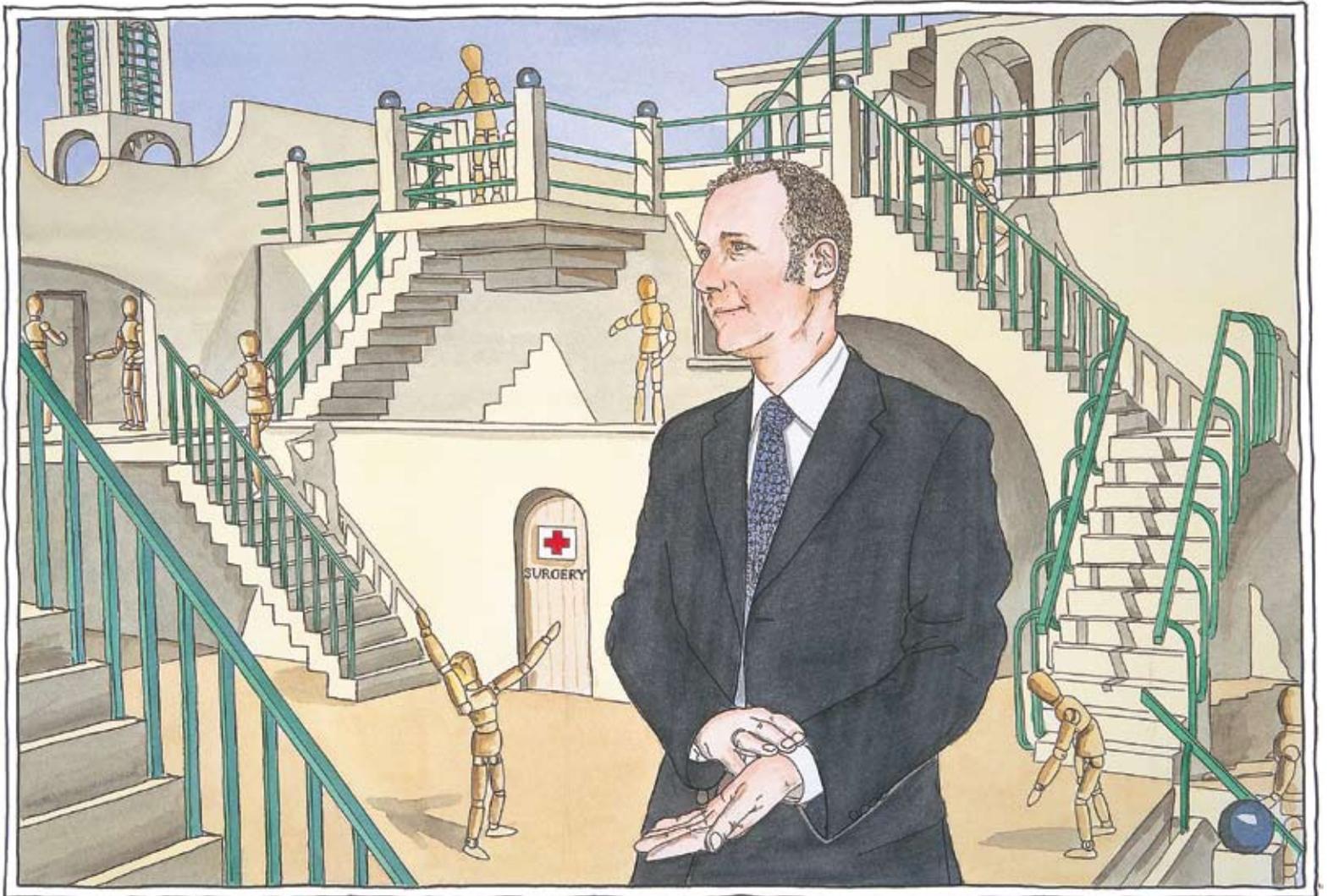
Still, he would like to see the export of University of Sydney expertise and training to sub-Saharan Africa or to large areas of Asia where the population is really struggling with health care. To him, "that's what 1:5:40 should really be about: not just sitting in your own patch of turf."

Professor Richmond Jeremy is currently the Pro-Vice-Chancellor (Campus Infrastructure and Services).

Simon has painted Professor Jeremy pointing to the plans for the development of the new Research Institute.



Professor Michael Kidd



PROFESSOR MICHAEL KIDD - GENERAL PRACTICE - FACULTY OF MEDICINE - UNIVERSITY OF SYDNEY

JIMMY FIELDHUSE 2006

GENERAL PRACTITIONER AND HEAD OF THE DISCIPLINE OF GENERAL PRACTICE

MBBS MELB MD MONASH DCCH FLIN DIP RACOG, FRACGP FACHI FAFPM (HONORARY) FHKCFP (HONORARY) FRNZCGP (HONORARY) MAICD

Michael is Head of Discipline of General Practice. He was President of the Royal Australian College of General Practitioners 2002–2006 and was the first person to serve two terms as college president. His research interests include the use of information technology in health care. He is also involved in HIV medicine and in collaborative research with the National Centre in HIV Social Research at the University of New South Wales. He has a strong international role as a leader in family medicine education and research.

Michael Kidd entered medicine at the University of Melbourne in 1978. At that time, like Sydney, Melbourne University was a very traditional medical school.

It took three years before we saw any patients. The fourth year was a bit of a shock when we were suddenly full-time in a teaching hospital. That was challenging but I enjoyed the clinical work, I enjoyed general medicine, paediatrics, obstetrics, psychiatry, general practice – it was great to get experience in all of those areas.

When Michael did his medical school General Practice attachment, he was posted to a semi-rural area called Diamond Creek with Dr Don Cordner.

Don had won the Brownlow Medal in 1946 playing with the Melbourne Football Club while a medical student during the Second World War. This made him a serious local hero. He had a general practice on the outskirts of Melbourne and spent much of his time providing palliative care to people who were dying of cancer in their own homes. Every day he'd get in his car and drive around the district to farms and villages visiting terminally ill people who had chosen to die at home. His work had a real impact as I watched the way he cared for his patients and their families, and his role in his community.

In his final elective year, Michael worked with the Royal Flying Doctor Service in Western Australia, travelling into the Western Desert and throughout the Kimberleys. This was “a big change” as he started to learn about Aboriginal health and also discovered how little he actually knew about the people living in the remote parts of our country.

There were a lot of people with tropical diseases which I hadn't seen in Melbourne. For example, there were people with leprosy, some with very nasty ulcers which didn't heal well. There were a lot of people presenting with sexually transmitted infections including some which only occur in tropical areas. But also many people with serious chronic

diseases and preventable disability; people with diabetes and heart disease and people who had had strokes but had received little or no rehabilitation.

Michael graduated in 1983 and completed his internship at the Royal Melbourne Hospital. In 1984 he went to the Royal Children's Hospital in Melbourne for a year. Whilst there, Michael did his first general practice attachment at a clinic in Newport in working-class Melbourne. He did further training in mental health and obstetrics and decided on a career in academic general practice.

In 1986 he went to work in rural general practice in Dimboola, which was run by an “inspirational” man called John Pickering. This was another great learning experience.

John was a solo GP, the only doctor in town. He looked after Dimboola and a few of the smaller towns in the region. John was an all-round country doctor. He did everything; he did surgery, obstetrics, went out with the ambulance to the car crashes on the highway, went out with the police when there was someone threatening to commit suicide or threatening to harm somebody else; out most nights doing home visits to the seriously ill, up many nights delivering babies.

From 1987 to 1988 Michael completed a Diploma in Community Child Health at Flinders University. In 1988 he was appointed as an academic general practice registrar in the Department of Community Medicine and General Practice at Monash University. He attained Fellowship of the Royal Australian College of General Practitioners in 1989. In 1990 he was promoted to Senior Lecturer at Monash University and until 1993 divided his time between being an academic and practising at general practices in Melbourne's eastern suburbs. These years also saw an increase in the number of people with HIV in Melbourne.

When HIV first appeared in Victoria a group of gay GPs set up a clinic, called the Gay Men's Health Centre. The clinic later merged with the Victorian AIDS Council and became the Centre Clinic of the Victorian AIDS Council. In 1993 there was a workforce crisis in the clinic. So as a gay man I decided it was time to move my general practice and I started spending my clinical time working with the Victorian AIDS Council.

In 1992 Michael became the Director of Undergraduate Education for the Department of Community Medicine and General Practice at Monash University, a position he remained in until 1995. That

year, he was awarded the degree of Doctor of Medicine from Monash University for his thesis titled *Meeting Challenges in Medical Education*.

Michael was appointed Professor of General Practice at the Faculty of Medicine at the University of Sydney in 1995. As he recalls,

I was 35 so I was a young professor. A whole lot of the interdisciplinary barriers were disappearing as people were brought together to design and implement the new graduate curriculum. It was a great opportunity to work with people like Ann Sefton and Jill Gordon and Michael Field, who were leading the curriculum development. Steve Leeder was a great champion for the process. And John Young, who was our Dean at the time, was very supportive and a great source of wisdom to this young professor.

In 1997 Michael started working alongside Marilyn McMurchie who had been working in general practice in Darlinghurst from the start of the HIV epidemic in Sydney, providing care to hundreds of people dying from this dreadful disease.

In 1999 Michael was appointed as head of the Department of General Practice, spending a lot of time travelling around the state, building up the department and mentoring staff about their professional development and their education and research activities. It was

excellent training for the challenges he would face during four years as President of the Royal Australian College of General Practitioners.

Michael says of his career,

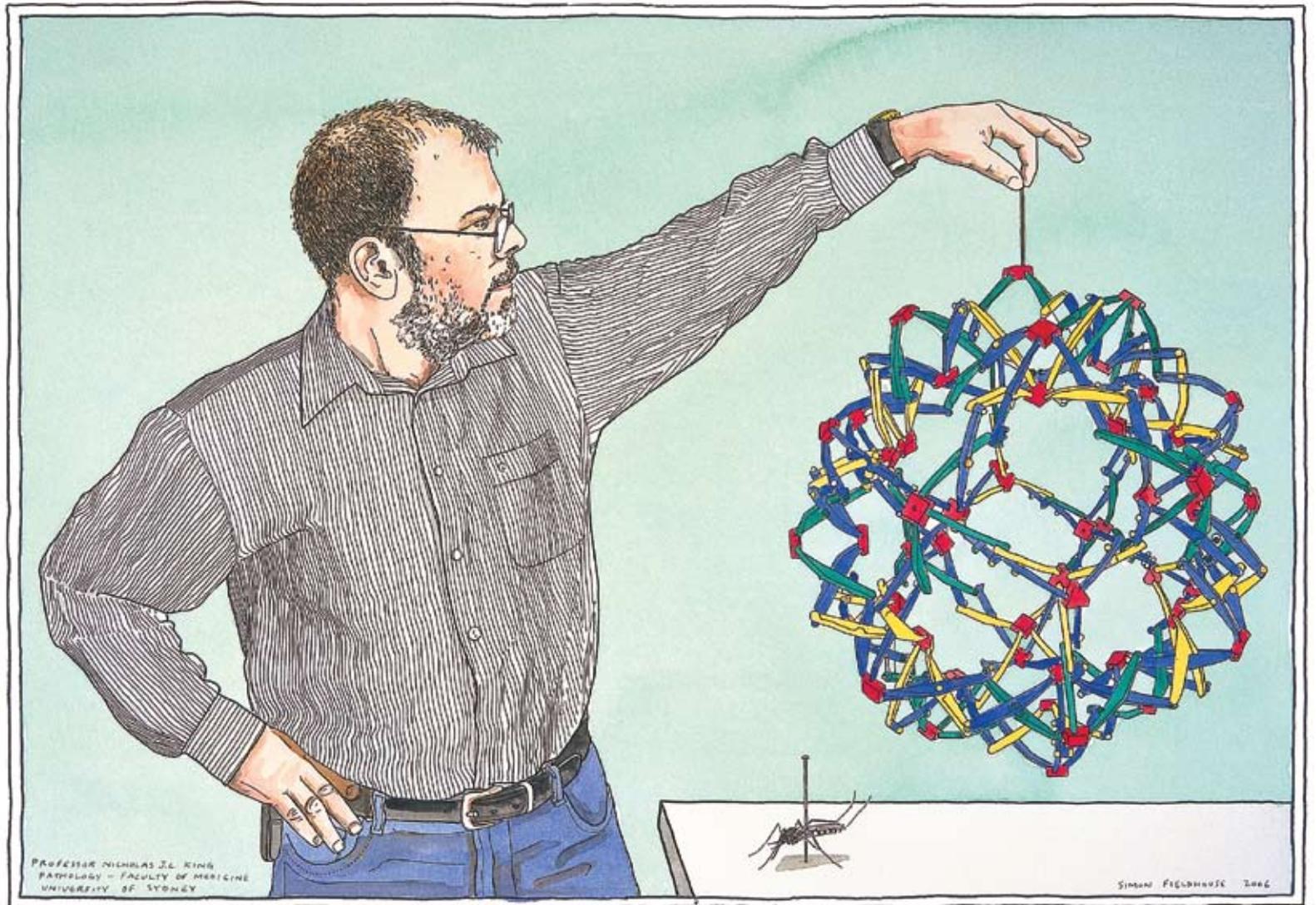
It's a privilege being an academic because you have the opportunity to do research areas of medicine that you're passionate about. You have the opportunity to teach people who really want to hear the lessons that you want to impart; teaching medical students, especially our graduate students, is a joy. You have the opportunity to support the development of education and research in your clinical discipline, both in Australia and overseas. And you can still be a practising doctor providing care and support to your own loyal population of patients.

When asked about the legacy of the Faculty, he says,

This Faculty's greatest legacy is of course its graduates, who were inspired by wonderful teachers, who learned how to become great medical practitioners and who have then gone on to have a remarkable impact on the lives of many thousands of people. It's also been wonderful to be part of the growing academic discipline of General Practice; and we were fortunate that Professor Charles Bridge-Webb was this University's Foundation Professor of General Practice in 1975. He has left us with a wonderful legacy.



Professor Nick King



PROFESSOR OF VIRAL IMMUNOPATHOLOGY, HEAD, DISCIPLINE OF PATHOLOGY

MB ChB CAPE TOWN PHD ANU

Nicholas King is Professor of Viral Immunopathology and Head of the Department of Pathology in the School of Medical Sciences. His research interests are focused on the immune response to flavivirus infection in specialised organs and peripheral sites, in particular, to West Nile virus.

Nick King was born in Zambia in a leper colony and he describes his younger self as a “scientist” and a “naturalist”.

I lived on a farm and used to collect things; I made huge collections of beetles, for example, and I was also an avid birdwatcher – still am. I would go into the bush with the African people who lived on the farm and they would show me how to make bows and arrows from the natural vegetation. I spent all my free time observing the natural surroundings – being a naturalist. I could easily have gone into biology.

Choosing Medicine, he describes his undergraduate medical course as one in which asking questions was discouraged; “it was seen as a threat to the hierarchical authority of the individual” but thinks that was “pretty normal for the time”. Nick graduated MB ChB from the University of Cape Town in 1976.

He completed his residency at the remote State Hospital in Oshakati, Namibia, on the border of Angola. In 1977 Namibia was part of South Africa and was in a state of war with Angola. Nick often saw mine, grenade and bullet trauma, in addition to local infectious disease and non-communicable illness. He was expected to perform a wide variety of procedures, including daily anaesthetics and caesarean sections, and lumbar punctures in infants (bacterial meningitis was very common), but went as far as cataract removal. Tuberculosis and bubonic plague were common, although the latter was seasonal. He claims the distinction of treating himself for the bubonic plague after an infected needle stick injury.

In 1978, he began teaching as Junior Lecturer in Anatomy at the University of Cape Town.

At that time I had thought the most sensible path for me was to become a neurosurgeon. I was good with my hands and I felt that the intellectual challenge of neurology would keep me interested. I thought the sensible thing to do was what almost all people did before they wrote their primaries – teach anatomy. So I learned about teaching, and more specifically about teaching anatomy, which

is actually a very difficult subject to teach. I taught it in very great detail because that’s how it was taught in those days. I had a ball and decided that I liked teaching anatomy, and that neurosurgery could wait.

While a registrar in Otorhinolaryngology at Groote Schuur Hospital, Cape Town, Nick applied for the post of Temporary Lecturer in Anatomy at Adelaide University. He says, “I had never been out of Africa and I thought it wouldn’t do me any harm to get out and see a bit more of the world: Australia seemed like as good a place as any.” From 1980 to 1982, King worked under Professor Priedkalns at Adelaide University. He reflects that this time was strangely difficult for him as he adapted to leaving the war and racist difficulties of Africa and living in peaceful sleepy South Australia. However, during this time he realised that his interests in research eclipsed his desire to practise medicine again. In combination with teaching, King felt he had found his professional niche.

Nick commenced his PhD in 1982, in the Department of Microbiology at the John Curtin School of Medical Research, Australian National University under the supervision of Bob Blanden, whom he credits as being “an old-time, old-style, old-school type of supervisor”, who was “very enthusiastic” and “inordinately generous”. Nick’s doctoral research examined the control of cell-surface Major Histocompatibility Complex (MHC) protein expression crucially involved in regulating the recognition between T cells of the immune system and virus-infected cells (work that continued for two years in the Reseach School of Physical Sciences at the ANU as postdoctoral research in the *Immunoregulation Project*). Nick’s research found some unusual viral behaviour which his supervisor encouraged him to write up in the *Proceedings of the National Academy of Science*.

The virus that I came to work with, West Nile virus, is transmitted by mosquitoes and targets the central nervous system. We discovered that it up-regulates cell surface MHC and adhesion molecule expression. So here we have this virus that up-regulates the very molecule that is supposed to be used by the immune system to recognise it! I thought, “Why is this virus waving a flag at the immune response saying come and get me?” That fascinated me so much that I decided to continue to work on it. It turns out it is probably the basis for the immunopathology – the damage caused by the immune system to the host during infection by this virus. Immunopathology may be OK if you are talking about organs that can regenerate, but not the brain.

Nick took up Lectureship in the Department of Anatomy of the University in 1988; then in 1991, moved to the Department of Pathology as Senior Lecturer. In 1994 he spent a year in the USA as Visiting Professor in the Department of Anatomy at Southern Illinois University, Carbondale developing a new virus model and developing web-based teaching resources.

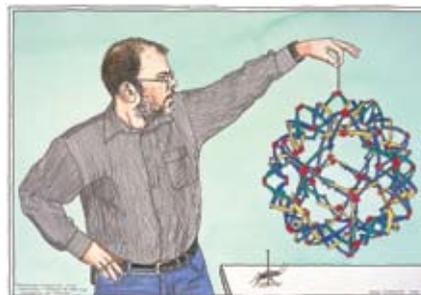
In 1998 Nick was promoted to Associate Professor in the Department of Pathology. One year later, he was appointed Subdean (Curriculum Development) in the then Department of Educational Development and Evaluation. 1999 would prove to be a significant year for him, as there was an outbreak of West Nile virus encephalitis in the United States, which spread to Canada and Mexico. Consequently Nick tweaked his research to investigate areas that were not being examined by others at the time. It was during this time he found that the major damage caused by this virus is the immune system's response to it, rather than the virus itself.

Nick was appointed Head of the Department of Pathology in 2002. He says, "It's a wonderful department. It's full of disparate, collaborative, engaging, considerate, motivated, enthusiastic people." But Nick is anxious to acknowledge that the discipline extends to all the hospitals associated with the University, with significant contributions in teaching and research from each of these centres. Nick promotes an academic combination of teaching and research, saying that they are "absolutely intertwined". Under his leadership the Department initiated the first online pathology museum in Australia. He also says the Department is a very productive research department.

Although we are a comparatively small department, the academics have a well-directed, strong research output. I truly think though, that one of the extraordinary things is how well we teach. We're the only department within the Faculty of Medicine that has two winners of Vice-Chancellor's Awards for Excellence in teaching, (he and Roger Pamphlett) as well as a Faculty of Medicine Award for excellence in Higher Degree Supervision (Jillian Kril).

In 2003, Nick became a member of the Board of Directors of the Institute of Biomedical Research, and subsequently, as a member of the Executive Leadership Group, he became a Theme Leader (Infection, Immunity and Inflammation) in the Bosch Institute. He was appointed Professor of Immunopathology in 2005 and simultaneously promoted to Associate Dean (Assessment) within the Faculty of Medicine, a position he held until the end of 2007. He is active in the Australasian Society for Immunology (ASI). He represents the ASI as Vice-President of the Federation of Immunological Societies of Asia-Oceania (FIMSA) and as an Australasian Representative at the International Union of Immunological Societies (IUIS).

Through his work, Nick has learnt about the legacy of the Faculty of Medicine. "It all comes down to esteem and respect. People overseas know the University of Sydney, they know that if they're going to collaborate, they know that they'll get quality. The Faculty has a long history of very high quality."



Professor Richard McLean



PROFESSOR RICHARD MCLEAN • RURAL HEALTH - FUTURE OF MEDICINE - UNIVERSITY OF SYDNEY

SHANE FILLARDISSE 2006

HONORARY PROFESSOR, FACULTY OF MEDICINE, UNIVERSITY OF SYDNEY; ADJUNCT PROFESSOR, FACULTY OF MEDICINE, AUSTRALIAN NATIONAL UNIVERSITY

MD BS, FRACP

Rick McLean was Associate Dean of the School of Rural Health based in Dubbo and Orange, NSW, 2001–2006. He held various roles in the Royal Australasian College of Physicians from 1990, including as Chief Censor and President of the Adult Medicine Division. He is currently Honorary Professor in the Faculty of Medicine at the University of Sydney, and Adjunct Professor in the Faculty of Medicine at the Australian National University.

Rick McLean was born in 1952 and enrolled in medicine at the University of Sydney in 1972, graduating in 1978. A country boy, he remembers life being not particularly difficult, with plenty of good times.

I had a Commonwealth Scholarship and also I had additional funding because my father had been in the war and ended up totally and permanently incapacitated. I got quite a reasonable allowance to go to university; I had all my textbooks paid for and living expenses pretty well covered, so I was lucky from that point of view.

He completed his residency at Royal Prince Alfred Hospital and Parramatta Hospitals and then undertook specialist training in internal medicine and nuclear medicine at the Prince of Wales Hospital from 1980 to 1984. Early during the period at Prince of Wales Hospital he met his mentor Provan Murray and became very interested in nuclear medicine. Rick says he could see that it also offered a “stable lifestyle in terms of the hours that you did and that had appeal and that there was opportunity for reflection and research”. He says that he worked in nuclear medicine at a time when ultrasound and CT were much less developed and certainly MRI wasn’t even on the horizon.

There were a lot of bone scans and brain scans and liver scans for cancer and other conditions; a range of heart scans was developing, but all sorts of heart conditions, lung scans for clots in the lung. At that place there was a lot of expertise in doing scans in children, the whole range of scans.

Rick left Australia and was appointed Clinical Fellow in Nuclear Medicine at Princess Margaret Hospital Toronto, Canada, in 1984 and held this post for a year. He practised in oncology and undertook specialist research.

Returning to Australia in 1985, Rick was Staff Specialist in Nuclear Medicine at St George Hospital, Kogarah, for the next six years. He worked under nuclear medicine doctor, Norm Lyons, and with principal scientist and physicist, Richard Smart, who assisted with the

technical aspects of the tests and computer analysis. Rick’s clinical work included thyroid patients, with increased time for research.

It was quite a go ahead department and there was an opportunity for some clinical research and some good people there to support it. I developed my research interest in gastrointestinal nuclear medicine. This is functional imaging to investigate anything that might be wrong with the function of the oesophagus, the stomach, the gall bladder, some problems related to the liver and also problems with transit through the large bowel.

In 1991 Rick moved into private practice, and for the next nine years worked in a group practice which grew and eventually had sites in Kogarah, Wollongong, Nowra, Bankstown and Macquarie Street.

There were eventually six of us servicing those and at that stage we had a bit of a split in the practice and two of us left in 1995. Barry Elison and I started two private practices – one in competition in Wollongong and one at Fairfield out in the west of Sydney. Subsequently probably around 1997 we both got appointments as visiting medical officers at Wollongong Hospital.

In 1998 the practice was bought out by a corporate group. In 2000 Rick gained his MD from the University of Sydney.

I finished my gastroenterology research in the area of colon transit scintigraphy. And I did some other research in Wollongong Hospital which ended up with some publications. There was not all that much teaching at that stage but I had involvement with the Royal Australasian College of Physicians on the training side, so I was more involved in the administration and policy around teaching.

In 2001 he left private practice to return to the public sector and became Staff Specialist in Nuclear Medicine at Nepean Hospital, Penrith.

That was a newish department which really didn’t have much in the way of nuclear medicine expertise. I tried to increase the number of referrals and to make it more academically focused, and provide some better support for clinicians.

After six months at Penrith he opted for a tree change and took up the position of Associate Dean (Planning) at the then Dubbo Clinical School, and in 2002 he was appointed Associate Dean and Head of

the School of Rural Health in the Faculty of Medicine, University of Sydney. Rick held this position until 2006.

It was the challenge of building something from the ground up, being able to create something that was going to be good. When I arrived there was me, my mobile phone and my laptop computer, and that was the entirety of the school. We were able to rent some office space in the hospital and talk to the clinicians and started with a small number of students the following year. At the same time we had discussions with the Department of Health and Ageing about funding for construction of capital works, started recruiting some people, talking with the local area health service about where the facilities might be sited. I worked with New South Wales Health, talking with anyone who would talk with us, and building the staff up to about 10 full-time staff and lots of part-time teachers by the time I left. Not only working in Dubbo, but also in Orange, a bit in Bathurst, and also out in Broken Hill.

Rick also ran a small outpatient clinic at the hospital to enable students to experience cases that they would not see in an acute inpatient environment.

You see a wider range of patients than you would if you were in metro, and you have more involvement with the community, much

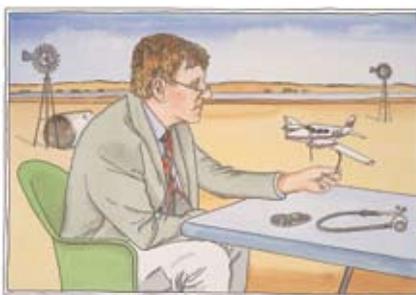
more hands on. We tried to get all students to have a trip out with the Royal Flying Doctor Service, and the students loved doing it when they could. They also got to go out to do community clinics, go out with GPs in areas where GPs do a lot more, in places like Coonabarabran, Narromine, Molong, Parkes or Forbes.

In a pro-bono role Rick is also the Chair of the Australian Institute of Policy and Science, a position he has held since 2003. He is a Fellow of the Royal Australasian College of Physicians, a member of the Australian Medical Association, and a member of the ANZ Association of Physicians in Nuclear Medicine.

In 2006 he moved to Canberra, to take a position as Principal Medical Adviser in medical education and workforce in the Australian Government Department of Health and Ageing. Rick says,

I've had experiences now in private practice, hospital practice, corporate practice, university and government and probably the time that was the happiest was in academia because there was a lot of flexibility there, lots of support and great challenges.

Simon has painted Rick with a model of his Comanche twin piper aeroplane.



Professor Rebecca Mason

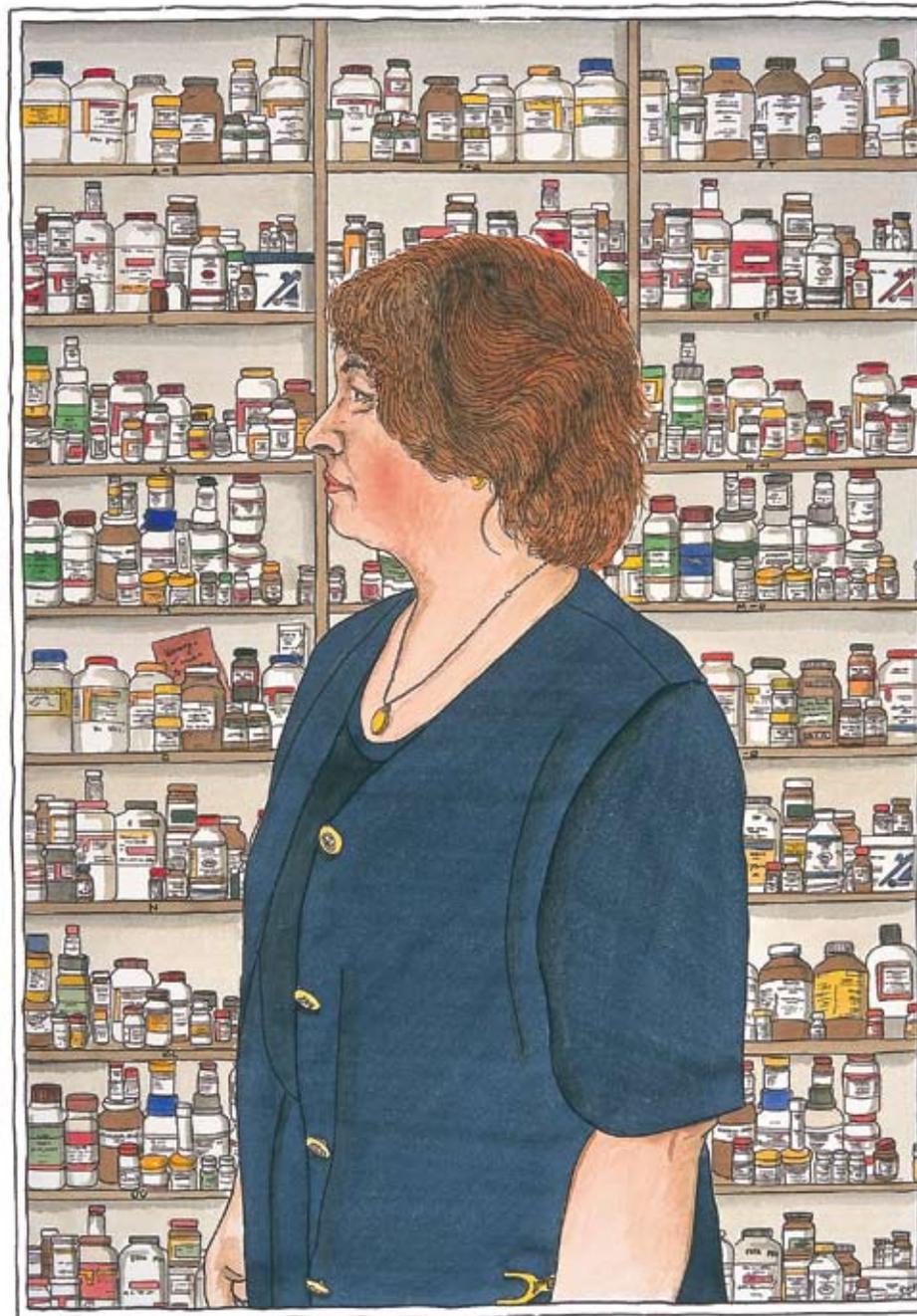


Иллюстрация профессора Ребекки Мэсон - фармацевт - аптека в Лондоне - университет в Лондоне

ASSOCIATE DEAN, CURRICULUM; PROFESSOR, DEPARTMENT OF PHYSIOLOGY; HEAD OF THE DEPARTMENT OF PHYSIOLOGY

MBBS(HONS) PHD

Professor Rebecca Mason is Head of the Department of Physiology in the School of Medical Sciences. She is the Associate Dean of Curriculum and the Chair of the University of Sydney Medical Program Committee. Her research interests focus on vitamin D as the link between skin and bone, its importance for photoprotection in skin and the prevention of osteoporosis. She is a member of the Melanoma and Skin Cancer Research Institute, a Council member of the Australian and New Zealand Bone and Mineral Society and a Board member of Osteoporosis Australia. In 2006 she was awarded the inaugural Professor JA Young Medal for excellence in research and exemplary service to the Faculty of Medicine, the University of Sydney and the community.

Rebecca Mason began her medical career as a professorial intern at Sydney Hospital in 1975. She had received excellent grades at school and says, "I think medicine was the only thing that my parents and I ever really thought about." At Sydney Hospital she was influenced by several professors including Sol Posen in endocrinology, Jim McLeod in neurology and Bill McCarthy and Gerald Milton in the Melanoma Unit. In 1976 Rebecca was appointed a Nina Annie Campbell Postgraduate Medical Scholar at the University of Sydney and completed her PhD under the supervision of Sol Posen in the area of vitamin D. She says, "Interestingly, those first professors that I worked for were Sol Posen and Gerry Milton, and that research is what I'm still doing 30 years later." During her PhD Rebecca had her first baby, and she worked to successfully manage both roles.

In those days, the occupational health and safety rules were not quite what they are now; in the middle of the laboratory I had a playpen for my daughter, so I was able to combine motherhood and research.

Over the next decade Rebecca would collaborate on multiple experiments and research areas with Posen. Her special interests in vitamin D in conjunction with bones and skin and the associated conditions have seen her granted a plethora of research grants and awards, as well as recognition as one of Australia's forefront researchers in the area of safe sun exposure and its benefits to health.

In 1978 Rebecca became the Clinical Assistant (Endocrine) for Sydney Hospital, and the same year she added to this role the part-time position of Clinical Lecturer. In 1979 she became the Research Fellow for the Copleston Postgraduate Medical Institute and a Lecturer in the Department of Medicine. While her teaching load increased, her role at this time was still primarily in research.

She was named NHMRC Australian Postdoctoral Fellow in 1982, a role she would hold for two years. During this time she moved from Sydney Hospital to Royal North Shore Hospital in the position of Clinical Assistant (Endocrine). In 1984 she finished her role as NHMRC Australian Postdoctoral Fellow and became the NHMRC Senior Research Officer in 1985. After 1987 her time spent in clinical medicine declined as she focused more on her research interests.

In 1988 her research roles evolved and she became the Visiting Research Fellow at Royal North Shore Hospital, and she was named an Honorary Associate in Calcium Metabolism with Royal Prince Alfred Hospital due to her interests in the areas of bone, calcium and phosphate handling. The same year she began a three-year stint as a lecturer in the Department of Physiology before becoming Senior Lecturer in the same department in 1991.

In 1996 Rebecca concluded her role as Senior Lecturer and became a Visiting Research Fellow at the Kolling Institute at Royal North Shore Hospital. The following year she was promoted to Associate Professor in the Department of Physiology. In 2001 she became the Deputy Director of the Institute for Biomedical Research, a position she held for five years. Towards the end of this period she contributed to its transition to the Bosch Institute. She became the Associate Dean (Curriculum) and the Head of Physiology in 2002 and of her administrative function she says,

I have moved the discipline strategically in the direction of more research-active staff, and have worked hard to foster the collegiality of the disciplines so that we are able to work together effectively and develop joint initiatives.

In 2003, Rebecca became Chair of the University of Sydney's Medical Program Committee. In 2005 the Australian Medical Council accredited the program for 10 years, (which is the maximum time allowed), commenting that it was, "an excellent medical program that meets the objectives required of graduates".

She became Professor of Physiology in 2007 and today she now balances seeing students, teaching and administration with her research interests.

Rebecca notes that Australia's ageing population has meant that vitamin D and calcium related areas such as osteoporosis are increasingly coming to the fore as critical health issues.

The implications of the demographic changes in the population – that we’re going to have a much bigger proportion of older people has resulted in bone disease becoming a national health priority. Hip fracture in particular has a very high morbidity and mortality. So anything that we can do to try and find ways to reduce it is useful. As well as being good for bone, it now appears that having an adequate amount of vitamin D is probably good for you in terms of protection from infections, Type 2 diabetes, some cancers and auto-immune diseases, and so on. There are a whole pile of different areas that vitamin D seems to be important for, at least there is emerging evidence that this is the case.

An example of one of the areas in which vitamin D proves important is related to sunburn. Rebecca’s research has revealed that if vitamin D is applied immediately after UV exposure, it can reduce DNA damage.

So it’s having an additional effect – you tend to think of vitamin D as important for bones and muscles which it is, but it’s having an additional role in skin. That’s important potentially because it might feed into an after sun lotion.

Rebecca is interviewed frequently in the mainstream media, and has been extensively quoted about her research around vitamin D. In 2006 she appeared 17 times in different media sources, from ABC’s *Radio National* to the *Sydney Morning Herald*, promoting the results of her research into the connection between vitamin D, safe sun exposure and healthy skin and bones. She says she is “a vocal advocate of the need to raise awareness of the health problems associated with vitamin D deficiency and insufficiency and how to remedy this.” She believes her position as Professor has increased her influence. “I think it probably helps people’s perception of my expertise if I’m a Professor rather than Associate Professor.”

Rebecca believes that the legacy of the Faculty of Medicine surrounds its excellence in research and significant contributions to health outcomes from both basic research and more applied research, its innovative teaching techniques, and its very good service delivery contributing to health services in NSW. “I think in all of those areas we’ve made a substantial contribution and are looked to as one of the leaders.”



Professor Craig Mellis



PROFESSOR CRAIG MELLIS - PAEDIATRICS - FACULTY OF MEDICINE - UNIVERSITY OF SYDNEY

SIMON FILLBROUSE 2006

ASSOCIATE DEAN, CENTRAL CLINICAL SCHOOL

MD BS MPH, FRACP

Professor Craig Mellis is a Paediatrician and has been Associate Dean Central Clinical School since 2005.

Craig remembers his medical student days at the University of Sydney with great fondness, acknowledging that coming down from the country to Sydney and renting a room near the University was a huge culture shock.

There were 350 of us in Med 1, and each of us had a Commonwealth Scholarship, which meant we all had our fees paid. Because I lived in the country I also had a "living allowance", so I had some money to live on. However, I still worked weekends and nights coaching high school kids in maths and science.

Craig completed his internship at Royal North Shore Hospital and worked alongside one of his "favourite" professors, Tom Reeve. Craig followed Tom's advice and did a year at the kids' hospital, Camperdown, surgical training in Edinburgh, and then returned to Sydney where in 1969, he became a Paediatric Resident Medical Officer at the Royal Alexandra Hospital for Children, Camperdown. He knew he'd never go back to adult medicine. He recalls:

When I got to the kids' hospital I went right back to square one. I was effectively an intern, supervised by a medical registrar. I did a round everyday with the registrar who showed you how to do everything with children. We knew nothing about kids. At times we actually stayed with kids throughout the night, like a "special nurse". I can remember some young kids would have massive cardiac surgery, yet within an hour they were sitting up asking to have all their tubes taken out. I recall one little girl who demanded I walk her to the toilet several hours after she came off bypass (the surgeon remains unaware to this day that she did this!). With adult medicine you were often looking after people who had nowhere to go, and nobody to care for them, whereas we knew the kids were okay, because there was always someone visiting or ringing up who cared.

Craig recalls that about 70 percent of the children presenting to hospital were under two years and that there was a lot of acute respiratory illness – pneumonia, croup, asthma – plus lots of acute severe gastroenteritis and meningitis. By the time Craig finished his paediatric training, subspecialties positions were emerging in hospitals. Craig concluded that the Royal Children's Hospital in Melbourne was his next destination, as they were "doing better clinical research than anywhere else in the world at the time". Craig

spent two years there as an NHMRC Research Fellow. In those days, inhaled steroids were just being introduced into asthma care.

The drug had been developed in the UK, and was found useful in adults, but we needed to try it out with kids. We approached the company and set up the first clinical trial in children in Australia. I was in with a top team down there – Peter Phelan, Howard Williams and Lou Landau – and we were publishing a lot of excellent clinical research.

Craig next took a research post at the Hospital for Sick Children in Toronto, Canada for a year to enable him to engage purely in further research, without any clinical obligations. In 1977, he returned to Australia as Staff Specialist Paediatrician and Head of Respiratory Medicine at the Royal Alexandra Hospital for Children. His "brief" was to establish a Department of Respiratory Medicine, including a comprehensive Pulmonary Function Laboratory. He recalls,

At the time a respiratory laboratory was costed at approximately \$100,000. Fortunately, the Variety Club of Australia generously funded this expensive laboratory, which would cost over one million dollars today. We had the latest equipment, including automated spirometers, a body plethysmograph, and exercise equipment. I was able to draw on my Melbourne and Canadian experience to pick and choose what we needed for an outstanding Department of Paediatric Respiratory Medicine. I'd seen it all in action. This was the first paediatric respiratory lab in New South Wales.

Setting up this lab and clinical department enabled Craig to start training research fellows. His initial research fellow, Peter van Asperen, proved to be a huge success. Peter eventually took over as Head of the Department, over a decade ago, prior to the Children's Hospital moving from Camperdown to Westmead, and was recently appointed as the first Professor of Paediatric Respiratory Medicine.

Craig comments that the respiratory illnesses they were treating remained very similar over the years, but with the emphasis always on asthma.

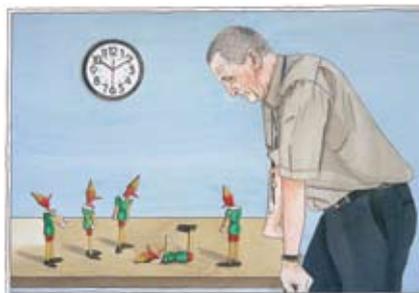
The good thing about asthma is that there is quite a lot you can do for these patients to improve their quality of life, the drugs we use now are extremely effective and safe. At children's hospitals, you still see a range of children with rare conditions, including unusual congenital malformations of the airways and lungs, that keep you on your toes.

Craig took six months off to complete a Master of Public Health in the School of Public Health, submitting his treatise on *The Cost of Asthma in NSW*. He then took up the position of Head of the Epidemiology Unit in the Woolcock Institute of Respiratory Medicine, at Royal Prince Alfred Hospital, for two years. His team went out to numerous country towns and tested up to 1000 children per week to determine the risk factors for childhood asthma in different climatic regions of NSW.

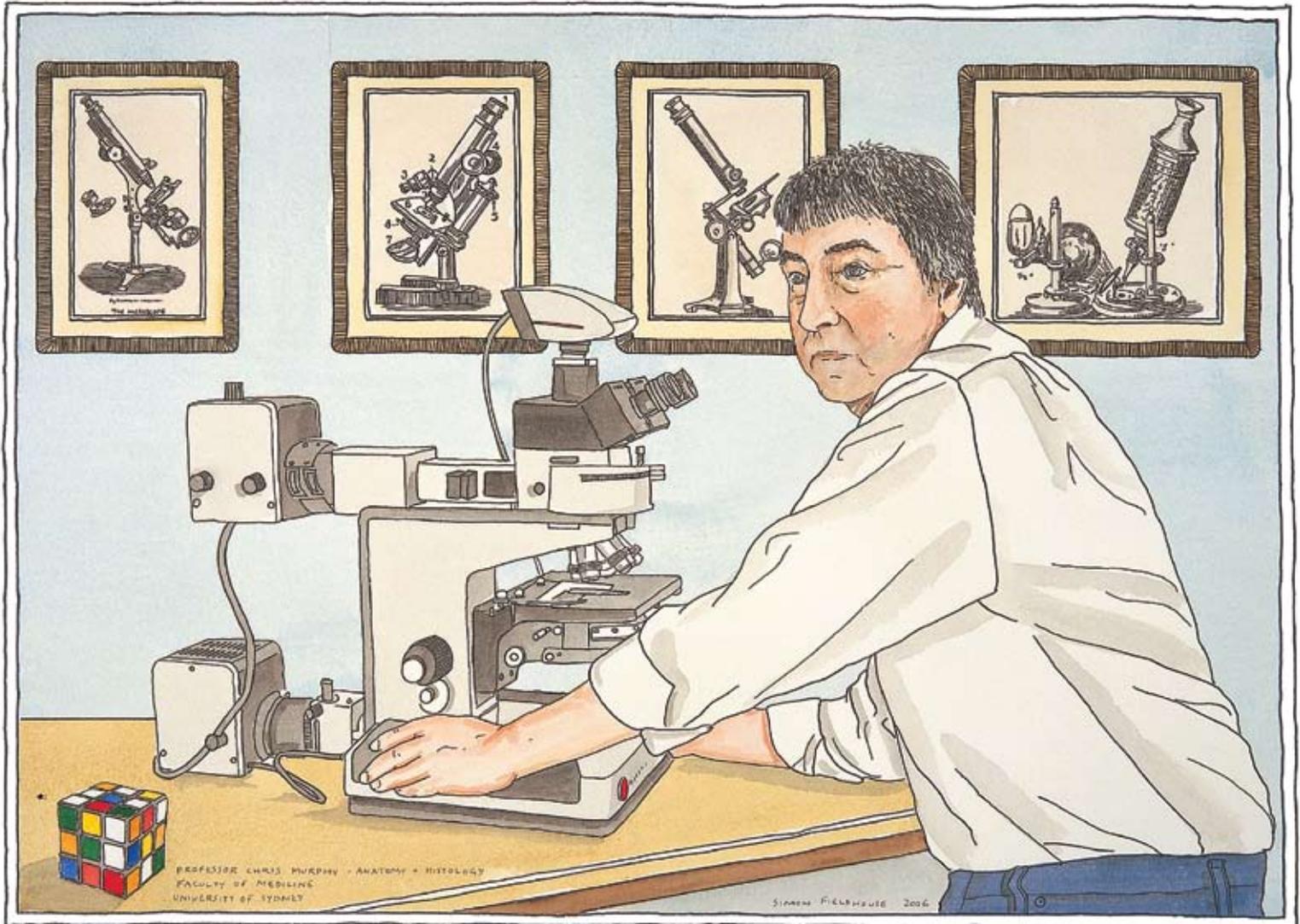
From 1993 to 2003 Craig was Professor and Head of the Department of Clinical Epidemiology and Biostatistics at the Royal Alexandra Hospital for Children at Westmead Hospital. It was a busy time; he was also Director of Clinical Training and Director of Physician Training until 1997. Following the retirement of John Yu, Craig became the Douglas Burrows Professor of Paediatrics and Child Health and Head of that University Department. Concurrently he was Associate Dean of Paediatrics within the Faculty of Medicine. Craig speaks highly of his colleagues, Elizabeth Elliott, Kathryn North and Louise Baur. "They are absolute geniuses and I had a job where I thought, 'I don't even need to turn up, these people are so good.' I remained in this role for five years, then I told them that it was their turn to run the Department."

Out of the blue, Bond University invited Craig to become Foundation Dean of Medicine. His job was to establish a new Medical School approved by the Australian Medical Council. In only 12 months, the Bond MBBS program was ready to take its first cohort of students. In 2004, returning to Sydney, Craig took up the role of Associate Dean of Education for the Office of Teaching and Learning in Medicine. In 2005, he became Associate Dean of the Central Clinical School, Royal Prince Alfred Hospital (RPAH). He remains in that position, which entails clinical research, teaching, administration, and both outpatient clinical work in Respiratory Medicine at RPAH and inpatient consultancy work in the Neonatal Intensive Care Ward, and the paediatric wards at Royal Prince Alfred Hospital.

Craig sees the Faculty as "among the top medical schools in the world", but adds that a large part of the credit goes to the high quality students who enter the course, and to those who, after graduation, continue to contribute to Medicine by way of clinical expertise, research and teaching in both the hospital environments and community settings. "People come through here, go out there, and do good – that's our legacy."



Professor Chris Murphy



BOSCH PROFESSOR OF HISTOLOGY AND EMBRYOLOGY, ASSOCIATE DEAN AND HEAD, SCHOOL OF MEDICAL SCIENCES

BSc (HONS) ADEL PHD FLINDERS DSc, FRMS

Professor Chris Murphy has been Associate Dean and Head of School since 2001. His major research is in cell biology, particularly in the biology of cell receptivity and the mechanism by which the uterus and uterine epithelial cells become receptive for the blastocyst to attach and for pregnancy to begin. He received a Doctorate of Science for this work in 1998. At the other end of the medical spectrum, he has been a double recipient of the John and Eileen Haddon Memorial Plaque for Geriatric Research of the Rebecca L Cooper Medical Research Foundation.

Chris Murphy started his working life in the Commonwealth Public Service before entering University to complete a Bachelor of Arts with Honours in Zoology. He says of this choice,

*My major interest lay in biology but I didn't want to do chemistry and physics so I decided to do an Arts degree so I could also study politics and history. The difficult bit was getting to do honours Zoology without doing an undergraduate science degree but I persuaded the University to accept me. My honours research work investigated the ecological genetics of a South Australian Frog (*Ranidella signifera*) as a way of viewing evolutionary biology and how genetic variations are influenced by environment. In the end I was awarded the BSc Honours in 1975 on the understanding that I would not graduate with a Bachelor of Arts.*

The following year Chris entered a doctoral program in the newly formed Department of Human Morphology at Flinders University in South Australia, studying the "effects of progesterone and oestrogen on the plasma membrane of luminal epithelial cells of the rat uterus." As he reflects,

in my honours year one of the courses I did was in cell biology and as a consequence I became interested in that kind of thing – cell biology and animal biology. That interest in cell biology, naturally, well it seems natural now, translated into histology. My research interests have stayed fairly constant from the start, particularly in the biology of cell receptivity and how the uterine epithelial cells and their plasma membrane in particular prepare for and become receptive for the blastocyst to attach and for pregnancy to begin.

Chris began teaching during his doctoral studies, demonstrating and tutoring in histology, electron microscopy and embryology. He remained in the Department of Human Morphology until 1983 when

he travelled to Oxford, England to take up the Nuffield Dominions Trust Demonstratorship in the Department of Human Anatomy (this position is now renamed the Nuffield Oxford Fellow). Of this time he says,

I was supposed to be there for three years doing a PhD which I didn't do because I already had one and figured that I didn't need another one – even from Oxford. That was the right decision to make because I had only been at Oxford a short while before I was offered a position which is essentially the position I am now in at the University of Sydney. I put off coming to Sydney for another nine months because when I was offered the position I had only been at Oxford for six months. The Nuffield scheme had strong moral pressure that it returned its Fellows to their country of origin, not to go off somewhere else, so even though I hadn't stayed the three years, they were happy that I was going back from whence I came.

Chris arrived at the University of Sydney in 1984 to what was then the Department of Histology and Embryology, explaining that it was the only such Department remaining in the British Commonwealth as other histology departments that had been freestanding had long since been amalgamated with something else, such as Anatomy. Chris began teaching Histology in the Faculties of Medicine, Dentistry, Science and Veterinary Science. He also ran a third-year course in Histochemistry for science students, writing much of the course handbooks as well.

Chris was made Senior Lecturer in 1988 and Associate Professor in 1994. In 1998 he was awarded his Doctor of Science for his published works thesis entitled *Structural studies on the plasma membrane of uterine epithelial cells and the endometrium*.

In 2002 Chris was appointed to both a Personal Chair in Histology in the Department of Anatomy and Histology and, later that year, he was appointed Bosch Professor of Histology and Embryology. He explains,

I was promoted to Professor which means I was given a personal chair and then I was able to be appointed Bosch Professor in Histology and Embryology in recognition of the fact that I am expert in that area. The Bosch Chair had been vacant for fifteen years since the retirement of Professor Cleland and until my appointment there had been no histologist at Chair level.

Chris says that the research he and his lab have done over the years has,

added considerably to what we understand about how the uterus works and how the uterine epithelial cells change to allow the blastocyst to attach. Especially important has been the increased understanding the lab has developed in to the plasma membrane of these cells and the basic cytology of this critical cell component which has led to the widely accepted concept of "the plasma membrane transformation". Practically, this work has had ramifications into IVF; some of the concepts and terms we have developed with our research on animals is now used in trying to get infertile women pregnant. Our work hasn't been the only work in this area, but it's been significant to our understanding of the mechanics of uterine receptivity and how we can manipulate that to produce a desired effect. Whilst my research interest has stayed fairly constant, the technology has changed considerably; it's become much more biochemical. That has been possible with the aid of good people – good students and good research assistants.

Chris retains his teaching role to date, lecturing and demonstrating to medical, dental and science students in cytology and cell biology, histology and embryology. He also runs a specialist course in histochemistry and cytochemistry for final year science students. As Associate Dean and Head of School he reflects that he has become "multiskilled", saying, "I do everything from cleaning out the rat cages to developing University policy and I don't think that that is atypical actually of academics." He adds that "the range of jobs doesn't change but the proportions of those things that I do has certainly

changed considerably over the years. I am definitely a bit more towards the policy end at the moment. I still see the rats regularly with my students and still extract tissue from the rats, although these days I give my assistance in that area only when I am needed."

As Associate Dean and Head, he feels that one of his key achievements has been to form a School out of four "fairly disparate Departments" yet maintain the disciplinary autonomy and identity of each. He says, "they work together administratively and financially. I've attempted to bring the Departments (now technically referred to as Disciplines) together into a School without stomping too hard on the things that are important for them and their disciplinary identity."

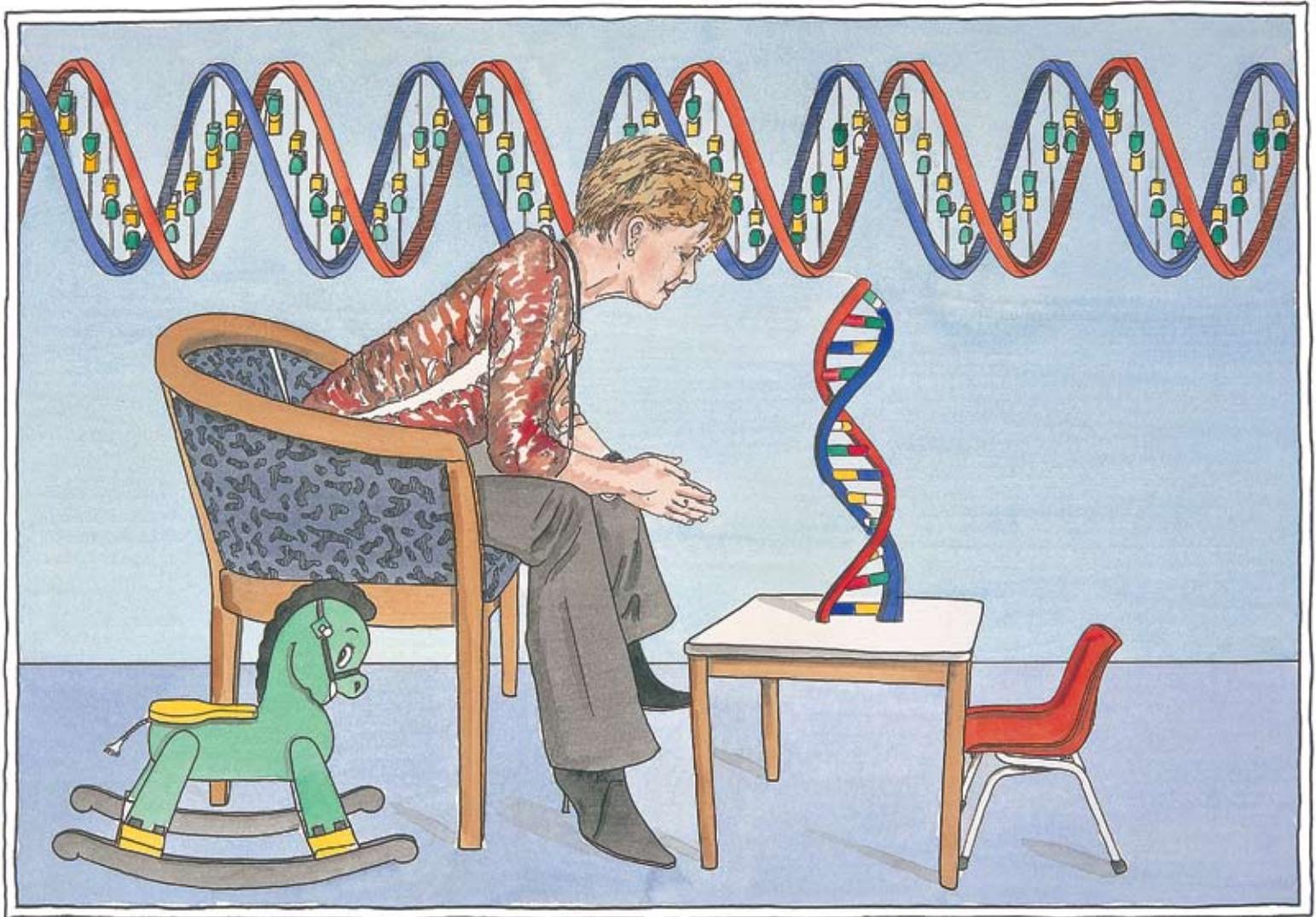
Chris believes the legacy of the Faculty is embodied by its motto adopted in 2006 for its 150th anniversary celebrations, "Ambition Inspired By Achievement," saying,

It's an excellent motto because it recognises the very strong tradition that's been developed in the Faculty over the 150 years. Aside from clinical treatment, in various fields of medical research there has been a remarkable amount of outstanding research come out of this Faculty. There's good reason to be optimistic about the future based on what's already been achieved. I think that there are several disciplines where the Faculty of Medicine has contributed in a major way to the intellectual life of Australia.

Simon has focused on one of the major identifiable instruments that I use in my research and one which is also of course the absolute symbol of histology and medical research more generally, the microscope.



Professor Kathryn North



PROFESSOR KATHRYN NORTH - PEDIATRICS - FACULTY OF MEDICINE - UNIVERSITY OF SYDNEY

SHANE FILLIBROUSE 2006

DOUGLAS BURROWS PROFESSOR OF PAEDIATRICS AND CHILD HEALTH; ASSOCIATE DEAN, CHILDREN'S HOSPITAL AT WESTMEAD CLINICAL SCHOOL; HEAD OF DISCIPLINE OF PAEDIATRICS AND CHILD HEALTH

MD BS BSc(MED), FRACP

Professor Kathryn North is the Douglas Burrows Professor of Paediatrics and Child Health and Associate Dean, Children's Hospital at Westmead Clinical School. She is currently Deputy Head of the Institute for Neuromuscular Research at the Children's Hospital and runs the Neuromuscular Clinical Service.

Kathryn North credits her parents for instilling in her the importance of academic education. Her love of science was first sparked by her engineer father (who has over 40 patents to his name). Entering undergraduate medicine she took a year off to complete a BSc(Med) with mentors Professors Janet McCredie and Susan Dorsch, studying birth deformities due to thalidomide. Kathryn graduated BSc(Med) in 1982 and received the Marcus Singer Award. She completed her MBBS in 1985, taking first place in Paediatrics, Obstetrics and Gynaecology and Behavioural Sciences. Having "fallen in love with paediatrics" during the final years of her MBBS, Kathryn completed her internship at Royal Prince Alfred Hospital then subsequently began training as a paediatric physician (FRACP) neurologist (AAN) and clinical geneticist (HGSA) at the Royal Alexandra Hospital for Children. Mentored by Professor Robert Ouvier, Kathryn began researching neurogenetics and undertook her doctorate entitled *Neurofibromatosis Type 1: Assessment and Management of its Major Complications in Childhood* (awarded 1994). For this research, she received the Young Investigator Award from the Royal Australasian College of Physicians and the Australian College of Paediatrics.

Passionate about research, in 1993 Kathryn completed her training in genetics and commenced postdoctoral research at Harvard University in the laboratories of Professors Louis Kunkel and Alan Beggs. During this time, she developed an interest and expertise in the molecular genetics of human skeletal muscle. Returning to Sydney in 1996 she became the first recipient of the Career Development Award in Research from the Royal Alexandra Hospital for Children (Children's Hospital at Westmead), and established the Neurogenetics Research Unit and the Clinical Neurogenetics Service.

Her laboratory research is focused on the development of better diagnosis and therapies for human muscle disease. Her clinical research is focused on learning disabilities in genetic disorders such as Neurofibromatosis Type 1. In addition, her research team is involved in an international clinical trial of therapy for children with muscular dystrophy.

As Head of the Neurogenetics Research Unit at the Children's Hospital at Westmead, and Deputy Head of the Institute of Neuromuscular Research, Kathryn North has established a strong research program in the study of neurogenetic and neuromuscular disorders.

Her research has achieved international recognition and she is widely published in the major peer-reviewed journals in her field. She receives ongoing grant support from NHMRC and US funding bodies. In addition she is a member of the International Consortium in Nemaline Myopathy and was elected as an Executive Board member of the World Muscle Society from 2001 to 2004. She is a member of the major Scientific Advisory and Research Committees at the Children's Hospital and served on Scientific Program Committee of the Australian Association of Neurologists (AAN, 1997–2003). She has been Chair of the Genetics Subcommittee of the AAN since 2002 and was Chair of the Scientific Program Committee of the Human Genetics Society of Australasia from 2003 to 2006.

Within the Faculty, Kathryn North has been actively involved in face-to-face teaching and examinations of medical students and paediatric, genetic and neurology trainees since 1991. In 1996 she was appointed a Clinical Senior Lecturer and became Senior Lecturer in 1997, Associate Professor in 2000 and Professor in 2003. In 2004 she was appointed the Douglas Burrows Professor of Paediatrics and Child Health.

Kathryn North is Associate Dean of the Children's Hospital at Westmead Clinical School (CHW) and Head of Discipline of Paediatrics and Child Health, roles she has held since 2004. The CHW Clinical School has a long history of excellence in teaching driven by a philosophy which strives to instil a lifelong passion for inquiry and learning as part of medical practice. Kathryn says that she "also aims to show medical students the joy of caring for children and to inspire a subset of them to pursue a career in paediatrics".

She is passionate about the mentorship of young scientists and doctors and wants to build the research community at CHW into an international centre of excellence, fostering the training of our postgraduate students so that research becomes a passion for them as well.

I am committed to nurturing the research careers of young science and medical graduates. Nothing in my career to date has given me

greater pleasure than spending time with my research students, initiating their projects and guiding them to develop skills in experimental design, oral and written communication, and ultimately independent scientific thought. My research unit is successful in terms of research output and peer-reviewed funding, but most importantly my staff and students work as a cohesive, cooperative, enthusiastic and happy team – and I am very proud of their achievements.

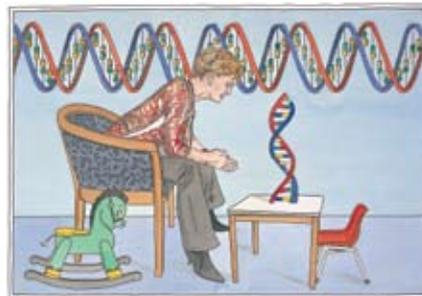
Kathryn sees the Faculty as a place where excellence is fostered in both teaching and learning.

It is refreshing in today's world to work for an organisation where the priorities are knowledge, education and excellence, rather than making money. In the first 140 years, the main focus of the faculty has been medical education and generating excellent doctors with an ongoing thirst for knowledge and self-improvement. While this will always be the major priority, over the last decade and moving forward,

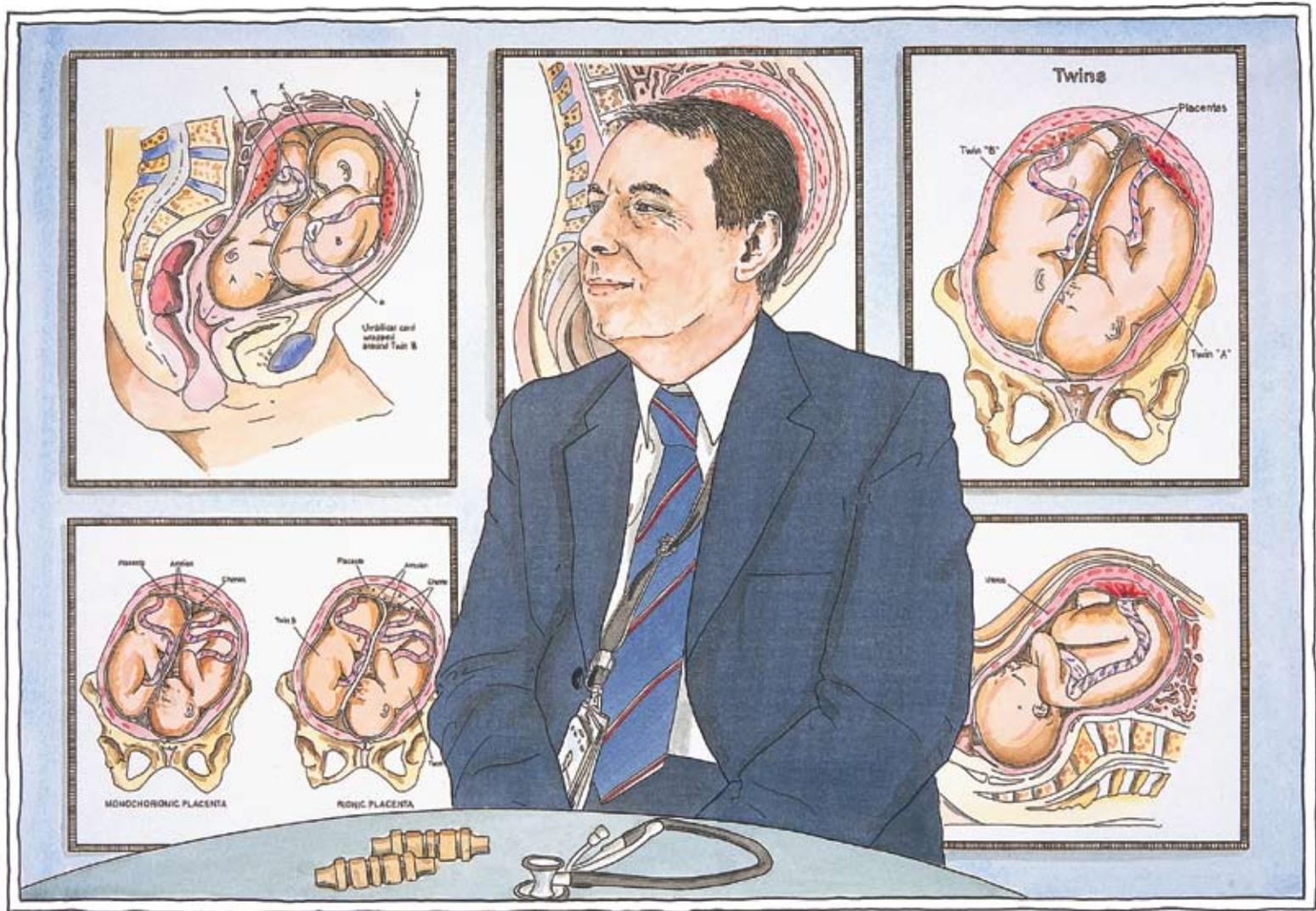
there is a growing emphasis on excellence in research and innovation. My hope is that our research performance will continue to grow so that the Faculty of Medicine at the University of Sydney is recognised as a national and international leader in medical research.

The first thing Simon Fieldhouse noticed about Kathryn North is that "she is really groovy ... She's right into popular culture and her room is full of trinkets. There's a good humour about her too."

Simon painted Kathryn as he saw her: deeply philosophical and contemplative, yet playful and able to communicate at the level of a child. "To look at her," he says, "you see her surrounded by children's things yet she is involved in highly complex medical issues. She likes being a doctor who is able to talk to little children. I put a DNA molecule on the table because what looks to me like a child's toy is one of the highest conceptual tools of medicine. Kathryn looks quite contemplative but has her feet firmly planted on the ground."



Professor Michael Peek



ASSOCIATE DEAN AND HEAD OF SCHOOL, NEPEAN CLINICAL SCHOOL; PROFESSOR OF OBSTETRICS AND GYNAECOLOGY, NEPEAN HOSPITAL.

BSc(MED) MBBS PHD DDU, FRANZCOG MRCOG CMFM

Professor Michael Peek is the Associate Dean and Head of the Nepean Clinical School. He is Professor of Obstetrics and Gynaecology at the University and Nepean Hospital. His research specialities include the screening for and management of pre-eclampsia, the use of stem cells for ischaemic neurological damage in preterm delivery, and the audit of medical disorders in pregnancy. He is a Past President of the Australasian Society for the Study of Hypertension in Pregnancy and a previous Federal Councillor for the Royal Australian and New Zealand College of Obstetricians and Gynaecologists.

After he left school, Michael Peek considered engineering and marine biology before settling on medicine at the University of Sydney. In retrospect he is very happy he studied medicine as he cannot picture himself in any other job. He recalls:

Medical teaching has changed considerably since I was a student. In my day I have memories of sitting in a lecture theatre with two to three hundred other students, being spoken at and simply copying notes off the board. And this was after a long lunch at Manning Bar. Hopefully our methods are a little more interesting and interactive now. Nevertheless I loved my university experience and I wish I could do it again.

During his BSc(Med) year and later his PhD, Michael regarded Professor Ian Fraser as an inspirational force saying, "He was a role model for me and helped focus my interest in obstetrics and gynaecology." Professor Fraser's interest in endometriosis influenced Michael's BSc(Med) thesis entitled *The Measurement of Human Endometrial Prostaglandin Production*.

For the duration of his internship at Royal Prince Alfred Hospital, Michael, like many others, found the hours long but the work satisfying.

Although I never seemed to go home, I learned how to prioritise my work. This gave me confidence in dealing with the many problems you face in medicine.

Michael became more obstetrics oriented during his year as Resident Medical Officer at RPAH in 1986.

What drew me to obstetrics was that it is a mix of both medicine and surgery. Also knowing that you can help in the first step of someone's life is very satisfying.

When working on his PhD entitled *Angiogenesis in Human Endometrium* Michael continued to work at RPAH part-time as a Resident Medical Officer and Registrar at the King George V Memorial Hospital for Mothers and Babies.

I kept my hand in working part-time. Although I enjoyed my research I have always thought of myself as a clinician first.

Michael was the recipient of the TB Walley Fellowship in Obstetrics between 1987 and 1989. Part of the Fellowship was to go overseas for a year, and he spent one year of his PhD in Geneva. It was a real experience working overseas in a non-English speaking country. He made many friends, visited great places and even played cricket for Geneva.

Back in Australia in 1990, Michael continued his specialty training in Obstetrics and Gynaecology at King George V Hospital. He worked in association with Ian Fraser again, and also with Dr Andrew Child, Professor Roger Houghton and Professor Rodney Shearman. He reflects,

I strongly remember that they had a great sense of humour. In high-risk obstetrics you sometimes end up with some very sad outcomes. Keeping your sense of humanity and a sense of humour helps you survive. They were very practical people and I enjoyed that.

Midway through his Registrar training Michael became particularly interested in maternal fetal medicine.

Dealing with medical disorders in pregnancy is a real challenge. There are quite remarkable physiological changes in pregnancy that test your management skills. The conflict an obstetrician has weighing up what is best for mother against what is best for baby makes the job one of the most interesting in medicine.

He was awarded his PhD in 1993, and decided to spend the final two years of his Obstetrics and Gynaecology training overseas. In 1994 in England, he worked as Clinical Research Fellow and Honorary Senior Registrar at the Institute of Obstetrics and Gynaecology, Royal Postgraduate Medical School, Queen Charlotte's Hospital. He also had Senior Registrar duties at Queen Charlotte's Hospital, Chelsea Hospital and Hammersmith Hospital in London. He was particularly interested in working and studying at Queen Charlotte's Hospital due to the presence of Professor Michael de Swiet whom Michael describes as, "the grandfather of maternal medicine". During this

time his laboratory research under the guidance of Professor Nicholas Fisk focused on enhancing fetal lung maturation. Immature lungs are one of the biggest problems faced by preterm babies. During this time he improved his skills in obstetric ultrasound and invasive procedures and maternal medicine. In 1995 he became Fellow in Fetal Medicine at the Institute of Obstetrics and Gynaecology, Royal Postgraduate Medical School, Queen Charlotte's Hospital. His clinical duties included fetal blood sampling and transfusion and chorionic villous sampling as well as work in the Obstetric Medicine Unit.

After his time in London, Michael became Senior Lecturer and Staff Specialist at the Canberra Clinical School and the Canberra Hospital from 1995 to 2000. During his five years in Canberra, Michael worked to develop the Maternal Fetal Medicine Unit at the Hospital.

Before returning to Sydney in 2001, Michael briefly held the post of Locum for Professor John Newnham at King Edward V Memorial Hospital in Perth. In Sydney in 2001, Michael became Professor of Obstetrics and Gynaecology at Nepean Hospital, a role he still fulfils today. He was appointed Associate Dean and Head of School at Western Clinical School, Nepean Campus in 2002. The school has recently become an independent clinical school, the Nepean Clinical School.

What is great about Nepean is that it is a young, growing area with huge scope to increase health services, research and education while having the backing of the powerhouse of the Faculty of Medicine from the University of Sydney. Over the last four years that

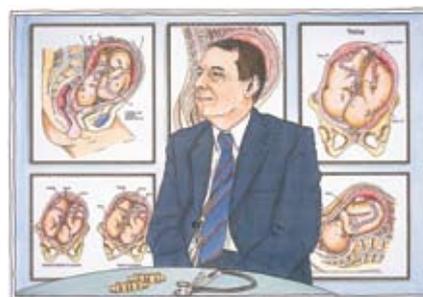
I've been Associate Dean, the Nepean Clinical School has really grown up. Our student numbers have increased tremendously, our research is growing and the University has made a huge investment of infrastructure here and is looking at putting up a new building. It's hard to convince doctors to work in western Sydney and this investment will help attract good quality staff here. The people of the west deserve this.

In his field he is particularly interested in studying complications such as multiple pregnancies and fetal abnormalities, as well as ultrasound which has evolved during the course of his career. He notes that there has been a huge explosion in randomised trials in obstetrics which he hopes will help them deliver better care. Michael maintains his clinical interests alongside his other responsibilities. Each week he does two high-risk clinics, two half-days of ultrasound, a half-day operating list and ward rounds every day. On top of this he remains on call for high-risk patients and travels to Bathurst to carry out high-risk outreach clinics.

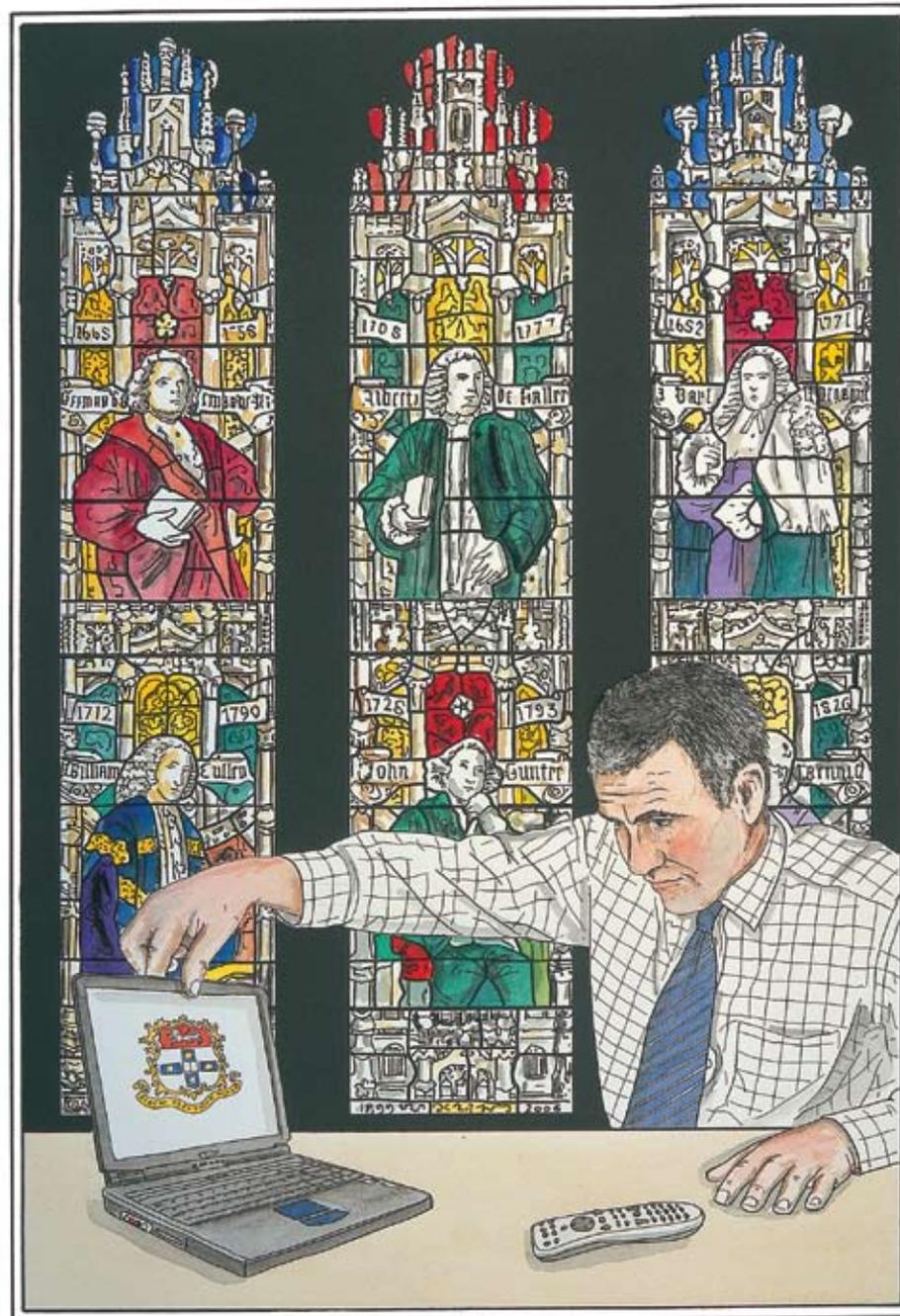
Michael loves playing cricket and rugby. He is still waiting for his call to the Australian side. His wife, Christine, and four children, Kaitlin, Lucy, Sophie and Aidan, humour him through these delusions.

Looking to the future, Michael says,

Investing in the west of Sydney will be a winner at all levels. The people of outer Sydney need the care, there is great scope to carry out research due to the large population and through increased education both health and employment will improve.



Associate Professor Chris Roberts



Associate Professor Chris Roberts - Teaching and Learning - Faculty of Education - University of Exeter

Chris Roberts 2006

ASSOCIATE DEAN (EDUCATIONAL DEVELOPMENT); DIRECTOR OF THE CENTRE FOR PROFESSIONAL HEALTH EDUCATION AND RESEARCH (CIPHER)

MBChB MANC MMedSci PhD SHEFF, DRCOG MRCGP ILTHE

Associate Professor Chris Roberts is a medical educator of international reputation. He is Director of the Centre of Innovation in Professional Health Education and Research (CIPHER) at the University of Sydney. Previous to his career in medical education, he served as a General Practitioner for 20 years. His particular research interests are the assessment of clinical performance, professionalism and clinical competence.

Chris Roberts entered Medicine at Manchester University, England in 1975. He chose Medicine over Engineering after becoming involved in community activism and deciding that he was more interested in people than machines. He describes Manchester as a “fantastic city” and fondly recalls being a student and living in the city with “one of the greatest football teams in the world”. He also recollects that clinical placements offered in his five-year course were in “amazing places like Scotland and Lancashire (in the north of England), with some of the best teachers in their fields at the time”. Chris graduated MBChB in 1980.

Post graduation, Chris entered his “house job” (English equivalent of internships) and “ended up in Aulden (just north of Manchester) which seemed to be in the far flung corners of the earth”. Deciding what kind of specialisation to enter, he recalls that at that time “hospital medicine was perceived to be long uncertain training, several years before you got to consultancy whereas the general practitioner training was only three years before you had a reasonable salary and your practice was fairly clear”. Chris also appreciated the idea of being a generalist with a more holistic practice, rather than a specialist.

We were brought up to be doctor-centred in those days but as a generalist you sat there and somebody might say they're really worried their baby's ill, and the next one might be somebody who's worried that their mother's got dementia; you never really knew what was coming in the door and each person was like another door to open with a huge life behind them.

In 1984, he commenced practice as a General Practitioner Principal in an urban general practice in Rotherham, South Yorkshire – a deprived, coalmining area in northern England that was suffering under the strain of widespread unemployment and poverty. On his first day of work he had to cross a miner's picket line and saw first hand the “desolation and social problems that go with that kind of thing”. Chris reflects that those early days of general practice were highly lucrative for him but that he quickly realised that he didn't want

to be “strapped to a chair” and began to seriously think about being involved in medical education.

Chris began tutoring in General Practice at the University of Sheffield in 1987, becoming GP trainer the following year.

I qualified as a GP trainer so I started to take my own trainees in the practice. You develop a close working relationship with those people which I enjoyed. I became the course organiser so I used to run the group spending half the day with the group.

He maintained his general practice role until 1995, juggling the time of both positions until it was clear that “something had to give”. Chris made a decision to take a year off from general practice and to complete a master's in Medical Science at the University of Sheffield. Of this time he reflects that it was good to “go back and be a student again, get involved in research again and see things in a far broader perspective”. Chris describes his master's work as a “cyber-ethnography of GP communities” for which he spent hours communicating online with doctors. Chris graduated MMedSci in 1996.

That year he began lecturing in General Practice at the University of Sheffield whilst retaining his role as GP Tutor (Vocational Training) for another three. He was invited to join a general practice part-time in Sheffield, which he did and subsequently went from a practice of four men to a practice with four women, a shift he found enlightening in relation to workplace politics!

At the completion of his master's work Chris had commenced a doctoral project (which became the WISDOM project and was later funded by the National Health Service). He describes this project as the development of a “networked learning environment dedicated to the continuing professional development of primary care staff”. This work enabled him to develop, implement, and evaluate a number of innovative e-learning teaching activities, including a five-month evidence-based course for 30 learners and a year-long reflective writing group for 20 general practitioners.

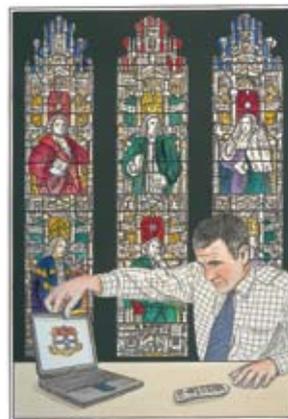
In 2000, Chris became Senior Clinical Lecturer in Medical Education, grateful for the arrival of David Newble who stood in his doorway and said, “I'm the new Professor of Medical Education. Sheffield has had a slamming for its MBBS course. I want you to work for me and sort out the internet.” Chris comments that he has made his reputation as

an international educator by being able to switch between thinking like a social scientist, being able to set up service delivery systems and being able to develop and implement better assessment systems for medical education. He also notes that, as much as he coveted his generalist role, he has really enjoyed becoming a specialist in medical assessment.

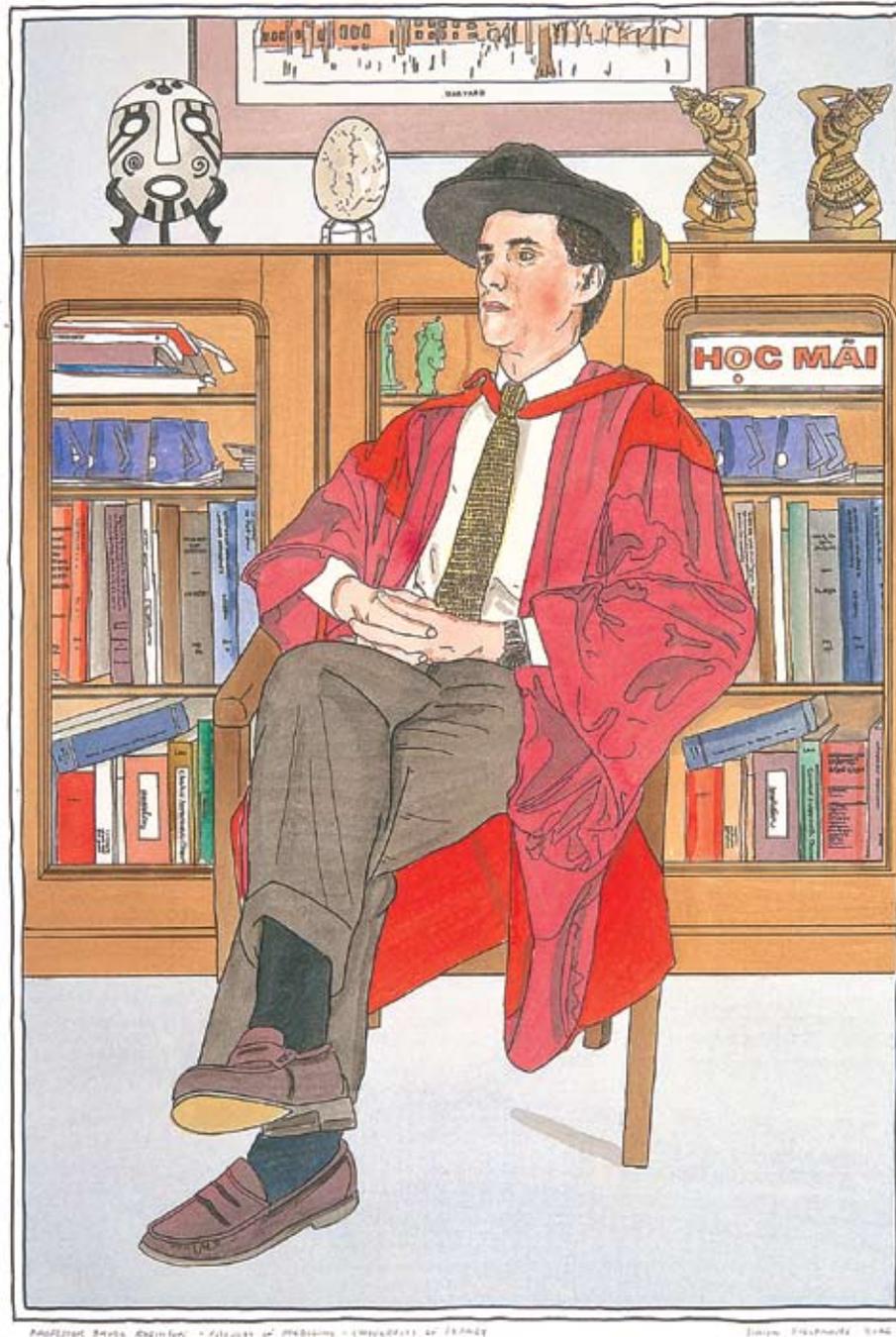
In 2005, Chris and his family migrated to Australia and he took up the roles of Associate Dean (Education) and Associate Professor of Medical Education at the University of Sydney. His roles have fluctuated with the movements of staff and particularly with the direction of the Faculty's new Dean, Bruce Robinson. His role quickly developed into more administration than research, but he is in agreement with the new curriculum directions and enjoys working with colleagues "trying to work out new postgraduate training".

As a relative newcomer to the Faculty he sees that "there are a lot of good things here, and many things rapidly turning at once, so many in fact that it's important to stand back sometimes and have a look at what you have achieved." Working in the Faculty he has become aware of the institutional presence of the University of Sydney – the legacy and power embedded in the sandstone. Chris perceives the challenge to the Faculty as the need to harness all the talent in one direction and says, "while it's a challenge it creates more opportunities for us. This is a great place and a great position to be in, I wouldn't swap it."

Associate Professor Chris Roberts is currently Associate Dean (Education) and Director of the Office of Postgraduate Medical Education.



Professor Bruce Robinson



PROFESSOR BRUCE ROBINSON - FACULTY OF MEDICINE - UNIVERSITY OF TORONTO

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DEAN, FACULTY OF MEDICINE; PROFESSOR OF MEDICINE (ENDOCRINOLOGY), NORTHERN CLINICAL SCHOOL

MD BS MSc, FRACP

Professor Bruce Robinson was appointed Dean of the Faculty of Medicine in March 2007. He remains Professor of Medicine (Endocrinology) at the Northern Clinical School and Head of the Cancer Genetics Unit at the Kolling Institute of Medical Research. He is also the Chairman of Hoc Mai – the Australia Vietnam Medical Foundation, and a Board Governor of the Centenary Institute of Cancer Medicine and Cell Biology. His research focuses on identifying the genetic causes of tumours in endocrine glands such as the thyroid, parathyroid, adrenal and pituitary.

Bruce entered the Faculty in 1975 and graduated MBBS in 1980. As an undergraduate, he was always interested in research – influenced initially by his physiology professor, David Read, and later by others including Professors Sol Posen, Philip Clifton-Bligh and Brian Morris. As a fourth-year medical student Bruce had been doing some work with David Reid. He wanted to do some laboratory-based research and asked Sol Posen and Philip Clifton-Bligh about how he might do that during his medical course.

Philip Clifton-Bligh suggested developing a test to measure vasopressin, a hormone made by the posterior pituitary gland and which controls the body's water balance. Bruce recalls,

Philip said, "We don't have a vasopressin assay, why don't you see if you can develop that?" I did that and during final year in medicine realised that I wasn't going to be able to take the research anywhere unless I took time off to do a master's degree.

He completed his master's thesis, *Vasopressin and the Neurohypophysis*, under the supervision of Sol Posen, Philip Clifton-Bligh and Brian Morris, in 1982. A large part of the thesis was developing a measuring system and applying it in two clinical situations where we knew that people had resistance to the actions of that hormone, including hypercalcaemia.

He finished his residency at the Royal Alexandra Hospital for Children (RAHC), initially considering a career in paediatrics before changing to adult medicine. In 1983, he became Medical Registrar at the Royal North Shore Hospital and Endocrinology Registrar in 1985.

The following year, he moved to the United States as a Fellow at the Harvard Medical School in the Endocrine Hypertension Division of Brigham and Women's Hospital and an Associate at the Howard Hughes Medical Institute. He remained in Boston for three years.

It was an exciting time and my research linked to the other work I had done. In Boston I learned new molecular biology techniques that were being developed. I was looking at the factors that regulated the expression of vasopressin and another hormone, CRH, in the hypothalamus. It was largely animal work using molecular biological techniques.

Following his return to Australia in 1989, he took on the role running the Molecular Genetics Unit (now Cancer Genetics Unit) at the Kolling Institute of Medical Research as well as practising as an endocrinologist at Royal North Shore Hospital.

David Nelson and Roger Vanderfield (at RNSH) decided that they needed someone to develop molecular biology in the Kolling. So I came back and my first job was actually as a staff specialist in molecular biology. I made a conscious decision that I needed to study disease rather than physiology as I was in a hospital. Because I had always been interested in endocrine tumour syndromes, I decided that that was where I should begin. I was using the molecular biological tools I had learned in America and applying them to the study of disease pathogenesis and disease treatments using genetic techniques.

He became Professor of Medicine (Endocrinology) at the University of Sydney in 1992.

The Chair meant that I was teaching more and that I was able to take on more PhD students because my clinical commitment was reduced. I was already doing endocrine cancer genetics, so the type of endocrine research I was doing became more defined.

He was appointed as head of the Department of Medicine for the Northern Clinical School in 1996 and in 1998 he became Chairman of the Department of Medicine (conjoint with Head of the Division of Medicine) at Royal North Shore Hospital.

I think my key achievement in the Clinical School has been training my PhD students. I've had over 25 students now and what I'm proudest of is that these people, who have made wonderful contributions, have gone on to great research positions here and overseas.

He was promoted to the position of Associate Dean (International) within the Faculty of Medicine in 2003. In this role he focused on fostering relationships with respected international institutions, as well as developing support for overseas students.

Bruce's international interests have spanned from exchange student programs to the creation, in 2001, of Hoc Mai, The Australia Vietnam Medical Foundation, in which he has subsequently played a major role.

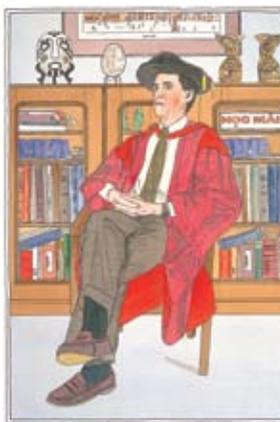
"The organisation's primary aim is to act as a facilitator for Vietnamese and Australian medical personnel to gain experience and understanding of problems in the developing world," Bruce says. In 2005, the Foundation's patron, Her Excellency Professor Marie Bashir, presided over the opening of Hoc Mai Australia House which provides hostel accommodation for up to 300 people each night at Hanoi's Viet Duc Hospital. Hoc Mai's main function has been a scholarship program for Vietnamese doctors and nurses to come to Australia to augment their training. In the first year, seven Vietnamese doctors, two medical students and a nurse travelled to Australia where they received advanced training. Bruce recalls,

They returned to Vietnam full of enthusiasm and knowledge following their Australian experience. It provides a real sense that you can achieve something outside your usual sphere and gives you the confidence to go out and raise funds and meet people with whom you wouldn't normally have contact. On a personal level it has been immensely rewarding to see what a thrill it is for our students to go there and what a thrill it is for young Vietnamese to come here to learn. And it's made me realise that it's very important that we do this to open people's eyes up to the rest of the world.

In 2006, he was appointed Acting Dean and confirmed as Dean in 2007. His role still incorporates research, clinical work and medical education. He remains passionate about equity of access and hospital reform. As an educator, he says that one of his favourite experiences is seeing students develop into independent doctors or medical researchers.

The Faculty of Medicine has produced, and it must continue to produce, really good doctors – the sort of people whom we will all be comfortable to have looking after our children and their children. In addition, we have to be able to produce people who are inquisitive enough and equipped to be able to investigate and to add to the body of knowledge that people use to practise medicine. Sydney graduates should be leading clinicians, public health physicians and researchers.

Bruce Robinson remains Dean of the Faculty of Medicine. Since his appointment he has initiated a major review of the medical curriculum and is driving the implementation of changes flowing from that process. His tenure as Dean will also see an extraordinary development in the Faculty's commitment to Indigenous health, including delivering of health services to Indigenous communities, education of students and research. The establishment of the Poche Centre for Indigenous Health will be the vehicle for much of this initiative. He believes that the Faculty of Medicine must lead nationally and internationally in education and research, and that graduates must be equipped to make a significant contribution anywhere in the world.



Mr Tom Rubin



EXECUTIVE OFFICER, FACULTY OF MEDICINE

MA OHIO BA DIPED

Tom Rubin has been with the Faculty of Medicine since 1984. He has been the “ear”, “eyes”, and “right arm” of five deans since that time and has overseen multiple curriculum changes and implementation of new programs of medical education. He is considered the “Mr Fix-it” by staff. Tom holds a Bachelor of Arts and a Diploma in Education. He has an affinity with languages and has taught Indonesian, French and German to high school students and Indonesian at Macquarie University. He also holds a Master of Arts in International Affairs with a specialisation in South-East Asia from Ohio University.

Entering the University of Sydney to study for his Bachelor of Arts, Tom pursued his high school interest in history and politics and, having enjoyed Asian history at high school, decided to study Indonesian. Graduating in 1970, Tom then completed a Diploma of Education. He taught Indonesian, French and German at both Killarney Heights and Manly Boys’ High Schools. “Being born of Czechoslovakian parents I seemed to inherit some ability with languages.”

After a few years of teaching, Tom gained two further scholarships to teach English in Indonesia for a year with the objective of improving his Indonesian. He did land in Indonesia, but visa problems forced him to study in Malaysia instead. During that time he met people from Ohio who encouraged him to enrol in a master’s program at Ohio University. Following a little over a year back in Sydney, Tom resigned from teaching and travelled to Ohio where he graduated with a Master of Arts in International Affairs, with a focus on South-East Asia, in August 1978.

At Ohio University, Tom met his wife and after a fruitless attempt to find work in Indonesia, they returned to Sydney.

Through the then Careers and Appointments Service at the University of Sydney, Tom was initially offered a temporary job before becoming Faculty Executive Officer in November 1984.

He admits that when he was transferred to the Medical Faculty under the deanship of Richard Gye, he knew little about medicine and that his role was “quite a novel appointment then because it was the first senior administrative appointment that was not on the Registrar’s payroll”.

Tom remembers Gye’s time as Dean as one of rapid expansion because the hospital system seemed to have more money than it does now and Gye created lots of academic posts.

It wasn’t as difficult then as it is now; you’d chat to the hospital administrators and agree that they create a position, usually on our payroll and then they’d reimburse us for it. The hospitals wanted them because of the advantages they bring to research and high standards of clinical care.

Beginning his work in the Faculty of Medicine in 1984, Tom remembers the doctors’ dispute in the hospitals when the Visiting Medical Officers declared that they weren’t being paid enough by the government, threatening to leave for the private sector. As a result of a government settlement, pay rates increased and the flow-on from this was that academic pay rates rose as well, “to maintain some sort of parity”. Even in these early days, Tom’s daily life involved working alongside the Dean, discussing Faculty issues, the preparation of the Dean’s correspondence and essentially, “dealing with things so that the Dean didn’t have to”. An important part of Tom’s job has always been to be a discrete “source of intelligence for the Dean”.

One of the main issues in the nature of Tom’s work has been the transference of loyalties as each dean has moved on. Tom likens it to Public Service work, where “the minister changes but the public service seems to go on”. As such, when John Young became Dean in 1989, Tom was prepared to adapt his role and his administrative process to accommodate a new leadership style. He praises Young as an “outstanding scientist and a superb organiser” and says he was “great at getting people on side”. He adds, “He was a good communicator and motivator [and] an enormously strong University of Sydney person.” The majority of Young’s reign involved the enormous change in moving to a four-year graduate entry medical program. It was debated, modified and accredited in the five years until its direct implementation in 1997. Managing this level of reorganisation became a huge part of Tom’s role. Of that time he says, “What we needed to do was have a cataclysmic change – wipe the slate clean and start again.”

Tom has enjoyed his working relationship with Ria Deamer, now Faculty Manager, since her arrival in the Faculty. He says they seemed “to just fall into dividing up the work in a very natural way” and says, “I don’t need to tell you how good she is.” They mutually agreed on an open door policy between their neighbouring offices in Edward Ford so that they can hear each other’s conversations and “chat to each other about issues”.

Tom’s rhythm changed again with the tenure of Steve Leeder as Dean.

Leeder saw his goals as strengthening the new curriculum, getting it really fully settled as he had a major role in its development and implementation. He also wanted to strengthen the clinical schools and get them clearly established as structural entities.

Leeder took on the difficult role of restructuring the Faculty from 17 units down to eight schools, and managed the political difficulties that accompanied this organisational change. The role of Associate Dean was introduced during this period and important recognition was given to roles related to student admissions, curriculum, finance and infrastructure. Tom also credits Leeder for initiating a review of the Faculty's research output and the implementation of David Burke's role as Director of Research.

Tom recalls that working with Andrew Coats as Dean was "great fun", saying he was "a great guy, lateral thinker, with a great sense of humour; and an outstanding people person". Tom is grateful that Coats worked towards enhancing morale within the Faculty and says that the 150th anniversary celebrations were important in that regard. Further to this, he was "willing to take risks, and invest in some of the new people that we have now, and that legacy is already bearing fruit for the Faculty".

With advances in communications technology Tom now deals with a huge volume of emails, as well as matters that arise. In addition to meeting with the Dean and staff, "part of my job is to train other people on the run, and pass on the knowledge to others. It's great to see staff find their feet and develop." Tom enjoys problem-solving and seeing his ideas come to fruition. "Even though the Dean's name is always on the bottom of the announcement, it's good when you see a Dean put forward the ideas you've suggested."

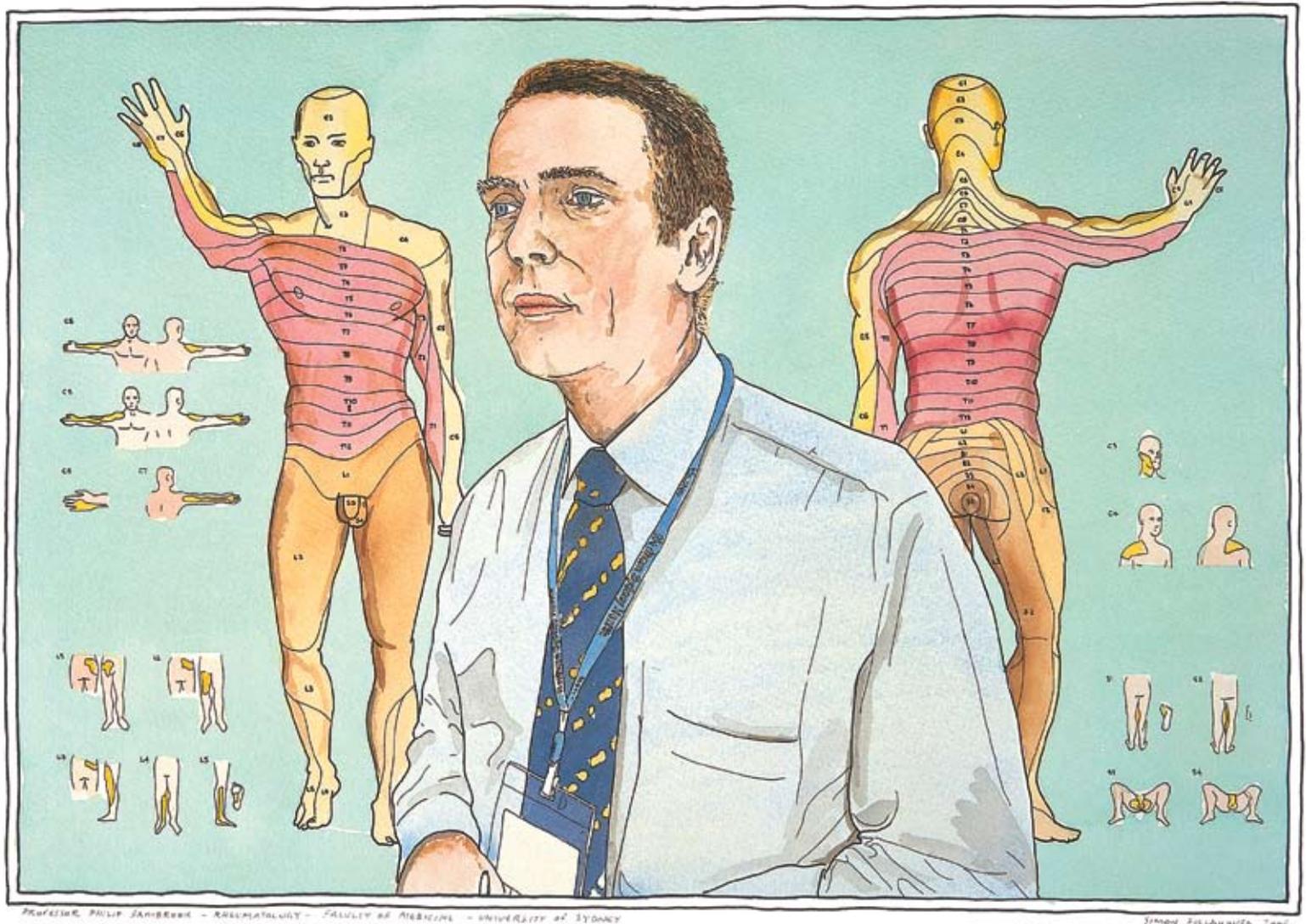
Under the current Dean, Bruce Robinson, Tom assists in steering the Faculty through a period of change as it implements the 2007 curriculum review. He believes Robinson has an ideal balance of education and research. "He's a strong researcher and he's been a teacher for years. And he's out there in the coalface of the hospital."

Of his own role, Tom comments,

You would think that if you stayed in the one job you'd get bored, but I haven't. Each dean has a different style, different idiosyncrasies, different priorities. So it's constantly changing, challenging, interesting; the issues can vary almost every five minutes.



Professor Philip Sambrook



FLORANCE AND COPE PROFESSOR OF RHEUMATOLOGY; PROFESSOR OF MEDICINE AT NORTHERN CLINICAL SCHOOL

MD BS LLB UNSW

Professor Philip Sambrook is the Florance and Cope Professor of Rheumatology, Northern Clinical School. He has been the Medical Director of Osteoporosis Australia, the Director and President of the Institute of Bone and Joint Research and the Co-Founder and Vice-President of the Asia Pacific Osteoporosis Foundation. His research interests look into the role of genes in osteoporosis and osteoarthritis. He is a Member of the Committee of Scientific Advisors at the International Osteoporosis Foundation and a Board Member of Osteoporosis Australia.

Philip Sambrook graduated MBBS(Hons) from the University of New South Wales in 1977. He completed his internship at St Vincent's Hospital and went on to become Resident Medical Officer in 1977. During his clinical training he reflected,

I was a bit more of a thinker than a mechanic and decided to pursue medicine rather than surgery. There was a very strong cardiology unit at St Vincent's and I really admired what they were doing, but there was also quite a strong immunology and rheumatology unit. That got me really interested in rheumatology and I really enjoyed that type of medicine and being hands on with patients.

He became Medical Registrar at St Vincent's Hospital in 1979, and then Senior Medical Registrar in 1981. He was influenced by the head of Rheumatology, Dr G David Champion and immunologist Professor Ronald Penny at St Vincent's Hospital. "David Champion and Ron Penny were highly respected, very smart and intelligent people and really doing interesting things from a research point of view. It stimulated me to want to do clinical work and clinical research."

Philip then spent six months as Senior Rheumatology Registrar at Royal Prince Alfred Hospital in 1982, a position he negotiated by exchanging his role as Senior Medical Registrar at St Vincent's Hospital with RPAH's Senior Medical Registrar, Ellen McGure. The main diseases that Sambrook saw during this time were rheumatic arthritis, lupus and systemic sclerosis.

It was really good to see how other people manage these diseases and you just get exposed to a whole different regiment of other doctors and rheumatologists. In those days we thought we were close to working out what was the cause and the treatment of many of these conditions. It was quite an exciting time to be involved in those diseases even if, as it turned out, it has taken a bit longer!

In 1983 he went to England as Visiting Scientist at the Clinical Research Centre in Harrow. Champion introduced Sambrook to Dr Barbara Ansell of whom he says, "She was the giant in paediatric rheumatology ... she was a legend." Through Ansell he came to work with Jonathan Reeve who was studying bone metabolism using radioisotopes." Jonathan was doing some great work and they had some great technology there. So I actually stayed, then did an MD and somehow got channelled into bone, thinking that at the end of that time, well I'll come back and become a mainstream rheumatologist. But in fact I've stayed in bone ever since." Sambrook's MD thesis is entitled *Osteoporosis in Rheumatoid Arthritis*.

Returning to Australia in 1985, Philip was awarded a NHMRC Doctoral Fellowship at the Garvan Institute of Medical Research at St Vincent's Hospital. With Professor John Eisman at the Garvan Bone and Mineral Group, Philip began looking at twins and the genetics of osteoporosis.

We set up a large epidemiology study in Dubbo and we started looking at twins to identify what might be the genes for osteoporosis in general. Plus I did a lot of clinical work on corticosteroid or glucocorticoid induced osteoporosis. It was a very productive time.

Still at St Vincent's Hospital, in 1988 Philip became a Senior Staff Specialist in Bone and Joint Disease. This same year he was appointed a Senior Lecturer in Medicine and Community Medicine at the University of NSW. In 1991 he was promoted to Associate Professor (Conjoint) at the University of NSW. Of his teaching roles he says, "I really enjoy engaging with people who are at that stage of their life and going on to do their PhDs. It's great to see how they progress."

Philip became Chairman of the Osteoporosis Subcommittee in the Asia-Pacific League of Associations for Rheumatology (APLAR) in 1992.

APLAR recognised that it needed to move out of just looking after diseases like rheumatoid arthritis and lupus and move into other areas. So I became Chairman of that Committee subsequently which really meant that there was more interest in bone disease in rheumatologists not just in Australia but in the Asia-Pacific region.

In 1995 Philip decided to pursue a latent long-term interest in the Law (a field he considered before deciding on Medicine) and completed his degree part-time from the University of NSW. "It gave me a great

appreciation for what's involved in law," he says. "I'm glad I'm not a practising lawyer, indeed we often criticise lawyers, but they have professional values like Medicine and I wanted to understand what that profession was about."

Philip became Head of the Department of Rheumatology at Royal North Shore Hospital and was appointed the Florance and Cope Professor of Rheumatology at the University of Sydney in 1996. It was a very prestigious job and a really important role in the field at that time in Australia.

Philip and several rheumatologists from the region, including Professor Edith Lau of Hong Kong and Professor Ian Reid of New Zealand, had noted that there was no grouping of doctors with an interest in osteoporosis in the region as such and decided to establish one. Subsequently, Philip co-founded Asia Pacific Osteoporosis Foundation of which he was Vice-President in 1999.

In 2000 he became Medical Director of the charitable organisation Osteoporosis Australia. In this role he has overseen the transition of Osteoporosis Australia from part of Arthritis Australia to its own independent body.

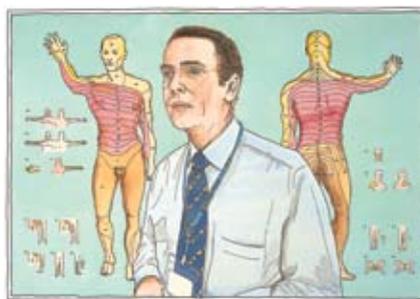
I think now more than ever the osteoporosis community views Osteoporosis Australia as a patient organisation. They're all really

supportive of it and it's become a really important major charity in Australia. It's the major bone advocate group for patients or sufferers of osteoporosis in Australia. My role has really been to bring scientific credibility to the organisation and make sure that whatever we're producing for our patients is scientifically valid.

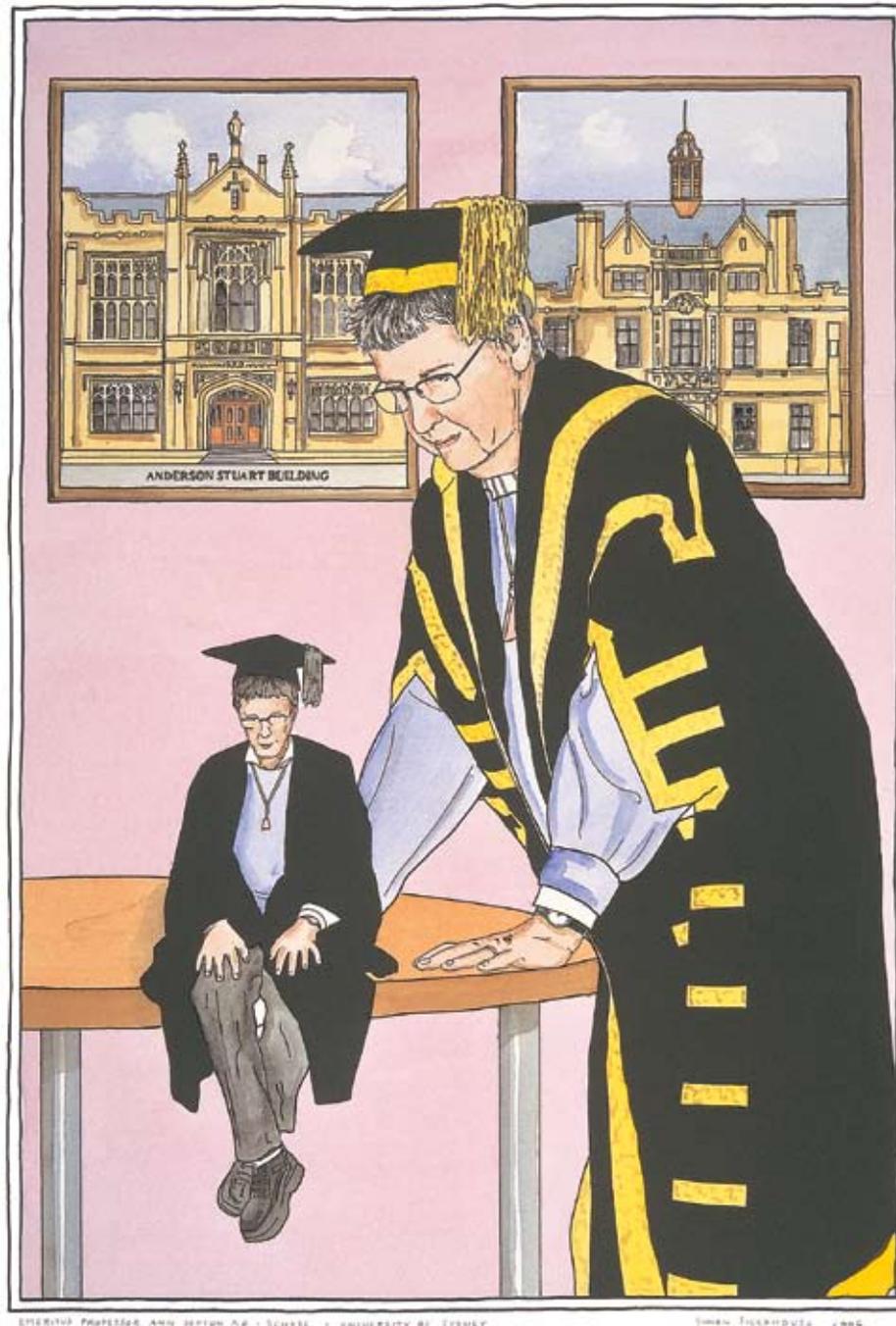
Philip relinquished the role of Medical Director in 2007 when he became the President of the Australian and New Zealand Bone and Mineral Society. He remains on the Board of Osteoporosis Australia.

Philip believes that in the field of Rheumatology, magnetic resonance imaging will soon do for osteoarthritis what bone densitometry has done for osteoporosis. "So when we measure things, we can prove that our drugs work – rather than doing a 10 year study of X-rays, we'll be able to do a two year study using MRI." He further adds that the Department of Rheumatology is well positioned to capitalise on this, saying, "We're very strong from the MRI point of view with a 3T machine located on our campus." In regard to the future of the Faculty he says,

I see the Faculty as a vital, evolving entity. But it also has an immense history and I think that's an important aspect to consider when the current holders of the different academic positions in the Faculty consider where they sit in the spectrum of Australian medicine.



Professor Ann Sefton



EVERETT PROFESSOR ANN SEFTON, M.A., SCHMIDT - UNIVERSITY OF TORONTO

SIMON TILKINDOJA, 2006

EMERITUS PROFESSOR, FACULTY OF MEDICINE

BSc(MED) MBBS PHD DSc

Ann Sefton, a neurologist and educator, made the first observations of the way in which information is regulated by an interplay of excitatory and inhibitory mechanisms when passing from the eye to the cerebral cortex; and collaboratively provided new descriptions of the connections, anatomical arrangements and the functions of a number of visual centres of the brain. As a student, she was the first elected woman President of the Medical Society. Ann is currently Deputy Chancellor of the University of Sydney.

Ann Sefton entered medicine at the University of Sydney, graduating BSc(Med) in 1957 and MBBS in 1960. As a student, Ann established a students' Medical Education Committee in an attempt to improve the way medicine was taught. This marked the beginning of Ann's life-long determination to better the provision of medical education. She was elected the first female President of the Medical Society and was involved in the establishment of the Australian Medical Students' Association; both organisations later elected her to Honorary Life Membership. As Vice-President of the Student Representative Council, she was selected as the Sydney representative for the first group of eight Australian students to be invited to China in 1957. While Health Officer of the SRC, she and Brian Hennessy successfully pushed for the establishment of the University Health Service.

Ann and student colleague Ian Cooke were key in the establishment of the Lambie Dew Orations.

When Professors Lambie and Dew retired MedSoc wanted to honour them with an appropriate gesture. Ian Cooke and I were the nominated MedSoc Council representatives and we received great support from Professor Ruthven Blackburn in the initial organisation.

After graduating, she undertook her residency first at Royal Prince Alfred Hospital in 1960, and then at the Royal Alexandra Hospital for Children in 1961.

You carried a lot of responsibility and you often did it when you were dog-tired. Sometimes I wouldn't get to bed for 72 hours. It was just brutal. Being female we had to work many more weekends than the men because we weren't eligible for the football team.

From 1962 to 1964 Ann was a Liston Wilson Research Fellow. As a postgraduate student, she was also active with the committee that established the first Child Care Centre on campus, and was later involved in developing a Vacation Care Scheme for the children

of staff and students. She was awarded her PhD in Physiology in 1966 and had just had the first of her two children. Despite her own activism, there was no appropriate path for mothers returning to clinical training, so she decided to pursue an academic career rather than one as a paediatric neurologist.

Between 1965 and 1973 she was a lecturer in physiology at the University of Sydney, working her way up to become Associate Professor in 1985 and Professor in 1992, retaining her Personal Chair until 2001.

During her BSc(Med), encouraged by Peter Bishop who taught her electrophysiological techniques, Ann produced two early papers (still cited) on visual connections, in collaboration with Bill Hayhow. Some of her most interesting findings during her PhD work with Liam Burke included the first observations on the way in which information is regulated by interplay of excitatory and inhibitory mechanisms when passing from the eye to the cerebral cortex. She also developed some new descriptions of the connections, anatomical arrangements and the functions of a number of visual centres of the brain, in collaboration with Bogdan Dreher in Anatomy, at a time when interdepartmental collaboration was actively discouraged.

Another surprising observation Ann and her colleagues made, since confirmed in other areas, was that during the development of the mammalian visual system, when it would be assumed that neuronal numbers would be increasing consistently, significant numbers of cells are lost. More recently, with one of her PhD students (Paul Martin), she has made further unexpected observations in mammals with colour vision, which provide evidence that the pathways which transmit red-green information are segregated from blue pathways.

Beyond scientific research, Ann has made extensive contributions to medical education at the University of Sydney, receiving one of the University's inaugural awards for Teaching Excellence in 1990 and, in 1998, an Australian Award for University Teaching. Between 1988 and 1992 she was Subdean of the Faculty of Medicine, responsible for students in the first three years of the medical program. From the 1980s, she and other colleagues became concerned that many students chose to study medicine because they achieved excellent school results and were pressured by parents or schools to enrol. Ann led initial discussions in the Faculty on the development of an integrated, problem-based graduate medical program in 1991. She met with Stephen Leeder at Harvard University Medical School in the

United States; both were convinced that aspects of its "New Pathway" medical program could be adopted in Australia. Appointed Associate Dean (Curriculum Development) in 1994, Ann was able to apply her findings to the extensive planning and development of the Faculty's new Graduate Medical Program, which was first implemented in 1997, in collaboration with Jill Gordon and Michael Field. From 1999 to 2001, she joined the Faculty of Dentistry half-time as Associate Dean to assist in the development of a graduate-entry dental program.

Ann says the aim of developing the new medical (and later dental) program was to move from didactic teaching, involving memorisation and rote learning, to stimulating scientific thinking, clinical reasoning, critical appraisal and problem-solving. In an era when information is burgeoning and access to it is readily available, students need skills in locating, evaluating and applying relevant information. A priority was given to effective communication skills with patients but also with other health professionals. The focus on early patient contact and clinical skill development has been extremely well received by students, staff and patients. Students needed a broader understanding of the diversity of community needs. Ethical values, awareness of personal strengths and weaknesses and the need for self-care are now included.

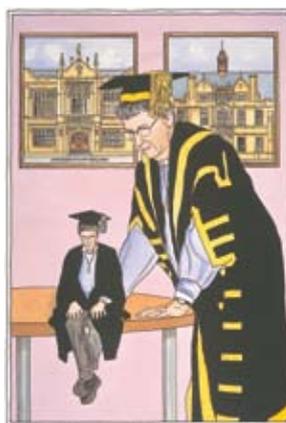
Throughout her career, Ann has been a member of numerous committees at both the Faculty and University level, and has been invited to membership of review committees both in education and research nationally and internationally. A member of the Academic Board from 1986, she became Deputy Chair in 1986/7 and again in

1997/8, later chairing the Academic Forum (1998–2000). In 1990, with Gaston Bauer and others, she was involved in the establishment of the University of Sydney Medical Graduates' Association, becoming its first Vice-President. In 2000, she was made an Officer of the Order of Australia for "service to medical education, particularly in the area of reform and the development of a graduate medical program, and to physiology and research in the field of neuroscience through the study of the function and structure of the visual pathways of the brain."

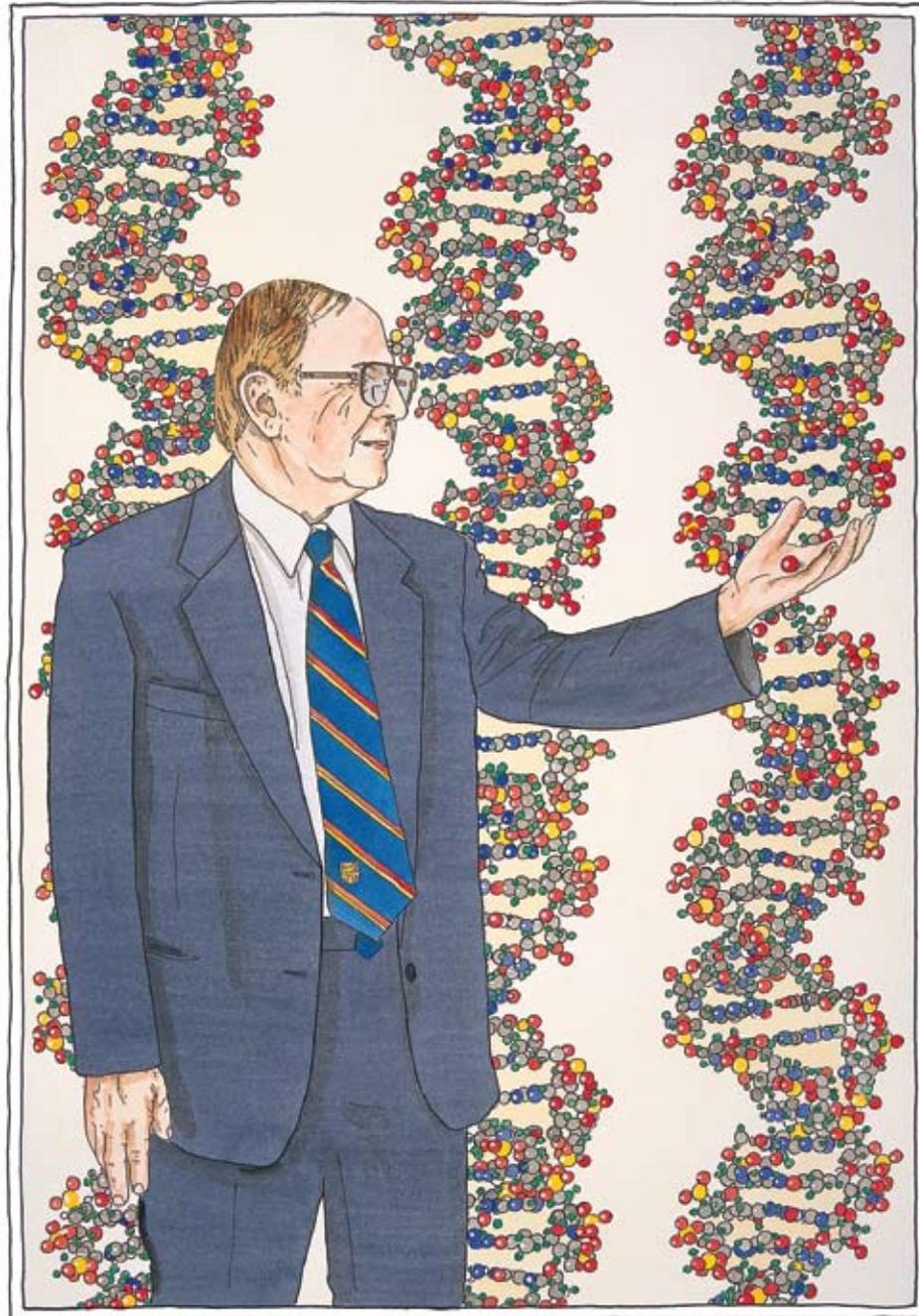
Upon retirement in 2001, Ann was appointed Emeritus Professor and has remained active, particularly in the International Union of Physiological Sciences, chairing its Education committee. She is frequently invited to run medical education workshops internationally, particularly in South-East Asia, and has acted as a consultant on aspects of medical and physiology education locally, nationally and internationally. Ann was elected to the University of Sydney Senate in 2001 and again in 2005, becoming Pro-Chancellor in 2003 and Deputy Chancellor from 2004 to 2007.

Ann still supervises students in the Faculty and retains links with organisations such as MedSoc, saying, "I have really valued my relationships with students over the years and it's an aspect of my work that I never want to lose. It's great to see the cohorts come through and develop over the years."

Simon has painted Ann as sage educator, contemplating herself and others as a medical student.



Professor David Sillence



PROFESSOR DAVID SILLENCE - FACULTY OF MEDICINE - UNIVERSITY OF ZEPHYRUS

SIMON FILLIBROFF 2004

PROFESSOR OF GENETIC MEDICINE, FACULTY OF MEDICINE, CHILDREN'S HOSPITAL, WESTMEAD
MD MELB MBBS, FRACP FRCPA FAFPHM (RACP) FAFRM (HON) CLINICAL GENETICIST (HGSA) MACG

David Sillence was responsible for the description and international classification of Osteogenesis Imperfecta (Brittle Bone Syndrome), also heading the team which pioneered the measurement of bone density in children in Australia, and the team which pioneered the systematic treatment of osteoporosis in Osteogenesis Imperfecta in children in Australia. He has also been responsible for the discovery and delineation of many new skeletal disorders in children.

David enjoyed his undergraduate days at the University of Sydney. He enrolled in first year Science then transferred into Medicine in the second year. After third year, he suspended his medical studies to attend the Conservatorium of Music for a year before returning and completing his MBBS with honours in 1970. These were heady political years from 1962 to 1970 and David was involved with various groups, including the Student Christian Movement, the University of Sydney chapter of Australian Committee of Responsibility for Children of Vietnam, the Thai-Australian Friendship Society, and the Soviet-Australian Friendship Society (the latter mostly involved mentoring programs for students from these countries). He also participated in Student Camps for Aborigines (SCA), with the aim of initiating scholarships for Indigenous students and bringing them into the university context.

We brought Indigenous children to the city for a week to give them the experience of both secondary and tertiary education. They stayed off campus at the Uniting Church conference site in the Lane Cove National Park but we introduced them to life on campus as well as other vocational opportunities.

David self-funded his studies working at the North Ryde Psychiatric Centre which gave him an early opportunity to become interested in genetics.

It had the first comprehensive genetics laboratory in NSW, known as the Oliver Latham Laboratory. I was working as a nurse but because I was a medical student they gave me more medical things, rather than psychiatric patients. I was asked to look after children with intellectual disabilities and then in my second year I looked after the boy who was the first patient in the world to have a chromosome rearrangement recognised by modern cytogenetic techniques.

He then completed his internship at Royal North Shore Hospital, and again became politically active pursuing shorter work hours for interns and Resident Medical Officers.

We were all working between 80 and 120 hours per week and people were making mistakes because of the long work hours. During my two years as Secretary of the RMO Association we negotiated and moved to take our case for a 40-hour week to the Industrial Commission. This was opposed by the AMA and members of the Department of Health, but the year after I moved to Melbourne it got through.

His political activities didn't make him popular at Royal North Shore Hospital so he took an appointment at Sydney Hospital. He was advised by a mentor, however, that if he wanted to become a geneticist that he should go to Melbourne and after a year happily took a post at the Royal Children's Hospital in Melbourne.

Concurrently, from 1972, he was a part-time Lecturer in Paediatrics at the School of Medical Record Librarianship at the Lincoln Institute in Melbourne. From 1973, he was Medical Registrar at the Royal Children's Hospital for two years until he became a Research Fellow at the Royal Children's Hospital Research Foundation and Genetics Research Unit, and an Associate Research Fellow within the Department of Genetics at the University of Melbourne. Here he began his studies into Brittle Bone Disorders. The Genetics Research Unit had already done a state-wide study of people with heritable bone conditions and they found two groups; one consisting of people who had disproportionate short stature and the other one with brittle bones.

I started seeing people from the brittle bones group. Over three years we did clinical studies and developed electron microscopic studies of bone and connective tissues which enabled us to develop the biochemical basis of the disorders. The classification which I proposed became known as the "Sillence Classification" although today it has been adopted as the International classification.

During his research fellowship he undertook clinical work in the Genetics Research Unit at the Royal Children's Hospital in Melbourne as an Honorary Assistant Physician, concurrent with being an Honorary Clinical Assistant in medical genetics at the Royal Women's Hospital. In 1978 he was awarded his MD from the University of Melbourne for his work and thesis *Bone Dysplasias: Genetic and Ultrastructural aspects with special reference to Osteogenesis Imperfecta*, which looked at the pathogenesis of skeletal disorders in humans.

David won a Fulbright fellowship in 1977 to undertake a postdoctoral fellowship at the Division of Medical Genetics, Harbor-UCLA Medical

Center with David L Rimoin, the leading researcher on the pathological delineation of heritable skeletal disorders in North America. The group included the collagen biochemistry research group with David Hollister with whom David actively collaborated. After two years as a Research Fellow he was appointed Assistant Professor in the Division of Medical Genetics Medical, Harbor-UCLA Medical Center.

David returned to Sydney and was appointed Senior Lecturer in Human Genetics at the University of Sydney in 1980 and was promoted to Associate Professor in 1982. However, this role was superseded by his simultaneous appointment to a chair which he took on the understanding that he would be able to develop a molecular pathology division within the Department. David was Acting Head of Public Health Biology from 1982 to 1983 and Professor of Public Health Biology at the University of Sydney and the Commonwealth Institute of Health from 1983 to 1989. He says, "I was the Foundation Chair of the Department of Public Health Biology and built up a fine academic teaching staff and research groups within the then School of Public Health and Tropical Medicine." In 1982, he and Grant Sutherland were responsible for gaining professional recognition for cytogenetics as a laboratory discipline in Australia. Two years later, David was appointed Foundation Head of the Department of Clinical Genetics at the Royal Alexandra Hospital for Children.

Simultaneously with his appointment to the University of Sydney, David was appointed as the first visiting physician in genetic medicine at the newly-opened Westmead Hospital in 1980 and as a visiting physician in medical genetics at the Royal Alexandra Hospital for Children in Camperdown. He was appointed head of the Medical Genetics Unit in 1984, incorporating the Clinical Genetics and Cytogenetics Services, and in 1991, became Head of the Department of Genetics.

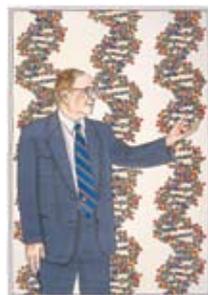
With the closure of the School of Public Health and Tropical Medicine in 1989, David was appointed Head of the Department of Paediatrics and Child Health and became Foundation Professor of Medical Genetics. One of his key roles was the development of the curriculum for the Master of Medicine (Reproductive Health Sciences and Human Genetics) degree. He remained in this position until 1994, when he was appointed Foundation Coordinator of the Specialist Advisory Committee in Clinical Genetics. From 1995 to 1997, David worked as Head of the Department of Clinical Genetics at the Children's Hospital at Westmead and in 1996, co-founded the Australasian Association of Clinical Geneticists. In 2000 David became Head of the Academic Department of Medical Genetics at the Children's Hospital, Westmead.

David says of his work now,

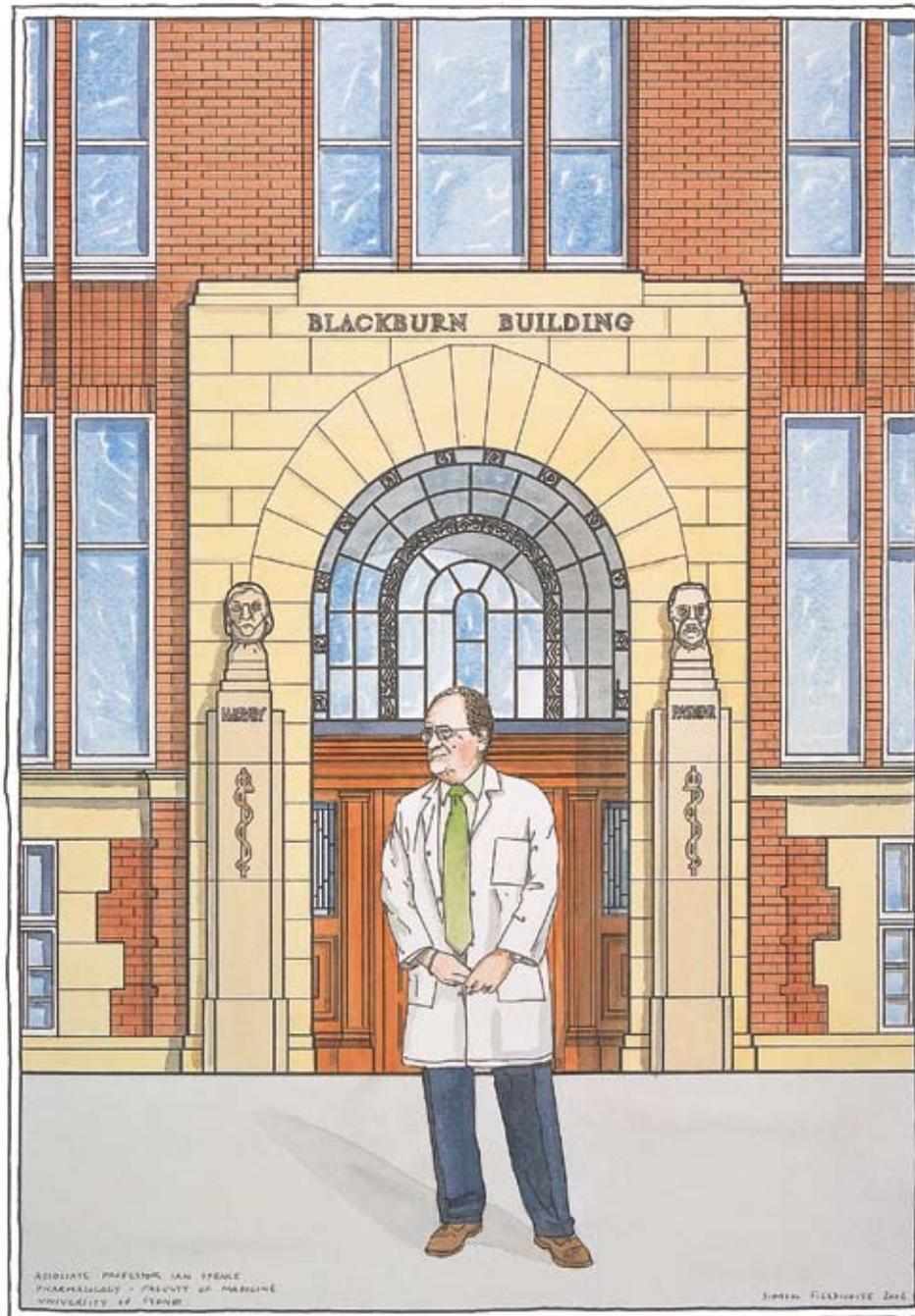
I continue to see patients because I'm quite expert on brittle bone disorders and anything else genetic that involves the skeleton. I get different types of referrals, prenatal referrals, babies, children, adolescents and young adults and even the very elderly. I consult very broadly across the age groups. As these diseases are heritable I have patients that have indirectly been my patient since before they were born, then during childhood through to adult life and having children of their own.

In 2005, David was appointed the inaugural Head of the Discipline of Genetic Medicine in the Faculty of Medicine at the University of Sydney.

Professor Sillence is painted wearing his 150th Anniversary Yeoman Bedell tie from the University and cradling the backbone of the DNA molecule which he says is "very appropriate, given his role in encouraging development of the genetic medicine subdisciplines".



Associate Professor Ian Spence



ASSOCIATE DEAN (INTERNATIONAL) FACULTY OF SCIENCE; ASSOCIATE PROFESSOR AND HEAD OF DISCIPLINE, PHARMACOLOGY, SCHOOL OF MEDICAL SCIENCES

BSc, PhD MONASH

Associate Professor Ian Spence heads the Discipline of Pharmacology in the School of Medical Sciences and is Associate Dean (International) of the Faculty of Science. His research interests include non-linear analysis of heart rate variability in diabetes and eating disorders and applications of data mining techniques to community screening diabetes data and in Alzheimer's disease. He consults for the United Nations Development Program in Marine Pharmacology as well as the Therapeutics Goods Administration in anti-venoms.

Ian Spence graduated BSc with first-class honours from the University of Sydney in 1971. While always interested in science, Ian began his university study in the Faculty of Economics before moving wholly into his science degree. He was influenced particularly by his Biology Professor Geoffrey Satchell.

Geoff was a very influential person in the direction my career. He encouraged me a lot while I was doing Honours in Biological Sciences, and he put me in touch with Jim McIntyre who was the Head of Physiology at Monash at that stage, and so that's how I made the leap from biophysics into biology. Jim was an interesting guy, he wasn't wellknown but he was well connected. There was a really good faculty there.

Ian completed his PhD on *Autonomic physiology and particularly control of gastro-intestinal motility* at Melbourne's Monash University. Of his research he explains that "the study investigated the nervous system that controls the moving muscle and I worked on both the nervous system that is actually in the wall of the gut and on the ganglia that are outside the gut." He also says that "Monash physiology was a very exciting place at that stage because it was new."

In 1974 Ian became Postdoctoral Fellow at the University of New South Wales. He worked with Dr Peter Gage whom he describes as "another very inspiring figure in my career".

The grant was based around a specific project which had to do with venoms (including funnel web spider and tick venom) and how they affect cellules (electrical properties of nerve cells). It was my first taste of pharmacology, putting some strange substances on cells and seeing how they produce their effects. He had a terrific lab.

Ian left academic research in 1976 to work at Roche Pharmaceuticals. He recalls,

They were looking for people who did work with natural products; it was a natural product drug development program. That sort of flowed out of what I'd been doing with the venoms and it was a completely different experience. I had a lot to learn about screening and toxicology. I brought expertise in how you test natural products in the nervous system in particular. While I was working with Roche I spent time in Basel and gained insight into how things were done in a synthetic program situation.

In 1982 Ian returned to academic research in the role of NH&MRC Senior Research Officer in the Department of Pharmacology at the University of Sydney. With this fellowship he researched the effects of "lead toxicology on the development of the nervous system" as well as the fields of neurophysiology and neurochemistry.

After three years, Ian concluded this research and became Lecturer in the Department of Applied Biology for the NSW Institute of Technology in 1985. "It's a bit of a hurdle to leap, getting up in front of 200 students, teaching them stuff you don't know; but once you get over it, it's good fun." In this teaching role he ran a master's program in toxicology as well as teaching undergraduate nursing and science students.

I learned a lot of anatomy; it was a revelation to me actually! Coming from a background that is really physics and botany and then picking up physiology and pharmacology along the way, I had never really done anatomy much at all. And I must say I appreciate how valuable the knowledge is to have.

In this position he still managed to maintain some research. "There is a belief, I think probably mistaken, that possibly neurons releasing acetylcholine are selectively affected in Alzheimer's disease. I've been interested in acetylcholine as a transmitter." This research was conducted in collaboration with Graham Johnston's research group. "I had this expertise from working in the pharmaceutical industry about how to screen things in a systematic way."

Ian moved back to the University of Sydney in 1988 as Senior Lecturer in the Department of Pharmacology where he has continued to teach the toxicology strand previously taught by Associate Professor Bruce Cobbin. "This department has a curious history," Ian says, "It's an unusual situation in that it is in the Faculty of Medicine and is its own independent department." As Senior Lecturer, Ian kept a reasonable research program going. At this stage he still worked mostly with

isolated nervous tissue brain slices. "I had a fantastic PhD student Lali Sekhon. We were looking at the effects of low-level chronic hypoxia (oxygen deprivation) on nervous system function."

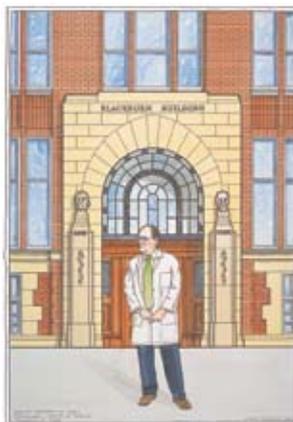
In 2000 Ian became Associate Professor and Head of the Discipline of Pharmacology. His role now has a greater administrative focus, but he continues to research. He is currently looking at miracle heart rate variability.

It requires very simple measurements – you just do ECGs. But you're looking at doing a sort of analysis of that as a bit of a window to the autonomic nervous system. It's still autonomics, but now cardiac. This draws on my background in Physics: the time between individual heartbeats is not constant and in a healthy person it's quite noisy, like white noise. In certain pathologies it becomes very rigid and that suggests that you're losing control over your ability to respond moment to moment to stresses that are going on. I am examining, in particular, the connection with both diabetes and eating disorders, because the technology is sort of portable to any condition, and we're interested in non-linear analysis methods.

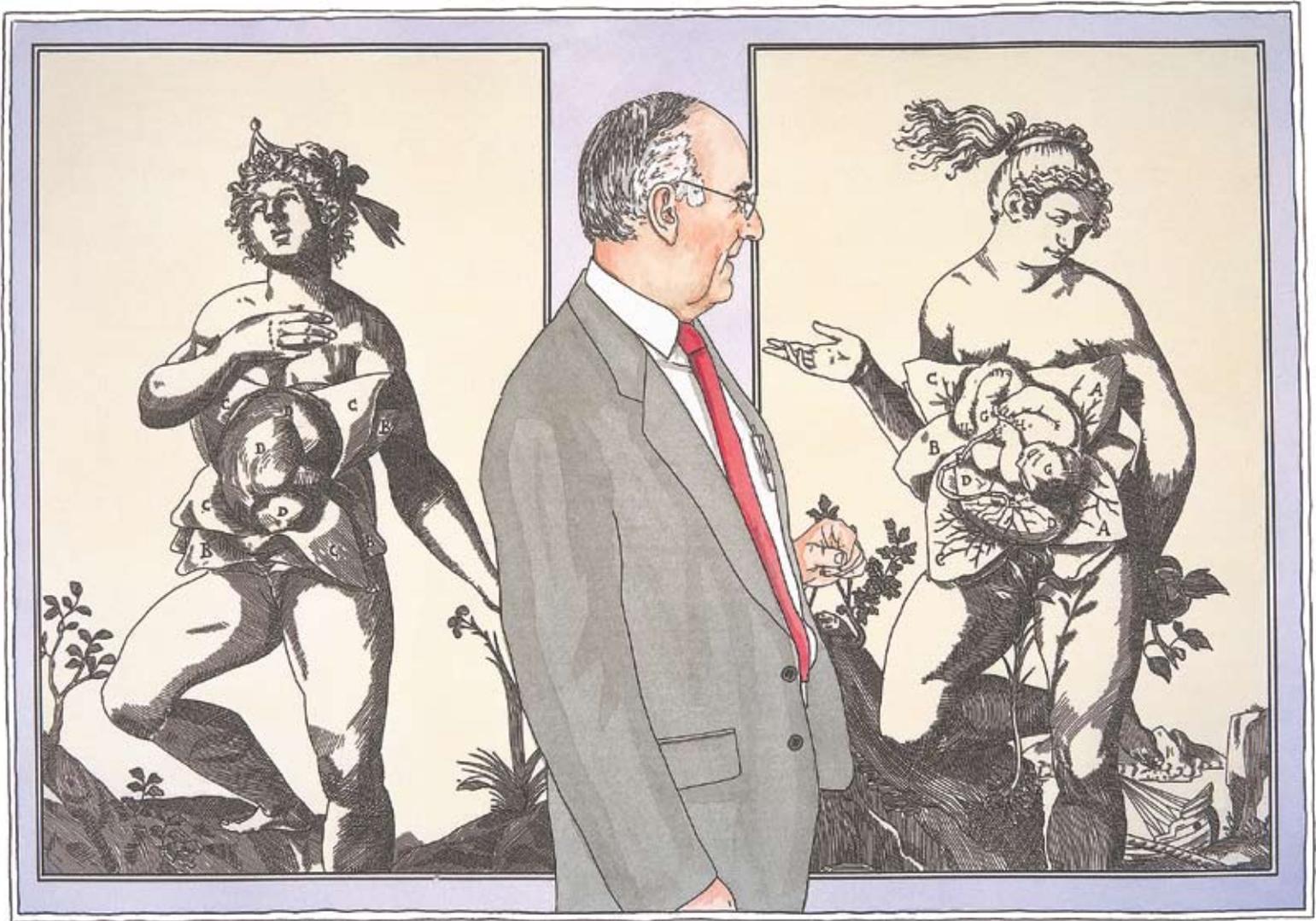
As Associate Professor he also teaches pharmacology, drug metabolism, as well as units in medical science, science, clinical trials and drug development. "Teaching I enjoy," he says. Ian became Associate Dean (International) of the Faculty of Science in 1998. When teaching periods are over, he is involved with international student recruitment and spends substantial time travelling on behalf of the Faculty. He remains passionate about science saying,

I like the sceptical end of science – that you must always say, "well, show me the evidence". You have an idea and you have a look at it and if it doesn't work then you move on to the next thing. I think it's important that people are able to step back and say "well is this really what's going on or are my emotional beliefs taking over". Science provides a framework in which to test whether or not things are real. That's the thing that appeals to me most, that sort of old-fashioned empiricism.

He believes that the legacy in the Faculty is that "it was the site of the biggest change that has ever occurred in this organisation, and that was the shift from undergraduate to graduate medicine. That was a revolution on a scale that has never been seen in this University. It ran very well."



Professor Brian Trudinger



PROFESSOR BRIAN TRUDINGER - ARTISTRY AND ANATOMY - FACULTY OF MEDICINE - UNIVERSITY OF SYDNEY

JOHN FILLARDIS - 2004

PROFESSOR OBSTETRICS AND GYNAECOLOGY, WESTERN CLINICAL SCHOOL

BSc(MED) MBBS UNSW MD SYD, FRCS EDIN FRCOG FRANZCOG DDU CMFM

Brian Trudinger is the Head of Discipline, Obstetrics and Gynaecology at the Western Clinical School and Director of Fetal Medicine at Westmead Hospital. His area of research specialty is fetal physiology and perinatology. In 2006, Brian Trudinger was awarded the prestigious Ian Donald Gold Medal for his outstanding scientific contribution to the field of Obstetric and Gynaecological Ultrasound.

Brian began his medical education supported by a University Foundation Scholarship and a Commonwealth of Australia Scholarship at the University of NSW in 1961. It was the first intake of the undergraduate course and everything was new. He recalls,

The good thing about the course was that it was a very experimental course. We also benefited from small class sizes, new equipment and resources and teacher enthusiasm. We did practical classes and experiments with fairly complex equipment which would take a day or two. It was a far more ambitious program than had existed in the traditional medical schools and we were in small groups. By the time we got into second year, there were only 30 or 40 of us and everybody was enthusiastic.

Early on, Brian decided to pursue a career in obstetrics as he found "the birth process more interesting than the death process". He also says it was a challenge, "being relatively unscientific and traditional, and there seemed to be a whole lot of new opportunity for doing things in a more scientific way". Though Brian credits Paul Korner, the Head of Physiology at the time, with having an "absolutely enormous influence", during his student days, this was a fact that he only realised later in life. He also recognises the support of Don Wilhelm in Pathology, and Bob Pitney, a haematologist, during those years.

Brian completed his junior and senior residency at Prince Henry and Prince of Wales hospitals by 1969.

We were on a one-in-two roster, working every day and every second night. I had married in third year so I had to say goodbye to my wife on Monday and not see her until Wednesday or Thursday. She brought the kids out on the weekend to see me when I was working.

In 1970, Brian became Senior Tutor in the School of Anatomy at the University of NSW. In 1971 he then became a Surgical Registrar at Prince Henry Hospital.

His postgraduate training was carried out at Hammersmith Hospital, London, a hospital where several of his undergraduate teachers had worked. From 1972 to 1975 he was Senior House Officer, Registrar and Senior Registrar in Obstetrics and Gynaecology. In 1976 he was to return to Australia but remained in England and became Senior Lecturer in the Institute of Obstetrics and Gynaecology, Royal Postgraduate Medical School, University of London. He claims that England afforded him the opportunity to work in an obstetrics situation that was far more academic than what was on offer in Sydney at the time. "I was in an environment where there were all these teaching hospitals in London and all these people being creative and asking questions. I found that really quite stimulating." Working in an immensely well-respected hospital and at the Royal Postgraduate Medical School, he was able to capitalise on the hospital's superior track record in obstetrics and as an "outstanding research institute" to see and be involved in managing many complex cases. Towards the end of his time in England he came across people who were "doing great things in ultrasound" and he was witnessing the emergence of ultrasound as a diagnostic tool. Brian believes that work, particularly with ultrasound, has paved the way for fetal rights. "It makes it much easier to identify the fetus as a person because it's there, identifiable, and you can see it."

Brian acknowledges that his time in London was the catalyst for his academic career, and says that if he had stayed in Sydney he may have remained primarily in clinical practice.

Back in Sydney in 1979, Brian took up a position as Senior Lecturer for the University of Sydney when Westmead Hospital opened. He had grown up and gone to school in Sydney's west and was happy to go back there. This fledgling hospital offered him an environment that was new and relatively free from internal professional politics. He appreciated the open and creative attitude at the hospital, and its initial "frontier" status in outer Western Sydney. There was an enormous patient load, but this did not detract from his research interests which, to a certain extent, involved patients and studying disease and complicated pregnancy. At this time his schedules meant he had little time to spend on central campus. It was the same for many of his colleagues in the outlying hospitals.

Reflecting back on his time studying the then new technology of ultrasound and the functions of the placenta, Brian is proud of the fact that meta-analysis of published trials reveals that the work of his

colleagues at the University of Sydney in the early 1980s has led to an estimated 30 percent reduction in mortality in high-risk pregnancy. He feels that the evidence-based medicine movement that has grown in the past 10 years has created a more democratic academic platform from which greater insight and discovery will be gained.

Brian enjoys clinical and research work far more than his time in administrative roles, calculating that he has delivered over 10,000 babies during the course of his career. He also estimates that the various mortality rates or unsuccessful pregnancy rates related to the birth process are now only 20 percent of what they were when he started in medicine and this is due to new techniques and technologies, and to the popularity of hospitalisation for the birth process.

Brian has been able to balance the academic and practical aspects of his career, maintaining teaching with the more unpredictable aspects of practice for nearly 28 years. However, the nature of his clinical work will always dictate the day – “I came in here and did a delivery at four o’clock this morning and so that changed all the things that I was going to do. You just have to be accommodating.”

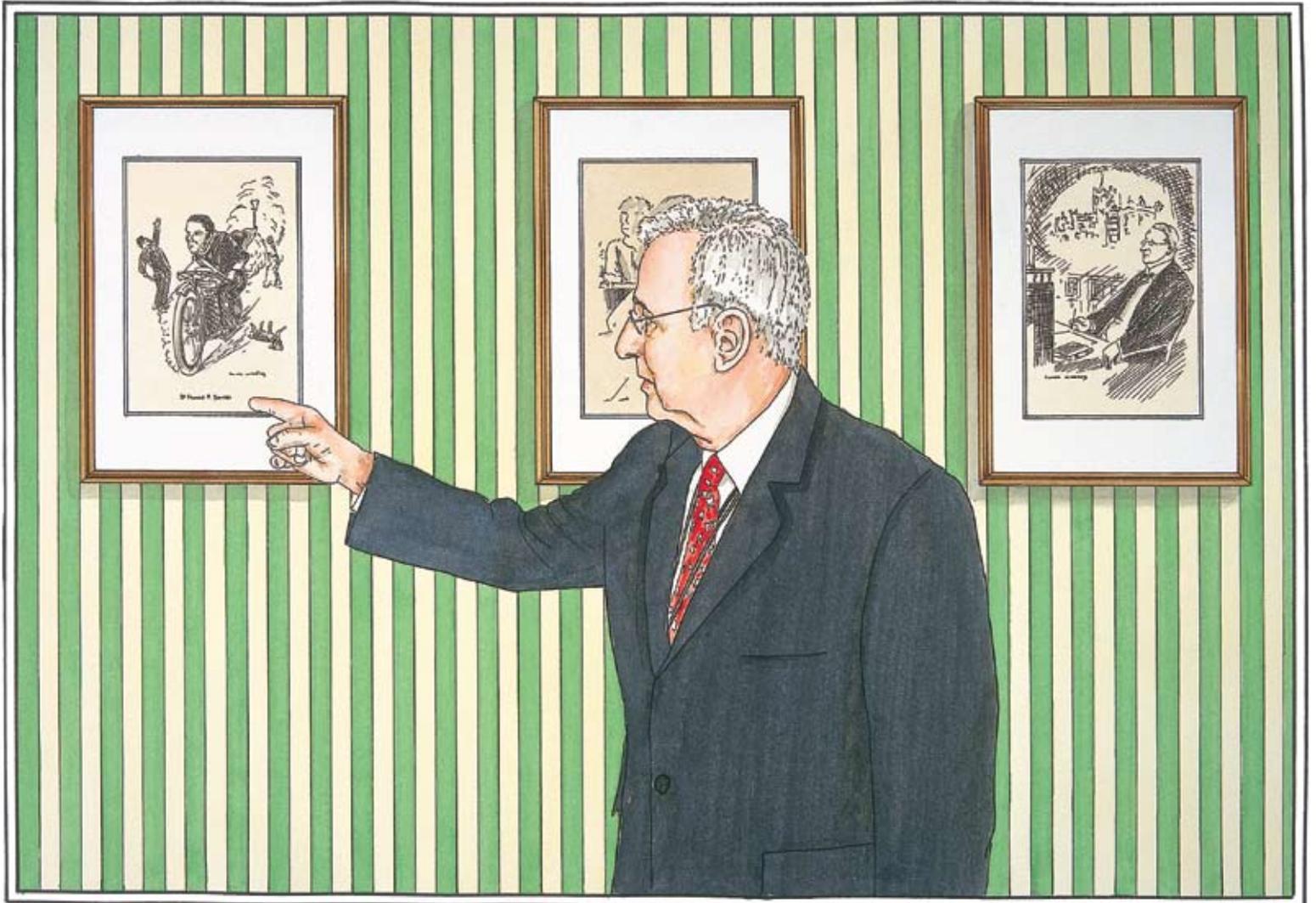
The span of Brian’s career has enabled him to gain insight into the changing perceptions of the fetus as an individual, the rights of the unborn child, and to consider the question of whether the fetus or the mother is actually the obstetrician’s patient.

I may have had a dull life in the sense that I have only looked at one aspect of a specialty in-depth, having focused on the relationship of the fetus with its placenta and its controllers – its nutrient supply and all that sort of thing – rather than jumping from one subject to another. The molecular biology that dominates now is fabulous. People entering research today with a formal education in this have wonderful opportunities. At the moment we’re trying to understand the origins of the failing placenta and the relationship of the fetus to its placenta.

When asked about the Faculty, he comments that he strongly supports the direction of the Faculty at the moment. He also adds that it’s great to work somewhere “with such status” and hopes the Faculty continues with its aspirations of moving up the list in terms of world ranking of universities and medical schools. “That’s what they should be doing,” he says.



Professor John Uther AO



PROFESSOR JOHN UTHUR - GRADUATE - FACULTY OF MEDICINE - UNIVERSITY OF STONEY

JOHN UTHUR 2006

ASSOCIATE DEAN, WESTERN CLINICAL SCHOOL – WESTMEAD CAMPUS

BSc(MED) MD BS, MRACP FRACP FCSANZ

Professor John Uther has been the Associate Dean of the Western Clinical School, Westmead Campus since 2001. In 1993 he was made an Officer of the Order of Australia in the General Division for Service to Medicine in the field of Cardiac Electrophysiology.

John Uther can trace his legacy within the Faculty back to his grandfather, Francis Percival Sandes, who graduated MB ChM in 1899 and went on to become the first full-time Professor of Surgery in 1921. John's father graduated MBBS in 1928, married F P Sandes' daughter Jean and practised as a general practitioner. So it seemed inevitable that John should pursue a career in medicine. Yet by his own admission he would also have made a very good mechanical and electrical engineer, having developed a love of gadgets and passion for electronics from a young age. John laughs and says,

Yes, my father was a GP and my uncle an engineer. I looked at their two lives; my father seemed to have control over when and where he worked and a manageable home life and my uncle was always away overseas building something. So I chose medicine.

John's initial exposure to medical research was as a BSc(Med) student in 1959 in the Department of Physiology at the University of Sydney, working alongside Rowan Nicks, Paul Korner, Geoffrey Thorburn and John Chalmers. He studied the dispersion of Evan's blue dye in a hydraulic model of the heart and circulation to test the hypothesis that the spread of indicator dilution curves could be used to measure the severity of valvular regurgitation. They tested their hypothesis on dogs in those days and the accuracy of the measurement in the dog for pulmonary valve incompetence was determined relative to a bristle flowmeter implanted in the main pulmonary artery.

Continuing his degree in Medicine, he graduated with honours in 1963. John completed his residency and general physician training at Royal Prince Alfred Hospital (RPAH) and fondly recalls, "In those days there was camaraderie and the residents' quarters were always full of parties so you learnt to live on about three hours sleep." Like most, he looked after about 20 patients on rotation. In his second year of residency he got into the Page Chest Pavilion and assisted with the first aortic valve replacement with Bruce Leckie (having a minor role holding the retractor – a big piece of metal that keeps the ribs apart).

John became Medical Registrar saying that "he really didn't have a big interest in being a surgeon and enjoyed the investigations and

detection process more". He was greatly impressed by Ted Halliday and John (Dick) Richards as teachers. "They used to be there till nine o'clock at night after they had already done a day in their Macquarie Street rooms. We'd do ward rounds together and then they'd sit with us and teach us how to listen to the heart."

In 1966 he became a Member of the Royal Australasian College of Physicians and was a Locum Consultant Physician for the Northern Territory Medical Service.

It was the first time I had responsibility for anything I did because I was the physician and the pathologist for the whole Territory and I had to travel from Darwin to Tennant Creek, Katherine and Alice Springs. I saw things I had only read about and lots of Aboriginal illnesses that I had never seen before. Many of the population smoke and therefore there was also a lot of lung cancer.

John began his research career in cardiovascular physiology, first with a fellowship of the Life Insurance Medical Research Fund of Australia and New Zealand and then two one-year postdoctoral Research Fellowships, one at the University of Mississippi and the other at the University of California. His early research work was focused on the integration of cardiovascular reflexes within the central nervous system, mentored by Professor Paul Korner. At the University of Mississippi he investigated the systems analysis of the regulation of the circulation, particularly the long-term regulation of arterial blood pressure. The department had established a computer system which enabled physiologists to apply finite element analysis techniques then being developed for engineering design to study the behaviour of physiological systems and to use experimentally determined non-linear relationships in their models. John then transferred to the University of California and began exploring the mechanisms of ventricular contraction and the measurement of myocardial power (measuring the power of the muscle in the left pumping chamber in live and intact subjects). He and his colleagues found a company that made catheter tip flow meters and developed a method for computing myocardial power from these signals. This work stimulated his interest in arrhythmias of the heart which he says "involved electronics again".

On return to Australia he became a Staff Specialist at RPAH and a Clinical Lecturer in Medicine in the Faculty. In 1974 he started a research program studying the mechanisms of cardiac arrhythmias in patients using electrode catheters. He pioneered the surgical

treatment for Wolff Parkinson White Syndrome and Ventricular Tachycardia using electrical mapping of the heart in Australia with cardiac surgeons Bruce Leckie and Douglas Baird.

It was found that patients that were considered neurotic, sometimes actually had arrhythmia. If you could map the circular pathway of the electrical activation of the muscle you could actually interrupt surgically the continuing electrical activation of the heart muscle and cure the palpitations permanently.

In 1979 he moved to Westmead Hospital as the Director and first head of the Department of Cardiology. He continued to refine the techniques of mapping guided surgery, widening the application of this type of surgery to a variety of recurrent tachyarrhythmias. His team, with cardiologist Professor David Ross and surgeon David Johnson, set up an education program so that cardiologists from Australian states and other countries could come to Westmead and receive training in these procedures.

From 1990 to 1998, John was Clinical Professor of Medicine at the Westmead Clinical School and the Chairman of the Division of Medicine at Westmead Hospital – a largely administrative role. In 1992 the University of Technology Sydney, CSIRO and Pacific Dunlop Ltd were successful in bidding for a Co-operative Research Centre and the CRC for Cardiac Technologies was formed. John was appointed Chairman of the CRC's Scientific Advisory Committee with the task of

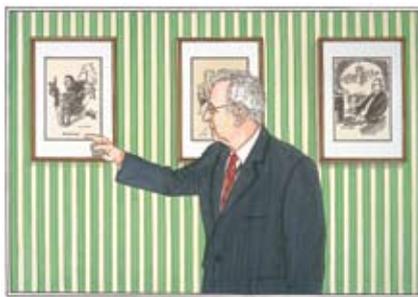
reviewing at intervals all the projects being carried out by the CRC to ensure they were carried out to high scientific standards.

John was appointed Associate Dean of the Western Clinical School's Westmead Campus in 2001. He resigned from this position in 2006 and is currently Staff Cardiologist and Director of Clinical Governance of the Cardiovascular Network in the Sydney West Area Health Service.

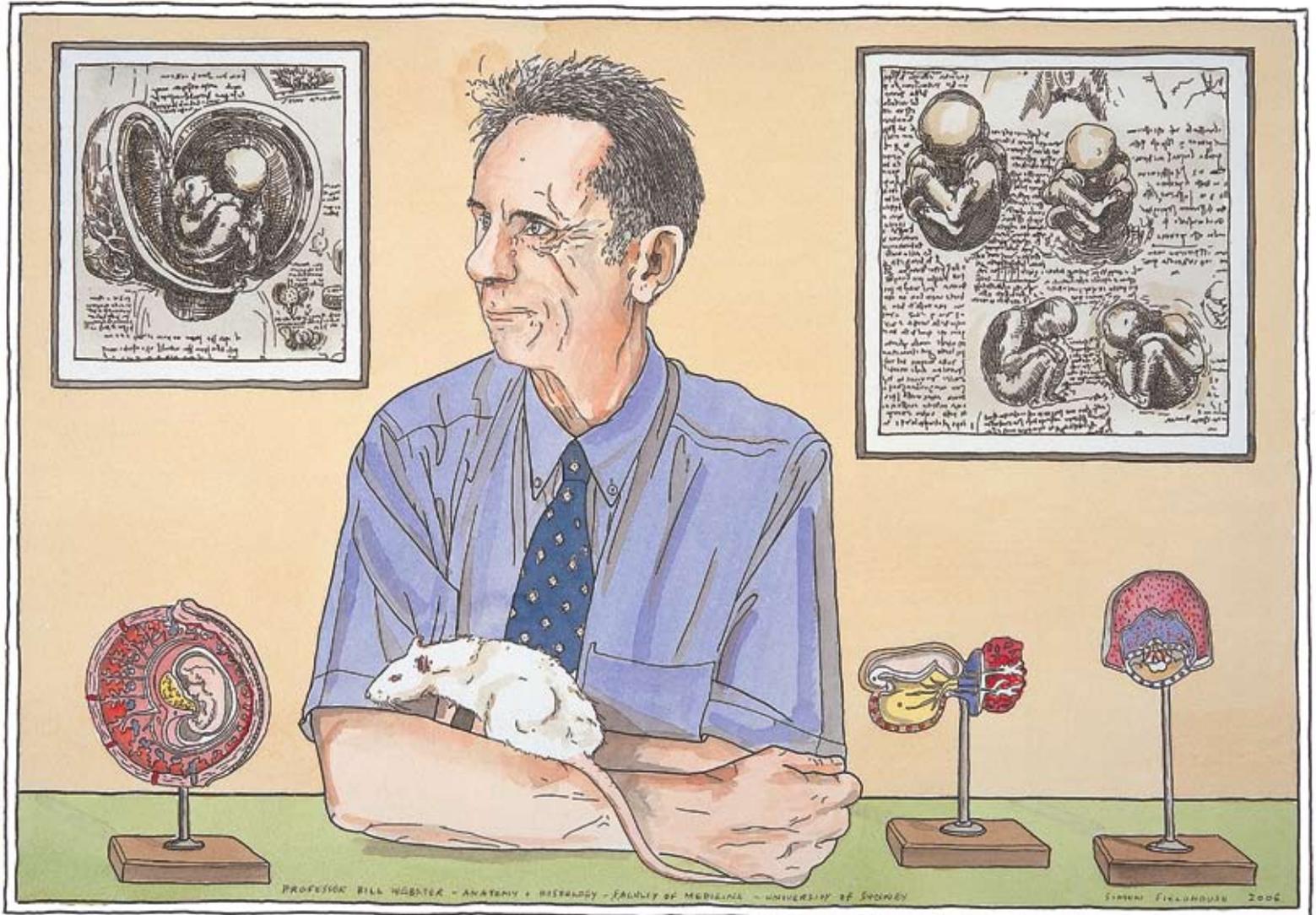
Of course, becoming Associate Dean has meant that I have had to restrict my cardiology practice but we have many very good cardiologists here now. As Associate Dean it is good to be the representative for the University in the hospital and I have battled to strengthen our academic presence. I have also improved the lot of students: I felt it was important that students had places to sleep and could walk around safely. We now have 50 beds for students in the hospital.

The Faculty has a great legacy in terms of medical practice in NSW. Coming from a family of doctors as I do, a family member has been a doctor and associated with the Faculty for 109 years, half the duration of the colony. That points to the long-term legacy of this Faculty. We have produced generations of doctors and have been the initiators of a medical culture of good practitioners.

Simon Fieldhouse has painted Professor Uther standing in front of the 1916 Lionel Lindsay portrait of his grandfather Professor Francis Percival Sandes.



Professor Bill Webster



PROFESSOR AND HEAD OF DISCIPLINE, ANATOMY AND HISTOLOGY

BSc PHD LOND

Professor Bill Webster has been Head of the Discipline of Anatomy and Histology since 2000. He has a special research interest in reproductive toxicology and has been particularly involved in investigating the parameters of chemical exposure that determine teratogenicity (ability to cause birth defects). Most of his work has been laboratory-based research involving rats and mice and he is considered an expert in the interpretation of animal experiments with respect to the human. More recently he has studied the general toxicity and possible mutagenicity of various herbicides used in the Vietnam War some of which are still currently in use in Australia. Bill has given the opening keynote lectures for each of the major Birth Defects Societies in America, Europe and Japan.

Bill Webster's career had modest beginnings. He recalls,

I left school early and started out as a laboratory technician, working for a medical researcher, Dr Ursula Mittwoch at the Galton Laboratories, University College London. I immediately realised that I really loved research. Ursula's interest and enthusiasm for her work on chromosomal abnormalities started my own interest in abnormal embryonic development and birth defects. I hadn't been to university at that stage so I enrolled in an undergraduate degree in Zoology at University College, London.

There Bill met the departmental head Professor Michael Abercrombie who, he says, "greatly influenced him."

He gave a lot of emphasis to problem-solving. We used to meet in small groups and attempt to solve biological problems which he used to present to us. His approach to problem-solving has stayed with me throughout my research career.

Bill graduated BSc in 1968. He immediately began doctoral research at the Institute of Child Health, Great Ormond Street Hospital, London and was awarded his PhD for his thesis *Embryogenesis of Hirschsprung's Disease using a mouse model*. Still keen for further research, in 1971 he successfully applied for a three-year research fellowship at the University of Virginia, working alongside Professor Jan Langman. Bill says of this time,

Langman was quite a famous person, the original author of Langman's Medical Embryology, the text which was used by all the medical students. It was very exciting working with him. He was interested in abnormalities of brain development so that was what the group

researched. Whilst there I undertook an anatomy dissection course and this subsequently enabled me to join the Anatomy Department in Sydney.

As part of my visa conditions for entry into America I had to leave after three years and could not reapply for re-entry for a further two years. I thought I would like to go to another English-speaking country for those two years and I eventually chose Australia over Canada, beginning my academic career at the University of Sydney as a lecturer in the Department of Anatomy.

Once he settled into Sydney, however, he realised that he was "very happy here," and has remained in Australia and in the Faculty ever since. Bill's research remained focused on reproductive toxicology initially studying the effects of environmental contaminants such as the heavy metal cadmium on brain development.

Soon after his arrival in Sydney he met paediatrician, Tony Lipson, who was, "incredibly enthusiastic" and had a keen interest in the causes of birth defects as a facet of medical life he was faced with continually in his clinical work. Bill began collaborating with Lipson, a friendship and intellectual partnership that spanned twenty years. He describes the collaboration as "incredibly productive," explaining: "he would bring in the clinical interest and I could do the experimental work on it." Together, they were, "amongst the first to do significant work," as well as publish substantially on the effects of alcohol during pregnancy.

Their shared, long-term interest in the mechanisms that make an embryo hypoxic (insufficient oxygen supply during pregnancy) and its relationship to birth defects has remained an area of research for Webster despite the premature death of Lipson. Bill says, "Tony Lipson was a great friend and a tremendous person. When he died, it was a terrible loss. I felt that we were a pair, working on things."

Since the 1980s, Bill has also collaborated with Dr Andrew Howe, a practising dentist with a special interest in craniofacial abnormalities. Since the 1990s, he has been collaborating with Dr Bengt Danielsson from the University of Uppsala, Sweden in a study of hypoxia as a cause of birth defects. This particular project has entailed lengthy periods of research at the University of Uppsala in its Biomedical Research Centre.

Bill's long-standing experience with the use of animals in toxicology testing has brought him into "major committee work with the government." Bill says,

In particular, I was on the Australian Drug Evaluation Committee for nearly 10 years with the responsibility of evaluating the animal toxicology studies. At present I am doing the same thing on another government committee called the Complementary Medicines Evaluation Committee. Instead of mainstream therapeutic drugs this committee evaluates the safety of some of the complementary medicines which are used in Australia. I have also been on several Department of Veterans' Affairs committees investigating the health of Vietnam veterans. Time-wise these committees have been a big commitment, but it's given me great satisfaction that my knowledge and expertise are useful in this official capacity.

Remaining based in the Faculty of Medicine, he has steadily worked his way up the academic ranks to become Head of the Discipline of Anatomy and Histology. In this latter role he has revelled in his new-found ability to, "stop complaining about how the place is being run and try and run it the way [he] wants" and explains,

There were a number of inherited problems including a large financial debt accrued as a result of previous restructuring and a reduced anatomy curriculum for medical students. During my tenure as Head of Discipline these problems have been successfully overcome including a major increase in anatomy teaching to medical students following a curriculum review held in 2007.

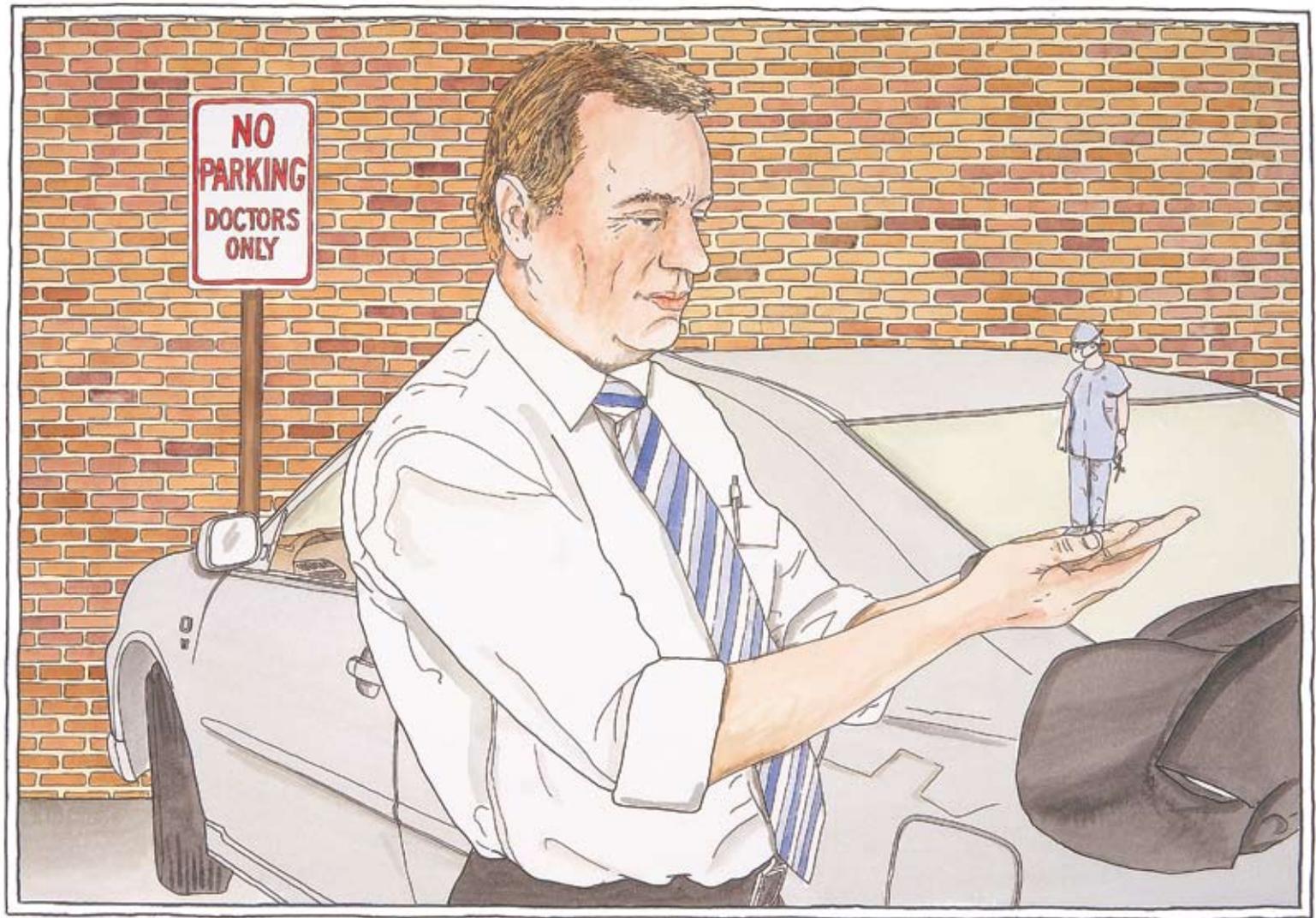
As Head of Discipline, he is particularly excited about the major renovations of student tutorial rooms and the Wilson Museum of Human Anatomy, saying "these have an invigorating effect on the Discipline."

Bill sees the legacy of the Faculty in "the respect in which the medical graduates of the University of Sydney are held" and hopes that part of his personal legacy "will be the re-establishment of anatomy as a major study area and the increased participation of surgical trainees in the teaching of anatomy."

Simon Fieldhouse has painted Professor Webster with one of his favourite lab rats, reminiscent of da Vinci's *Lady with an Ermine*.



Associate Professor Simon Willcock



ASSOCIATE PROFESSOR SIMON WILLCOCK - GENERAL PRACTICE - FACULTY OF MEDICINE - UNIVERSITY OF SYDNEY

Simon Fieldhouse 2006

ASSOCIATE DEAN (POSTGRADUATE MEDICAL EDUCATION); ASSOCIATE PROFESSOR OF GENERAL PRACTICE AT THE NORTHERN CLINICAL SCHOOL; SUBDEAN (NORTHERN CLINICAL SCHOOL AT HORNSBY KU-RING-GAI HOSPITAL)

PHD MBBS (HONS I) DIP OB, FRACGP FRACGP/RACOG

Simon Willcock is Associate Dean for Postgraduate Medical Education, and Discipline Head for General Practice at the Northern Clinical School. The Academic General Practice Unit is based at Hornsby Ku-ring-gai Hospital. He is the Chair of the Copleson Committee for Continuing Medical Education, Board Chairman of General Practice Education and Training (GPET), and Deputy Director of the NSW Institute of Medical Education and Training (IMET). His research interests are focused on the health and wellbeing of doctors as practitioners. In 2004 he was awarded the Geoff Marel Medal from the Confederation of Postgraduate Medical Education Councils for services to Junior Medical Officers.

Simon Willcock graduated MBBS with first class honours in 1980, saying, "I loved the clinical science subjects like histology and embryology. In fact, I enjoyed learning the basic and clinical sciences, it was heaven for me." Simon's interest initially lay with the natural world. As such, at first he thought he would like to attain a degree in veterinary science, but after spending an exchange year in America living with a doctor and his family he realised that while he loved animals, he actually found people more interesting.

He commenced a Professorial Unit Internship at Royal Prince Alfred Hospital in 1980 which he remembers as, "tough, but it taught you a very good work ethic. I saw some excellent clinicians and really caring doctors." In 1981, having decided to train for rural general practice, he moved to Canberra as Resident Medical Officer and Senior Medical Officer at the Royal Canberra Hospital, roles he remained in for two years. "There were very few specialist trainees, so as an interested generalist trainee you received excellent supervision and developed a diversity of skills."

In 1983 Simon moved to Inverell where he worked as a Visiting Medical Officer at Inverell District Hospital, with privileges in General Medicine, Obstetrics, Paediatrics, Anaesthetics and Accident and Emergency.

I learned my craft there as a General Practitioner. The most senior of the partners was just wonderful. He was that fantastic old-style mentor/master and I was the apprentice. The medicine was fantastic and it was lovely being part of a community where you looked after patients and their children, as well as their parents and even their grandparents.

It was an emergent apprenticeship experience with some very good masters who would help me if I ever thought I was drowning. I did obstetrics which I loved, and anaesthetics. However I also learned about the stresses of practice. Even if I wasn't officially "on call", I could be called in at any time of the day or night for a delivery or an accident. There were many traumatic events – four local kids being killed in a car accident or something like that. We read about those events in the papers in the city, but in rural NSW it was happening in your local environment. You'd get to casualty and there would be dead or dying people with grieving families. These people are part of the community you live in. When something like that happened it also taught me that you can't be the doctor and at the same time emotionally affected by those events. There are times where you have to depersonalise and switch off and certain times where you can't. You have to make a decision to step up or step back, because if you're too emotionally involved, you can't be practical as a doctor. But working in a rural area certainly taught us (my wife and me) about the importance of community involvement and support. It gave me a respect for humanity which I don't think had surfaced at a conscious level before then. It was a very happy time.

In 1988, Simon became involved in the administrative and medicopolitical side of rural medicine in the role of Honorary Treasurer of the Rural Doctors Association (NSW) and President of the Northern District Medical Association.

Simon moved back to Sydney and became Director of the Clinical Unit at Hornsby General Practice Unit, Hornsby Ku-ring-gai Hospital in 1990. He describes Ku-ring-gai as a combined teaching and supervision and practice position. "I decided that having learnt my craft, I wanted to learn some other skills, and I had always been interested in teaching." With his colleague Dr Penny Browne he set about changing the dynamic of that practice and getting families and chronic care back into General Practice.

We now have a five-person practice there. We also run a practice down in Brooklyn on the lower Hawkesbury River, where there are a lot of river access only communities. In many ways those communities are more isolated than Inverell.

In his various roles with the Institute of Medical Education and Training (NSW), Simon collaborated on two video productions, *Nobody Wants AIDS Mate* in 1993 and *A Piece of Cake* in 1995. Both productions were the recipient of international awards.

It was about creating a product that covered the issues about doctors' health, but it was more than just a lecture. We realised that standing up and lecturing people on what percentage of doctors have alcoholic or liver disease or whatever is not the way to sell the message. The videos are actually engaging.

In 1994, Simon became Lecturer in the Department of General Practice and, in 1995, the Subdean of the Northern Clinical School at Hornsby Ku-ring-gai. "It's great because I do my clinical work there and I get to do my supervision and teaching one on one with the Residents and Registrars that work in our unit."

Since he began practising medicine, Simon has watched the evolution of general practice. "There has been an erosion of what General Practitioners do. These days, metropolitan GPs don't deliver your babies, they won't give you anaesthetics and there's a move out of procedures." However, he states positively that there has also been a significant shift into health promotion and the concept of keeping a community well.

Now the issue is to have patients of 40 or 50 or 60 or 70 or 80 who are actually well and saying, "okay, this is what we need to do to keep you well, and this is how we advocate for you when you become ill." With the evolution of information technology and the growth of evidence-based medicine, a lot of what specialists have been doing for years can now be moved back to General Practice, including procedural medicine.

Simon became Senior Examiner of the Australian Medical Council in 1998, and in 2001 was promoted to Senior Lecturer in the Department of General Practice, and to Associate Professor in 2006.

In 2002 he became Associate Dean (Curriculum) in the Graduate Medical Program, a role that he maintained until this year, when he moved to a similar role for Continuing Medical Education within the Faculty. In these roles he maintains a particular interest in the health of his medical colleagues, and has conducted significant research into the health and behaviours of new medical graduates.

There are some underpinning principles to the role. One is having the focus on making sure that the students graduate with the sound clinical knowledge that they're competent doctors. My focus is also to make sure that they actually are psychologically prepared to be doctors and also psychologically robust and resilient as well. The people that are fantastic doctors are the ones who have rich lives outside of their practice.

Simon has retained a day of clinical work each week in his schedule, and also spends time in Canberra each fortnight as part of his work as Board Chair of General Practitioner Education and Training, a role he took on in 2005.

Of the Faculty of Medicine, he says,

We have beautiful sandstone buildings and we're in the top five of this and in the top 20 internationally and all that, but the significant legacy is the people this Faculty has produced, and the great things that many of them have done. They are remembered as much for their humanity as for their clinical and research achievements. We should always value that balance.





The University of Sydney

