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27 REUNIONS

CALLING ALL OVERSEAS ALUMNI

Do you enjoy reading Radius? From the next issue, Sydney Alumni Magazine (SAM) and Radius will only be sent to overseas alumni who have confirmed they wish to receive the printed magazines. The Sydney Medical School is asking all overseas Alumni to confirm they’d like to receive a printed copy of Radius.

If you would like to continue to receive Radius in the mail please email your reply to the Radius office med.radius@sydney.edu.au

If you do not email the office, you will not receive the next issue of the magazine. It will of course, still be available online.

KEEP IN TOUCH

If you have moved or have a new email address, please update your details on Sydney Medical School Alumni website. sydney.edu.au/medicine/alumni

Not alumni but would like to read about Sydney Medical School?

Complete the form on the alumni website and we would be happy to send it to you.
Welcome to 2014! We have just welcomed the new group of medical students into the new MD program. They have wonderfully stimulating careers ahead of them and our role is to prepare them for this by providing clinical, research and personal development that will be a foundation that will allow them to grow and adapt to the inevitable change that they will see in medicine.

Our primary goals are to develop the high quality understanding of the basic science that is the foundation of medical practice, and clinical and research skills. With these skills the career paths taken can be extraordinarily diverse. I met recently with a distinguished group including a former Governor, a former Director of a pre-eminent research institute and a Vice Chancellor; all said that first and foremost they regarded themselves as ‘doctors’ and that this was in their bone marrow forever. Our profession not only cares but is also inquisitive and pragmatic. We deal with real world problems whether they affect the lives of individuals or populations. We all regard it as a privilege to do what we do and it is important that we encourage these new medical students to see their medical careers in this light.

We must encourage all of the students to shoulder some of the responsibility to continue to educate themselves and others and importantly to contribute to the ‘body of medical and scientific knowledge’ that we all use to practise. At Sydney Medical School we do research that is relevant to the improvement of health and the new MD program will formalise the participation of students in this research. All students will receive basic training in research methods and will then participate in a project in areas as diverse as basic medical science, clinical medicine, public health, health systems and ethics. This is a great opportunity to provide students with additional skills which will at the very least equip them to be ‘research users’ and hopefully some will be stimulated to obtain more formal training in research by completing a Masters or PhD program.

We are also implementing better systems of support for early career researchers and strongly supporting the development of more multi-disciplinary programmatic research. We need larger comprehensive teams to tackle some of the big research questions facing society. The partnering of the biological, clinical and social sciences is often required to clarify the nature of a problem and a solution to it. The recently launched Marie Bashir Institute (which will research emerging infections and biosecurity) and the Charles Perkins Centre (which will research obesity diabetes and heart disease) are both examples of this multidisciplinary approach which are attracting people and funding to perform research which will have very practical impact.

I do hope that you will support us in providing all of the future leaders in medicine and medical research with the benefit of your wisdom and practical assistance. Sydney Medical School is certainly greater than the sum of its parts and that is largely because of the commitment shown by so many to our shared vision of a healthy future.

ENGAGING MYANMAR

In October last year, in a visit with our tireless Governor Professor Marie Bashir, I spent a week in Myanmar with Professor Cheryl Jones, paediatrician and deputy dean in the faculty, and Professor Lyn Gilbert, one of our leaders in infectious diseases. After more than 40 years closed off, the doctors and other health professionals we met in Yangon, Mandalay and in the capital Naypyidaw, are eagerly looking to Australia and Australian universities to help them make up the ground they have lost... I would like to echo the words of alumnus Dr Bob Bauze, based at the University of Adelaide and who has been working in Myanmar since 1976, about the important contribution we have the capacity to make in our region in lifting standards of healthcare. It is a worthy goal for us all.
NEW APPOINTMENTS

ASSOCIATE PROFESSOR CHRISTOPHER DENNIS
Chris Dennis has been appointed to Associate Dean and Head of Northern Clinical School. Chris has been a respiratory physician at Royal North Shore for 20 years, his role included care of acute respiratory problems in the hospital and complex diagnostic problems in the clinic. He has been actively involved in the delivery of the Sydney Medical Program since 1994 in tutorials, lectures and clinical assessments, and participated in all elements of teaching and assessment programs during that time. For the past 15 years, he has been responsible for Medical Grand Rounds program at RNSH. After his appointment as Stage 3 Coordinator in 2007, he was charged with implementation of the recommendations of Curriculum Review and for the past three years, he has been Chair of the Patient – Doctor Theme of the Medical Program. Chris has also played a major role with the Royal Australian College of Physicians, including as a member of the Clinical Examinations Committee and National Examining Panel since 1998, and Deputy Chair over the past 5 years. He graduated MBBS (Sydney) University 1981 and a Fellow Royal Australasian College Physicians in 1989.

As Head of School, he is responsible for teaching, clinical training, community engagement and mentoring staff, as well as the broader relationships including with the Local Health District.

ASSOCIATE PROFESSOR KIRSTY FOSTER
Associate Professor Kirsty Foster has been appointed Associate Dean (International) and head of the Office for Global Health. She continues in her role as Sub-dean Education Northern Clinical School.

Kirsty has been heavily involved in the planning and delivery of rural outreach education programs and in international medical education initiatives in Macedonia, Croatia and Vietnam. Kirsty worked for 17 years as a full time general practitioner in Scotland before coming to Australia in 1998. She was always passionate about teaching medical students and young doctors, and has worked in medical education for the past 15 years. She completed a Masters of Education (Adult Learning & Global Change) in 2004 and more recently her PhD in Medical Education. Among her experience was seven years as a postgraduate medical educator at RPA Women and Babies establishing and running interprofessional work-based education programs for medical and nursing staff.

In the new position, Kirsty now oversees the management of the Office for Global Health and represents the Division of Medicine, Nursing, Pharmacy and Dentistry, on senior University committees and expert advisory groups. The role also includes managing relations with other institutions, and staff and student mobility programs, particularly the Sydney Medical Program international placements.

ASSOCIATE PROFESSOR MARK ARNOLD
Mark Arnold has been appointed the Associate Dean and Head of the School of Rural Health.

Mark graduated from the University of Sydney in 1983, and trained in rheumatology at Royal North Shore and Guys Hospitals. From 1990, he worked at the Northern Clinical School and Royal North Shore Hospital. He has a Masters of Bioethics from Sydney University’s Centre for Values, Ethics and the Law in Medicine (VELIM) and has worked on the University of Sydney’s Human Research Ethics Committee (HREC), North Shore Private Clinical Ethics Committee and the Expert Reviewer for the Healthcare Complaints Commission.

As head of the School of Rural Health, he is responsible for the School’s development and management in Dubbo and Orange, a role encompassing the strategic implementation of teaching and research, as well as increasing the community profile of the school.

GOVERNOR RECOGNISED FOR HER VIETNAM CONTRIBUTION

After her decades-long association with Vietnam, including more recently as patron of Hoc Mai Foundation, the Government of Vietnam has awarded Her Excellency Professor The Honourable Marie Bashir AC CVO the Medal for the Health of Vietnamese People.

The award was made at a ceremony in Hanoi in November 2013, the presentation by the Deputy Prime Minister, Nguyen Binh Nhu. In the same ceremony, the Dean of Sydney Medical School, Professor Bruce Robinson and chair of Hoc Mai Foundation was awarded the Friendship Medal for his “great contribution to the health development in Vietnam”.

GOV

RADIUS March 2014 5
The University of Sydney has presented Greg Poche AO and Reg Richardson AM with honorary awards in recognition of their significant philanthropic support.

The awards were conferred in the final graduation ceremony for 2013 in the Great Hall, following citations read by the Dean of Sydney Medical School, Professor Bruce Robinson.

In the citation for Mr Poche, Professor Robinson described him as a visionary leader, who had made a far-sighted commitment to the health of Aboriginal and Torres Strait Islander Australians with his donation of $10 million to allow the establishment of the Poche Centre for Indigenous Health.

“He acknowledged that an enormous amount of work was needed to provide Indigenous people with a standard of health care and life expectancy which matched that of non-Indigenous Australians. He believed, however, that a specialist University centre would be able to make a lasting impact if it adopted a strategic and co-ordinated approach, which included Aboriginal people and communities in design and delivery of programs,” Professor Robinson said.

“His approach to understanding and dealing with the health problems of Indigenous communities has been insightful and creative and he conceptualised how the Centre for Indigenous Health would function.”

Mr Poche also contributed $50 million to the Melanoma Institute of Australia, now a world-class cancer research and treatment facility.

Mr Richardson is involved with a number of philanthropic organisations including the Melanoma Institute Australia, of which he has been Chair since 2007, and Sydney’s Poche Centre for Indigenous Health. He also serves on advisory committees of Indigenous health at the University.

In the citation for Mr Richardson for his award of Honorary Fellow of the University of Sydney, Professor Robinson described him as a passionate advocate for philanthropy and promoter of its vital role in innovation, creating new knowledge and pursuing the unknown. He has raised $90 million for research and treatment of melanoma and indigenous health.

“Reg is a recognised leader in philanthropy in Australia and we are so proud of his association with our University. For us Reg does more than link donors to great ideas; he actively participates in many of our programs including encouraging and mentoring students and staff in the Graduate Certificate in Indigenous Health Promotion; successfully lobbying government to recognise this qualification for Aboriginal Health Workers; promoting collaboration with our neighbours the South Sydney Rabbitohs and their charity arm, Souths Cares - this partnership alone has resulted in health care checks this week for 1500 kids living in the bush.”

During 2013 Mr Richardson, jointly with Mr Poche, has been working to set up new Poche centres for Indigenous health. Along with the Centre at Sydney University and Flinders, a new Centre at the University of Western Australia received $10m last month with other Centres slated for 2014.

**GREG POCHE AND REG RICHARDSON RECOGNISED**

**AUSTRALIA DAY HONOURS**

Congratulations to all our staff and alumni for their Australia Day awards

Professor Christine Constance Bennett AO (1979). For distinguished service to medicine and healthcare leadership, as a clinician, researcher and educator, particularly in the fields of child and family health and social policy.

Dr Richard John Brennan AO (1984) For distinguished service to the international community through seminal contributions to humanitarian health, emergency medicine, and disaster response organisations, particularly in developing nations.

Professor David Stephen Celermajer AO (1984) For distinguished service to medicine in the field of cardiology, as a clinician and researcher, to improved medical diagnostic methods, and to the promotion of heart health, particularly in children and young adults.

Professor Michael John Cousins AO (1964) For distinguished service to medicine through specialised tertiary curriculum development, as a researcher and advocate for reform and human rights in the field of pain, and as an author and mentor.

Professor John Francis Thompson AO (1971) For distinguished service to medicine in the field of oncology research, particularly melanoma, to national and international professional organisations, and to medical education.

Professor Phyllis Noemi Butow AM (PhD, 1991) For significant service to medicine through seminal contributions to the fields of psychology, as an academic, researcher and author, and to professional organisations.

Dr Ian Andrew Nicholson AM (1989) For significant service to medicine in the field of clinical surgery, and through volunteer outreach programs in the Pacific and Africa.

Associate Professor John Herbert Overton AM RFD (1962) For significant service to medicine, particularly in the area of anaesthesia, through clinical, administration and advisory roles, and to professional organisations.

Dr Ian James Baguley OAM (1987). For service to medicine, particularly brain injury rehabilitation.

Mrs Susan Joy Halmagyi OAM (BSc), deceased For service to conservation and the environment.

Dr Romney Adair Newman OAM (1966) For service to medicine as a physician, and to the community.

Professor George Ramsey-Stewart OAM (1962) For service to surgical education.

Dr Peter Robert Wakeford OAM (1962) For service to medicine, and to the community.
The Poche Centre for Indigenous Health has recently started its full time dental service in the Central Tableland area of NSW. This service is provided to the communities of Boggabilla, Toomelah, Mungindi, Inverell and Moree with the plan to roll it out to further communities over the coming years. The team consists of a Senior Dental Advisor, a Senior Dentist and Dental Assistant, plus a team of graduate Dentists and Oral Health Therapists and a trainee Dental Assistant. The aim of the service is to meet the local dental needs as well as providing some capacity building within the communities. The Poche Centre provides advice and assistance to Aboriginal Medical Services and other organisations to establish their services, including practical advice about equipment, systems, policy and ordering and we have developed a manual with the support of the Centre for Oral Health Strategy which sets out step by step how to establish a dental service.

The Poche Centre has received funding and support to purchase mobile equipment which allows the centre to work anywhere. The team is supported with tele-dentistry equipment that enables junior dentists to get advice and support from senior, experienced dentists when and where they need it.

**The centre hosts senior students on their clinical placements and mentors new graduates through their first years of practice.**

As a part of this project the Poche Centre funds a post-doctoral research position within the Faculty of Dentistry to evaluate our work and to keep us informed about the latest research in Aboriginal and rural oral health.

→ STUDY ONLINE

Master for International Public Health and other postgraduate courses are now available fully online.

For more information about all the programs available for postgraduate students, see sydney.edu.au/medicine/future_students
MINIMISING DAMAGE

Professor Nicholas King is a happy man. The culmination of almost 10 years of work has resulted in a major discovery that he says could change millions of people’s lives.

By Thea Manning

A research break-through with his University of Sydney colleague, Dr Daniel Getts, has found a way of dramatically minimizing tissue damage to the heart following a heart attack. The break-through could equally apply to tissue damage in a whole range of diseases like stroke, multiple sclerosis, inflammatory bowel disease, peritonitis, viral inflammation of the brain and kidney transplants.

“The potential for this approach is quite extraordinary”, Professor King says. “It’s amazing that such a simple approach can limit tissue damage in such a wide range of diseases.”

So what’s the secret? It’s “microparticles” – tiny balls of biodegradable absorbable compound 200 times smaller than a human hair. While the research is currently being done on mice, the microparticles are already used in absorbable surgical stitches and approved for use in humans.

In his laboratories in the Department of Pathology at University of Sydney, King and Getts, in association with colleagues at Northwestern University in the US and others at Bonn and Munster in Germany, found they could cut, by half, the tissue damage suffered by mice that had experienced heart attacks.

During a heart attack and after the blood flow has been restored, inflammatory cells in the blood stream rush to the area of dead heart muscle to clear away the dead cells, but the cocktail of chemicals they bring with them also kills the vulnerable heart cells still alive in the near vicinity of the dead cells, significantly extending the area of tissue damage in the heart.

In this novel approach, microparticles injected into the mice within 24 hours of the heart attack are picked up by the inflammatory cells. For these inflammatory cells it is a fatal error. These cells are instead channeled down a natural pathway of the body used for the disposal of dead and dying cells, dramatically reducing the number of inflammatory cells flooding into the heart. The result is a 40-50% reduction in tissue damage and scarring and a heart with much improved function.

This work has just been published in the journal, Science Translational Medicine. The next step is further safety tests on the microparticles, followed by clinical trials on heart attack patients within the next two years at Sydney University. The two scientists are involved in seeking corporate support for their work and already have one partner.

Professor King says the discovery could transform the lives of patients “If this research translates into humans, as we expect, we can dramatically reduce the scarring of the heart muscle after a heart attack. This would mean patients with small infarcts could recover with virtually normal function, and other patients who might have died will survive. It’s a huge break-through.”

Two happy scientists on the verge of making a big difference from their lab work.

“This is the first therapy that specifically targets a key driver of the damage that occurs after a heart attack”, says Dr Getts.

“There is no other therapy on the horizon that can do this!”

Professor Ben Freedman, a cardiologist at the Sydney Medical School has designed a unique new iPhone case and app that allows quick screening of patients for atrial fibrillation (AF), a condition responsible for a third of all strokes.

AF is the most common of heart rhythm problems. The device – known as the iECG - detects AF in minutes and means it can be treated early.

This simple, effective test can be used in local pharmacies and general practitioner surgeries with a single lead ECG taken on an iPhone with a special case.

The new technology is now being used by receptionists in general practices to record an iECG before patients even see their doctor.

When taking a reading, the iECG can be seen on the iPhone screen in real time. It’s then transmitted to a secure server (cloud) where a specialist can review it remotely. The website then automatically analyses the reading to make a diagnosis of AF.

The readings correctly diagnosed atrial fibrillation 97 percent of the time.

Professor Freedman says the implications for treatment are huge. “The iECG allows us to screen patients for atrial fibrillation in minutes, and treat people early. This is a huge boost in the fight to reduce the amount of strokes, particularly in people over the age of 65”.

AF increases with age, affecting more than 15 percent of people aged 85 years and over. “People with atrial fibrillation face up to a five-fold increased risk of stroke, and tend to have more severe and life-threatening strokes” says Professor Freedman.

“In addition, our research showed that 50,000 Australians over the age of 65 have atrial fibrillation, but don’t know it. Meaning there’s a large number of people with unknown AF who are at high risk of stroke, but who aren’t on any medication.”

“The good news is that stroke is highly preventable with anticoagulant medication, such as warfarin, or the new oral anticoagulants, which can reduce the risk by 66 percent”.

Lead author of the research, Nicole Lowres, says the iECG can be used as an educational tool to teach people about their heart rhythm.

Ms Lowres says the new way of screening is also incredibly cost effective. “In fact this is the first mass screening program for AF likely to be cost effective, unlike traditional 12 lead ECGs recorded by a practice nurse.”

Modern medicine at the click of a button.
Until 2013, the Sydney MD was a higher research degree. Subject to approval by the Academic Board, the research MD will in future be designated as a Doctor of Medical Science (D Med Sci). The reasons for introducing the new MD are threefold.

First, it corrects an historical anomaly – the award of a bachelor’s degree for which a completed bachelor’s degree is a pre-requisite – that has existed since the introduction of the graduate-entry medical program in 1997. The MBBS was retained because, until recently, the Australian Government has not granted Commonwealth-supported places (CSPs) for postgraduate degrees. The other Sydney graduate-entry vocational programs that hitherto awarded bachelor’s degrees – Dentistry, Veterinary Science and Law – have introduced or are introducing doctoral degrees. All of Sydney’s 912 CSPs will progressively be taken by MD students, and no new CSPs will be introduced.

Second, the MD is better recognised internationally as a primary medical qualification. Most other Australian medical schools with graduate-entry courses are switching from MBBS to MD degrees.

Third, the research training within the MD reinforces the place of research in contemporary medical practice and fulfills expectations of a research-intensive university.

Under the 10-level scale of the Australian Qualifications Framework, the Sydney MBBS (like other bachelor’s degrees) is a Level 7 degree. Coursework-based doctoral degrees such as the Sydney MD are Level 9 qualifications. While the MBBS clearly exceeds Level 7 and itself meets most Level 9 criteria, the MD makes one additional demand: students must ‘be able to demonstrate the application of knowledge and skills in the planning and execution of a substantial research-based project, capstone experience and/or professionally focused project.’

Overall, the MD and MBBS curricula are similar, but the MD contains two new components to attain Level 9: a three-week Research Methods course in Year 1 and a compulsory research or capstone project known as the MD Project, to be completed by the end of Year 3.

Research Methods aims to help students acquire basic methodological skills for the development of MD Projects. It provides a foundational understanding of research principles and processes across a range of research paradigms relevant to health and medicine. It covers: (1) general principles of research relevant to all types of inquiry; (2) clinical and public health research using quantitative and qualitative methods; and (3) biomedical research and clinical research using biomedical techniques.

The MD Project gives all students ‘hands-on’ experience in developing and reporting on a research or investigative project. It aims to develop students’ ability to think independently and creatively (essential for the scholarly practice of medicine), and may possibly inspire future research endeavours.

In order both to replicate research teamwork and to provide mentorship for up to 600 students (two cohorts) at any one time, Clinical School-based MD Project Groups of 5–10 students and a Research Tutor will be formed. Research Tutors – staff or affiliates of Sydney Medical School with research experience and a willingness to commit to the mentoring and assessment of a group for two years – will nominate topic areas in their fields of expertise. Individual students will choose a topic area, develop their own research questions and collaborate with other students working in the same topic area.

On February 3, Sydney Medical School welcomed 292 new medical students into Stage 1 of its four-year postgraduate medical program. The students are the first to enrol in Sydney’s new Doctor of Medicine (MD) degree, which this year replaces the Bachelor of Medicine and Bachelor of Surgery (MBBS). The Sydney MD has been accredited by the Australian Medical Council and is recognised by the Medical Board of Australia as a registrable medical qualification.

Michael Frommer, Associate Dean, Sydney Medical School, explains the new MD and the replacement higher research degree, Doctor of Medical Science.

ONE WEEK DOWN

Sydney graduates on how they are feeling after their first week on the job.
You can safely return to the hospitals. Thea Manning asked a number of recent Sydney graduates how they were feeling after their first week on the job. The verdict? Those she spoke to had officially survived their first week - although some had an easier time than others. Timothy West, for example, drew night shift at Liverpool Hospital as his first intern stint. Despite apprehension, all were enthusiastic about what was ahead.

It is a common joke that no-one should ever go to a public hospital in the second and third weeks of January when medical graduates around the country start in their new intern roles. A visit to ED or a spell in one of the wards can put you directly under the care of very newly minted doctors.

Compared with a previous era, when young doctors were more likely to be thrown in at the deep end – see Associate Professor Kirsty Foster, Professor Michael Frommer and Dean Bruce Robinson's early intern experiences below – Sydney's interns in 2014 are both well prepared for the transition from student to medical professional and better supported in their hospital roles. It is almost unimaginable that young doctors now would be asked, on their first day, to inform a young man he was dying.

It is a truisim that interns start the year with great expectations and high hopes but often end up exhausted, stressed and a lot less idealistic about medical careers. In recent years, an added factor has been the increasing number of interns with significant study commitments, Masters or other postgraduate degrees, which they require in order to get into specialist training programs.

Dr Narelle Shadbolt, the Associate Dean for Student Support at Sydney Medical School says a doctor's first year is exciting, but also challenging.

"Many people say that internship is one of the steepest learning curves of your career. There is a lot of stress involved. But most doctors would also reflect that it is also one of the most enjoyable and exciting phases. You are working in a dynamic environment, in a collegiate group and the work is diverse and interesting."

The final term in Sydney's medical program – the Pre-intern or PRINT term – allows students the opportunity to shadow interns in their hospital role, and gain experience of the challenges that lie ahead - including how best to manage their time and workload.

"Yes – there's a lot of paperwork when you are on the bottom rung but that's health bureaucracy," says Dr Shadbolt. New Registrars, who have completed their internship the year before, also shadow the interns in their first weeks to act as mentors when questions arise.

Dr Shadbolt says free professional counselling services, such as the Employee Assistance program, are under-utilized and can be incredibly helpful. "Part of being a professional is acknowledging and making use of the professional services available to you. The pressure on new doctors can be stressful and draining. Making time for other things in your life – like family and friends - and not just work, is incredibly important in that first year."

For Dr Shadbolt, it is the simple things that can make a big difference for interns. "Food in hospitals, for instance, is notoriously bad! I can't tell you how much bringing in your own food can help."

Studying medicine often feels like an endless attempt to prepare for the inevitable "what if" situation. We consider our actions under "if" situation. We consider our actions under countless clinical possibilities and let our inherent OCD run riot with predictions of any and every conceivable variation.

Yet for all our knowledge and understanding and desire, there remains a tacit fear within us; that no amount of preparation will be enough for those first few weeks as an intern. You know what, that fear is spot on. I don't want to worry you, but experience counts for everything and we simply don't have it... yet.
The good news is that that experience comes in thick and fast when you’re on the frontline. It’s a steep learning path, but one that’s paved by accommodating colleagues who are always willing to lend a hand.

So what have I picked up in a week? Running between wards, ordering tests, taking bloods, reviewing radiology, charting medications and writing yet another discharge summary, all to the tune of an incessant pager. It’s easy to get lost in the paperwork and sometimes feel like you’ve forgotten all the medicine. But when the knowledge (that you’ve spent seven years building) shows itself, you’ll experience some serious satisfaction. Each day these “I’m a doctor” moments become more frequent and more numerous. More often than not it’s the human interaction that has made me feel like a doctor; speaking to relatives on behalf of the team, clinical reviews for deteriorating patients.

Yes the paperwork can be frustrating, but that “I’m a doctor” feeling you get from connecting with someone when they need it most... It’s a pretty damn good pay off.

Nicole Bartos, who’s been placed at Prince of Wales in Randwick, says that after seven years of study she’s more than keen to get started.

After studying a Bachelor of Arts degree for three years at the University of Sydney, then going on to study Medicine for another four years, I felt like I had been the eternal student. I spent my final year of Medicine at Orange base hospital and now I find myself as an intern at the Prince of Wales Hospital in Randwick. I loved my time in the country but I’m glad to be experiencing working in a metropolitan hospital.

Returning to the hospital after the summer holidays and stepping into this new role has been a strange adjustment. I feel like the hospital and the patients have remained the same yet I have changed in some inexplicable but irrevocable way. The responsibilities and level of accountability that comes with being an intern is immense compared to that of a medical student. At the moment, I’m still finding my feet and feeling slightly incompetent at performing even the most simple of tasks. However, I am consoled by the fact that everyone I have spoken to shares the same sentiments. I am sure that with time, trying and perhaps some tears, confidence and competence will come.

Alexander Wilton, from Prince of Wales, says small steps each day make him feel more confident.

I’ve been on the job for a week now and the pressure is on. I’ve started on the renal team which I’ve been told is notoriously stressful, especially as my first term covering renal transplants. We are paired with last year’s intern for the first week, so I’ve had decent support and orientation to the workplace. Next week will be significantly more stressful with less supervision and more after hours shifts. The main challenges of being an intern appear to be organization and efficiency. Medical knowledge is of course required, but much of the stress comes from navigating the complex hospital system (and corridors!) rather than pathology and diagnosis.

I think the PRINT (pre-internship) term from the end of my degree was helpful in preparing me for these logistical challenges. I am finding relatively menial jobs quite exciting, especially when things go well. I failed a cannula yesterday but then succeeded with a more difficult patient. Small victories!

Arran Schlosberg, from Hornsby Hospital, says he was surprised at the long list of patients handed to him.

I entered graduate medical training on something of a whim; an academic afterthought inspired by the care that I received after sustaining severe facial trauma. Nine years post high school and I’m now on the ‘other side’. I’m writing this opening paragraph the week before my internship begins and to say that I’m apprehensive would be an understatement...

Our first week was a bit of a shock. We were lucky enough to overlap with last year’s interns by one week so we always had someone to turn to; that being said, I didn’t expect the first piece of advice to be “hope you’re ready for the longest patient list of the year”. Although still coming to grips with exactly what is expected of us, I’m finding my feet fairly quickly. Everyone has been particularly helpful so I guess I have them to thank.

Darin Westaway, from Mona Vale Hospital in Sydney, says he lay wide awake unable to sleep the night before his first day.

Having spent the last four years of my life in hospitals, training as a medical student, it seemed strange to be lying there unsure of what to expect. Six weeks of holidays, socializing and freedom from seemingly endless assessments had passed by in the blink of an eye and now it was 3am and I was wide awake, mentally inserting cannulas and charting maintenance fluids. In five hours, I was due on the wards for my first day as an intern, and I think the strangeness stemmed from the fact that after four years of undergraduate study, several years of work, and another four years of postgraduate study, the day had finally arrived. And after so many people telling me how proud of my achievements I should be, and how exciting it would be to work as a doctor, all I felt was relief that my medical career was finally starting. Relief, and a bucketload of nerves.

Nicole Bartos, who’s been placed at Prince of Wales in Randwick, says that after seven years of study she’s more than keen to get started.
Feeling somewhat apprehensive in a fresh white coat I ventured into the oncology ward to see my first sick patient, a man with brain metastases from melanoma and deterioration in level of consciousness. The registrar had not yet arrived but fortunately the sister in charge of the ward was there to hold my hand. Was this a situation that needed treatment or palliation? The man was barely 60 years old and his wife was at the bedside obviously distressed at this sudden turn of events. My first thought was that I needed help; help to assess him and decide what needed to be done, and help to manage her distress. The sister ushered her into a quiet room, and dealt with her distress. My initial assessment was that he had hemorrhaged into one of his metastases. It seemed that this was a terminal event. His vital signs were deteriorating and we were in the pre-CT scan era. Fortunately help arrived to reinforce the decision to palliate. Without any formal training, other than watching the senior sister at work, we conveyed the gravity of the situation to his wife. The rest of the day seemed easy after that.

ASSOCIATE PROFESSOR KIRSTY FOSTER, SUB DEAN EDUCATION AT NORTHERN CLINICAL SCHOOL SAYS HER FIRST DAY AS DOCTOR IN SCOTLAND WILL STAY WITH HER FOREVER.

Memories of my first day as an intern still bring shivers down my spine. After 6 years completing a medical degree I arrived to start at an Edinburgh teaching hospital familiar to me from clinical placements during my final year. I had also been a student locum house-officer for 2 weeks during my surgical rotation. But even that had not prepared me for the experience of walking into a large Florence Nightingale ward in my new white coat trying to hide my apprehension. Twenty-four patients looked at me recognising I was the brand new doctor. The sister made it clear she expected high standards from junior doctors and would stand no nonsense! (She proved to be extremely supportive and a great teacher over the six months I was there.)
Launched in 2012, the 21st Century Medicine series of lectures is a chance for students and the public to learn about the latest developments across the range of medical research.

**Thea Manning** speaks to two of the lecturers about some of the most exciting things happening in health.
EARLY BIRTH
NOT ALWAYS BEST

Recent trends of increases in elective birth before the due date may adversely affect the long term health of children.

The final weeks of pregnancy can be difficult for many women. Behind the joy of the baby lie real, and imagined, health risks.

Cardiovascular disease and early death rates rise for all expectant mothers, and four in every one hundred women in Australia experience preeclampsia, characterised by high-blood pressure and fluid retention.

So perhaps it’s no surprise that many women and their doctors opt for an early birth. There is now evidence that an increasing number are choosing to do so.

Fewer women are waiting to go into labour spontaneously and the pre-term birth trend is now rising across all age groups. Today as many as one in four of all Australian births are both elective and delivered before the due date – either induced or by caesarean.

Professor of Obstetrics & Gynaecology at the Sydney Medical School, Jonathan Morris, is the Director of the Perinatal Research Group. Professor Morris utilises population health data of up to a million births in New South Wales over the last twenty years to track the pre-term birth trend and its potentially worrying consequences. Professor Morris is also Director of the Kolling Institute for Medical Research with a clinical practice at Royal North Shore Hospital specialising in high risk pregnancies and complications. He’s concluded the risks are twofold. Early births mean important fetal development in the uterus may be incomplete and caesarean delivery may deny the baby the important exposure to the vagina bacteria that helps build its immune system.

“Caesarean section is increasing. It’s increasing globally. Australia is certainly one of the developed countries that has very high rates of both inductions and caesarean section. In some New South Wales hospitals caesarean section rates approach fifty percent. Again what’s surprising is babies born by caesarean section don’t always do better and indeed in the late pre-term window babies born by caesarean section have higher morbidity, so they have higher problems in the short term, and intriguingly there are now some longer term associations such as higher rates of asthma and diabetes that seem to be increased if you’ve not had a normal birth.”

The shift towards earlier induced births was even bigger than Morris expected when he studied the numbers.

“I think what surprised me about this research was the increasing number of late pre-term births (around 34-37 weeks) that’s steadily increased on an annual basis over the last fifteen years. The sheer proportion of women whose pregnancies are ending prior to their due date electively, meaning there’s been a considered decision by the doctor or the women themselves to induce or perform a cesarean.”

As babies pass the 30 week mark, the survival rate is almost the same as being born at term, so does giving birth early really matter?

The short answer, according to Professor Morris, is yes.

Research shows pre-term birth could heighten the health risks for a child in almost every area of its development, underlining the importance of the very last stage of fetal development in the uterus and the risks of skipping it.

“We know survival is the biggest danger for very early births. So babies born at 24 weeks have a 1 in 4 chance of having significant neurodevelopmental problems such as learning disabilities and cerebral palsy. And even by 28 weeks the risk is still 1 in 10. But even in the later stages of pregnancy, around the 35-38 week mark, there are hugely important developmental changes occurring in organs such as the brain, pancreas, heart and kidneys. While survival rates are high, we’re seeing more short term morbidities and long term complications that relate to intellectual issues.”

Professor Morris says women need to aware of these factors when pregnant. “We’ve given the impression early delivery is safe, and often it’s not. There are unintended long term consequences. I can fully appreciate that at the end of pregnancy every day feels like a week or a month but women really need to be aware that those last few weeks are hugely important.”

Research is emerging that shows that children born between 34-37 weeks have significantly more learning difficulties. Primary school teachers recorded lower reading and maths skills from the children and they were also less likely to finish both high school and University. “There were measurable differences in intellectual developmental outcomes.”

Professor Morris says mothers and their doctors too readily focus only on the apparent short term risks.

“If a baby survives and goes home from hospital we largely think of them as healthy. It’s only now that we’re getting the informative long term data. Undoubtedly it’s necessary to deliver some babies early, because of concerns over the mother and babies wellbeing but I think over time our decision making has become far too lax. I don’t think we’ve appreciated these figures.”

Then there’s the increasing preference for caesarean section.

According to Professor Morris caesarean section births are associated with a 30% increased risk of diabetes in childhood. Separate studies also found caesarean section associated with a 20% increase in asthma.

It is surmised that caesarean babies aren’t exposed to the bacteria and foreign environments necessary to adequately program their immune system, making asthma and diabetes more likely.

“It ties in with the whole hygiene theory of disease … not surprisingly, we’re meant to favour normal births for good reasons. There are aspects of that that prime the immune system to function appropriately throughout childhood and into later life.”

Professor Morris says more research is needed to establish whether or not there’s a causal relationship. “The challenge now is indeed to investigate whether this is causal and what are the underlying mechanisms. This will lead to new insights into the prevention of these problems.”

Meanwhile, Professor Morris says he believes there will be a shift back to full term births as a result of this emerging evidence. “We always know to get research findings into practice there’s a delay. But already there’s been quite a successful initiative to reverse the gestational age that babies are born by caesarean section electively. It’s now a NSW policy directive. They came out and strongly suggested 39 weeks was the best time to be born. And that was in light of a drift downwards and that’s being reversed. So it does take time”

“I think we’ll make a difference because I think ultimately women themselves want what’s best for their babies. And I think people are far more circumspect now.”

This research was done with the assistance of The Clinical and Population Perinatal Research Group, led by Associate Professor Christine Roberts.

Professor Jonathan Morris spoke on this topic as part of the 21st Century Medicine Lecture Series presented by the Sydney Medical School and Sydney Ideas. A podcast of the public talk, and other related content, is available by visiting sydney.edu.au/medicine/21st-century
Stewart Dunn, Professor of Psychological Medicine at Royal North Shore Hospital and Sydney Medical School
It’s what many doctors do on a regular basis, and the way it’s done can have a profound impact on both them and their patients.

Stewart Dunn, who is Professor of Psychological Medicine at Royal North Shore Hospital and Sydney Medical School, says the way doctors communicate and deliver bad news is one of the most important parts of patient care.

“We know about 60% of young interns need to break bad news of some sort in the first few months of their careers and the way they frame treatment options with this kind of news is crucial.”

Professor Dunn says one of their studies showed that patients diagnosed with metastatic cancer who believed treatment was curative, survived 50% longer than those who did not.

“People with metastatic melanoma and who were optimists survived 317 days versus pessimists who survived 168. The optimists also had better quality of life during that period.”

“People naturally want to expect and hear the best kind of news about survival, especially when they have cancer. As a species we’re wired to be optimistic.”

But doctors can’t always give good news, in fact often it’s the bad news they have to deliver.

Professor Dunn says that shouldn’t stop both parties from trying to be realistic and optimistic.

“It’s like a Bledisloe Cup between the Wallabies and the All Blacks. There’s no point in playing if you don’t intend to win. And even though you know the odds are stacked against you, you do want to play the best game you can because there’s always just the outside chance that you might pull it off”.

Through his research, Professor Dunn says the way doctors deliver bad news can be divided into three main categories. “We have seen that 37% of doctors use a blunt style—where they break the bad news in the first 30 seconds of being with the patient, 45% of doctors use a forecasting technique, where they prepare the patient for the breaking of the bad news and tell them within 120 seconds, and the other 18% of doctors stall, taking more than 2 minutes and sometimes up to 8 minutes, to finally break the bad news.”

Professor Dunn has spent over 30 years studying the relationship between doctors and patients and the best ways to communicate. He believes the forecasting technique is by far the most effective way for doctors to break bad news. “It actually gives the patient a chance to prepare herself for the fact that there is really hard news to come”.

Consistent research in both New South Wales and America, shows whatever strategy a doctor uses first, will lock a style in or out. “If they have good feedback from the family about how kind and caring they were they’ll always do it that way and if it doesn’t go well they’ll not use the same strategy again. Of course, neither of these options are good because they don’t respond to different patient’s personalities and needs.”

Professor Dunn says their research found it takes at least three minutes for people to fully grasp the reality of seriously bad news and they often remain in a state of disbelief for some time. He says young doctors need to know this at the beginning of their careers, so they can stay with patients for that initial period.

Professor Dunn says we underestimate how much a doctor’s own health is impacted by being in these stressful situations so often.

PhD student Joanne Shaw recently wired up more than 60 experienced consultants and registrars, while they broke the news to actors that a loved one had died of a heart attack. The actors were trained to begin with the same level of emotional intensity and then respond to whatever the doctors did. “It’s traumatic for the doctors. We’ve seen from all our experimental studies how much stress it puts doctors under. We found there was a 40% increase in doctors heart rates as they told someone bad news and it stayed elevated until they finally got the words out.”

And that’s just with actors.

Professor Dunn teaches medical students at the University of Sydney through a variety of techniques, using actors and experiential workshops. While he admits there’s no foolproof way to teach students how to deliver bad news, he says working with trained actors in real life scenarios is very beneficial.

An online module is also being developed by Professor Dunn’s team that allows doctors to have a real time conversation on a video screen with an actor playing the part of the distressed wife of a deceased patient. The interaction plays out in a Youtube style video and students are assessed and advised on areas they can improve.

Professor Dunn says the importance of teaching medical students to communicate should never be underestimated. “If we don’t teach doctors ways of managing their own emotion in response to patient emotion we lose good people.”

“Just like the outside chance that you might pull off just the outside chance that you might pull it off. I could have a patient who’s a great surgeon, but they are not good at communication. And that’s because it is such a skill and they’re not taught. And it’s a huge problem.”

An experiment Professor Dunn’s team conducted showed that patients diagnosed with cancer who believed treatment was curative, survived 50% longer than those who did not. “When you see very experienced doctors you’ll see subtle interactions. They’ll often physically lean in towards a patient and then back again. You see the patient respond – thinking – this person really knows how I feel. It can be as simple as leaning in and leaning out.

The pathway you probably need to travel involves initially getting burned - getting too engaged with patients - in order to learn what is an appropriately level of engagement. It’s like there’s a border, I’m aware that this is your life and this is my life. And I’m coming into your life to help you. If I get too engrossed in your suffering I can’t help.”

Ultimately Professor Dunn says his view on the importance of the way doctors communicate changed after he spoke to a young mother who eventually died of metastatic bowel cancer.

“She was a really, really lovely woman. She came to me one day and said, I want to tell you something and you’ll think I’m crazy. She said ’you know, after all the surgery I’ve had I have the image of my insides being black and ugly and horrible. And my surgeon has actually seen me inside. If I spoke to him and I ever got the sense that he saw that blackness and he saw me that way it would be devastating.’ Then she said, ‘I’m so lucky because he always talks to me as a loveable human being and I never feel the sense he’s seeing through me.’

“I used to say... you can forgive the people who do really demanding surgery, for example, for being totally focused on what they’re doing and not being good at communicating. Because for them, the risk is the patient may never walk or move again. But when I heard that I thought no, we really have to teach these guys, they have to find a way to do both.”

Professor Stewart Dunn spoke on this topic as part of the 21st Century Medicine Lecture Series presented by the Sydney Medical School and Sydney Ideas. A podcast of the public talk, and other related content, is available by visiting sydney.edu.au/medicine/21st-century
Engaging Myanmar

The University of Public Health, Myanmar and Sydney Medical School have launched a joint National Institute of Maternal and Child Health, based in Yangon, with the purpose of reducing the high child and maternal mortality rates in Myanmar.

Myanmar, opening up to the world after decades of brutal military rule, has any number of critical challenges. It is one of the poorest countries in South East Asia with among the lowest social development indicators in the region - although without a census in more than 30 years, basic social data is frequently unavailable or not reliable. Population is estimated anywhere from just over 50 million to 62 million, but what is generally agreed is the urban/rural split is about 30% in major cities and 70% subsistence-level farmers.

The country is in the lowest quarter of the United Nations Human Development Index, ranking 149 out of 187 countries, behind Angola, Pakistan and Bangladesh (146, 147 and 148 respectively). It will not meet key Millennium Development Goals. In rural areas, or among some ethnic groups, it is estimated that as many as 70% of people live in poverty. Gross domestic product per capita is estimated at US$1,535, which is around half that of Timor-Leste.

On the health front, infectious diseases are a major burden with high rates of malaria and tuberculosis, and emerging problems with multi-drug resistant TB and TB-HIV co-infections.

Health expenditure is increasing but remains low - following the 2011 national elections, expenditure on health has grown from 0.2% of GDP to closer to 1% in 2013.

In child and maternal health, where Myanmar will fall short of the MDG Goals 4 and 5, the statistics are particularly poor. WHO estimates that 48,000 children under the age of 5 died in 2012, with 50% of the deaths newborn babies. The under-5 mortality rate was 52 per 1000 births; for babies up to one year, WHO says the mortality rate was 41 per 1000 births or 38,000 deaths, and 26 per 1000 births for neonates.

“Given the extent of the challenges faced by Myanmar, its many close connections with Australia, and its emerging importance in our priority areas including infectious diseases, we appreciate the opportunity to work with colleagues in the country and contribute where we can,” said Professor Bruce Robinson. “After our work in Vietnam and more recently in Timor Leste, we have models which we know are effective in increasing the skills of the local health workforce.”

Professor Robinson was among a group from Sydney Medical School to visit Myanmar in November last year, a delegation which included NSW Governor, Her Excellency Professor Marie Bashir AC CVO, and Professors Cheryl Jones and Lyn Gilbert. The purpose of the visit was to develop relationships with Myanmar’s four medical universities and its University of Public Health, with the Health Ministry and key aid funding organisations, to look at opportunities for joint research or other collaborations, and to launch of a new joint National Institute for Child and Maternal Health, based at the University of Public Health in Yangon.

“Child and maternal health is a really good focus for future programs in Myanmar,” said Professor Jones. “Improving maternal and child health is a key area of concern for the Myanmar Government, the new Institute has the strong support of the Ministry of Health. What we can contribute is our experience in developing an evidence based system of practice, translating research into policy.”

“Health Minister Professor Pe Thet Khin is clearly committed to research and evidence informing practice,” she said.
Among the most notable aspects of modern Myanmar are the speed of economic and social change - and the aid influx. Since 2011, the country has experienced a massive increase in foreign aid - large numbers of NGOs have set up, and major funding groups including Australian and UK Governments, are contributing multi-million dollar amounts. The Ministry of Health is dependent on international aid for many key components of health services and education.

“There is a risk that without co-ordination, the value of at least some of the dollars coming into Myanmar will be lost in duplicated services and programs which are not strategic, while the country still struggles to achieve key targets and goals,” said Professor Jones.

“This is an area where I believe we can help, so that we do work together with a common goal of improving the health and wellbeing of the people in Myanmar.”

**NATIONAL INSTITUTE FOR MATERNAL AND CHILD HEALTH**

The new Institute was jointly launched by the Rector of the University of Public Health Professor Nay Soe Maung, Professor Robinson and Her Excellency the Governor Marie Bashir.

“This is an important day,” said Professor Nay Soe Maung. “We in Myanmar have to work together, this is a good time to collaborate with other institutions. Although we have received more funding in recent years, we have a long way to catch up and this collaboration presents us with many opportunities – not just in maternal and child health but in other areas as well.”

“Far too many mothers and children aged under five die each year from preventable causes, and we are pleased to be involved in this new Institute,” said Professor Robinson. “Myanmar is facing great challenges as the Government and health groups seek to improve the health system and their capacity to deliver health services across the country. We greatly look forward to working with our health colleagues and partners in Myanmar in the University of Public Health, the Medical Universities, in the Ministry of Health and among the NGOs, to help reduce the number of mothers and babies who die prematurely.”

The immediate aim for the Institute is to secure funding which will allow it to appoint a director, based in Myanmar, to develop a program which links it to work of other health organisations and funding sources.

**NEXT STEPS**

As plans and options for the National Institute for Maternal and Child Health are considered, other initiatives are also in development. One of the first to be implemented is a new student exchange, with two medical students from Yangon coming to Sydney in 2014 for their elective term. Both students spend one month at Sydney Medical School just before they commence their final year medical studies.

One request from the Minister Professor Pe Thet Khin was for assistance in the area of a new snake anti-venom. A large number of people die each year of snake bite, the number is hard to quantify because of the generally poor data collection. The only anti-venom available is for a snake with is not a native variety of Myanmar. As a result, the anti-venom is not as effective and people require large doses, which makes the treatment less safe and more expensive. Since returning, Sydney Medical School has had discussions with CSL about options.

The Minister has also requested assistance with up-skilling the staff at Yangon General Hospital, Sydney Medical School is as a result planning a program to train staff including cultural change and diagnostic practice, and improvement of hospital lab system, in particular in the infectious diseases and control area.

A third request is for assistance in modernizing the medical education curriculum in Myanmar.

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**DR ROBERT (BOB) BAUZE (MBBS 1964)**

Orthopaedic surgeon and Clinical Associate Professor at the University of Adelaide Bob Bauze has been visiting Myanmar for nearly four decades.

“I have been intimately involved with much of Asia for decades. I did so because it is close, they are our neighbours, and we have to know neighbours. As to Myanmar, I fell in love with the place in 1976, primarily because of its generally charming and friendly people who had endured a cruel regime. When I first went there, there was fear and despair. Until recently, there have been only brief periods where there was not fear. False optimism was apparent in the 90’s and now I see cautious optimism and, for the first time, hope. More reason to help.”

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Above Left: Governor Marie Bashir with Yangon General Hospital nurses. Below Left: At Yangon General Hospital, November 2013. Above Right: Bruce Robinson with interns at Yangon General Hospital.
We public health folk, troubled by massive global health problems of population growth, poverty and disease, keep banging on about how desirable it is to get multisectoral action. Convening a group of problem solvers from industry, commerce, health and the public sector – as these global problems demand – is a massive challenge.

It doesn’t often happen and even less often succeeds.

By Stephen Leeder
water and others extend that estimate to nearly one billion people worldwide.

As The New York Times reported, China, the country famous for massive dams, is “expected to finish the first phase of its gigantic South–North Water Transfer Project, known in Chinese as Nánshuǐ Běidào Gòngchéng—literally, ‘to divert southern water north.’” The phrase evokes the suggestion, attributed to Mao, that “Southern water is plentiful, northern water scarce. If at all possible, borrowing some water would be good.”

“The South–North Water Transfer eventually aims to pipe 45 cubic kilometers of water annually northward along three routes in eastern, central and western China. All three pose enormous technical challenges: the eastern and central routes will be channeled under the Yellow River, while the western route entails pumping water over part of the Himalayan mountain range.”

The Economist offered its opinion about the South-North project saying:

“China clearly needs to do something—but not the South-North diversion project. Aside from the massive cost, [diverting water from] the two rivers involved could affect a billion people who live downstream. And all those projects would increase the amount of water in China by only a few percentage points. Water is too cheap in most cities, usually costing a tenth of prices in Europe. Such mispricing results in extravagance. Industry recycles too little water; farmers in China waste a lot of water or store it and use it. Clean water is critical to integrate key elements of knowledge and technology.

3. We need greater investment in the development of policy tools to identify the most vulnerable people and communities and augment monitoring programmes.

These suggestions sound trite, but anything less comprehensive and multidisciplinary is not likely to work. Simple interventions to procure water or store it carry their own risks.

In Bangladesh a project in to provide access to groundwater through easy-to-build tube wells looked bound for success. Since the 1970s, says the WHO, the number of tube wells has doubled every five years throughout rural Bangladesh. “The majority are private shallow domestic wells, typically < 45 m deep that were installed using a hand percussion drilling method that is affordable for individual households. Currently over 90% of households in Bangladesh obtain drinking water from a total of approximately 10 million, mostly shallow, tube wells.”

A tube well, according to the OED, consists of an “iron pipe with a solid steel point and lateral perforations near the end, which is driven into the earth until a water-bearing stratum is reached, when a suction pump is applied to the upper end.” These wells were cheap and in a country with a water table that was accessible, became widely used.

But in 1993, arsenic was found in toxic levels in tube well water. At that time ‘97% of the rural population and a significant share of the urban population’ drank ground water, the sort that tube wells tap into. Surface water, so plentiful during the wet season and a possible alternative to ground water, is scarce in the dry season and is often polluted. A paper from the Lamont-Doherty Earth Observatory in New York stated, “According to survey data from 2000 to 2010, an estimated 35 to 77 million people in the country have been chronically exposed to arsenic in their drinking water in what has been described as the largest mass poisoning in history.”

Great progress has been made in Bangladesh and by 2004, with attention to water purification and sourcing water from safe places; three-quarters of the Bangladeshi population had access to clean water.

If you survive the hair-raising freeway drive from Dubai to Abu Dhabi in the UAE you will pass millions of date palms. They and all of the UAE, animal and vegetable, depend upon desalinated water. It is becoming more common worldwide despite the energy cost. Sydney during our recent dry spell installed what the Sydney Desalination website calls ‘one of the largest operating desalination plants in the world. Located on the coast of Kurnell, it is capable of supplying water for 1.5 million people.’

Such developments are not as environmentally sound as it may first seem: high salinity in the effluent of a desalination plant can be reduced by mixing it with waste or storm water. The effluent is heavier than ordinary sea water and precautions include locating the outlets where ocean currents will speedily disperse the outflow. Slow intake of water into the desal plant prevents death to fish.

Many and varied are the ways we seek it, store it and use it. Clean water is critical to child health. We are fortunate that we have the access we do to it, despite our droughts, floods and sunburn. Progress is occurring and the approaches taken are encouraging in their multidisciplinary and cross-sectoral nature. They may set a precedent for how we go about solving other major global health problems.

You can access documents at:
4 http://en.wikipedia.org/wiki/Water_supply_and_sanitation_in_Bangladesh

STEPHEN LEDDER is Emeritus Professor in Sydney Medical School and former Director of the Menzies Centre for Health Policy. He is also Chair of the Western Sydney Local Health District Board and Director of Western Sydney Local Health District’s Research Network.
Mentors, colleagues and friends farewelled fourteen Timorese fellows, following a three month Australia Award Fellowship finishing on 27th October 2013.

Through the support of the Australian Government’s aid program, the Office for Global Health at the University of Sydney coordinated an intensive health leadership training program that aimed to build capacity in the health care system of Timor Leste. Each Fellowship plan was individualised to suit the specific learning goals and expertise of the Fellow and their home organisation (e.g., the Ministry of Health’s Hospital Nacional Guido Valadares (HGNV)).

Emphasis was placed on exposing Fellows, via various means such as practical placements and training courses, to methods, theories, techniques and approaches that they can implement, as well as use to train and lead others, when they return to Timor Leste. The individual plans, coordinated by Ms Trudy Fernan, included not only placements and courses, but also a “Project for Change” to be implemented in their organisations back home. The fellows were placed with a range of organisations, including the Royal North Shore hospital, Royal Prince Alfred hospital, Canterbury hospital, Royal Flying Doctor Service, Centre for Clinical Excellence and the Australian Red Cross Blood Bank, to name a few. Fellows were provided with networking opportunities such as attendance at conferences (2013 Australasian HIV/AIDS Conference in Darwin and the “Short Course in Critical Infection” in Sydney).

This is the third cohort of health leaders that the University of Sydney has facilitated from Timor Leste, funded by the Australian Government’s aid program. The inaugural cohort of six Timorese Fellows completed the program in 2009 and in 2011, the second cohort of ten Timorese Fellows participated.

The University of Sydney is pleased to continue collaborating on health related projects with Timor Leste and has established a charitable fund, Fundu Isin-Di’ak, within the Sydney Medical School, to support projects undertaken by University staff to improve health and the quality of health services provided to the people of Timor-Leste. The NSW Governor, Her Excellency Professor Marie Bashir, is the Patron with scholarships for both inbound and outbound students.

Professor Merrilyn Walton, Dr Grant Hill-Cawthorne and Ms Danielle Somers will return to Timor Leste in early 2014 to touch base with the fellows and will continue to provide support and mentoring as requested.

### Practical Clinical Research Workshops

On 12th and 14th November 2013, academics from Sydney Medical School and Sydney Nursing School volunteered for the third Practical Clinical Research Workshops in Ho Chi Minh City and Hanoi, Vietnam. The Hoc Mai Foundation’s Practical Clinical Program for Vietnam aims to contribute to capacity building in healthcare research skills, enabling the establishment of productive clinical research hubs where Vietnamese health professionals conduct clinical research and publish their findings internationally.

The third and final workshops in this current series enabled participants to produce detailed research protocols for appropriate and feasible clinical studies to address research questions pertinent to the Vietnamese healthcare setting, identified by the participants themselves.

In 2014, the Hoc Mai Foundation will offer up to three competitive research grants of AUD$2,000, enabling researchers to implement the research protocols they have developed during the 2012-13 Practical Clinical Research series.

Through its Hoc Mai Foundation, Sydney Medical School with other Faculties of Health, is engaged in a number of projects supporting the development of Vietnamese health and medical workforce. On these pages are recent developments in three of the projects.
Improving Hospital Death Data Collection in Vietnam

Resources are one of the biggest challenges in developing countries. The cost of health infrastructure and staff training hinder the identification of health priorities and improvement of health systems, resulting in poor health planning and programming.

The death data reporting research is aimed at bridging the gap brought about by scarcity of resources, health infrastructure and staff training by developing and implementing a death reporting system that is consistent with the World Health Organisation’s International Classification of Diseases Volume 10 (ICD-10) in two of the largest hospitals in Hanoi, Vietnam - Bach Mai Hospital and Viet Duc University Hospital. Collected hospital death data will contribute to informed decision making in health planning and programming at a hospital level, and hopefully adopted by the Vietnamese Ministry of Health on a national scale. On a larger scale, death data collection aims to provide informed health policy making and programming not only for Bach Mai and Viet Duc Hospitals, but across the health sector in the country.

The earlier stages of the project involved developing and finalising a hospital death report form in close coordination with its intended users - medical practitioners and planning departments of both hospitals. Intensive training sessions were conducted on 17-19 April 2013 where 427 key hospital staff and senior doctors attended from Bach Mai and Viet Duc Hospitals. Training manuals were provided for each attendee of the training together with a training kit, which the doctors will be able to use to train the rest of the staff in their hospital departments. All the resource materials were prepared and translated into the Vietnamese language to provide higher understanding and utility while complying with international standards for the doctors and medical practitioners and as quick reference on death reporting.

From 1 May 2013, the death reporting system has been implemented in both hospitals. A death report database was established for recording purposes. Monthly death reports are generated from the database, which provides statistical evidence of the causes of death, epidemiological information, statistical patterns on deaths and causes of death and mortality demographics. It also generates death information that is specific to Vietnamese context including death related to accidents and external injuries, and discharged home deaths. After the first six months of project implementation, the importance of underlying causes of death and nosocomial infections were raised and discussed. The next stages of the project will endeavour the reliability of death data in terms of accuracy, consistency and timeliness through monthly reports and periodical monitoring. An agreement with both hospitals in December 2013 will also include information on possibility of nosocomial infection in the next stage of the implementation of the death data collection.

The project is headed by Professor Merrilyn Walton (chief investigator) in coordination with Dr Dang Van Duong and Dr Huong Giang of Bach Mai Hospital; Dr Chinh Nguyen and Dr Haphan Hai An of Viet Duc University Hospital. The research team also includes Dr Jennifer Smith-Merry (Health Sciences, University of Sydney) and Esmond Esguerra (Office for Global Health). The project is funded by the Department of Foreign Affairs and Trade (former Australian Agency for International Development – AusAID) through the Public Sector Linkages Program.

Hoc Mai: Together for Health

AUSTRALIA’S INVOLVEMENT WITHIN VIETNAM’S HEALTHCARE SECTOR

The idea for an evaluation of Australia’s engagement in the Vietnamese healthcare sector arose following discussions between Professor Bruce Robinson and HE Hugh Borrowman, Australia’s Ambassador to Vietnam. Funded by the Hoc Mai Australia Vietnam Medical Foundation and compiled by research officer Ms Aimee Wiseman, Together for health provides a broad survey of Australian engagement in the Vietnamese healthcare sector from 2010 onwards. The report aims to enable greater understanding of the breadth and scope of projects in the area, and a framework to support future initiatives and collaborations.

Together for health is available for download at: http://sydney.edu.au/medicine/hocmai/about/annualreports.php
The Gift of Sight

Contracting an infection that threatens first your life, and then your sight, can cause a dramatic shift in one’s priorities.

By Sue Merrilees

Fortunately for Sean Howard, the Australian entrepreneur who founded the internet company Ozemail, he recovered after treatment at the Save Sight Institute at the University of Sydney. In gratitude, he added philanthropy to his list of accomplishments by pledging a record $10 million for the Valerie Mary Howard Initiative, in memory of his mother.

“Without treatment I would have lost my sight. I was so grateful to my doctors, and when I realised the role research plays in developing effective therapies, I had to give back.”

Professor Peter McCluskey, Director of the Save Sight Institute, says the funding will be used to establish a new research unit at Save Sight.

“There will be sufficient endowment for a fellow (the Valerie Howard Fellow), a chair at Professorial level for a clinician scientist or basic researcher (the Valerie Howard Professor) and infrastructure support for both positions,” he said.

“The Valerie Howard Professor will be the first endowed chair in inflammatory eye disease in Australia and will be a groundbreaking initiative for research into this devastating group of sight threatening diseases that frequently affect young adults and children,” says McCluskey.

Howard wants the research unit to target inflammatory eye disease and other vision threatening eye disorders.

“This gift is extraordinarily generous,” says Professor Bruce Robinson, Dean of Sydney Medical School, “and transformative for Save Sight. As doctors, we want the best outcome for our patients—it’s gratifying to see how philanthropy can play a role in the healing process.”

Established as a Foundation of the University of Sydney in 1985, The Save Sight Institute is a not-for-profit organisation working with government and community to save sight. It has grown to be one of the top three ophthalmic research institutes in Australia, internationally recognised as a centre of innovative research into ophthalmology and as a site for outstanding patient care and exceptional teaching and learning.

Sue Merrilees is the Director of Sydney Medical School Foundation.

Above: Sean Howard

→ SAVE SIGHT INSTITUTE
For more information, visit
http://sydney.edu.au/medicine/eye/
Dr. Catherine Hamlin, an Australian gynecologist who has spent most of her life in Ethiopia, has been nominated for the Nobel Peace Prize, at 90 years of age.

Referred to as a 21st-century Mother Teresa, Dr. Hamlin has revolutionised care of a childbirth injury called obstetric fistula, which occurs when the baby gets stuck in the birth canal and there is no doctor to perform a cesarean section. As many as two million women (and often young teenage girls) worldwide suffer from fistulas. The babies die, and the woman is left incontinent and stigmatised.

Dr. Catherine Hamlin graduated in medicine at the University of Sydney in 1946. She met her late husband Dr. Reg Hamlin when they were both senior medical officers at Crown Street Women’s Hospital in Sydney. Together, Reg and Catherine, with their six-year-old son Richard, went to Ethiopia in 1959 to work as obstetricians and to start a midwifery school.

The couple set up a fistula hospital in Addis Ababa, Ethiopia, and their work proves that it is possible to repair the injuries from fistulas cheaply. The hospital trained generations of doctors to repair fistulas and provided a safe haven where patients are treated free of charge.

At Dr Hamlin’s 90th birthday in January, former patients cheered as she blew out 90 candles on a cake. Her son, Richard, referred to the women she has helped, saying “Catherine has one son and 35,000 daughters.”

Dr. Hamlin told the crowd about the need for a big push to improve the world’s maternal care. “We have to eradicate Ethiopia of this awful thing that’s happening to women: suffering, untold suffering, in the countryside,” she said. “I leave this with you to do in the future, to carry on.”

Dr Hamlin has continued her work, uninterrupted for more than half a century, despite political upheavals and civil war in Ethiopia. Well over 35,000 patients have been treated in that time.
The Faculty of Medicine of the University of Sydney was established on the 13th June 1856 and accepted the first enrolments in 1883. Since that time over 25,000 students have graduated; countless numbers of post-graduate students have undertaken research programs or courses of further study. Many have gone on to practice in extraordinary circumstances, while many have achieved extraordinary fame.

We now have over 150 years of history. Several excellent publications have documented much of this history. There is also an exceptional online resource, to be found at http://sydney.edu.au/medicine/museum/mwmuseum/index.php/Sydney_Medical_School_Online_Museum_and_Archive

The online archive provides a list of all the graduates from the Faculty, a comprehensive historical overview, copies of the senior year books (1922-1970) as well as virtual exhibitions and virtual tours of some of the facilities. I would certainly recommend this to everyone.

However, 150 years represents a considerable period of change in the medical landscape. There have been so many changes in the medical curriculum and in medical practice, and so many changes in the social environment in which we practice. These changes are often difficult to narrate and are much better appreciated when displayed in museum format. Although online museums serve a specific purpose, there is still a place for an old fashioned display of memorabilia and artifacts.

The medical alumni of Sydney University have this rich history and we should take steps to preserve this material.

Some of you who visit the Edward Ford building will have noticed the revamped Burkitt-Ford Lounge no longer contains books! The shelves are empty! The students now have their heads down at computer terminals and it functions as a well-appointed, well-utilized modern facility. But how nice it would be to see these wonderful old bookshelves filled once again, not with books but with alumni material, which documents the history of the old Faculty of Medicine and the School of Public Health. If you have any material, which you think might be of value or you would like to assist in this project, please contact Diana Lovegrove – diana.lovegrove@sydney.edu.au.

Help save the memories.
1968 REUNION

After much badgering from several of our colleagues, we eventually arranged the 45th reunion of the 1968 MBBS graduates. Despite the slow start, we had a very successful - but relatively informal - reunion dinner of the 1968 MBBS graduates in the Holme Building on the 16th November. Despite the relatively short period for the reunited reunion committee to contact our far-flung colleagues, we had a very good attendance. Total numbers on the night -including partners- was 85.

Our reunion committee consisted of the core group from our previous 40th reunion, and included Ivan Young, Tom Wenkart, Judy Black and Craig Mellis. However, the key to the success of this reunion was clearly the assistance of the Medical School.

Some of our colleagues travelled long distances for this reunion - particularly Dale Garlic who travelled from her home in New York for several days specifically to attend the reunion, and, of course, Bill Nardi – who drove all the way from his macadamia farm in Lismore to attend!

A highlight of this reunion gathering was the plan for our year to contribute to developing a scholarship to sponsor a medical student – to be named “the 1968 scholarship”.

Although these reunions are always a joyous occasion, enabling us to catch up on all the gossip with our colleagues and their partners - there is always an element of sadness when we hear of our fellow graduates who have passed away since our last reunion five years ago.

We will obviously be organising a very special 50th reunion in 2018 - and we will ensure that we allow a much longer lead time, to enable as many as possible from our graduating year to attend this important milestone.

Craig Mellis

2003 REUNION

In November 2013, over 10 years after the graduating year of 2003 Bachelor of Medicine, Bachelor or Surgery met to reunite and reminisce. The reunion was held at the Nicholson Museum and the year group chatted over drinks and canapés and caught up about the last 10 years of our lives. People came from near and far, the most notable was Deborah Allen who made the trip from New York City especially for the event! The following are some pictures of the evening and a graph showing which paths we have ended up in.

Tom Turnbull and Amanda Stephens
1978 REUNION

What were they thinking? These alumni entertained their classmates as the “Freddies” at their 35th Medical Reunion, channeling Freddie Mercury and other 70s legends. Months (well maybe hours) of rehearsal led to a surprising performance which earned an encore. What was not surprising was that these gallant few trusted their mates with a less than perfect show, knowing they would be well received and applauded. Wigs off to Ian Butcher who actually did spend months rekindling his med revue lyric writing skills and mastering the art of YouTube video clips to aid his choreographically challenged colleagues in rehearsals. A special mention to Kristina McNamara (daughter of Matthew and Helge) for taking us Tryhards through our paces.

The class of 1978 were the last of the (original) six year course, and as such were not only gifted a double graduation, but also had many mature students from years gone by join their ranks. This created a special bond for them which has lasted 35 years, and looks set to last a few more. The outcome? The 130 alumni in the Great Hall that night can’t wait for their next reunion in five years time, same venue.

The organising committee was gallantly led by Chris Ingall from his Lismore base with his trusty team on the ground of Philip Hung, Roger Boyd, Alyson Kakakios, Grace Bryant, Dave Mawter, Stephen Allwright and Lyn March. Despite the great sleuthing by Roger and Phil some of you still remain elusive. Get in touch with the alumni office and update your details if we missed you this time.

And don’t forget to support the Class of 1978 October class scholarship, already 13,000 dollars has been donated, an amount which will no doubt swell quickly now that we have all been reminded!

Lyn March and Chris Ingall

2009 REUNION

On December 7, 2013 those of us not on call enjoyed a fantastic evening. Coming together, none of us could believe that five years already passed as we caught up on the great personal and career achievements made by the class of 2009. We were all delighted with stories - the arrival of children (triplets in one case!), more on the way, as well as those who were only a year or two from Fellowship exams and progression to the title of “Consultant!” The last five years passed so quickly and many of had not seen each other in that time.

Internship arrives and we meet new people. We focus on career and family, however we must never and will never forget the wonderful people we attended medical school with. Unfortunately a very dear member of our group passed away in 2013. As we lost an amazing, talented and spirited friend we are reminded of how quickly life passes and how suddenly it can end. The nature of our work is such that we deal first-hand with death; however as we continue to treat patients and console their families we find that we are inconsolable in dealing with such tragedy. We will remember our friend forever and continue to support each other, staying in contact no matter what it takes. I would like to thank our class of 2009 as well the Medical Alumni Association for organising a wonderful event and look forward to more in future!

Ryan Prasad

For full reunion reports and extensive photo gallery, go to www.alumni.med.usyd.edu.au
In 2013 the Sydney Medical School launched a reunion strategy inviting alumni groups to establish class scholarships. Although the school offers scholarships already, the need still exists. Scholarships ensure that students from diverse backgrounds and cultures can obtain the benefit of a University education, and make a positive contribution to society.

Doctor Tony Joseph is a busy man – a Clinical Associate Professor at the Sydney Medical School and a Senior Staff Specialist in Emergency Medicine and Director of Trauma (Emergency), at Royal North Shore Hospital. He’s also a reunion organizer and the class of 1977 Indigenous scholarship advocate. Doctor Joseph felt particularly drawn to setting up this scholarship saying, “many of us are now at a stage where we can afford to make a donation towards a good cause and do our bit towards “closing the gap” for the indigenous community.” To date nearly $60,000 has been raised. Another $ 75,000 is needed so it can become a permanently endowed scholarship.

Bright, motivated and able medical students should be able to complete their studies to the best of their ability – regardless of their financial circumstances. Obtaining a medical degree at the University of Sydney is challenging enough without worrying about making ends meet. Alumni in particular, can relate to the importance of a focus on education.

Graduating years of 1968 and 1978 establish scholarships that will be available to all medical students.

It is hoped that this scholarship program will strengthen the bond between students and alumni, with each committing to each other, to ensure that the future of medicine and healthcare is provisioned by students enriched by the quality of teaching, and the community’s support.

To support an individual student over the course of his or her degree, a class must raise a minimum of $50,000 at which point the class “year” scholarship is created for five years. If a class can raise $135K a named scholarship fund is endowed in perpetuity. Endowed scholarship funds are invested by the university in a capital preserved trust. An annual amount is distributed as a scholarship payment each year, while the remaining capital grows in line with inflation. This way, the level of income generated by the scholarship is maintained while establishing a permanent named legacy.

If your class has an upcoming reunion, please consider becoming an advocate for your class scholarship campaign. Please contact Diana Lovegrove on 9114 1163 or via email (diana.lovegrove@sydney.edu.au) for more details.

‘Receiving a scholarship throughout my medical degree has helped me to focus my attention on my studies and achieve the best I can without financial stress. I study full time and have two young children so the scholarship has meant I do not also have to juggle working as well. I do not know how I would have gotten this far without such amazing support’

Tabila MBBS, Stage 3 (Year 3)
All medical graduates intending to work in the USA – including graduates of US medical schools – must pass the highly competitive US Medical Licensing Examination (USMLE), run by the US National Board of Medical Examinations (NBME). The USMLE is in three parts or ‘steps’. Step 1 covers basic medical sciences, Step 2 covers clinical sciences and Step 3 requires postgraduate-level ability to apply medical knowledge in clinical practice. The Step 1 score is an important determinant of the success of a new graduate’s application for hospital residency post, and the competition for top residency jobs is intense.

In January 2014, Sydney Medical School, in collaboration with Johns Hopkins University School of Medicine, decided to run a 15-day intensive course to help Sydney Medical Program students prepare for Step 1, a long, comprehensive and difficult exam. Two Johns Hopkins staff members – Professor Fred Wondisford (Professor of Medicine and Physiology and Director of the JH Diabetes Institute) and Dr Lorrel Brown (Cardiology Fellow) travelled all the way from Baltimore in the United States to come to Sydney and teach the ‘boot camp’ style course.

In addition to helping the students, the boot camp also aimed to strengthen Sydney Medical School’s overall performance in Step 1. This is important because the Step 1 results are a key criterion affecting the eligibility of Sydney Medical Program’s US students for US Government student loans. These loans are a major source of funding for US students’ fees and living expenses.

A total of 49 students began the boot camp on 2 January by taking a four-hour on-line Pre-Test published by the NBME, and finished on 17 January with an equivalent Post-Test, having had only one day off in the 16 days. Each day Professor Wondisford and Dr Brown conducted a plenary teaching session for about four hours, and students then took one or two 46-item MCQ tests on what they had just covered. After each test, students were divided into small groups to go through the answers and resolve any difficulties. Two Sydney Medical School staff with expertise in the day’s content area served as tutors alongside Professor Wondisford or Dr Brown. The tutors were highly distinguished and included the Dean, Professor Bruce Robinson.

Student feedback on the boot camp was strongly positive, and most participants found it highly stimulating and (given the unrelenting workload) surprisingly enjoyable. They were delighted with Professor Wondisford’s and Dr Brown’s highly interactive teaching styles and deeply impressed by their unflagging energy and rigour. Both the visiting and the local staff admired the students’ enthusiasm, concentration and stamina. Professor Wondisford and Dr Brown were able to give students specific advice on many aspects of the USMLE – advice that could only come from those who had first-hand experienced.

A detailed analysis of students’ performance is in progress and an article on the outcomes is in preparation. Initial analysis suggests that the boot camp was an effective educational success!
Applications should be made according to guidelines set out below:

• The Grant will comprise an award of AUD250,000 over 2 years for a research project in the field of Alzheimer’s disease, where the aim of the project is to develop and/or assess new treatments for this condition.

• Applicants must be members of staff of the University of Sydney or of the Hebrew University, with an appointment of appropriate duration. All else being equal regarding merit, joint applications for cooperative projects between members of staff of the two Universities will be given preference.

• Applications should conform to the instructions available from the Fund’s office. (See below.)

• Completed applications should be sent by email to the submission address below by the closing date.

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Applications & Enquiries  Sue Freedman-Levy, Administrative Officer, SZCUF, University of Sydney, F13, NSW 2006, Australia  T +61 2 9351 6558  F +61 2 9351 6647  E sueflevy@anatomy.usyd.edu  W www.szcuF.org.usyd.edu.au

Submission Address: szcuF@anatomy.usyd.edu.au

“For the past five years, I have been working in the UNICEF Country Office in Nepal as Child Health Officer where I assist in designing, implementing and monitoring different child health interventions. I am really passionate about my work and want to continue to work to improve the health status of women and children in my country and, with the knowledge and skills that I learned in the Master of International Public Health, I am more determined than ever.”

Master of International Public Health is open to International and Domestic students. For more information please visit: sydney.edu.au/medicine/public-health

Chahana, Master of International Public Health  AusAID Scholarship Recipient, Nepal
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