Revitalising our teaching spaces

Professor Bruce Robinson, Dean, Medicine

Modern medical education requires both outstanding committed teachers and facilities to enable the best interaction between teachers and students. It is obvious that many of our teaching and learning spaces require upgrading; we have been working hard to win University and government support for our proposals.

Upgrades to teaching laboratories in the Anderson Stuart Building will begin shortly. We are enthusiastic about the proposed conversion of the Burkitt-Ford Library in the Edward Ford building into a student study and meeting place which we hope will begin in the second semester of the year. We are also delighted that concept plans are being developed for new buildings (possibly located adjacent to the Edward Ford Building) to house modern medical and nursing education facilities, in conjunction with expanded space for the Schools of Public Health and Physics and offices for the Faculty of Nursing.

These concept plans, along with new proposed clinical school buildings at Nepean, Concord and Westmead (the Royal North Shore Hospital facility was opened in 2008) and recently opened additions to the School of Rural Health in Dubbo and the University Department of Rural Health in Lismore, will together ensure students’ learning environments are second to none. Overall, an ambitious, but overdue, building program which will require support from teachers and students. If you have comments please let me know!

Plugging into the cancer research network

Associate Professor Graham Mann, Associate Dean (Research Strategy)

University of Sydney is home to some of the largest concentrations of cancer research strength in this state. Since each research institute and precinct makes a substantial contribution, there are opportunities for Sydney Medical School students to get involved in cancer research close to where they study.

Cancer is a multifaceted health problem. Cancer cells arise by processes of genetic mutation and evolution, and relentlessly disorganise their signalling and regulatory pathways to prioritise cell survival and growth at the expense of normal functions. Development of new treatments now focuses on subverting these pathways, with increasing success.

However, the probability of cells forming a tumour in the first place is a very human problem. It is influenced by a person’s genetic makeup and their ecology: ambient exposures, behaviour and social circumstances all playing a part. Genetic studies have made massive strides in complementing classic epidemiology to untangle the knot of individual cancer risk, and are an increasing influence on thinking about cancer prevention, early detection and care.

Back in the cancer cell, studies of all the major cancers show that, not only do they consist of many genetic subtypes, but that hidden genetic variation between tumours underlies the distressing unpredictability of cancer behaviour: prognoses that vary from months to years, treatments that fail against the best hopes.

Finally, good care of the person with cancer throughout their journey to either survivorship or severe illness is a huge challenge to all levels of the health system. No health care service or discipline is untouched and much research now targets psychological adaptation and clinical system issues around cancer care.

The multidisciplinary team is not only an accepted standard for providing care to cancer patients, but is a great environment for encouraging continuous learning, patient-orientated research, and translation of research findings into practice.

I chose to divert from a career in medical oncology into cancer research 25 years ago largely because I sensed that a great mobilisation was afoot in basic science that would crack the cancer problem in my lifetime. I think that potential is on its way to being fulfilled. Along that path, I have had great (cont’d overleaf…)}
Linda (BSc(Hons), MSc, PhD) graduated in Psychology from the University of Iowa, USA, before moving to Australia in 1978. She worked in various health research roles in psychiatry, aged care, counselling in general practice, and treatment of drug and alcohol addiction, before completing her MSc in 1989 in psychopharmacology at University of NSW. In 1990, she established a research consulting company focusing on research design, sampling, data management, database design, statistical analysis, reporting, and publication of results. Since then, Linda has conducted many quantitative and qualitative projects in diverse areas, including general practice management, quality use of medicines, women’s health, occupational health and safety, management training, counselling skills, and post-graduate medical education. Clients included area health services, pharmaceutical companies, NSW Courts, professional bodies and university departments. She has also helped students with study projects. Over the past five years, in conjunction with her PhD project, Linda managed the evaluation of a national consumer medicines program, which involved collaboration with national and local stakeholders in a participatory framework to achieve agreed outcomes. Linda is committed to strategic, quality evaluation using a variety of methods that incorporate all stakeholder views.

Linda is enthusiastic about her new role in evaluation at OME and looks forward to employing her evaluation and research skills to contribute to the ongoing improvement of the Sydney Medical Program.

Linda has two children: a son studying history and philosophy at the University of Melbourne and a daughter doing an apprenticeship as a jockey with NSW Racing. Linda enjoys walking the dog, horse riding, going to the theatre and singing.

University of Sydney Cancer Research Network (CRN)

The CRN was established several years ago to maximise the potential of its many excellent researchers to interact and to work jointly on the problem of cancer. For students it provides a golden opportunity to identify suitable cancer research supervisors in all the various disciplines and precincts of the University.

Browse the CRN website at www.cancerresearch.med.usyd.edu.au and contact Dr Angela Beaton or Merilyn Heuschkel at cancer-research@med.usyd.edu.au or 02 9036 6307. Enquiries about research opportunities are also welcome through the Faculty Office of Research and Research Training (mvan_der_hoeven@usyd.edu.au, 02 9114 0802) or the Office of Medical Education.

Graham Mann helps head a multidisciplinary research program on melanoma at the Westmead Millennium Institute and the Melanoma Institute Australia. He is also an Associate Dean (Research Strategy) of Sydney Medical School, and a Director of the Cancer Council NSW.
University of Sydney Dental Simulation Facilities

Professor Roland Bryant, Professor of Conservative Dentistry

Two recently-completed Dental Simulation facilities represent, for the University and for the Faculty of Dentistry, a significant enhancement of the potential for the teaching of preclinical dental procedures.

A grant from the Federal Government and support from the University, together with saved funds from the Faculty Continuing Education Committee, enabled us to establish two “simulation clinics”. Each clinic contains a total of 55 dental working sites — comprising 11 modules with each module having 5 sites in a “petal-shaped” arrangement. This design offers an unparalleled, optimal learning/teaching environment for students/”clinicians” and teaching/instructing staff.

Compared with alternative designs, this arrangement provides a relatively uncluttered, spacious environment with excellent vision for staff and students.

The simulation clinics are located in the Faculty’s two principal clinical teaching locations -- one is within the Sydney Dental Hospital (SDH) in Surry Hills and the other is adjacent to the Westmead Centre for Oral Health (WCOH). These new clinics replace much smaller and aged facilities and reflect both the increase in student numbers in Faculty’s Bachelor of Dentistry and Bachelor of Oral Health degree programs, and also the greatly expanded use being made of preclinical facilities for the teaching of University students and for enhancing the skills of dentists (by way of courses run by Faculty’s Continuing Education in Dentistry Committee) and dental staff of the Health department.

The dental equipment in the two simulation clinics, such as dental motors, appliances and lighting, were purchased from and installed by the American-based, A-DEC Australia and are equivalent to equipment in contemporary dental practices. The “heads”, which are used in the simulation clinic to hold plastic tooth models and other attachments, are of a relatively new and simplified design by the Japanese Nissin company. Four new X-ray booths in each simulation facility are supported by digital processing of radiographs to provide technology, comparable with the best in dental practices, for the teaching of Endodontics (root canal therapy) and radiography.

SDH and WCOH provide much appreciated support for our activities through the provision of dental assistants and maintenance.

Educationally, the simulation clinics comprise a quite remarkable array of regular and dental audio-visual technology. The central instructor’s bench is equipped with two monitors for current and preview screening. Students are able to access information, using touch pad technology, from the X-ray booths, DVD and video player/recorders, a visualizer/document camera, laptop, intra-oral camera, ceiling-mounted camera and dental operating microscope.

The visual content can be displayed either on the large wall-mounted monitors or on the individual tablet PC at each of the 55 sites.

The capacity to divide the clinics into two working zones - for both sight and sound - enhances the practical functionality of the clinic, allowing two, distinct, smaller groups to use the facility concurrently.

A sustained contribution by many people, over a period of about five years, has culminated in the University, the Faculty, its staff and students, and dentistry in Sydney being provided with an outstanding opportunity for preclinical education and training in dentistry at these two world-class dental simulation facilities.
At 8.15am every Wednesday and Thursday, a group of Stage 2 students from Sydney Medical School meet in the waiting room of the Department of Forensic Medicine in Glebe.

At 8.30am, the students are taken into the autopsy suite by a senior pathologist (usually the Department’s Director, Associate Professor Jo Duflou), who gives them an introductory talk on how to diagnose death, how to fill in a death certificate, the types of deaths that must be reported to the Coroner, and what to expect in the autopsy operating room.

Then the students, accompanied by a staff member from the Office of Medical Education (OME), put on protective gear and enter the operating room. They spend most of the morning observing autopsies with the aim of learning about anatomical (not forensic) pathology. Their objective is to gain a first-hand understanding of the clinical and pathological events that go on in a person with serious disease or injury leading to death.

The Department of Forensic Medicine, which is part of Sydney South West Area Health Service, is the main coronial pathology centre for the State of NSW. In a typical morning, the Department does up to 10 autopsies.

With guidance from the OME staff member, students are encouraged to see the main pathological findings in all the cases, while concentrating on the pathological processes in one case. This one case – fully de-identified to preserve confidentiality – becomes the subject of a short report that each student must submit as a required formative assessment for Stage 2. The pathologists and technical staff doing the autopsies help the students by demonstrating the autopsy technique, pointing out the anatomy and the structural changes, and explaining the pathology.

Before the students leave the Department at the end of the autopsy session, they meet with the OME staff member for a short de-briefing. For many students, the visit to the autopsy suite is a confronting experience – it is often their first encounter with the human body after death, other than anatomy specimens, which seem much more abstract. The purpose of the de-briefing is to provide an opportunity for students to air any issues that they have found unsettling, clarify interpretation of the pathology that they have observed, and resolve details for the completion of their reports.

Students’ responses to the autopsy sessions have been strongly positive. From their initial reaction, many describe the operating room as ‘surreal’, but they also relate how they soon become intensely engaged in seeing the anatomy and discovering the pathology. One student exclaimed, “I’ve learned more anatomy in the last hour and a half than in the last year!” and others have described the experience of seeing macroscopic pathology at first hand as “just amazing” and “awesome”. Students certainly appreciate and are affected by the sad and often tragic circumstances leading to deaths that are reported to the Coroner. At the same time, they generally feel privileged and excited to see the reality and the consequences of the lesions that they have learned about – a massive pulmonary embolus, extensive stenosis of coronary arteries and a corresponding old infarct of the myocardium, vegetations on the heart valves of a patient with endocarditis, a perforated gastric ulcer, liver and vertebral metastases from a prostate cancer, a skull fracture with the fracture line crossing the path of the middle meningeal artery.

The autopsy sessions were developed at the energetic urging of Professor Eva Raik AM (formerly Head of the Haematology and Cytogenetics Laboratories at Royal North Shore Hospital), following from her review of the pathology curriculum. Thanks are due to Professor Raik for her great contribution and her continuing involvement in attending autopsy sessions with the OME team. Thanks are also due to others contributing to the OME team – Dr Con Reed, Dr Roger Scurr and Professor David Tiller AO – and to Professor Duflou and his staff for their generosity in hosting the autopsy sessions and their enthusiastic teaching.
Paediatrics

Paediatrics is a good example of a speciality which is successfully vertically integrated into the Sydney Medical School curriculum, where paediatric teaching is encountered in all 3 Stages of the program. The current paediatric curriculum was extensively reviewed in 2004 and modified again following the recent curriculum review. Paediatric teaching is centred at the Discipline of Paediatric and Child Health at the Children’s Hospital at Westmead. However, a significant proportion of paediatrics is also delivered at other clinical schools, including Nepean, Northern and the rural clinical schools of Orange and Dubbo.

Students first encounter paediatrics by way of a required formative self directed learning project in Stage 1. This project enables the students to follow the development of normal children over several months and to receive constructive feedback on their submitted report. In Stages 1 and 2, a variety of paediatric cases are introduced by way of the 13 PBLs based upon children. Exposure to paediatric bedside skills first occurs in Stage 2, where students participate in 6 history taking and physical examination tutorials. Here we introduce paediatric history taking skills with a focus on assessment of development, growth and nutrition.

The majority of paediatric teaching occurs in Stage 3 during the 8 week Child and Adolescent Health speciality block. A combination of structured teaching, workshops, procedural skills and speciality surgical Structured, Clinical, Objective, Referenced, Problem-oriented, Integrated and Organised (SCORPIO) sessions, clinical reasoning sessions, medical and surgical tutorials and clinical attachments make up this rotation.

The success of paediatric teaching at the University is a result of a strong education and administrative support team and the (often) unexpected pleasure students derive from interacting with children and their families.

City2Surf 09

OME and MedSoc would like to invite staff and students to participate in the City2Surf this year and help raise funds for the Poche Centre for Indigenous Health and outreach clinics, including student visits to outreach clinics.

You don’t need to be an athlete to participate, but we will be organising some regular walking/running groups for those who are interested in getting fit for the event. We will also be organising a range of fundraising activities and some well deserved celebrating at the end of the event.

Interested in joining?

If you are interested in joining us, either as a participant or in fundraising please contact Imogene Rothnie in the OME via email: irothnie@med.usyd.edu.au
Since 2005, the Sydney Medical School (SMS) has been recording Stages 1 and 2 lectures held in the Bosch, and then Footbridge lecture theatres, and linking them up to the Medical Program web site. The School pioneered bulk recording of lectures in the University, and was among the first users, and certainly the first major user, of the Lectopia automated recording system. In 2009, we have become the pilot users of Apple’s iTunes U service within the University.

iTunes U is part of the iTunes Store, and allows educational institutions to give students an easy way of downloading and watching video, audio, and PDF files. Universities can set up either public sites, available to anyone in the world, or private sites, available to only their own staff and students. In 2008, Apple announced that the iTunes U service would be available in Australia, and seven universities were announced as the pilot partners. Notably missing from this list was the University of Sydney. The SMS IT Unit saw this as a loss for the University, and began negotiations with the University and Apple to set up a pilot. Professor Chris Liddle, SMS’s Associate Dean for IT, took this to the level of the Vice Chancellor for approval.

In March 2009, we were finally able to set up the iTunes U site, linking up videos, audio, and PDF files from the Medical Program website as well as from Lectopia. The linkages are done in an automated fashion, so that they appear in iTunes U within a day of being created. The infrastructure developed over the last four years meant that linking into iTunes U was quite quick and easy. The initial student responses to the announcement included 5 responses of “fantastic”, 2 of “awesome”, a “wonderful” and an “excellent” response.

As a result, University of Sydney is the first University in Australia and New Zealand to launch a private iTunes U site (though some others have created public sites). At the time of writing, we have over 2300 tracks (video, audio, or PDF) available.

iTunes U is divided into Stages, with students in each Stage having access to all the available material recorded for their cohort from the beginning of Stage 1. Staff can access materials across all four cohorts.

The site was developed over a period of a month between February and March 2009, by Daniel Burn, Tim Harland, and Ali Baghebani Kord Mahaleh, and is still under development, as we find ways to improve the site and add more content.
The United Nations of medical students

Ineke Wever, President, University of Sydney Medical Society

Sitting in a workshop discussing how the principle of ‘impartiality’ and ‘bearing witness’ to conflict around the world relates to doctors becomes a little more real sitting next to medical students from Rwanda, Sudan and other nations with conflict. One medical student from Nigeria reported how he had to confront these principles when he chose to speak out about the machete wounds on primary school children he was seeing in the emergency department only 3 months ago. Pretty full on, hey? Welcome to the International Federation of Medical Students Association (IFMSA) General Assembly held in Tunisia in March of this year. I was part of the Australian delegation of 15 students who participated in the Standing Committees, workshops, plenary sessions and of course, social program.

The plenary sessions are what I imagine the United Nations to be like, but with medical students arguing over issues instead of bureaucrats. Policies are voted on by the 60 member countries with voting rights and are argued over until the wee hours of the morning on such controversial issues as pharmaceutical sponsorship, climate change and denouncement of unethical conflict from a human rights perspective, initiated by the Palestinian delegation.

The week also provided the opportunity for project presentations from each country, highlighting successful initiatives that could be introduced into different countries such as “Marrow”, a campaign to encourage medical students to become bone marrow donors from the United Kingdom and a Norwegian project which sends medical students to Kenya to work with an NGO operating health clinics. The Sudan Village Concept Project had the perfect aim we all aspire to “create a perfect village in which everything is available and in the best way with all the facilities and infrastructure and medical support.”

Making friends from all over the world and introducing them to the joys of Vegemite and Bundaberg rum at the International Food and Drink Night was hilarious and an experience not easily forgotten. The next General Assembly will be held in August in Macedonia and applications will soon open through the Australian Medical Students Association.

A dental convention in Perth

I was selected by the University of Sydney, Faculty of Dentistry to enter a poster competition between all Australian and New Zealand dental schools in a dental convention in Perth. This year, Fiji School of Medicine & Dentistry also entered for the first time. This competition is part of the American ADA (American Dental Association)-DENTSPLY student clinician research society, SCADA (the Student Clinician Research Program of the ADA), which has a long tradition in northern American universities. The title of my research was: “A Retrospective Clinico-histopathological Study of Oral Lichen Planus (OLP) at Westmead Centre for Oral Health”. Doctors and dentists have important roles to examine their patients’ cheeks and under their tongue, to check for any pathology. I found this condition has not only been under-diagnosed, but that most of OLP lesions were found to be on the cheeks and tongue. OLP is a raised bilateral white lesion of the mouth which needs to be biopsied for a definitive diagnosis and appropriate management. We have applied strict criteria for histopathological diagnosis of OLP and overall, the results showed a significant over diagnosis of this condition.

CSI: Perth (Clinical, Scientific and Innovative) convention really delivered the high standards they have aimed for. Over 2000 delegates participated from all across the world. There were renowned international speakers in all areas from Endodontics, Periodontics to Radiology and Restorative Dentistry, talking about recent advancements in evidence-based dental world.

As I write this article for “Curriculum Matters”, I am preparing for the famous annual ‘Grand Dental Ball’ coming up on Friday 1st of May at the Star Room (on top of IMAX theatre). University of Western Australia in Perth is also hosting the Australian Dental Student Convention this year in July. We hosted this event last year at WCOH with over a hundred participants, which was a major success for Sydney University Dental Undergraduates’ Association (SUDUA) and sponsors.
I have always had broad interests in science, so the University of Sydney’s Combined Medicine Program definitely stood out against medical programs offered by other universities. When I entered the Program in 2008 to study B Science (Adv)/MBBS, I was eagerly curious about the exciting academic, professional and social possibilities ahead.

The Combined Program gave me incredible flexibility and diversity in subject choices, as well as access to world-class teaching and research facilities. Within the science degree, I am planning to major in chemistry and statistics, whilst taking some IT electives because I see their invaluable applications in medical practice and research. Over the past year, I also had opportunities to be mentored by several distinguished academics in a range of small research projects in applied mathematics, astro-informatics, software development and neurophysiology.

I am just one of the 81 current students in the Combined Medicine Programs. We are a diverse group, spanning across the Faculties of Arts, Economics and Business, Science, and the Conservatorium of Music. Yet we are also a cohesive group filled with friendly spirits. Together, we set up the Combined Medicine Association (COMA) earlier this year with the aim of enriching our university experience. COMA is committed to encouraging social interactions through casual lunches, BBQs, formal functions, sporting and gaming activities and field trips; creating opportunities for professional development through guest speakers and sponsorships from research institutions and health industries; and acting as a liaison between the students in the program, the various faculties managing the program, and the wider university community. As the president of COMA, I firmly believe that with the generous support of the Sydney Medical School and various student bodies such as MedSoc and SciSoc, we can fulfil our commitments to current and future students of the Combined Medicine Programs.

Back Row (left to right): Dilshan Seneviratna (Events Manager), Chao Wang (Vice President), Ronald Fung (Events Manager), Andrew Ying (PR Manager); Front Row (left to right): Isobel Yeap (Faculty of Economics and Business Representative), Kerry Chen (Vice President), Sophie Liang (President), Jina Rhou (Secretary), Yvonne Kong (Faculty of Science Representative), Leslie Wong (PR Manager)

Combined Medical Programs at the University of Sydney

The Combined Medicine Programs are privileged and popular programs amongst talented high school students. They are offered by the Sydney Medical School in conjunction with the Faculties of Science, Music, Arts and Economics and Business. Students are able to combine undergraduate degrees in Arts, Music, Science, Economics and Business with our prestigious four-year graduate-entry Medical Program.

In 2009, we welcomed 25 new students into the program (2 Economics-Medicine, 3 Arts-Medicine, 3 Music-Medicine and 17 Science-Medicine). The program attracts the ‘best and brightest’ high school students with a UAI cut off of 99.95 (2009). Together there are 81 combined degree students.

A Combined Medicine Program Student’s Perspective by Sophie Liang, COMA president