What’s all the fizz about?
My time in medical research, education and practice has rewarded me with countless examples of the way that medical research can improve health outcomes, whether from the laboratory, bedside or the community. But none stick in my mind quite like my time at the Goroka Base Hospital.

The capital of the Eastern Highlands province of Papua New Guinea, Goroka houses around 25,000 residents. I travelled there 22 years ago as an infectious diseases registrar, and was struck to see how medical research could lead to tangible changes in clinical practice such as better treatment strategies for pneumonia and meningitis. Along with my term as Director of the Burnet Institute, where I witnessed successes in connecting biomedical research to public health outcomes, this experience solidified my belief that improving public health through research and advocacy is one of our greatest responsibilities as health professionals.

The efficient delivery of health services in countries with fewer resources to tackle such diseases is one of the most urgent challenges in international public health, along with the insistent presence of HIV and AIDS. To help address these health crises, the Alan and Elizabeth Finkel Foundation this year endowed the Finkel Chair in Global Health. Professor Alan Finkel is a Monash alumnus and the University’s Chancellor.

In Australia, improvements to our health services depend heavily on significantly increasing the integration with our universities. We need to better translate our cutting-edge research into clinical settings where it can make real changes to how patients experience the system.

In a recent submission to the Federal Government, the Faculty argued for reforms that would combine the governance and funding of health services with that of teaching and research agencies in the fields of health sciences and biomedical research. Such reforms would also enshrine multi-disciplinary education into the services to improve communication and cooperation between health professions. They would fund new clinical trial networks, biomedical research clusters and academic health science centres, helping Australia to maintain its competitive edge.

Health funding should also focus on systemic evaluation, research and workforce development. We need to know how we can improve. Without significant reforms, Australia will lose its international foothold as an innovative leader in all fields of health, including that of the public.

Steven Wesselingh
October 2008
From the cover:

What’s all the fizz about?

ASPREE and other research at the School of Public Health and Preventive Medicine (page seven).
Micro high

Monash scientists can now quickly and accurately detect many structural and biochemical changes in cells thanks to a new high-content screening unit.

Identikit for new life

Monash researchers have used DNA fingerprinting for the first time to identify which embryos implanted after in vitro fertilisation (IVF) have developed successfully into healthy babies.

“The instrument is like a totally automated fluorescent microscope. It enables you to look at a large number of samples in an automated fashion on a microscopic platform,” says Dr Trevor Wilson, who oversees the unit.

“If you’re interested in a particular molecule in a cell, you can stain for it. Then, in a high-throughput manner, you can treat cells with a large number of different compounds and observe the effects.”

Also purchased with the grant money, special RNA interference libraries of the complete mouse and human genomes allow researchers to specifically inhibit each of the 22,000 genes in humans and the 16,000 in mice and to observe the effect on cell structure and biochemistry.

“We can actually identify new players in those pathways in a totally unbiased way, because we’re looking at every gene in the genome,” says Dr Wilson.

The unit represents a collaboration between Professors Paul Hertzog, Bryan Williams, Jamie Rossjohn, Ben Adler, Michael Berndt, Richard Boyd and Patrick Sexton of Monash, and Stephen Locarnini of the Victorian Infectious Diseases Reference Laboratory. M3

Monash scientists have used DNA fingerprinting for the first time to identify which embryos implanted after in vitro fertilisation (IVF) have developed successfully into healthy babies.

“The technique, combined with sampling cells from blastocysts (the very early embryo) before implantation in the womb, opens the way to pinpointing a handful of genes that could help clinicians to identify those blastocysts most likely to result in successful pregnancy.

Doctors David Cram and Gayle Jones of the Monash Immunology and Stem Cell Laboratories (MISCL) believe that their findings will revolutionise IVF by improving pregnancy rates and eliminating multiple pregnancies.

“DNA fingerprinting is the ultimate form of biological identification, but until now it has not been used to identify the embryonic origin of resultant babies born following embryo transfer nor has it been used for gene expression studies,” Dr Cram said.

“We have developed a novel strategy of utilising a combination of blastocyst biopsy, DNA fingerprinting and microarray analysis to identify viable blastocysts among the cohorts transferred to patients. Our ultimate aim is to find out which genes are expressed by viable blastocysts.”

Currently, couples often choose to have more than one embryo implanted, running the risk of multiple pregnancies. It’s also then impossible to work out which one developed into the successful pregnancy, making it difficult to develop criteria for identifying viable blastocysts. M3

Read about the research as it first appeared in the journal Human Reproduction at: http://humrep.oxfordjournals.org/cgi/content/abstract/den123

Dr Trevor Wilson

Only the second of its kind in Australia, and the first in Victoria, the high-content screening unit was purchased with grants from: Monash; the Faculty; the National Health and Medical Research Council; the Australian Research Council LIEF initiative; the Monash Institute of Medical Research (MIMR); the Victorian Infectious Disease Laboratories; the Monash Immunology and Stem Cell Laboratories; and the Departments of Microbiology, Biochemistry, Immunology and Pharmacology.

Based at MIMR, the unit will help Monash scientists to identify the functions of genes in the disease processes of cancer, inflammation and other diseases.

Immunology and Stem Cell Laboratories; and the Departments of Microbiology, Biochemistry, Immunology and Pharmacology.
On the ground in Segamat

A Monash project based in a small Malaysian town is at the centre of public health efforts to improve the prevention and management of chronic lifestyle-related diseases like diabetes, hypertension and heart disease.

Like much of the world, Malaysia’s greatest public health problems stem from lifestyle choices – diseases caused by sedentary routines, a national hankering for fast food, and a shift away from the traditional diet. And while Malaysia’s residents enjoy a well-developed rural health system based on a World Health Organisation model, attempts to tackle these emerging, long-term diseases face a unique problem.

“Using a western model, which is very highly individualistic, to deal with these problems requires huge resources and highly-trained people,” says Associate Professor Shajahan Yasin of Malaysia’s Sunway Campus. “The western model works. It has been tested. It’s very costly. And where that model isn’t available, we have to say: we don’t have that, it’s not going to work, we can’t treat these conditions well. Can there be another, alternative way?”

This affordability dilemma motivated a team of Monash public health experts to devise the Segamat Project. Funded by the Faculty of Medicine, Nursing and Health Sciences, and led by Associate Professor Yasin and Professor Brian Oldenburg from the school of Public Health and Preventive Medicine, the researchers aim to build capacity within the existing workforce of Malaysia’s highly-efficient health system to address chronic diseases at low cost.

Associate Professor Yasin hopes that in three to five years’ time up to 50 healthcare professionals, researchers and medical students will help contribute to the project, hopefully also attracting funding support from international agencies as well as the support of the Malaysian government to apply its results nationally. Hopefully, this new model will also be applicable and can be transferred to other low- and middle-income countries in Asia and Africa.

“When people say that there is a problem in Africa that needs to be handled, developed countries generally produce some aid... People come in and bring their aid and money and they do a good job, but they eventually leave and the money runs out, and the project is orphaned. If we [in Malaysia] actually do a project in a different way where the healthcare workers of the country study the problem and realise it’s important to take responsibility for it, and the local people and government are involved, it is more likely to be generalised to the rest of the world.”

Named after the small city in the state of Johor where much of the work is currently concentrated, the Segamat Project brings together doctors, nurses and other health professionals from local hospitals and clinics at a series of workshops. Project leaders raise awareness about lifestyle illnesses, and then encourage the participants to identify their own research questions. The participants will attend subsequent workshops every six to eight weeks to develop their research methodologies and to reflect with leaders on their progress and activity.

The project also studies the methods that other middle-income countries and health systems with WHO models use to deal with non-communicable diseases.

“When we are here, we are part of the community. We do want to build this up and we think this may be something from which the country will benefit and we are working together with the community to work on this problem. We are building a capacity which will be there for a long period of time,” says Associate Professor Yasin.
Public knowledge


With more than 300 staff and a head office in The Alfred precinct’s Burnet Tower, the Faculty’s new school brings together four very unique entities.

The Department of Epidemiology and Preventive Medicine, an established authority on infectious diseases, public health and environmental safety, this year joined forces with the Centre for Obesity Research and Education, the Monash Institute of Health Services Research, and the Victorian Institute of Forensic Medicine (VIFM).

The School teaches students in undergraduate courses including the Bachelor of Medicine/Bachelor of Surgery, and runs postgraduate research and coursework programs in public health, biostatistics, health service management, occupational and environmental health and clinical research methods. VIFM teaches the only postgraduate courses in forensic medicine in Australia.

Professor John McNeil leads the School, building on a 22 year history as head of the Department of Epidemiology and Preventive Medicine. His specialties in clinical pharmacology – and especially cardiovascular epidemiology, drug safety and toxicology – guarantee expert guidance on the School’s many clinical trial programs.

M3 explores some of the breakthroughs in the new School.
A four-year study led by Associate Professor John Dixon and CORE Director Professor Paul O’Brien showed that obese patients with Type 2 diabetes who underwent gastric-banding surgery were five times more likely to go into remission than those who didn’t.

Established in 2003, CORE staff aim to discover more about the disease of obesity.

At the CORE of obesity
Researchers from the Centre for Obesity Research and Education (CORE) made international headlines this year when they published dramatic findings on tackling Type 2 diabetes.

Clinical research and public health projects rely heavily on statistics and carefully-structured research methodologies.

Led by Professor Andrew Forbes, the Biostatistics Unit draws upon the diverse statistical backgrounds of its staff to contribute to most of the school’s projects, offering advice on analysis, data collection and study design, as well as engaging in methodological research in biostatistics.

The unit also offers the School’s Biostatistical Consulting service, available to external clients.

One institute, many parts
With almost a decade of expertise, the Monash Institute of Health Services Research (MIHSR) plays a unique role in improving the experiences of Australian patients.

Its broad approach addresses the relationships between need, demand, supply, use and outcomes of health services. Researchers consult with policy makers, managers, consumers and clinicians.

An umbrella for a range of centres and units in the field, MIHSR addresses many areas: healthy ageing, gender and medicine, biostatistics, systemic reviews, evidence-based medicine, e-Health, women’s healthcare, and research into healthcare management and operations. It also works closely with the Jean Hailes Foundation, Turning Point Alcohol and Drug Research Centre and the Burnet Institute.

Associate Professor Damien Jolley, a biostatistician, currently runs the institute from its base at Clayton’s Monash Medical Centre.

Research by numbers

An aspirin a day…
Can low-dose aspirin curb the onset of disease in healthy older people?

That’s the question for researchers running the ASPREE (ASPirin in Reducing Events in the Elderly) project. ASPREE will measure the long-term preventive benefits of aspirin among 10,000 healthy participants aged 70 years and over. The project is seeking US funding in addition to its domestic sources.

ASPREE researchers test the retina, brain and cognitive functions of participants at the start of the project and after three years.

They will also help to found an ASPREE Health-Ageing Biobank – in collaboration with several other research bodies – to collect, process and store blood samples from participants.
Forensics at Southbank

The Department of Forensic Medicine is the alter ego of the Victorian Institute of Forensic Medicine (VIFM).

VIFM’s Director, Stephen Cordner, is also Monash’s Professor of Forensic Medicine, and VIFM staff hold honorary positions within the Faculty.

VIFM provides independent expertise to the justice system. Its role and function as the forensic and scientific half of the coronial system was enshrined in legislation more than 20 years ago as a policy response to poorly organised and sub-standard forensic pathology arrangements, including inadequate mortuary and autopsy facilities.

VIFM and the Department of Forensic Medicine were established at a time of intense national debate about compromised evidence in coronial cases and the absolutely critical need for independent and high quality forensic pathology and scientific evidence.

The duality of its identity represents the understanding of the founders of the importance of the cycle of service, teaching and research.

Twenty years on, VIFM provides Victoria with forensic medicine and related services, including tissue for transplantation and medico-legal support. It supports educational programs in forensic medicine, science and pathology, and is considered a national leader in forensic medical and scientific research. Much of this educational work is directed at prevention, an increasing focus for VIFM and the Department.

The heart of the matter

Cardiovascular disease can be chronic or acute, is widespread and is one of the leading causes of death.

The School of Public Health and Preventive Medicine has three research units devoted to heart health research. They investigate drug therapies, lifestyle interventions and the analysis of its incidence, the demographics of heart disease.

The research of Professor Henry Krum and Doctors Dipak Kotecha and David Eccleston looks for new ways to predict heart disease. The findings of their studies suggest that the risk of heart disease is more than three times greater if people have very stiff arteries or poor heart-rate variability.

These markers could be as important as obesity, high blood pressure and diabetes for predicting heart disease in people at high risk.

Mile-high health

The aeronautical expertise of Dr David Newman contributes a special insight into the health problems of travel.

Dr Newman spent more than 12 years as an RAAF medical officer, experience he calls upon now as a specialist in aviation medicine.

In a paper published in 2005 with Dr Karin Leder – head of the Infectious Diseases Epidemiology Unit – Dr Newman showed that the transmission of respiratory bugs on aeroplanes was quite low, primarily because the air was regularly freshened by air sucked into the plane from outside. Passengers had to sit quite close to a pathogen carrier to be infected.
A home for clinical trials and registries

Registries are crucial tools that help health services to benchmark, maintain quality assurance in treatment, and assess the beneficial impacts of therapies new to Australia.

The School of Public Health and Preventive Medicine extensive experience in managing large data-sets makes it the ideal controller for tracking groups of patients and treatments affected by conditions such as cardiac arrests, cancer, physical trauma and respiratory conditions.

The School’s clinical trials include ‘Spiro-GP’, a program that assesses spirometry (a test for lung function) as an early way of controlling chronic obstructive pulmonary disease and asthma.

Going global

The International Public Health Unit (IPHU) aims to improve the health and wellbeing of residents in developing and less-developed countries.

Through collaborations with others at Monash University – including at our South African and Malaysian campuses – as well as international colleagues, the team’s research and capacity-building programs focus on improving health and wellbeing related to chronic diseases like heart disease and diabetes, environmental health and HIV/AIDS.

The research interests of unit head Professor Brian Oldenburg extend to strengthening health systems and policy issues and developing new approaches to prevent and manage non-communicable diseases in Australia and abroad. He also leads an NHMRC Centre for Clinical Research Excellence (CCRE) focused on ‘reducing the gap’ experienced by Aboriginal and Torres Strait Islander people in relation to cardiovascular and related conditions.

With a focus on improving health globally, the unit’s responsibilities also involve the development of relationships with other universities and research bodies in Australia and the Asia-Pacific region. In particular, the unit runs the Directorate for the Asia Pacific Academic Consortium for Public Health (APACPH), an academic network of more than 60 schools of public health in the region.

A drop in the ocean of rainwater tanks

Members of the School’s Infectious Disease Epidemiology Unit study the health risks associated with water-saving measures such as rainwater tanks and household water recycling.

Aside from intermittently briefing the Victorian Parliament on the engineering and health issues of water recycling, the water experts are also at the heart of cooperative research schemes to address emerging medical issues in the way that Australians use water. M3

www.med.monash.edu.au/sphpm/
When film director Miles Roston first met Kevin Sumba, the 12-year-old lived alone in the slums of the Kenyan city Kisumu, roasted and sold salted peanuts for survival, and snuck into school because he couldn’t afford the fees. Roston’s subsequent book and film, Kevin’s Questions, captured the world’s attention with its noble story of an AIDS orphan who dreamed of life as a doctor. Trips around the world to raise awareness of the devastation of AIDS followed, and it was during one of these trips that Kevin and the award-winning film director met the future Dean of the Faculty of Medicine, Nursing and Health Sciences, Professor Steve Wesselingh.

Eight years later, Kevin now studies Health Sciences at the Monash Peninsula campus, supported by the Faculty and a handful of generous donors to work towards his dream of studying medicine. His course fees, housing, books and computer, as well as any legal costs associated with migration, all fall under the Faculty’s new Medicine, Nursing and Health Sciences Scholars Bursary for students who need a hand up.

“The Faculty has a global reach in a world filled with more displaced people and harrowing tales of survival than ever before,” says Professor Wesselingh.

“We need to educate and nurture future leaders who can make a real difference from within their communities. These are young people who deserve a chance to realise their potential. They are intelligent, driven, and committed to their dreams of helping others, despite surviving enormous personal adversity.”

The students come from all walks of life, whether they arrive from less-developed countries like Kevin, live in our community as refugees, struggle with problems that strike rural areas, or grow up in Australia’s remote Indigenous communities. Requests for assistance from domestic students mention poverty, chronic illness and bereavement, to name just a few issues. Among the pool of supported students, the Faculty also supports a Kurdish refugee, a former political prisoner, and many Australian students.

To build confidence and help develop the workplace skills of the students, as well as to support them in funding their own basic expenses, those in less time-intensive courses are also placed in casual jobs that fit around their study schedules. When he’s not studying or spending time with friends, Kevin provides desktop support through the Faculty’s IT department.

“We’ve gone further than we ever hoped to make study and careers in health and medicine a reality for these incredibly bright young people,” Professor Wesselingh says.
Intuition in action

A research paper in emergency nursing finally names a remarkable phenomenon.

Emergency nurse Dr Joy Lyneham remembers the evening well, a New Year’s Eve in a busy Sydney hospital. A babysitter brought an infant into the emergency department with no obvious symptoms of illness. All the usual tests gave no indications to cause concern. But Dr Lyneham’s stomach turned.

“I informed the paediatric resident that I was taking the infant to the resuscitation area. When asked why, I replied that he needed to be there. The resident had no choice but to follow me. Two hours later the baby was admitted to the operating theatre requiring a repair to a large previously undiagnosed ventral septal defect,” writes Dr Lyneham in a recent paper in the International Journal of Nursing Practice.

She had first heard expert nurses talk about intuition while completing her Masters degree. That astonishing New Year’s Eve brought back their anecdotes, and triggered her exploration of an experience widely accepted in the profession.

“It’s just certain instances where you see somebody walking through the door and you think: oh no… And all the observations, monitors are telling you everything’s all right, but something’s not,” says the Monash Senior Lecturer from the School of Nursing and Midwifery.

“It’s different for everyone. For me, my stomach just drops to my feet, like when you go over dips in a road. One of the people I interviewed said the hair stood up on her neck. And another said it was like a bolt of lightning.”

“A person might come in with a fall and they’ve broken their toe, and suddenly you’re doing an ECG (electrocardiogram) on them. You’re not overly aware that’s what you’re doing. You just think: ECG, that’s a good idea. But often they’ve been in a dysrhythmia and that’s why they fell and broke their toe.”

Dr Lyneham interviewed 15 nurses from places as distant as Perth, Tamworth, Sydney and Tasmania. One nurse told a story about a young woman who came into hospital just days after the removal of several varicose veins, her symptoms ‘clearly’ pointing to deep vein thrombosis. For a reason that she can’t explain, the nurse began asking obscure questions, and learnt that the patient also experienced slurred speech. Later that day, a doctor found a brain tumour.

Intuition creeps up on nurses when they start operating at expert level, explains Dr Lyneham.

“Knowledge and experience are the foundations. And then I think there has to be something within that person that’s able to make connections with people,” she says, describing the intuitive experiences as common to most clinicians, including vets.

But she stresses that, while intuition forms part of nursing practice, patients are at no risk.

“Emergency nurses don’t just totally do what their gut is telling them to do. They do all the normal assessments as well, but they’re actually adding to their workload by adding these assessments,” she says.

“You might go weeks without it happening, but then it happens and you think: ‘that’s the patient I have to worry about’.”

In her next paper, Dr Lyneham breaks down intuition into three developmental stages:

• Cognitive: the nurse makes an accurate snap decision that he or she can later rationalise based on obvious symptoms.
• Transitional: the nurse experiences a gut feeling and doesn’t know why he or she suddenly takes the particular course of action.
• Embodied: the nurse understands the physical sensation of intuition and acts on it.
Mastering health sciences

This semester the Faculty launches a dynamic new program designed for health professionals to develop skills in their chosen field.

Offered through both on-campus and off-campus learning, the Masters in Health Sciences offers streams in five disciplines that range from Informatics to Health Promotion.

“...long-needed program fills a gap in Australian education for further study in selected fields. Students can tailor this flexible course to reflect their career aspirations, building on their existing work experiences and knowledge,” says Associate Professor Louise McCall, Associate Dean (Postgraduate Coursework Degrees).

The course develops student awareness in the areas of research and management, while also developing skills relevant to their workplace.

With its first intake in 2009, the new course will sit alongside other postgraduate coursework programs including the Masters in Public Radiations.

What are the streams?
- Rural health
- Health informatics
- Health promotion
- Nutrition and dietetics
- Occupational therapy

For more information about the Masters in Health Sciences, visit: www.monash.edu.au/pubs/handbooks/courses/3897.html or contact enquiries via email: masterofhealthscience@med.monash.edu.au

Radiography turns ten

Since its first intake of 30 students a decade ago, the Bachelor of Radiography and Medical Imaging has grown to produce more than 200 radiographers.

Associate Professor Marilyn Baird has led the four-year program from the beginning, acting as foundation course convenor and now Head of the Department of Medical Imaging and Radiation Sciences.

Speaking at the 10 year celebratory dinner in May, Associate Professor Baird outlined the directions taken by Monash students after the course, with some now working as far afield as the UK and US.

Five graduates now study medicine, four are in charge of CT units in large public hospitals, a handful tutor in radiography and sonography, and three work as chief radiographers. Impressively, 22 graduates have returned to Monash to study the Graduate Diploma in Medical Ultrasound.

There are currently 176 students enrolled in various years of the course, with plans to increase the first-year intake in coming years.

For more information: www.monash.edu.au/pubs/handbooks/courses/3897.html or contact enquiries via email: masterofhealthscience@med.monash.edu.au
Doctor de Morton measures up

A simple test is revolutionising the way that clinicians measure mobility in older patients.

Natalie de Morton’s experience is a world away from that of most post-doctoral researchers. Less than one year after she graduated as the first Monash PhD in Physiotherapy, many health services in Australia and overseas apply her work, two Australian universities teach it in their curriculum, and European collaborators will soon translate it into Dutch and German.

It all comes down to a quick diagnostic tool called the de Morton Mobility Index, or DEMMI for short. A score card with 15 simple physical tests for assessing the mobility of elderly patients, it was developed based on the Rasch mathematical model and has since translated effectively into a range of health professions and environments.

“We wanted it to be a quick and easy test to administer, because otherwise it wouldn’t be used in the acute clinical setting. On average, it takes just under nine minutes to administer in an older acute medical population,” says Dr de Morton.

When she started her PhD, Dr de Morton initially conducted a pilot study to investigate the effects of exercise among older acute patients, but faced problems.

“One of the issues was that current methods for measuring the mobility of older people had significant limitations and we didn’t have a way to accurately measure this important construct in older people,” she says.

She recognised the need for an instrument that would be sensitive to small changes in mobility, helping to detect early decline in mobility and to accurately monitor its recovery.

Dr de Morton began developing the DEMMI as a Monash University PhD student based at Northern Health’s Northern Clinical Research Centre.

“Just like blood tests or blood pressure readings, mobility is a very important indicator of health status,” Dr de Morton says.

“We made it a very clear and simple instrument, in that most of the questions have ‘pass’ or ‘fail’ responses. A few of the items have three response options, but most have two.”

The clinician administering the test simply observes the patient as they perform each test item. DEMMI requires no training; a brief sentence on the back of the card explains each item on the test. Best of all, it can be easily completed at the bedside.

“I’ve been fairly overwhelmed with the feedback that we’ve had. Clinicians really like it because it’s quick to do because it has minimal equipment requirements and provides important information regarding patient mobility. You only need a chair, bed and a stopwatch to conduct the test, so it is inexpensive,” she says.

After presenting DEMMI at the 2007 World Confederation for Physical Therapy Congress in Vancouver, Dr de Morton had people contact her from the US, Canada, Scandinavia and Europe.

Now an NHMRC research fellow at Monash (which will begin teaching DEMMI in its undergraduate physiotherapy course from next year), Dr de Morton will focus on testing the model across various settings and populations. Among other things, she wants to know when mobility first diminishes.

"Is it in your thirties or in your fifties and sixties?" M3

To learn more about DEMMI, email: natalie.demorton@med.monash.edu.au
Remembering a mentor to many

Dr Leo Cussen has passed away after 37 years of service to Monash and the Faculty of Medicine, Nursing and Health Sciences.

The much-loved clinician and teacher will be greatly missed by his peers in academia and medical research, as well as by thousands of Monash graduates and students.

In typically humble fashion, his very last act was to finish marking papers.

Dr Cussen graduated from Medicine at the University of Melbourne, and later pursued dual specialisations in paediatrics and pathology, an almost entirely extinct combination in Australian medicine today. He became a Fellow of the Royal College of Pathologists of Australasia and developed a strong interest in the pathology of children’s diseases, and especially of the urinary system.

Driven by the expectation of the day that Australian academics should earn their stripes overseas, in the 1960s, Dr Cussen, his wife Leonie and family of then five children uprooted and travelled to Cincinnati in the United States, where he worked as Associate Pathologist at the Children’s Hospital.

While in the US, he also worked at Northwestern University in Chicago, and as Assistant Professor of Pediatrics and Pathology at the University of Cincinnati.

The American Academy of Pediatrics recognised his expertise in diseases of the urinary system with invitations to lecture at several conferences.

A sixth Cussen child was born in Cincinnati, but Dr Cussen’s American stay was short-lived, with his family returning to Australia in 1967 – 14 months into their stay – after race riots erupted just streets away from their home.

In 1971, he joined the Monash University Department of Paediatrics to develop the children’s pathology section of the Queen Victoria Medical Centre, which later moved to the Monash Medical Centre at Clayton. It was a sensitive exercise, and he inspired his grateful colleagues with refreshing enthusiasm, patience and good humour for the task.

In addition to his passion for clinical practice and research, Dr Cussen owned around 5000 books and enjoyed a vast general knowledge and love of the written word. He was especially passionate about children’s literature, which once drew greatly on ghoulish anecdotes of epidemics that felled the young and innocent. He could summon appropriate quotations for every situation, and took great pride in incorporating this knowledge into his lecture materials.

After retiring in 1995, he continued teaching through the Department of Pathology and Immunology at Monash, where he played an integral role in delivering lecture and practical programs to students of medicine, radiography, science and biomedical science.

“I think it’s time to hang up my boots,” he often said, but each year returned to continue teaching.

His energy and infectious fervour for sharing knowledge never waning, Leo was a gentle teacher who never intimidated his students and presented material in an interesting, witty and clinically-relevant manner. Many students sent him Christmas cards, and in later years he learnt with pleasure that his white hair had earned him the nickname of Father Christmas.

“I think it’s time to hang up my boots,” he often said in regard to his teaching, but each year returned to Monash, motivated by a sense of duty to convey his unique knowledge of children’s pathology. The strongest Monash students in his field will long share in this dedication through the Leo Cussen Pathology Prize, which was established in 2005 to recognise his long service to the University.

He will be remembered with affection and respect for his devotion to his family and as a professional colleague of unflagging good humour, intellectual integrity and genuine humility. His peers and thousands of Monash University students will greatly miss him.

He is survived by seven children and 14 grandchildren.
Upcoming events

Faculty events

2008 Dean’s Lecture Series

To present the annual Rod Andrew oration: Professor Sir Magdi Yacoub.
Professor of Cardiothoracic Surgery at Imperial College, London. Pioneering heart and heart-lung transplant surgeon.

When: Tuesday 28 October, 2008
Where: BMW Edge, Federation Square, corner Swanston and Flinders Streets Melbourne
Time: 6 – 7 pm
Event free

Dr Peter Salama
Chief of Health, UNICEF

When: Thursday 27 November, 2008
Where: To be confirmed
Time: To be confirmed
Event free

Rocky and Spike make a splash

They might look scary and prehistoric, but to those in the know, they’re called Rocky and Spike. And they’re cool.
By Vicki Burkitt.

These Barrier Reef stonefish aren’t your typical aquatic specimen. They’re venomous: one sting from their spines can cause intense pain, temporary paralysis, and sometimes death, if untreated.

These fish live in Associate Professor Wayne Hodgson’s laboratory in the Department of Pharmacology. His team work with dangerous creatures which most people avoid: mouse spiders, taipans, death adders, tiger snakes and the Australian box jellyfish. They are venom collectors.

Associate Professor Hodgson is unfazed about his stonefish. “They are not aggressive fish,” he says. “As the spines are found along their backs, they are safe as long as you don’t stand on them or push down on their spines. We handle them with protective mesh gloves.”

Associate Professor Hodgson has shown in earlier work that “milked” stonefish venom causes cardiovascular collapse - where blood pressure plummets and the heart slows down. While the currently available stonefish antivenom appears to work well, this isn’t the case with box jellyfish antivenom, with experimental and clinical evidence suggesting it is ineffective. Therefore, this treatment is no longer used in Darwin where stings are common. Box jellyfish are the world’s most venomous animal.

As antivenoms are expensive to produce and the local market is small, the development of new products isn’t considered to be a high priority. Associate Professor Hodgson disagrees. “We’re trying to find other drugs or strategies to treat box jellyfish stings,” he says. “We hope the stonefish venom will give us an insight into the mechanism of action of the jellyfish toxin as we believe they may work in a similar way.”

That’s where Cairns-based Rocky and Spike come to the rescue. Each stonefish has 13 spines along its gnarly back and a venom gland underneath each spine. Associate Professor Hodgson places a stonefish into a tub of water, pushes down on a spine; venom squirts up and is collected into a vacuum tube.

And no one is hurt.

Medical Research Breakfast Seminar

Professor Chris Goddard
Director of Child Abuse Prevention Research Australia, Monash University

When: Wednesday 19 November, 2008
Time: 7.15 am – 8.45 am
Tickets: $48 per person
RSVP for all events:
Megan Keating
Special Events Officer
Phone: (03) 9905 5971
Email: mnhs.rsvp@med.monash.edu.au

With the Jewish Holocaust Centre

Nazi medicine: the role of health professionals as agents of state control, then and now.

Why do some doctors do good while others do evil?

This forum explores the causes and effects of participation by health professionals in state-sponsored crimes. Speakers include experts in psychiatry, child abuse, law and medical ethics, who will discuss their perspectives and experiences surrounding this complex, confronting issue.

When: Sunday 23 November, 2008
Where: Smorgon Auditorium of the Jewish Holocaust Centre, 13-15 Selwyn Street, Elsternwick VIC 3185
Time: 1.30 pm – 5 pm
Tickets: $25 adult/professional
$15 student/concession
Phone: (03) 9528 1985
Email: admin@jhc.org.au
Bookings essential

See www.med.monash.edu.au/events for more information about future Faculty events.

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