

ISSN 1834-3937

# Is an educated mind a questioning mind?

Open a new chapter in your University of Sydney story – as a postgraduate student. Enhance your mind and your career while you study with leading experts and build your global networks. Look beyond the words on the page at the University of Sydney.



# CONTENTS



12 WOMEN LEADERS Honorary degrees for eight exceptional leaders



14 DOCTOR ON A MISSION Catherine Hamlin has helped thousands of Ethiopian mothers



18 THE NANO STATE Physics, medical technology and the nano frontier



28 SYDNEY CONFIDENTIAL Investigative journalist Kate McClymont is giving back to the University



#### **Publishing Editor**

Michael Visontay The University of Sydney, Level 6, JFR Building, NSW 2006 +61 2 9036 6372

#### Contributors

Caroline Baum, Hayley Bryce, Shane Hayley Bryce, Colleen Cook, Rebecca Crew, Belinda Hutchinson, Ashleigh McLennan, Diana Plater, Chris Rodley, Michael Spence, Sally Sitou

Please address all correspondence to the Publishing Editor, Michael Visontay, at the address above.

Published by The University of Sydney

#### **Publishing Management**

10 group, Level 1, 30 Wilson St, (PO Box 767), Newtown NSW 2042 www.10group.com.au

Publishing Manager Paul Becker Design and Printing 10 group

Remziye Sen-Moss or Paul Becker

Cover Julius Sumner Miller

Member of the Circulation Audit Board Audited circulation 176,467 copies

#### 5 VC's REPORT

Dr Michael Spence on student access and equity

CHANCELLOR'S REPORT

Recognising women's leadership

#### **UP FRONT**

Three-minute theses, China Business Forum, Pave The Way fundraiser challenge, Gender diversity

#### 20 YOUR FAVOURITE **TEACHERS**

Saluting the lecturers, tutors and mentors who made a difference



#### 26 THE 2014 ALUMNI AWARDS

Celebrating distinguished achievement by our best and brightest

#### 30 DENTISTRY PRO BONO

Sydney dentists volunteer to help the needy, here and

#### 32 POSITIVE COMPUTING

Rafael Calvo is developing software to support psychological wellbeing

34 SPORT DOES MATTER Jackie Lauff is harnessing the cultural power of sport

#### 36 BOOKS

Female convicts, a pearl pioneer, woman of science

#### **37 CLASSNOTES**

Catch up with what your peers have been up to

#### 38 OUR WOMAN IN CHILE

Irene Strodthoff, Latin American studies scholar



SAM'S NEW iPad EDITION



Advertising enquiries +61 2 9550 1021

Photography Trevor Dallen. Courtesy: Fairfax Media







Sancta Sophia College is a residence for undergraduate women and postgraduate men and women. Our complete living experience means you'll get the best out of uni life. Now taking applications for 2015 APPLY ONLINE TODAY.

www.sanctasophiacollege.edu.au *Phone:* +61 29577 2100



# A core Sydney value

WORDS DR MICHAEL SPENCE,
VICE-CHANCELLOR AND PRINCIPAL
PHOTOGRAPHY BRENDAN ESPOSITO

founder of the University of Sydney, was the son of a convict. It was his vision that the University be established to enable 'the child of every class to become great and useful in the destinies of [their] country ... whether they are disciples of Moses, of Jesus, of Mahomed, of Vishnu or of Buddha'.

William Wentworth's dream was of a secular university, accessible to all. By "secular", he did not mean that those who attended should not, if they wished to, adhere to a religion. Rather, he believed in a world — and a university — where no one would be judged or discriminated against because of her or his faith. He wanted a university in which talent, dedication, and principles were the hallmarks of good students, and not their religious beliefs or political affiliations.

This is the foundation principle of this University, and I have recently had the privilege of hosting the Sydney University Muslim Students' Association President and Committee members to discuss the particular challenges they face in the current political climate. It is important for us all to remember the words of Wentworth, deeply embedded in the philosophy of this University, and to support our students from a diverse range of backgrounds in the Australia of today. Empathy and respect for others are key to our community, and fundamental to the development of our students, who will one day be the leaders of this country.

In the first part of his goal, Wentworth referred to "the child of every class". Although, in 2014, we do not like to use the word "class", that in today's changing economic and political environment it is a constant challenge to ensure that every bright person who aspires to a University of Sydney education is afforded the opportunity to come here. We want every eligible candidate to benefit from our world-class research, dynamic teaching environment and first-rate campus, regardless of income and socio-economic background.

While I am proud that, just as Wentworth would have wished, our lecture halls are full of students of myriad different origins, I do not believe that the University currently enrols enough students from disadvantaged backgrounds, and we must find ways to address the imbalance.

I am keen to provide more support for students, and I am grateful to so many of you who contributed to the recent *Pave the Way* Campaign — the first ever 24-hour fundraising challenge by an Australian University. I am delighted to report that, with your support, we raised \$932,964.90 from 1058 donors in just one day.

It is my belief that the University is changing the face of philanthropy in Australia. But despite the generosity of our alumni, staff, students, parents and friends, we need to do more to attract and keep everyone with the potential to succeed, because – even in the throes of

the heated debate about higher education funding – that is the one thing we all agree is essential.

Money helps. It always does. But attracting and keeping those talented students who face difficulties extending far beyond the challenges of study requires consideration of a great many other factors.

Our Social Inclusion Unit has been working hard to improve awareness and preparation for higher education. This unit manages the Early Offer Year 12 (E12) scholarships scheme, for example, which this year has given 207 first-year students the opportunity to study at the University. This year the scheme received nearly 1300 applications for entry in 2015, nearly doubling those for 2014.

Students participating in this scheme consistently outrank overall pass rates and grade-point averages of their more affluent peers. They grasp with both hands the opportunity to study here and prove that, when given the opportunity to study in the right environment, they can change their future.

Like Wentworth — who from humble beginnings went on to study, to become an explorer, a journalist and a politician, to advocate for the rights of all and, most importantly for us, to found a University — our E12 scholars have the potential and the drive to change the world. They will be the leaders of tomorrow.

# Celebrating leadership

WORDS
BELINDA HUTCHINSON AM
CHANCELLOR



he annals of Australian history are filled with bold individuals, groups and organisations — leaders who have stood up and challenged the status quo. Prominent among them are University of Sydney alumni who, through their foresight, courage and independence of mind, have served our nation as prime ministers, governors-general, chief justices, State premiers and as a president of the United Nations General Assembly.

'Leadership' is a term much discussed but rarely defined. I believe this is because leadership is about far more than words. It is a quality best demonstrated by actions and best characterised by the changes that result.

Exceptional leadership is achieved through the very qualities that the University of Sydney seeks to foster in our students, and which we continue to nurture in our alumni and the wider community. Not just academic excellence — although of course that is a high priority — but confidence, communication, principles, openness and enthusiasm, along with a willingness to embrace change, respect for others, resourcefulness and empathy are all characteristics we hold essential. Above all, a strong sense of what is right, but tempered by the ability to admit one's own mistakes.

I am proud of the University's commitment to increasing representation of women in leadership. We have already produced many fine women leaders: Mary Gaudron, Dame Marie Bashir and Clover Moore spring to mind, just to name a few.

The University of Sydney was one of the first in the world to accept women

into what had always been a masculine world. We can hold our heads high in the knowledge that we have educated more than our share of women leaders.

Australian women lead the world in terms of numbers in higher education. Women represent 57 per cent of students enrolled in higher education, and that is true of this University. In the general populace, women are more likely to hold a bachelor 's degree than men. Yet, even in 2014, women still lag behind both in salary (the notorious 18 per cent pay gap), and in terms of the vast imbalance in numbers at the top of the corporate tree and in positions of leadership generally. We need only look at the current federal cabinet for evidence.

The disparity between men and women leaders is true of the academic sector, and at this University we do not shy away from this. We are all too aware that, while 51 per cent of our academics are women, women comprise only about 20 percent of the ranks of full professor. These statistics are echoed in many of Australia's universities. The reasons are complex, of course, but we at the University of Sydney are absolutely committed to doing all in our power to attract, retain and promote women leaders within the University, to encourage talented women from all walks of life to study here, and to prepare them for a life in leadership, whatever form it may take.

On 1 November, our newly appointed Director of Equity and Diversity Strategy, Fiona Krautil, facilitated a symposium entitled *Women at Sydney – Share,*Connect, Change, featuring talks and

panel discussions by female leaders from across the University and beyond. It was an inspirational opportunity to connect and learn.

Later that day we celebrated the achievements of eight extraordinary women through an honorary degree ceremony. We were honoured to present Gillian Armstrong, Virginia Bell, Elizabeth Broderick — who spoke at the symposium — Evonne Goolagong Cawley, Lowitja O'Donoghue, Gail Kelly, Catherine Livingstone, and Kerry Schott with honorary doctorates.

As these eight women demonstrate, women are leaders in every aspect of life. From law to business, sport, human rights and myriad other fields, women have the ability and creative flair to show the world the way. We need more women leaders of their calibre, and this University has the capacity to nurture leadership throughout our wider community.

The 21st century presents us with both new and deeply rooted challenges and, in educating and supporting current and future leaders, we must ask ourselves profound questions. In assisting along the route to leadership, we must also be prepared to accept and share the answers.

I believe that good leadership — great leadership — changes the world for the better. This is one of the founding principles of the University, and one we must uphold today. Whether it be leading a classroom of children or leading a nation, leadership is about many things, not just individual leaders. Ultimately, leadership is about people. All people.

sydney.edu.au/leadership

#### 2014 Sydney China Business Forum



he annual Sydney China Business Forum. held on 17 November, has become one of the leading events focusing on business interaction between Australia and China. The theme for this year is 'Australia-China Partnerships in Financial Services'.

The forum, which is hosted by the City of Sydney and held at the Four Seasons Hotel, discussed issues including: China's policy and regulatory environment and market access for Australian companies; Australia-China free trade agreement negotiations and implications for the financial services sector: the future of the yuan currency.

Keynote speakers at this year's event included Penny Wong, Labor Senator for South Australia, and former federal Minister for Finance and Deregulation.

Panellists included Elmer Kupper, Managing Director & CEO, Australian Securities Exchange (ASX); Spiro Pappas, Executive General Manager, Global Institutional Banking, National Australia Bank; Hugh Killen, Managing Director, Global Head of Foreign Exchange, Westpac Institutional Bank, Prof Hans Hendrischke, Professor of Chinese Business and Management, University of Sydney Business School, Mr Peter Rowe, Assistant Secretary, North Asia Division, Department of Foreign Affairs and Trade: and Bonnie Shek, Director Australia & New Zealand, Hong Kong Trade Development Council.

MORE DETAILS

sydney.edu.au/china-business-forum

### SUPPORT PACKING DAY

The Nursing School's annual health kit packing day will be held on 4 December in The Great Hall, from 9.30am-1pm. This year the event will support the Poche Centre for Indigenous Health, and volunteers are needed to help assemble kits containing basic health items, which will be distributed to Aboriginal children across rural Australia. The kits will help to demystify health services and make health care less intimidating. Register online at alumni.sydney. edu.au/packingday2014



#### VALE GOUGH WHITLAM

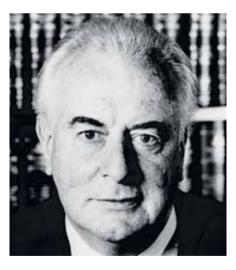
ice-Chancellor and Principal, Dr Michael Spence, has paid tribute to former Prime Minister Gough Whitlam (BA '38 LLB '46), who passed away on 21 October, aged 98.

"Gough Whitlam demonstrated the kind of leadership that the University of Sydney aims to instill in all of its graduates. He was creative, provocative, clever, well read, thoughtful and focused on making the lives of all Australians better," said Dr Spence.

"As one of the first to realise the potential for an Asian Century, he created the backdrop for public policy in Australia for many years to come. As Prime Minister he could not have imagined that the University would one day host the China Studies Centre, a multidisciplinary global centre for research.

"His contribution to Australia's relationship with our Aboriginal and Torres Strait Islander peoples was profound. Whitlam laid the groundwork for Australia's major institutions to acknowledge their rights and cultures.

"In addition, Gough Whitlam transformed our universities. He believed that university should be an achievable aspiration for all bright Australians, a belief shared by the University of Sydney and many Australians."



Former WA Premier and Professor Geoff Gallop said: "He took public policy very seriously and did a huge amount to the work of universities. He dragged Australian politics and the Labor party into the modern era by sheer force of will. He saw that Australia needed to move up a step." ALUMNI RESPOND TO WHITLAM

sydney.edu.au/alumni/sam

Do you know a student commencing next year at the University of Sydney?

Mandelbaum House is the newest residential college on campus and helps to create a unique and memorable university experience.

We celebrate multiculturalism and diversity and accommodate males and females with an even number of international and Australian students.

Applications for 2015 are now open.

For more information call: +61 2 96925200



"When you go to university with 50,000 people, it is nice to come back to a family of 40 at the end of the day."

MANDELBAUM HOUSE

Michael, Terrigal

www.mandelbaum.usyd.edu.au

# Single? University educated? 50+?

GRADS Social Club Inc. introduces you to like-minded people - graduates who love to chat over a meal, take in a theatre, join a discussion or book group, bush walk and lots more.

GRADS is strictly non-profit, run just for its members. Emphasis is on friendships and fun, with social events organised by members.

#### This Club may be for you!

Come join us and enrich your social life.

Male graduates especially welcome.

Phone Les on 0418 202 514 or email newmembership@gradssocialclub.com.au

www.gradssocialclub.com.au

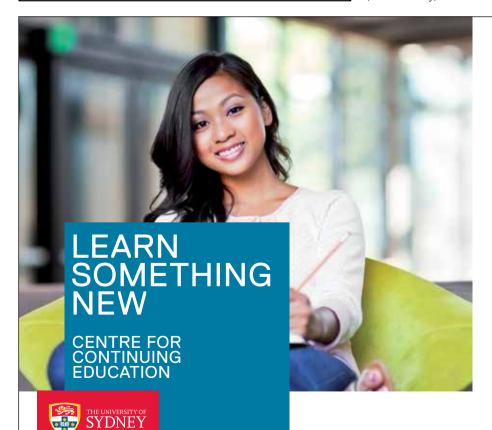


#### PEACE PRIZE FOR LAWYER

A ustralian human rights lawyer and advocate Julian
Burnside has been awarded the 2014 Sydney Peace Prize.
The Peace Prize jury awarded Burnside the prize "for his brave and principled advocacy for human rights and for those wronged by government, for insisting that we respect our international legal obligations toward those seeking asylum, and for his unflinching defence of the rule of law as a means to achieve a more peaceful and just society".

Burnside AO QC received his award in a ceremony on 5 November at Sydney Town Hall, where he told the packed audience: "Animals have better rights than asylum seekers in Australia."

Now in its 17th year, the Sydney Peace Prize is Australia's only international prize for peace. Previous recipients have included Archbishop Desmond Tutu, Aboriginal leader Patrick Dodson, American linguist and political commentator Professor Noam Chomsky, and Indian novelist Arundhati Roy.



Alumni receive a 10% discount on enrolments with the Centre for Continuing Education. To participate, register your membership at cce.sydney.edu.au/alumni or call us on 02 8999 9608 (please have your alumni membership number ready – you'll find it on the SAM mailing sheet).

For more information, head to cce.sydney.edu.au/alumni

SAM20141008 CRICOS 00026A

# THESES IN THREE MINUTES



When University of Sydney PhD candidate Kenny Sabir isn't composing music he is deconstructing chromosomes. The musician and information technologies student won the University's Three Minute Thesis finals held at Open Day in August with his presentation on understanding the structure of chromosomes.

Kenny beat a field of 12 speakers, each of them allowed only three minutes to explain to a public audience what their PhD thesis is about. Speakers were only allowed one slide to help get their message across.

Kenny believes the human brain has the ability to recognise complex patterns quickly and, by visualising the structure of the chromosomes, biologists will be able to see patterns in how the genome operates. "Biologists could also see differences between a cancer and normal cells, helping them to understand how cancer works," he says.

A powerful fascination with biology, bioinformatics and genome sequencing led Kenny back to tertiary studies. He left a successful career in IT research and development to join the Garvan Institute for Medical Research.

"The study of the chromosome structure is a relatively new field and scientists are still working out the best ways to gather the data, let alone how to comprehend it."

Kenny says live performances with his band The Herd gave him confidence in public speaking, and understanding music composition helped him explain the problem. "When looking at the genome it is like all we are seeing is unstructured random notes. My work is to figure out an overarching form to how the chromosomes work."

Other PhD subjects covered at the event included migraines (Maria Eliza Ruiz Aguila), jaw pain (Hui Chen), treatment of Bell's palsy (Ellie Frayne), creating stem cells to treat leukaemia (Mouna Hamad), using gene therapy to fight HIV (Samantha McAllery), effects of transport on horse welfare (Barbara Padalino), audio-visual feedback for treating cancer (Sean Pollock), mapping resistance genes to rust in wheat (Banchqize Geitie Temesgen), and feline vaccine for AIDS (Mark Westman).

#### ANGIE'S GOLD RUSH

Sydney Science graduate Angela Ballard won the para-1500m T54 Commonwealth Games gold medal in Glasgow in July, adding to an impressive medal tally at the elite level over more than a decade of competition.

Ballard, 32, who studied honours in psychology (BSc '14), had won two silver medals and a bronze at the London Paralympics in 2012, a silver in Beijing in 2008, and a bronze in Athens in 2004. Those medals were for sprint and middle-distance races, as was the gold medal she won in the 100m at the World Championships in 2002.

Before the 1500m event on a rainy day in Glasgow, Ballard met with her coach to write two lists. One was how they rated her opponents in that night's final in the dry. The other was how they rated them in the wet weather, the Sydney Morning Herald reported.

"You can discount some of them once it starts to rain," said Ballard. "I've made the effort over the years to get good in the rain. Some people choose not to train when it's wet but I do it so I can be good in both.

Ballard was left a paraplegic after a car accident when she was seven. She began wheelchair racing at the age of 12. Her coach is former paralympic great Louise Sauvage.

Ballard also won this year's Nigel C Barker Graduate Medal for Sporting Achievement.



### We must catch the superbug before we catch the superbug



sydney.edu.au/leadership

Leadership is foresight

#### PAVE THE WAY RAISES \$932,000







WORDS
HAYLEY BRYCE

n 16 September the University of Sydney held its inaugural 24-hour fundraising and awareness challenge, *Pave the Way*, which raised \$932,665 from 1032 donors. It was the first time such an event has been undertaken at any Australian university.

"We are delighted with the way that the whole University community came together to support *Pave the Way*, helping more talented students from all backgrounds to access a University of Sydney education, and supporting life-changing medical research," says Dr Michael Spence, Vice-Chancellor and Principal.

These 24-hour fundraising challenges, also known as 'Giving Days', are better known in the United States, where universities including Columbia, Boston and Georgetown have all seen huge success. Donations are given primarily online and the objective is to raise as much funding as possible in a set period of time.

Funds from Pave the Way are helping young people from all backgrounds to prepare for and participate in higher education through the University's social inclusion programs Compass and E12. These initiatives include school outreach programs, flexible entry pathways, scholarships and specialised academic support.

Those who chose to support medical research contributed to one of the University's priorities - helping researchers in their quest to combat diseases that affect millions of lives including cancer, heart disease, motor neurone disease, mental illness, obesity and infectious diseases.

The University's Camperdown campus came alive with entertainment on the day, hosting 70 children from the Compass program who gave performances in song and dance. Eastern Avenue was also transformed by a 3D chalk artist, Anton Pulvirenti (PhD (Visual Arts) '14) who represented *Pave the Way* with a stunning 3D chalk rendering of stepping stones.

Vice Principal (Advancement), Division of Alumni and Development, Tim Dolan says initiatives such as *Pave The Way* are critical for universities. "Funding for universities has been in decline since the 1990s. As a result, the support of the University of Sydney community is more important than ever to its continued success.

"We are fortunate to have a growing community of donors and I am delighted that in addition to their widespread involvement, *Pave the Way* was also supported through some major gifts. These included a generous donation from an anonymous alumnus who matched gifts dollar for dollar up to the value of \$25,000.

"We were also overjoyed by a major gift from two sisters, who donated to Pave the Way in honour of their father, establishing a postgraduate research scholarship in neuroscience."

Philanthropy is increasingly important to the continued success of Australian

universities. The University's INSPIRED Campaign has already raised more than \$425 million. "A campaign like INSPIRED is vitally important in creating a successful infrastructure and culture of giving which benefits the entire sector," says Dolan.

"Beyond breaking fundraising records, exceeding the \$400 million milestone represents something much bigger – a growing awareness that giving to a premier research and teaching institution is one of the most effective ways to invest in the future of Australia.

"It's fair to say that we are thrilled by the support of our donor community, including INSPIRED Campaign Board Member Sam Meers who joined the *Pave* the Way campaign as an ambassador, and was on campus for the event too."

Sam's donation on behalf of the Nelson Meers Foundation was used to match gifts from online donors, doubling the impact of their gift.

When the INSPIRED Campaign was officially launched in 2013, it aimed to raise \$600 million from 40,000 donors by 2017. Now, due to the high levels of community buy-in, the University has raised this goal to 50,000 donors by 2017.

#### SISTERS' GENEROUS GIFT

sydney.edu.au/inspired/sistersgenerous-gift sydney.edu.au/inspired/pavetheway

#### Focus on women's role



The University's newly appointed Director of Equity and Diversity Strategy, Fiona Krautil, designed and co-ordinated a symposium on 1 November celebrating the role of women. Titled Women at Sydney – Share, Connect, Change, the event featured talks and panel discussions by women leaders from across the University and beyond as part of creating a more inclusive, diverse workplace culture for all our staff.

The symposium, held to coincide with a ceremony to confer Honorary Degrees to eight outstanding women leaders, aims to connect staff and higher degree research students so they can share their career highlights and lowlights, personal experiences and strategies for advancing women's careers and contributions.

"The importance of gender balance and women in leadership isn't just about women having a seat at the

table, it's about women being valued for the diverse perspectives they bring to solving the complex problems we face in the world today," says Associate Professor Robyn Alders AO.

Topics discussed on the day included: female leaders in action, Wikibombing 60 female university leaders to increase the online presence of Sydney female leaders, women leaders of the future, female business leaders, breaking down barriers, building better businesses, and professional leaders in action – growing a career growing a life.

There was also a discussion panel, chaired by Professor Marian Baird, involving inspirational Australian women leaders sharing their insights about the critical success factors for creating a more gender balanced world.

OUTSTANDING WOMEN LEADERS: Page 12



#### **FAREWELL TO JILL WHITE**

The Dean of the Faculty of Nursing and Midwifery, Professor Jill White, AM is retiring after 30 years at the forefront of Australasian nursing and midwifery education. Since being appointed Dean in 2008, Jill has had a significant impact on teaching and research at Sydney. In 2010, she led the realignment of existing courses and the development of new courses including the Master of Nursing (Nurse Practitioner). These advanced master's courses prepare graduate nurses for leadership roles.

In 2011, Professor White was awarded the Member of the Order of Australia Medal in the Australia Day Honours list for services to nursing and midwifery. Although she is stepping down as Dean at the end of the year, Professor White will be returning in a professorial role after a year's research leave.



#### 2014 Australian boat race

bout 300 people lined the shores of Darling Harbour to watch the annual Australian Boat Race between the University of Sydney and Melbourne University last month.

The event, held on 26 October, alternates between Melbourne and Sydney each year. Sydney was keen to avenge last year's defeat on the Yarra, when the Melbourne men's and women's eights won both races.

Results of this year's races were unavailable as SAM went to print. For full details of the event, and the winners, go to www.sydney.edu.au/alumni/sam

# COULD LADY GAGA SOLVE THE UKRAINE CRISIS?



sydney.edu.au/leadership

Leadership isn't a popularity contest



# OUTSTANDING LEADERS

#### GILLIAN ARMSTRONG AM Doctor of Letters

(Honoris Causa)

Gillian Armstrong came to attention with her debut feature, My Brilliant Career (1979), adapted from the novel by Miles Franklin, which made her the first woman to direct a featurelength movie in Australia in almost 50 years. Her feature films and documentaries include Starstruck, Mrs Soffel, High Tide, The Last Days of Chez Nous, Little Women, Oscar and Lucinda, Charlotte Gray, Death Defying Acts, Love Lust and Lies, and Women He's Undressed.

Gillian's films have screened at numerous international film festivals including Berlin, Sundance and Cannes. They have been nominated for Academy and Golden Globe Awards and received awards from the Australian Film Institute, the US National Society of Film Critics and the British Academy.

#### **VIRGINIA BELL AC**

#### Doctor of Laws (Honoris Causa)

Justice Virginia Bell has made an outstanding contribution to Australian law through leadership in criminal law reform and public policy development and most notably as an advocate for the economically and socially disadvantaged.

Justice Bell was appointed to the High Court in 2009. At the time of her appointment she was a judge of the New South Wales Court of Appeal. She graduated from the University of Sydney as a Bachelor of Laws in 1976. After seven years as a solicitor with the Redfern Legal Centre, she was admitted to the NSW Bar in 1984 and was appointed a Senior Counsel in 1997 and judge of the Supreme Court of NSW in 1999.

#### **ELIZABETH BRODERICK**

#### Doctor of Laws (Honoris Causa)

Elizabeth Broderick has been Australia's Sex Discrimination Commissioner since 2007, and was also Commissioner for Age Discrimination from 2007-11.

Elizabeth has been committed to improving gender equality through her advocacy in preventing violence against women and sexual harassment, improving lifetime economic security for women, balancing paid work and unpaid caring responsibilities, promoting women's representation in leadership and strengthening gender equality laws.

In April 2011, she was appointed to lead the Australian Human Rights Commission's Review into the Treatment of Women in the Australian Defence Force Academy and the Australian Defence Force. Elizabeth was previously a partner and board member at Blake Dawson, where she developed a business case for flexible workplace conditions.

#### EVONNE GOOLAGONG CAWLEY MBE AO

#### Doctor of Letters (Honoris Causa)

Evonne Goolagong Cawley is a Wiradjuri woman and the first Aboriginal tennis player to succeed at an international level. She is one of Australia's most admired tennis players and one of the country's most esteemed sportspeople.

Evonne has been Australian of the Year and Australian Sportsman of the Year. In 1988 she was inducted into the International Tennis Hall of Fame and the following year, into the Aboriginal Sporting Hall of Fame. At Barcelona in 1992, she became one of the first Aboriginal Olympic torchbearers.

Since 2005, as Chair of the Evonne Goolagong Foundation, she has run the Goolagong National Development Camp for Aboriginal and Torres Strait Islander children.



As part of its commitment to recognising women in leadership, on 1 November the University awarded honorary degrees to eight extraordinary women whose achievements in their chosen field are exceptional.

#### **LOWITJA O'DONOGHUE**

#### Doctor of Laws (Honoris Causa)

Lowitja O'Donoghue is recognised for her outstanding contribution to the welfare of Aboriginal people. A Pitjantjatjara woman and prominent member of the 'Stolen Generation', she has worked for Aboriginal organisations and in Indigenous affairs for the last 30 years.

Dr O'Donoghue was the first Aboriginal nurse in South Australia, the first Aboriginal woman to be awarded an Order of Australia, and was made Australian of the Year in 1984 when she became the first and only Aboriginal person ever to address the United Nations General Assembly.

In 1990 Dr O'Donoghue was appointed founding chair of the Aboriginal and Torres Strait Islander Commission and played a key role in drafting the Native Title legislation that arose from the High Court's Mabo decision.

She was named a National Living Treasure in 1998.

#### **GAIL KELLY**

#### Doctor of Science in Economics (Honoris Causa)

Gail Kelly is recognised for her significant contributions to business and the wider community. Gail began her banking career in 1980 in South Africa and by 2001 had held senior management roles in a broad range of areas, including retail and commercial banking, strategy, marketing and human resources.

Gail has spent the past 12 years as CEO of two Australian banks, St George from 2002-7 and Westpac from 2008 to the present. Westpac has grown to become one of the 15 largest banks in the world and under Gail's leadership, the Westpac Group today serves 12 million customers, employs about 35,000 people and has more than 1,500 branches.

Gail is Chairman of the Australian Bankers' Association, and sits on the board of the Business Council of Australia and is a member of the Prime Minister's Indigenous Advisory Council.

#### CATHERINE LIVINGSTONE

#### Doctor of Letters (Honoris Causa)

Catherine is recognised as one of Australia's most highly influential company directors. She has made a major contribution to the development of Australian science, technology and innovation policies.

After qualifying as a chartered accountant and working with Price Waterhouse in Sydney and London, Catherine spent nearly 20 years in the field of implantable medical devices, including six years as CEO of Cochlear from 1994 to 2000. She was Chair of CSIRO from 2001 to 2006.

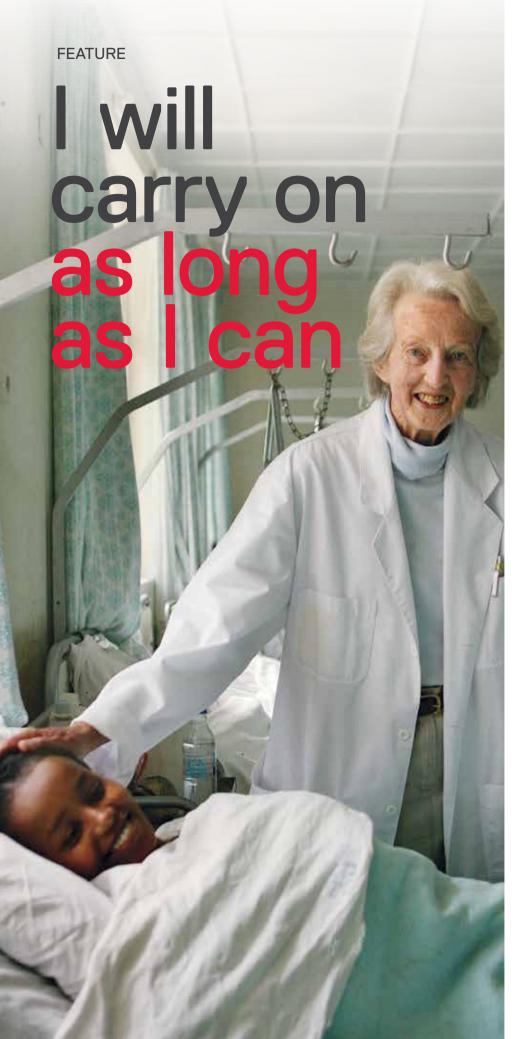
Catherine is currently
Chairman of Telstra Corporation
and a director of WorleyParsons,
the George Institute for Global
Health and Saluda Medical.
She is President of the Business
Council of Australia, and is also
on the advisory board of the
John Grill Centre for Project
Leadership at the University
of Sydney.

#### DR KERRY SCHOTT

#### Doctor of Science in Economics (Honoris Causa)

Kerry Schott is a highly regarded businesswoman who has held significant leadership roles in a variety of corporate and government organisations. She is Chairman of Moorebank Intermodal Company, a Director of NBN Co, a Director of TCorp Board in NSW, a Director of Infrastructure Australia, a member of the Macquarie University Council and the Whitlam Institute Board.

She completed her role as CEO of the Commission of Audit for the NSW Government in 2012. Previously she was Managing Director and CEO of Sydney Water from 2006 to 2011. Currently Kerry is advising NSW Treasury on the sale of government-owned electricity-generating plants, following a similar role on the sale and lease of the Sydney desalination plant in 2012.



Catherine Hamlin
has been nominated
for a Nobel Prize for
dedicating her life to
helping poor young
mothers in Africa
overcome a devastating
childbirth problem.



WORDS
MICHAEL VISONTAY

r Catherine Hamlin was nominated for this year's Nobel Peace Prize. A gynaecologist who has spent most of her life in Ethiopia, over the past 40 years she has revolutionised care of a childbirth injury called obstetric fistula – this occurs when the baby gets stuck in the birth canal and there is no doctor to perform a cesarean section.

Up to two million women worldwide suffer from fistulas, mainly in developing countries. The babies die, and women are left incontinent and stigmatised by their families and communities.

Dr Hamlin's lifelong commitment to help them was recognised in a moving celebration earlier this year in Addis Ababa, when she turned 90. This year was the second time she had been nominated for the Nobel Peace Prize. The first was in 1999.





Far Feft: The hospital, 2008. Credit: Kate Geraghty
Left: With patients. Credit: Lucy Perry
Above: With patients
P16 Top: Patient. Credit: Lucy Perry
P16 Bottom: The streets of Addis Ababa, 2008.
Credit: Kate Geraghty

Dr Hamlin graduated as doctor from the University of Sydney in 1946 and after several internships became a resident in obstetrics at Crown Street Women's hospital, where her husbandto-be, Reginald Hamlin, was medical superintendent.

In 1958 they answered an ad in *The Lancet* to set up a midwifery school in Addis Ababa, Ethiopia. They had never seen an obstetric fistula, and the prevalence of the problem prompted them to eventually set up a hospital dedicated to treating the condition.

Since founding the Addis Ababa
Fistula Hospital in 1974, they have
trained generations of doctors to repair
fistulas. It has provided a model that
has been replicated in other countries,
where foundations and clinics now try to
prevent as well as treat the condition. In
2005, in recognition of her achievements,
the University awarded Dr Hamlin an
Honorary Doctorate of Medicine.

Ahead of the announcement about the Nobel Prize, SAM asked Dr Hamlin about her medical and humanitarian journey.

# WHAT IMPACT DID YOUR EDUCATION AT THE UNIVERSITY OF SYDNEY HAVE ON YOUR CAREER?

"I graduated medicine at the University of Sydney in 1946. I had decided to study medicine in my last year at school, but it was during my fifth year of university that I had one of the most defining experiences of my life. I went to hear a famous missionary speaker, Reverend Hugh Paton in Sydney, and was deeply moved by his message.

"It prompted my desire, and my conviction that some day I would help others in this world. So in actual fact, it was my time at Sydney University that completely set the course of my life to spend more than half a century in Ethiopia with the poorest, most wretched patients of all."

#### HOW DID YOU GET INVOLVED IN ETHIOPIA IN THE FIRST PLACE?

"I believe God guided Reg and me to Ethiopia. We were searching for more fulfilling work in a developing country and we answered an advertisement in *The Lancet* medical journal for gynaecologists needed in Addis Ababa. It was to set up a school of midwifery. We had no idea this opportunity would lead to our life's work.

### ARE YOU OPTIMISTIC THAT THE FISTULA PROBLEM IN ETHIOPIA WILL BE REMEDIED?

"I know that my dream of eradicating obstetric fistula from Ethiopia will not be achieved in my own lifetime, but it just may in the next. To be able to train dedicated young doctors and midwives is marvellous for me and my loyal staff, especially as they become enthusiastic about helping these poor women. It gives me confidence that the eradication of obstetric fistula can be achieved.

"There are thousands of new cases in the countryside as the population continues to climb and there is still a backlog of some 40,000 cases we have not reached but our large hospital in Addis Ababa and the five regional centres continue in the fight to save women's lives.

#### My time at Sydney University completely set the course of my life

"We had never seen an obstetric fistula before arriving in Ethiopia; it was an academic rarity. We initially worked at the Princess Tsehai Memorial Hospital in Addis Ababa, and as news of our success in saving lives and curing obstetric fistula spread more and more patients followed.

"In 1974 we founded the Addis Ababa Fistula Hospital. I have a tremendous love for the work and the people. The plight of our poor patients is so terrible; what we are trying to do is to prevent these injuries and wake up the world. "The Hamlin College of Midwives is also working to train local midwives to prevent obstetric fistula. If these poor women who come to us had only had access to a trained midwife early in labour they would have recognised something was wrong and been sent to the nearest hospital.

"My work and that of the hospitals is important, but it is more important to prevent fistula in the first instance and our midwives can achieve this. My dream is for there to be a midwife in every village of Ethiopia."

#### YOU TURNED 90 THIS YEAR. WILL YOU EVER RETIRE?

"I know I haven't many years left ahead but I have no plans to retire. I am 90 years old and still work six days a week. I could never imagine just living here and not working. Reg and I came to Ethiopia motivated to help people and the work we started together is not finished.

"I will carry on for as long as I possibly can. There are six hospitals and a midwifery school to keep going, and I have to continue to raise money to fund them. It is this work that keeps my heart going, and my life going."





#### AN INSPIRATIONAL ROLE MODEL

#### KIRSTY FOSTER

I had the very great privilege to meet the amazing Dr Catherine Hamlin several years ago in very unexpected circumstances. While visiting my mother-in-law in a small town in Scotland, she asked me to accompany her to a coffee morning where 'a doctor was going to speak about her work somewhere abroad'.

As I walked into the room in a remote farmhouse, I saw a distinguished silver-haired lady I recognised as Dr Hamlin – and I could not believe it.

She spoke modestly about her extraordinary work in Ethiopia, telling stories about some of the thousands of women whose lives have been transformed by fistula repair, the transformative surgery she has introduced across the country. At that time she must have been in her early 80s but she talked with passion and humility about her lifetime's endeavour to alleviate suffering. Everyone in the room was spellbound.

I suspect that this is the effect this remarkable woman has on everyone she meets. That she continues to operate and devote her life to the women of Ethiopia at 90 is astounding. She is certainly one of the graduates of which the University can be most proud.

Kirsty Foster is Associate Professor in Medical Education at the Sydney Medical School, and head of the Faculty Office for Global Health.

#### ROBERT CUMMING

Catherine Hamlin is one of the greats of Australian medicine. In the field of global health, only Fred Hollows comes close – and he was a New Zealander. Many of us think about going to live and work in a developing country, where the need for doctors is so much greater than in Australia, but very few of us ever do so, and then it is for no more than a few weeks or months. Catherine Hamlin has lived in Ethiopia for more than 50 years!

I visited her Addis Ababa Fistula Hospital in 2008. It was both an inspiring and a humbling experience. Women come from all over Ethiopia for fistula repair surgery and often stay at the hospital for weeks until they are strong enough (mentally and physically) to return to their villages. Many of the women had blankets made and donated by Australians.

Obstetric fistula is the consequence of a health system that is unable to provide adequate care to pregnant women. These fistulae simply do not occur in Australia. Catherine Hamlin's book *The Hospital by the River* should be required reading for all medical students.

Robert Cumming is Professor of Epidemiology and runs the Master of International Public Health program in the Sydney School of Public Health.

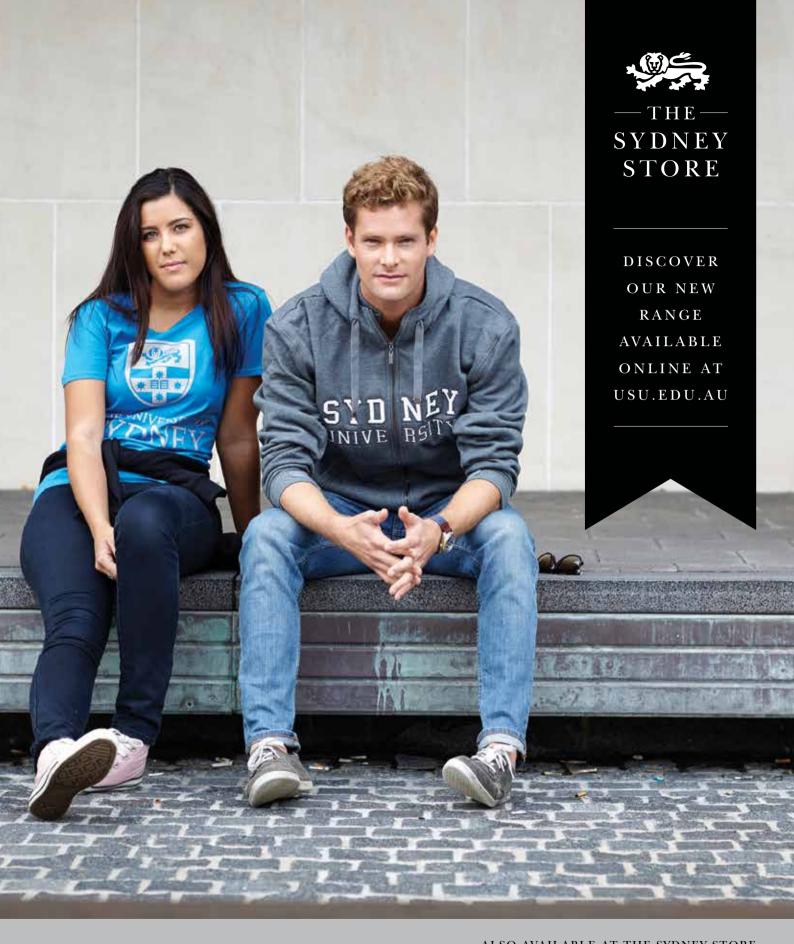
#### **BRUCE ROBINSON**

Dr Hamlin has been an exemplary role model not just for our students but for many doctors in this faculty and elsewhere who choose to get out of their comfort zone and work in places where people have much less than we do.

Students and graduates of this university have a great tradition of providing health care in developing countries in Asia and Africa, and Dr Hamlin's work at the Addis Ababa Fistula Hospital has been an inspiration for many of those seeking to contribute where they can.

I don't know anyone in this faculty who is not in awe of Dr Hamlin's commitment, and certainly our students who have come back from a placement at the Fistula Hospital and have had their vision expanded and their lives enriched.

Professor Bruce Robinson is Dean of the Sydney Medical School.



ALSO AVAILABLE AT THE SYDNEY STORE HOLME BUILDING, SCIENCE ROAD, THE UNIVERSITY OF SYDNEY





# FROM X-RAY TO NANO

Many of the greatest inventions in medicine were only enabled by discoveries in physics, says Zdenka Kuncic, as she looks ahead to a new frontier in nano-science.

efore the advent of X-rays and CT scans in the early 20th century, if a medical researcher wanted to peer inside the human body, they would have to acquire a cadaver, peel back its flesh, and make educated guesses as to how all those organs, muscles, bones and fibres keep our bodies running.

So the medical community was over the moon when it was presented with brand new imaging technology that promised a quick, non-invasive, and entirely accurate window on the goings-on of a patient's insides – no scalpel required.

Today this concept is so commonplace that something more important has been forgotten: physics. For all its robotics, particle accelerators and telescopes, physics has generated its greatest impacts in the field of medicine.

In fact, says Zdenka Kuncic, Associate Professor of Physics at the University of Sydney, many of the greatest inventions in modern medicine were only possible because of discoveries made by physicists – a topic she explored in her recent Sydney Science Forum lecture on how physics continues to revolutionise medicine.

It all started with a single X-ray image, taken by German physicist Wilhelm Conrad Roentgen of his wife's hand in 1895. "Within 10 years, people were using those newly discovered X-rays to start treating skin malignancies," says Kuncic.

A little over a decade after Roentgen received the very first Nobel Prize in Physics for his discovery, Adelaide-born fatherand-son team William Henry and Lawrence Henry Bragg were

WORDS
BEC CREW
PHOTOGRAPHY
LOUISE COOPER

awarded a joint Nobel Prize for Physics for their discovery of X-ray diffraction.

This technique was in turn used by British chemist Rosalind Franklin to produce the first X-ray diffraction image of a DNA molecule. "From that image, Watson and Crick were able to deduce the correct structure of the human DNA double helix," says Kuncic.

By the 1950s, the X-ray had been well and truly upgraded by another new technology – the computer-assisted tomography, or CT, scanner. This technology allows doctors to take several images of the human body and reconstruct them into a single three-dimensional image almost instantly.

Around the same time, a completely different type of imaging technique - now known as positron emission tomography, or PET - was being invented, based on the discovery of an antimatter particle called the positron.

"PET provides completely different information that X-ray CT cannot provide," says Kuncic. "CT gives really clear images of the human anatomy, [whereas] PET actually gives amazing images that reveal biological activity of different parts of the body. In particular, metabolic activity."

### It sounds like science fiction, but it's happening now.

So what's around the corner? According to Kuncic, the most exciting medical area that physicists are now working on is nanotechnology, both in imaging and drug delivery.

Nanotechnology works with everything on an extremely tiny scale – say, one-billionth of a metre – where matter behaves very differently and everything happens much faster and more efficiently.

Researchers in this field are now constructing nanoscale particles to carry drugs, and coating them in special biocompatible materials that can be directed to specific parts of the body. This means the nanoparticles can be targeted to travel to where the disease is and deposit the drug.

"At the same time, because we can put coatings on these nanoscale particles, we can attach onto them the same imaging agent that's used for PET, so that means we can track the nanoparticles as they travel through the body and image them to check if they're going to where they're supposed to go and unloading their drug cargo at the site," says Kuncic.

This means that in the not-so-distant future, patients will be able to receive a treatment, sit with their doctor and watch it move through their body in real time.

Researchers are also working on another type of technology that employs nanodevices, which are like tiny robots. These are programmed to have some kind of mechanical function, such as the ability to grab a cell and manipulate it in a certain way. "This is happening now," says Kuncic. "It sounds like science fiction, but it's happening now."

Next year the University of Sydney will open a new frontier in this exciting area with the launch of the Australian Institute for Nanoscale Science and Technology. The AINST will feature brand new teaching facilities and cutting-edge research technology, including advanced computer simulations that offer improved solutions to predicting the behaviour of entirely new types of nanoparticles. Their new in silico methods – testing within a computer model – will allow scientists to explore many ideas much faster than in the lab.

#### THE SYDNEY NANOSCIENCE RESEARCH AND EDUCATION HUB

The Australian Institute for Nanoscale Science and Technology will be launched next year with the opening of new world-leading facilities for this exciting research frontier in science, medicine and engineering.

Construction of the new Nanoscience research and education hub, located behind our heritage Physics building, is due to be completed by the end of June next year, and teaching is expected to start in the second semester. Installation and commissioning of state-of-the-art research infrastructure is scheduled for completion by July 2016.

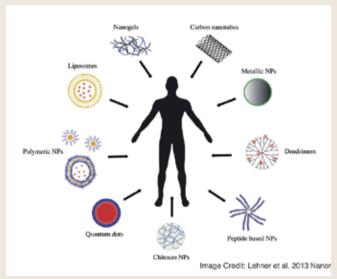
Research in the institute will target areas such as energy and the environment, communications, computing and security, and health and medicine. It will cover a broad array of research projects, from cheaper energy to high-speed optical fibre, quantum computing and personalised medicine that can deliver tiny "nano-probes" directly to diseased cells.

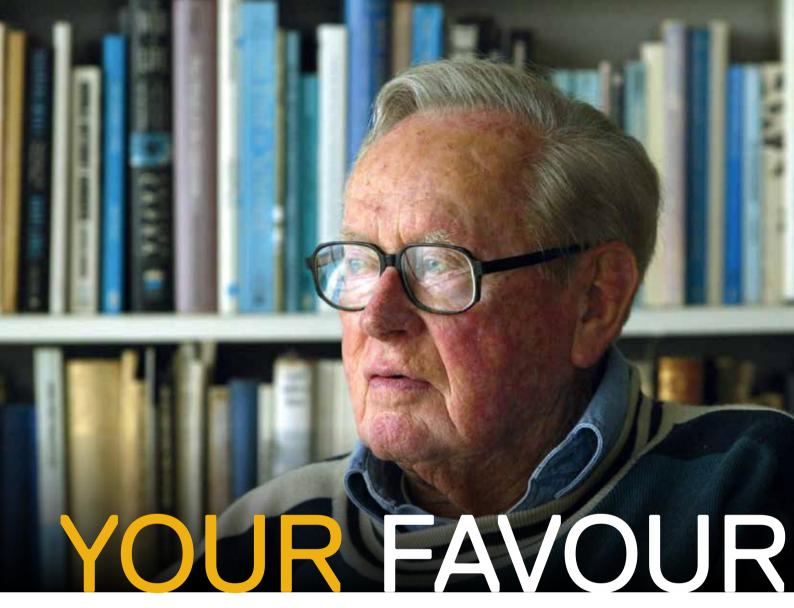
"The Institute will deliver cutting-edge research infrastructure for the University community," says the Vice-Chancellor, Dr Michael Spence. "We aim to make the institute a game-changer for nanoscience research and education at the University and for Australia."

Technically, the nanoscale is measured in billionths of a metre. Studying materials on this tiny scale enables us to unlock unique properties that have the potential to help create revolutionary computing power that will solve problems currently beyond our reach or target drug delivery for new and improved treatments for disease.

The University is already actively and comprehensively engaged in nanoscale research: there are 95 research projects with "nano" in the title across the University, involving 59 academic staff and this is likely only the tip of the iceberg. The new institute will give higher visibility to the body of research already underway, and enable broader and deeper collaboration in those and new projects.

The hub's research facilities will also allow joint educational programs between engineering, medical and science faculties, and provide teaching spaces for students across a wide range of fields.





Earlier this year SAM invited alumni to nominate those lecturers, tutors and other teaching staff who left an indelible mark on their student experience. Here we publish a selection of those whose skill, care and character made a difference. See Page 25 for a full list of nominations, and go to the SAM website or ipad edition for all the comments from alumni who nominated them.



#### **ANATOMY**

#### **DONALD ANDERSON**

Joan Levy (BSc '66 MBBS '68)

Professor Emeritus Donald Anderson arrived at the lectern for a lecture in therapeutics and announced to the fourth year medical students: "If you were to go to an island to live and you could only take one medication with you what would you choose?" He then proceeded to outline the major properties of codeine pain relief temperature control, cough suppressant and anti-diarrhoeal. At 71 years, I can still recall his teaching and I am still teaching my registrars and students.

#### **BARRY PARKER**

#### Rhett Yeats (BDS '74)

The lecturer who to this day stands out with many of my cohort is Professor Barry Barker, a quite brilliant anatomist who opened our eyes to the intricate world of mainly, head and neck anatomy. He was an exquisite anatomical drawer who would present his lectures with the aid of the most beautiful and detailed drawings on a blackboard with various coloured chalks. Many medical students would sneak into his lectures because he had no equal at that time. He was also slightly eccentric, which only heightened our appreciation of him.





Left: Charles Birch, Above: Alison Elliott with Somayeh Ba Akhlagh.

# **TEACHERS**

#### **BIOLOGY**

#### **CHARLES BIRCH**

#### lan Abbott (BSc '69)

The person who most influenced my future views and career was the Challis Professor of Biology, Charles Birch. He was the only science professor who lectured to first years. In 1965, first year biology lectures were delivered by television for the first time, and Birch was an outstanding and engaging communicator, turning my major interest from chemistry to biology. Then, in 1966, he presented his ecology course, based on his famous book, The Distribution and Abundance of Animals, co-authored with Adelaide-based ecologist HG Andrewartha. I read its 700 pages and knew that my future lay in ecological research, not teaching (I had a Teachers College scholarship).

I still remember his visual representation of a rose opening and, even now, I can picture the wonder of it.

#### Elizabeth Deutscher (BSc '66)

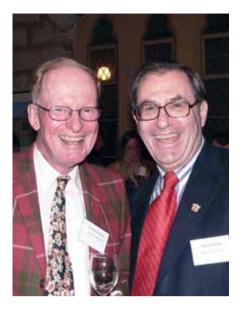
Professor Birch gave wonderful lectures at lunch time that connected biology and spirituality, and were so popular that latecomers had to stand. He used illustrations for his lecture. I still remember a visual representation of a rose opening and, even now, I can picture the wonder of it, marvelling that it was so wonderful it had to come from a higher power which I would call God. I still have some of his books.

#### **ELIZABETH MAY**

#### Ximonie Clark (BSc '11)

Dr Elizabeth May, from the School of Biological Sciences, was an inspiring teacher who always made her lectures interesting and fun. She always wanted us to get the most out of our lectures and lab pracs. She was passionate about teaching and clearly wanted to share her enormous wealth of knowledge. She taught me to appreciate the amazing array of organisms our world contains and how they function. Her door was always open, too. Dr May was also a fantastic cook, who would make roast lamb for dinner on a field trip and whip up a batch of raspberry and white chocolate muffins because we were working so hard.

#### **COVER STORY**



Above: Peter Simpson with Richard Flook. Below: Ted Wheelwright. Opposite Left: Hans Freeman. Opposite Middle: Fred May. Opposite Right: Bruce Gardiner with Elizabeth Sofatzis.



#### **TONY UNDERWOOD**

#### David Cholson (BSc '80 MSc '95)

I remember so many things about Tony Underwood: his crumpled suits, never wearing a tie, his long, disobedient hair that needed to be flicked back off his face so he could glower at his audience. His high intellect and passion for his much-loved molluscs. His intolerance of any student who did not work hard. His ownership of a lecture theatre, striding up and down the floor and occasionally on the benchtop, sometimes without shoes, speaking without notes. He was a great inspiration and a popular lecturer.

#### **CHEMISTRY**

#### **PETER SIMPSON**

#### Richard Flook (BSc '70, PhD '74)

In 1966 I came to Sydney as a shy 16-yearold farm boy and was overawed by Peter Simpson's lectures to a capacity theatre. I quickly learnt that I should arrive early to get a seat. In those days Chemistry 1 was taught to many faculties and Peter's reputation drew students from other lecture theatres. Ultimately, guards had to be positioned at the entrances to keep people out!

Peter's secrets were his enthusiasm and elegance. Before the lecture, he would stand at the front of the theatre and methodically scan the students. He was remembering each name, no mean feat in a large group of motley students. This meant that he could address a question or a comment, or ask for assistance from the students by their name. It kept everyone on notice.

But what attracted students to Peter were his elegant lectures. His presentations were clear, methodical and beautifully crafted. For example, he would put a majority of information on the board with different coloured chalk which he used to differentiate themes and conclusions. There was in fact a black market in Peters lecture notes to those not fortunate to attend. I kept mine for many years afterwards and used them for teaching chemistry students during my doctorate.

It became a ritual for Peter to tell a chemistry joke or story halfway through each lecture and if he was late in doing this there would be a slowly increasing sound of stamping feet. At our reunion in 2006, Peter was still clearly a favourite with students. I took him into the hall at St Pauls College where some students

were having dinner before our reunion and he was immediately surrounded by three or four excited students who, I later found out, he had tutored for the Chemistry Olympiad.

#### **HANS FREEMAN**

#### George Paul (BSc '65 MSc '67)

Hans Freeman was my Chemistry lecturer and supervisor. His competition in first year was Harry Messel's Physics I Distinction. Harry was good, but Hans was inspirational. Hans' class experiments brought the subject alive. He had a great sense of humour and always wore a freshly ironed white lab coat!

Hans' white Sunbeam Alpine car was a head-turner, as was his PA, whom I married in 1966.

Hans enjoyed Camp Cove. His knowledge and love of good food inspired my wife and me throughout our life. We shared many good times in Sydney and at overseas conferences. Hans was certainly my favourite teacher. He motivated me to do a PhD in Physics in Edinburgh.

#### **ECONOMICS**

#### **TED WHEELWRIGHT**

#### John Lodewijks (BEc '78)

Associate Professor Ted Wheelwright was the most inspirational lecturer that I have had the pleasure of encountering. He taught me economics in the mid-1970s. No one up to the time I met him and after academic appointments at six universities, in Australia and abroad, could get within a bull's roar of Ted. He made the material come alive. What you were studying was made to feel the most important thing in the world. He had the passion to be angry at what was happening in our society and economy and the enthusiasm to make this a better world. You couldn't help but be swept along with his masterful oratory and mountain of supportive, descriptive detail. It was a particularly turbulent time for economics at the University of Sydney and he made a decisive impression on young minds. I have tried to model my lecturing style on Ted's lead but I fear I was but a pale imitation of the great man.

#### **EDUCATION**

#### **BILL CONNELL**

#### Kay Patterson (BA '70)

In 1969 I was an Honours Education student in a seminar series conducted by Professor Bill Connell. He told us he would "make us argue to the roots of our intellect," and he did. We were given a book to read for each seminar, which were held in his home. One of the class would arrive at 4pm and read a paper he had written, then have it critiqued by the professor. That student would then help Mrs Connell with dinner and the next "victim" would face the intellectual challenge. The whole class would then appear at 6pm, we would have a meal and our seminar would commence. I often used to leave the seminars feeling almost physically ill because he had made us think so deeply. He expected us to leave the University being able to discuss issues, not necessarily in our chosen field, in an informed and balanced way. It was the highlight of my time at the University.

#### **ALISON ELLIOTT**

#### Somayeh Ba Akhlagh (MTeach '13)

I am deeply grateful to Professor Alison Elliot for her constant support, advice, insightful suggestions and kind criticism. She always showed great patience towards me as a new person in Australia and through many difficult times, has encouraged me with reassuring words that have inspired me to keep pursuing my goals and strive to achieve my best. She has had a major impact on my life during the time I have had the privilege of learning from her, throughout the completion of my master's degree and in my decision to pursue a higher research degree.

#### **ENGLISH**

#### **BRUCE GARDINER**

#### Elizabeth Sofatzis (BA '08 PhD '13)

I am indebted to Dr Bruce Gardiner for his untiring support, tactful criticism, and insightful suggestions during the last two years of my doctoral thesis in the English department. His perspicacity in attending to my thesis topic cannot be overstated. From the acuity of his mind I learnt the art of finding ingenuity in a research topic, from conversations with him gained an extensive vocabulary, and from his wit further developed a love of humour as evidenced in the written word. Bruce has bequeathed to society a legacy of dedicated professionals like myself who follow in his footsteps.

#### **Bruce Gardiner replies**

"The only teaching worthy of its students is as extravagant as *Babette's Feast*, contradicting all university administrators' cant about efficiency. The only university worthy of its students furnishes them with a great library and cherishes the librarians who sustain it."

Luke Chia (DipAppSc (Orthoptics) '88)

#### **HEALTH SCIENCES**

#### **ELAINE CORNELL**

I won a Hong Kong Government Scholarship 29 years ago and travelled to Australia where I met my first Australian teacher at Cumberland College, Elaine Cornell. Chinese society emphasised total obedience to a teacher's sayings but Elaine taught me a new concept of problem solving: that a student could have a different view to a teacher. It seems to be simple and common in Australia, but you could not imagine how much it worked to free one's mind in thinking. Elaine's cheerful personality and friendliness to teach students with different colours and ethnic backgrounds have won the memories and respects of many students.

Now she has retired, I would like to say it

out loud: lest we forget.

#### **HISTORY**

#### JIM MASSELOS

#### John Muzzatti (MA '85)

I was a student in Jim's class, studying for an MA. Jim was a splendid academic and teacher whose knowledge of Indian history made for a most interesting and stimulating tutorial session, as did his informal dinners, organised at various Indian restaurants in the city after a tutorial. These occasions were a great opportunity to mix socially with our fellow students. I got so friendly with one that she later married me. Clare and I have been married since 1985, and have raised three lovely children.

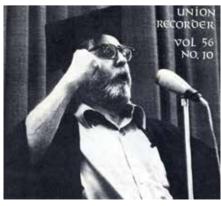
#### **ITALIAN**

#### FRED MAY

#### Christine McNeil (BA '68 Dip Ed '69)

What to make of Professor Frederick May, Head of Italian department in 1965, long strands of hair falling over horn-rimmed glasses, socks with sandals, on the bus with his string bag? "He never stays on topic," wailed the note takers, as he soared off on a thousand tangents in his soft, sweet voice. "Of course you all remember where Milton says . . ," he might begin, to our class of youthful ignoramuses. Read for 14 hours a day and marry young to get that side of things out of the way, he told us. Exam papers might come with a 60-page booklet. for there should be something just right for everyone. Once he read us Franciscan poet Jacopone da Todi, and at the achingly beautiful "O figlio, figlio, figlio! figlio, amoroso giglio", there was a knock at the door. Such pain crossed his face. Vale, Professor Frederick May (1921-1976).







#### **COVER STORY**







#### **ROSINA TEDESCHI**

#### Jo Mercer (BA '55)

In the 1950s Italian was not a secondary school subject and the first-year class numbered about 20 from memory. Signora Rosina Tedeschi was the tutor, three days a week, and on the first day she said that no English would be spoken in her class.

### She mothered us, cajoled and made us work. We loved her.

We did more work for her than for any other lecturer or tutor in the Arts Faculty. For three years she spoke not a word of English to us. While we respected the professor and the lecturer for opening the world of Italian literature and grammar to us, it was Signora Tedeschi who gave us the love of the language.

#### LAW

#### **BILL MORRISON**

#### John Miner (BA '77)

I felt honoured to have a class with Bill Morison, Professor of Torts. Bill waited after our first lecture to ask questions. They were not about torts, per se, but about New Zealand's adoption of a national insurance scheme. Most of my colleagues hated it: what work would lawyers have? Australia nearly had a version of a national insurance scheme in recent years: the National Disability Insurance Scheme. I hope we may have one yet. He also discussed the idea of a Commonwealth Ombudsman. In the 1990s, I worked in the Office of the Commonwealth Ombudsman. How could I not? Bill's vision was much broader than the law as it stood, and I discovered that the law was a world much wider than our texts and casebooks.

#### **MUSIC**

#### **PETER PLATT**

#### Mark Blows (BA '59 MA '68)

In 1954 I enrolled in the newly established Department of Music. Donald Peart was the founding professor but the course was started before him by Peter Platt, who came from Oxford. We were a small group; Peter called us by our first names and we called him Peter. After he was appointed to the chair, the students affectionately called him "Prof". The first-year course was about medieval and renaissance

music. Peter placed on the blackboard a diagram of the composers, their places of origin and dates, like a great tree of life, which I found very inspiring. He was very straight in his comments, praising when praise was due and letting you know when your work was not up to scratch. I liked this open and frank communication between teacher and student. From Peter I learned the basis of harmony, and more than that. At 78, I am still learning.

#### **PHILOSOPHY**

#### **JOHN ANDERSON**

#### Anne Powles (BA '61 LLB '64)

I undertook a course in Educational Philosophy with Professor John Anderson, many of whose philosophic positions had not been without controversy. But during the 54 years since then, I have often been driven to consider his attitude toward education and the readings to which we were directed. His insistence was that we must carefully consider the question "why educate" first, and any "hows" and "whens" will follow. He demonstrated that neither compulsory education nor "if education is good then more is better" can be axiomatic assumptions. This influence on me formed many of my later attitudes in a way that other appealing flamboyant encounters or instantly "eureka" messages have not always done.

#### **PHYSICS**

#### **JULIUS SUMNER MILLER**

#### Dave Hayward (BSc '84)

Julius Sumner Miller was an eccentric physicist, leader and TV personality who shook the foundation of universities by proclaiming that intellectual rigor and academic integrity were at stake and propagated high standards for mathematical accuracy. He was one of few teachers of his time who could impart theories and stimulate intellectual reason that easily will last a lifetime, with his famous "Why is it so?" rhetoric.

#### **PHILLIS NICOL**

#### Patricia Roby (BA '43 BEc '47)

In all my time at school and University, I never met a more brilliant and helpful teacher than Phillis Nicol. Because of her gender she never received the prestige she deserved. However, many maths, physics and medical students are forever grateful for her time as physics lecturer, co-author of the text book and vice-principal of the Women's College and tutor.

Above Left: Terry McMcullen. Above Middle: Peter Wenderoth. Above Right: Rosina Tedeschi. Opposite Left: Ruth Phillips. Opposite Right: Phillis Nicol.

#### **PSYCHOLOGY**

#### PETER WENDEROTH

#### Carmel Brown (BA '80)

Dr Peter Wenderoth was so enthusiastic, and inspired my studying at home and doing well. I will never forget his shock at our tutorial group's confusion of which statistical te to use in what type of experiment. He summed it up in less than five minutes. I totally regret going into educational psychology and not some form of psychobiology or neurobiology. I should have followed my natural talent and interests, instead of foolishly thinking I should go and save the world. I sincerely hope he has lived long and prospered!

#### **TERRY McMCULLEN**

#### Margaret Warrington (BA '66 Dip SW '66) MA '69)

Terry McMullen's undergraduate classes were large, clearly delivered and easy to understand for students who were nearly all conforming 16-20-year-olds.

Terry was a bit rotund, a slimmer version of Alfred Hitchcock. Once when he was lecturing on body-type classifications, such as endomorph and ectomorph, one eager teenager raised their hand and asked "what is an endomorph?" Terry turned sideways and replied: "Observe closely." He then resumed his lecture. I still recall his poise fondly.

#### **SOCIAL WORK**

#### **RUTH PHILLIPS**

#### Amanda Horton-Hallett (BA (Hons) '03, BSW (Hons) '06)

Ruth's feminist lens has forever shaped my own world perspective. Now a women's and children's health counsellor, I am more aware than ever of the power and control issues that shape the lives of all individuals and families. I am able to draw upon this perspective to inspire my clients to recognise the social injustices at play in their lives. I have found that when women respect themselves and settle for no less from those around them, a ripple effect occurs in which the positives flow onto their children, their families and society at large. What started as classroom discussion under Ruth has evolved into a passionate advocacy. From little things big things grow.

#### Ruth Phillips replies

Students doing the social work degree often undergo significant transformations in their perspectives on the social world around them but we never know how significant such changes are in their future careers. Amanda's comments are a credit to her capacity to develop effective practice and to be able to articulate how theory informs that practice. I am warmly grateful that she has honoured me with her comments.





#### **FULL LIST OF NOMINATED TEACHERS**

John Anderson (philosophy) Barry Barker (anatomy) Charles Birch (biology) Charles Blackburn (medicine) David Branagan (geology) Geoffrey Builder (physics) Roger Carolin (botany) Frances Clarke (American history) John Clifton-Everest (German) Bill Connell (education) Elaine Cornell (applied science) Lewis Cornwell (music) Bob Dreher (European history) Ray Debus (education) David Dufty (education) George Eckert (chemistry) Jim Eckert (chemistry) Alison Elliott (education) Charles Fairchild (music) Noreen Frances (education) Hans Freeman (chemistry) Bruce Gardiner (English) Karen Ginn (anatomy) Bruce Hobbs (geology) Bob Howard (government) Guy Howarth (English) Ron Jackson (education) Tony Koppi (soil science) Lisa Lampe (psychology) Bill Maidment (English) Jan Marc (biology) Jim Masselos (history) Elizabeth May (biology)

Alex McBratney (soil science) John McCarty (economic history) Terry McMullen (psychology) Julius Sumner Miller (physics) Bill Morison (law) Phillis Nicol (physics) Lee Owens (education) Ruth Phillips (social work) Peter Platt (music) Cris dos Remedios (anatomy) Andrew Riemer (English) Malcolm Rimmer (industrial relations) Antonia Rubino (Italian) Carl Sagan (astronomy) Boris Schedvin (economic history) Peter Sculthorpe (music) Eric Sharpe (divinity) AGL Shaw (history) Rosina Tedeschi (Italian) Peter Simpson (chemistry) Frederick Stambrook (European history) Frank Stilwell (political economy) Barney Tan (business information systems) Peter Valder (biology) Richard Walker (education) Patricia Weerakoon (health sciences) Peter Wenderoth (psychololgy) Ted Wheelwright (political economy) Gerald Wilkes (English) Angela Wilson (education) Anthony Woodhill (entomology)

What started as classroom discussion under Ruth has evolved into a passionate advocacy. From little things big things grow.

Frederick May (Italian)

# FOR EXCEPTIONAL

#### THE 2014 ALUMNI AWARDS

#### THE 2014 ANNUAL ALUMNI AWARDS

These prestigious awards recognise outstanding achievements made by alumni locally and internationally.

The University also recognises five recently graduated students for their achievements. The winners of this year's Graduate Medals are:

#### CONVOCATION MEDAL (undergraduate achievement)

Mr HY William Chan BDesArch(DigitalArch) '11 BDesArch(DigitalArch)(Hons) '13

#### EDMUND BARTON MEDAL (master's by coursework)

Mr Benjamin Veness Masters of Public Health '14

#### NIGEL C BARKER MEDAL (sport)

Ms Angela Ballard BSc '11 BSc(Hons) '14

#### RITA AND JOHN CORNFORTH MEDAL (PhD)

Dr Peter Hobbins MMedHum '09 PhD Arts and Social Sciences '14

#### SISTER ALISON BUSH MEDAL (Aboriginal and Torres Strait Islander)

Dr John Gilrov

PhD (Education and Social Work) '13.

#### ALUMNI AWARDS PRESENTATION

Winners of this year's Alumni Awards and Graduate Medals were presented with their awards at a ceremony in the Great Hall on Friday 17 October. For details, including a video of the presentations, go to sydney.edu.au/alumni/awards

#### **PROFESSIONAL**



#### AMELIA AFUHA'AMANGO TU'IPULOTU (PHD NURSING '12)

Dr Amelia Afuha'amango Tu'ipulotu receives the Alumni Award for Professional Achievement in recognition of her contribution to the enrichment of society through improving health care standards in Tonga.

Amelia undertook her schooling in Tonga and came to Australia to study her Bachelor of Nursing program at the University of Newcastle. On graduating, she returned to Tonga and was placed in charge of the surgical ward at the major hospital in Nuku'alofa.

Amelia then applied to AusAID for a scholarship to undertake a PhD at the University of Sydney. She came here in 2010 with her husband and three small children.

Amelia says her desire to do a PhD was driven by the realisation that the nursing profession in her small Pacific island was dominated by expatriates who often had little or no knowledge of the country's cultural, economic and political system.

"I found that policies in the Tongan hospitals often did not fit the reality of nursing practice due to lack of basic resources. The policies we were using were more appropriate to nursing practice in a developed world context," she says.

Since receiving her doctorate in 2012, Amelia was appointed Matron of the hospitals of Tonga, and has worked to put into practice the standards developed in her doctorate. These are now the official regulatory body standards for the country.

#### **COMMUNITY (JOINT)**



#### PETER FARRELL BE (CHEM) '64

Dr Peter Farrell receives the Alumni Award for Community Achievement for his contribution to the enrichment of society through outstanding leadership and vision to improve health outcomes for the international community.

Dr Farrell is the Founder of ResMed and Chairman of its board since its inception in 1989. Peter set the stage for a revolution in the treatment of sleep disordered breathing, in particular, obstructive sleep apnoea. These conditions are now known as a major global public health problem, affecting one in five adults.

Based upon the initial research of Professor Colin Sullivan and his team at the University of Sydney, Dr Farrell recognised early on the need to treat sleep apnoea. Dr Farrell and his ResMed team were involved in the evolution of the mask and device technology emanating from the initial prototype used by Professor Sullivan.

Twenty years of toil later, ResMed now sells about 700,000 masks and 200,000 devices each month and they are used in 100 countries. ResMed has become a truly global force in treating these sleep and other respiratory disorders.

In May 2013, the University of Sydney and ResMed announced a partnership in which ResMed provided a \$25 million injection to the University, including the establishment of two perpetual academic chairs.

# **ACHIEVEMENT**

#### COMMUNITY (JOINT)



MARK FRASER MBA '13

Mark Fraser receives the Alumni Award for Community Achievement in recognition of his contribution to the enrichment of society through the organisation he cofounded, Make A Mark Australia.

In March 2009, while deputy official secretary to the Governor-General, Mark accompanied the then Governor-General Quentin Bryce on an official visit to Africa. As part of the formal program, they visited the Sishemo Education Trust Primary School in Lusaka, Zambia.

The children's eagerness to learn despite their lack of resources so moved Mark and his colleague in the Governor-General's office, Paul Singer, that they decided to create a charity to give children in developing countries the resources to help provide for a better future. That charity is called Make A Mark Australia (MAMA). Mark is CEO and Paul is General Manager.

In its first five years MAMA has funded nine significant projects, assisting more than 7400 students in six countries, including Zambia, Afghanistan, Timor-Leste, Kiribati, Papua New Guinea and the Solomon Islands.

"I believe that each of us has the responsibility, if not an obligation, to do something outside of ourselves to make the world a better place," says Mark. "It doesn't matter if it is in your family, local community or on the other side of the world. It is our compassion and ability to empathise with others that underpins our humanity."

#### YOUNG



LACHLAN BLACKHALL BE '07
(AERONAUTICAL, SPACE HONS) BSC '07
(ADVANCED MATHEMATICS)

Lachlan Blackhall receives the Young Alumni Award for Achievement for his contributions to research, innovation and entrepreneurship in the field of mechanical engineering.

As an undergraduate engineering student, Lachlan discovered a new configuration for the production of plasma in a vacuum that he used to design a new electric thruster for small orbital satellites. This thruster promises to dramatically increase their orbital lifetime.

Lachlan undertook a PhD at the Australian National University in systems and control theory, focusing on control systems for the electricity network.

Alongside his PhD studies Lachlan founded InnovationACT, a business planning and entrepreneurship outreach program. It is now in its seventh year and has given out more than \$300,000 in awards.

With a PhD under his belt, Lachlan co-founded Reposit Power, a technology company that designs advanced control systems for grid-deployed energy storage. This company seeks to increase the use of renewable energy in the grid, which will help reduce the carbon emissions of energy production.

Lachlan says: "having a background in research and entrepreneurship is very interesting as both disciplines require you to be very comfortable in pursuing things in the face of uncertainty. I find that uncertainty rewarding."

#### INTERNATIONAL



PROFESSOR BARRY MCCLEARY BSCAGR (HONS) '72 PHD '75 DSCAGR '89

Professor Barry McCLeary receives the Alumni Award for International Achievement in recognition of his contribution to the enrichment of society through his commitment to improving food quality throughout the world.

Barry's company Megazyme International has revolutionised food quality analysis globally and is regarded as producer of the international gold standard analytical test kits for the food and beverage industries.

After graduation, Barry went to work as a research scientist for the NSW Department of Agriculture. During this period, he identified a need for improved methods of analysing cereal polysaccharides and developed a test for measuring Beta Glucan.

The international success of Barry's method prompted him to resign his position as Principal Research Scientist and start Megazyme in 1988 in "the garage off the side of the family home". A few years later he moved to Ireland and created Megazyme International.

Over the past five years, approximately 60 new test kits have been developed, and the comcpany is currently developing capabilities to contribute to biofuels research.

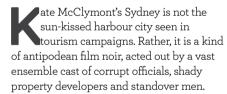
Barry says that beyond the scientific acclaim and commercial success, he has been lucky. "I am very fortunate that my job is my hobby. I have people who are paying me to do what I like to do."

#### **FEATURE**

WORDS CHRIS RODLEY PHOTOGRAPHY ALICIA FOX



Alumna and investigative journalist Kate McClymont has spent 20 years exposing corruption, most notably that of former politician Eddie Obeid. She is now also a Fellow of the University Senate, and keen to give back.



Over the past two decades, the renowned investigative reporter for the *Sydney Morning Herald* has shed light on some of the city's most prominent crimes, from the execution-style murder of businessman Michael McGurk – who confided in her the week before he died that he feared for his life – to former federal MP Craig Thomson's credit card fraud.

Of all the plots she has uncovered, however, it is the sensational story of Eddie Obeid that has most captivated Sydneysiders. This year saw the launch of her bestselling book on the disgraced powerbroker, He Who Must Be Obeid, which McClymont co-authored with fellow journalist Linton Besser (Random House).

It was their dogged investigation that linked Obeid to the corrupt acquisition of a NSW government coal licence and to the secret ownership of three lucrative cafés at Circular Quay, for which he lobbied public



officials to gain favourable treatment. The revelations helped to trigger subsequent inquiries by the Independent Commission Against Corruption. ICAC found Obeid acted corruptly and he was expelled from the Labor Party.

In 2014 McClymont has also stepped out of Sydney's shadowy underworld to pursue a very different role. Last year she was elected a Fellow of the University's Senate, serving a four-year term on the 22-member board as a representative of alumni. So far it has been "fascinating and challenging", she says. "While the subject matter is different from my day job, the process of analysing documents and examining figures and trying to throw a critical eye over things is the same as my investigative work."

She decided to stand for election partly out of a sense of obligation to an institution that has taught not only herself, but also her parents, her siblings, and her three children, who are current University of Sydney students. McClymont was also keen to help raise the university's profile and to give its students a more satisfying experience of campus life. A special priority is enhancing student accommodation: "Living on campus is a great experience but the cost is prohibitive, so it would be great to introduce affordable housing for overseas and country students."

McClymont has fond memories of moving from her home town of Orange to live at Women's College, where she made many of her lifelong friends. As an undergraduate, she flirted briefly with the idea of becoming a psychologist but, put off by "all those dreadful Skinner boxes with mice in them", decided to channel her energies into English literature.

Her love of the subject was nurtured by Emeritus Professor Dame Leonie Kramer, later the University's Chancellor, and the faculty's Jane Austen guru, Emeritus Professor Penny Gay.

After graduating, McClymont took a job as a junior staffer in a publishing company, where she toiled at writing encyclopedia entries before quitting out of boredom (though not before altering the Nobel Prize for Literature entry to add her own name to the list of winners). At the age of 25, she found her way into journalism, joining the Sydney Morning Herald as a cadet. She then moved to the National Times before becoming a researcher at ABC's Four Corners program in 1987.

On the week she started work there,

Chris Masters' legendary report on Queensland corruption, *The Moonlight State*, went to air. "I seriously thought I'd died and gone to heaven," she remembers. "There was a Royal Commission and people went to jail. Suddenly you're aware the stories you do can change the way institutions operate."

Inspired by the experience, McClymont returned to the *Herald* where she has remained ever since, winning five Walkley Awards for her work. Her first major investigative triumph came in 2002 when she and her colleague Anne Davies revealed that the Canterbury Bulldogs NRL club was rorting the league's salary cap by more than \$1 million, a story that won them the Gold Walkley.

The exposé led to a \$500,000 fine for the Bulldogs, who were stripped of their points after having been favourites to win the competition. It brought down Liverpool Council by revealing its role in the infamous Oasis development, which was used to fund the secret scheme. And for the first time, it put McClymont in the path of NSW Fisheries Minister Eddie Obeid.

After she wrote a story alleging that he had solicited donations to the

people own and who they do business with.

It is work that requires nerves of steel, since her investigations often meet with resistance or outright hostility. Former ALP official Tom Domican once sent her a message saying that if she had been a man he would have broken her jaw. Writer Bob Ellis has claimed she ruined his life, warning she had "better watch it".

Then there was the certain former prime minister who once called to upbraid her about a story she had written on his piggery. "I yelled so loudly at him on the phone that the editor's secretary asked if I wanted her to call the police," McClymont recalls, "and I had to say no, it's only Paul Keating."

Her most heart-stopping encounter was with notorious standover man Tim Bristow. McClymont agreed to join him on his boat to discuss allegations he was running a "maiming service" for men at the Family Court: "For \$5000 he would throw acid in your wife's face, while for \$10,000 he would break the boyfriend's legs." When the boat had passed through Sydney Heads, Bristow approached her wielding a spear gun. "I thought all my days had come to a sad end," McClymont recalls. "Then he dived overboard and

#### "While the subject matter is different from my day job, the process of trying to throw a critical eye over things is the same as my investigative work."

ALP in return for approval of the Oasis development, Obeid sued her and the *Herald* for defamation – and won. "And I thought I would never write about Eddie Obeid again," McClymont smiles.

Typically, many of her investigations take the same form, the journalist explains: she receives a nugget of information sometimes just a piece of gossip - and it snowballs. She gives the example of her investigation of Health Services Union chief Michael Williamson, now serving a seven-and-a-half year prison term for fraud. A parent at Williamson's school rang to inform McClymont that Williamson drove a Mercedes-Benz and had enrolled his five children at the expensive private school, all on a union official's salary. Most curious of all, the caller said, was that Williamson had outbid all the other parents at the school auction.

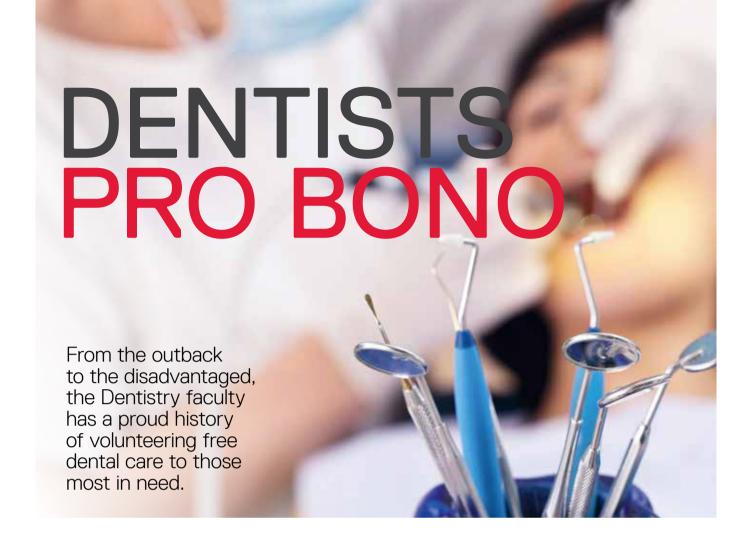
Once she has a lead, McClymont's strategy is simple: "It's always about following the money." She scrutinises annual reports and searches databases such as the ASIC company register to find out what

speared a blue groper. And I went home with no story."

The other essential requirement for McClymont's job is a steady flow of crooked activity, something that shows no signs of abating. According to McClymont, that's due in part to the effects of that quintessentially Sydney obsession – property development – on local government. "For the price of a new Honda Civic, a developer can get another four floors on his development which might be worth \$12 million," she says.

McClymont believes that influential, corrupt personalities will always be a feature of Sydney life, despite the fallout from the recent ICAC inquiries: "It'll change for a little while. Then it will go back to how it's always been."

Despite that, she insists, investigative reporters still have a vital role to play in exposing corruption – even if they do not ultimately result in a successful police prosecution. "Society benefits greatly from that sunlight – and they always say sunlight is the best disinfectant."



WORDS
ASHLEIGH
MCLENNAN

"If people are in pain we can fix that. If they have broken teeth we can help. We can teach them to look after their own teeth." he history of volunteering by dentists extends far and wide, from student days to professionals who want to give back. In 2011 then recent graduate Nancy Saunders-Clay went to work in remote Northern Territory to improve dental care in the region. Due to the vast distances involved, with sometimes a 400km dirt road to the nearest community, some patients in the NT may not see a dentist for a year.

"The isolation of Alice Springs allows you to attempt things that would likely have been referred to a specialist in larger towns ad, while remaining aware of one's limitations, it's an excellent opportunity to develop your knowledge base and push professional boundaries," says Saunders-Clay.

"The need for flexibility is the rule of thumb when you are likely to treat four generations of one family in the one day: from grandchild to grandparent," she told the Dentistry faculty magazine, Encompass, in 2011.

As in other health professions, dentistry has a proud history of providing pro bono services to those most in need. "This has been occurring within the Faculty of Dentistry since its beginning, over 100 years ago with treatment provided to the most disadvantaged, locally, nationally and internationally," explains Professor Christopher Peck, the Dean of Dentistry.

Peck says this tradition can be traced back to training. "Clinical training during courses is provided to those most in need - this instils a sense of helping the less fortunate."

All dental students work in the public hospitals and many of the patients are on healthcare benefits. A recent report produced by the faculty for Health Work Australia showed that dentistry students contribute more than 200,000 hours of clinical work to the hospital system in any year.

"The major goal of the dental profession is to improve the health of an individual and the community. This requires consideration of ways to treat all members of the population; irrespective of ability to pay," adds Peck.

sydney.edu.au/dentistry/documents/alumni/Encompass1\_Nov11.pdf



#### HELPING HANDS FOR TIMOR LESTE

n 1999 David Sheen got a phone call from a friend of a friend which eventually turned into an invitation from a local doctor to set up a temporary dental clinic in Dili, the capital of Timor Leste, with fellow graduate Sandra Meihubers.

The two dentists agreed to run a small clinic for a week and on return from this eye-opening experience, the pair wrote a submission to the federal government asking for more help for the poor, newly independent country.

To their delight, AusAID agreed to help and established a three-year program that would help improve the quality of oral health education and treatment in Dili.

However, as the AusAID program was drawing to an end, they realised that the program's benefits were in danger of disappearing. So they stepped in to help.

The Rotary Lions Timor Leste
Dental Program began in 2003 with just
Meihubers and Sheen in a single dental
clinic within the Maubara Health Centre,
60km west of Dili. Today, there are 43
volunteers doing outreach work to more
than six additional health centres, schools
and orphanages in the surrounding areas.

"We were aware that in developing countries many of the resources are focused in the capital cities, so we chose to set up our program in a rural area", Sheen explains.

Each year four small groups of volunteers make the trip to Timor Leste for two weeks at a time to provide services such as pain relief, extractions, restorative and preventive dental work to schoolchildren and local townspeople.

With only a handful of qualified dentists in the country, a crucial part of the program is educating the younger generations about oral health and training local dental therapists so they can continue to work after the team has left.

Dentists aren't the only ones putting their hands up to help. The volunteer base is an interesting blend of rotary members, pharmacists, marketing professionals, vets and lawyers all around Australia.

Sydney dentist David Digges crossed paths with fellow alumnus David Sheen in 2005, and has been making yearly trips to Timor Leste ever since. Both are quick to give accolades to Sister Filomena and the Carmelite sisters, Father Bong and Rotary, both in Timor Leste and Australia, whose support has been so crucial to the program's success.

The days are long, tiring and hard work, but it is the reward of knowing that they are helping to develop a sustainable future in oral health treatment and education that keeps the dentists going back.

"We are dentists. We understand that we can't change everything, but you can do a lot with your ten fingers that you don't think of. In this world we are running a modern, sophisticated dental practice and over there they just need practical help," David Digges declares.

"If people are in pain we can fix that. If they have broken teeth we can help. We can teach them to look after their own teeth – and that is a very positive thing."

# Cerebral Palsy outreach

Rob, we need more volunteers.
Would you like to come and do a
couple of clinics at the Cerebral
Palsy Alliance?"

Nearly 30 years on from this request by a fellow graduate, Robert Watson is still an active volunteer for the Celebral Palsy Alliance dental clinic located in Allambie Heights on Sydney's northern beaches.

The non-for-profit organisation provides a broad range of services to adults and children with cerebral palsy, a permanent and life-long condition that affects the nervous system.

The clinic has been operating on the generosity of approximately 30 volunteers for more than 60 years, providing a range of services including general check-ups, fillings, crowns, preventive services and even dentures.

"Part of the problem with treating patients who have cerebral palsy is sudden involuntary reflexes, for example clamping their mouth shut because of spasms in their jaw muscles. It would just be impossible to treat them safely in a general dental clinic setting," Watson explains.

During his time as a volunteer he developed and established a long-standing relationship with Mona Vale hospital that allows the clinic access to the hospital and the facilities to treat patients under general anesthetic.

As chairman of the volunteer dentists, Watson also assisted in the design and rebuild of the new facilities offered by the clinic after it was destroyed by fire in 2007.

"When you see other people who are much less fortunate than we are it is a privilege to be able to take the time out and help people like that."

#### WANT TO VOLUNTEER?

If you want to volunteer in some capacity – teaching, pro bono work, mentoring or some other form of service, please contact the Alumni Office: alumni.office@sydney.edu.au, or 9036-9222

# SOFTWARE THAT CARES



From programs that help depressed teenagers to goggles delivering virtual empathy, Rafael Calvo is developing 'positive computing' technologies to support psychological wellbeing.

ne day Associate Professor
Rafael Calvo forgot his mobile
phone at home. He immediately
felt uncomfortable and
disconnected at being unable to receive
and make calls, texts and emails. "The sense
of loss can be quite difficult," he says. "If
you don't have the device you notice how
much you become dependent on it."

This sense of vulnerability and discomfort is something Calvo has been investigating at the University during the past 14 years. His main focus has been on building systems for education and "affective computing" – behavioural tools that recognise, interpret, process and simulate human emotions.

Examples of affective computing include the "happy" feature on new digital cameras and the use of the mobile phone to track movement and people's habits.

Calvo, who is co-director of the Software Engineering Group at the School of Electrical and Information Engineering, explains that computers started as a way of supporting the workplace and the role of software engineers is to develop systems that improve performance and productivity.

In this context, he is researching "positive computing": the development of technology, including software, to support psychological wellbeing and reduce the negative impact of computers.

Positive computing aligns with other international initiatives such as Google's formal corporate motto, "Don't be evil", and comments by Apple CEO Tim Cook on technology and happiness.

"Companies are talking about these things but we need researchers to develop the methodology and objectively measure the impact technology has on us," says Calvo, who positions Australia as a leader in this area, thanks to The Young and Well Co-operative Research Centre and its 70 partners. He says it is one of the first organisations in the world dedicated to this topic.

His team is collaborating with the Centre and the University of Sydney's Brain and Mind Research Institute, on a number of mental health projects.

Calvo says helping participants of online communities thrive, support their pro-social behaviours and duty-of-care are challenging tasks. This is particularly difficult in the online peer support groups that are becoming increasingly popular on social networks such as Facebook.

So his team is devising a project known as Moderator Assistant, together with a not-for-profit organisation, Inspire Foundation, which is behind leading online youth mental health service ReachOut.com. Moderator Assistant uses intelligent web technologies integrated with social media to support young people suffering depression, anxiety, 'coming out' or relationship problems. Research began in 2013 and the team expects it to be ready in two years.

WORDS
DIANA PLATER
PHOTOGRAPHY
LOUISE COOPER

Words pulled out automatically from Facebook will be used to classify the potential for self-harm and depression and so on, and they then generate interventions that respond with templates to posts. The moderator can go to this interface and edit these templates. This tool can be used in any community that has members at risk of self-harm.

"The aim is for the moderator to reach out to more people to give better quality feedback," Calvo explains. "The post will have a link which can tell us if the person has taken action, we can track when the person posted something, when the moderator responded and when the person clicks through in one of the resources that we give them."

Research began a few months ago on a second, related project, Cybermate, to support young people at risk. Funded also by Inspire and Reachout.com, and a grant from the Australian Research Council, Cybermate is designed to augment the support an organisation can give in chat situations. The aim is that the system will also learn about the users, possibly from their social media.

Where Moderator Assistant uses a human to intervene, the Cybermate software program would then act as a

# Words pulled out from Facebook will be used to classify the potential for self-harm.

quasi-psychotherapist and engage with the young online user, suggesting options for help or support via email or SMS.

To spread the word on this emerging field, Calvo has written a book, *Positive Computing*, with his colleague Dorian Peters, who joins his team from the Faculty of Education and Social Work.

Peters agrees technology should be designed to improve our happiness not reduce it. "We tried to pull together foundational research for the book that can inform this – research in psychology, medicine, neuroscience and philosophy," she says.

Positive Computing (Cambridge, MIT Press) is published this month. ■



# Fly like Superman, feel like coral

magine feeling what it's like to be a piece of coral in a reef gradually being destroyed? Well, try on some special "virtual" goggles, enter a 3D world and you'll get the picture.

At the Virtual Human Interaction Laboratory at Stanford University in the US, users put on goggles to make them feel like a piece of coral affected by changes to the acidity of the Mediterranean Sea near a volcano off Italy, which is slowly erupting.

"You look at yourself and you can see you're a piece of coral. ....and you can see how the ocean is changing around you," says Associate Professor Rafael Calvo, whose team is collaborating with Stanford. "You can see certain species of fish start disappearing, the vegetation changes and you start getting a green mask on top of you. You can feel a little piece of rubbish that is hitting you.

"With the acidity changing, the coral doesn't renew the bits so it's like your body is getting weaker and weaker and then you suddenly crack and your arm falls and you see it falling slowly."

The goggles are just one of the projects that Calvo, who was recently awarded an ARC Future fellowship, is working on with Stanford. The US group is also working on other programs that include wearing goggles to take a "virtual shower" to help understand the need to take shorter showers, or building an avatar that shows you becoming healthier by eating the right foods, or "flying like Superman" in a virtual reality simulator with your mission to save a child's life.

Calvo was also involved in discussions around a conflict resolution project known as Compassion, which is also working with social media, particularly Facebook. This is aimed at helping people who are experiencing conflicts around posts and where Facebook is asked to intervene. The aim is to highlight empathy so "friends" understand why somebody has been offended by.

http://vhil.stanford.edu



# WHY SPORT MATTERS

#### Jackie Lauff is harnessing the cultural power of sport to help communities in developing countries

ne lunchtime in 1997, while she was an occupational therapy (OT) student at the University, Jackie Lauff was introduced to wheelchair basketball.

Lauff did not return to lectures that afternoon. The experience was a lightbulb moment for the student, who was very taken with the game of wheelchair basketball and filled with a powerful realisation about the value of sport to complement traditional rehabilitation.

Later that year Lauff joined the organising committee for the inaugural Australian Women's Wheelchair Basketball Club Championships, the first all-women wheelchair basketball competition to be held in Australia. Lauff played in a basketball wheelchair (with a handful of other able-bodied competitors) alongside people with disabilities from across Australia and a visiting team from Japan, and it was the most fun she'd ever had playing sport.

It was the first in a long line of professional endeavours in Australia and overseas that culminated, three years ago in Lauff and her colleague, Liesl Tesch, creating the aptly-named Sport Matters, an organisation dedicated to improving and empowering the lives of people through sport.

It was through wheelchair basketball that Lauff met Tesch, a high school teacher who has since represented Australia at the Paralympic Games six times in wheelchair basketball and sailing. The pair share a strong passion for using sport to make a difference in people's lives.

Lauff's irrepressible enthusiasm for her mission is obvious from the get-go. "My philosophy is: everyone has a right to be active in their community, regardless of who they are and where they live. They are the same values I learned in OT at university," she beams, "and

they are embedded in everything I do.

"We are the first non-government organisation of our kind in Australia," she explains with a hint of pride. "We have a strong focus on using sport to make a long-term impact on a range of development issues and work closely with our partners to make that a reality."

So far those countries have ranged from disadvantaged communities in Australia, South Africa, Laos, Fiji and the Solomon Islands. Laos provides a compelling case study. In 2012 Sport Matters was approached by ChildFund Laos to run a program involving 12 villages in the north, that have been affected by landmines. The aim was to increase the capacity of communities to understand child protection issues, enhance life skills among youngsters, and increase participation in sport.

"Out of the 12 villages, 5500 children are now active in sport, instead of playing aimlessly on the highway. Volleyball and football were popular games but girls and women have taken to the sport of rugby union. With the support of the Lao Rugby Federation, these villages now have regular opportunities to play, to learn, and to speak up about issues that are important to them." Lauff explains.

"At the end of the program, village leaders and teachers offered practical support in the form of bags of rice, pumpkin and money for prizes and transport for new inter-village competitions. But the most memorable gesture came from leaders of one particular village who changed their structure to allow a youth leader to join the village leadership council to give a voice to children and youth.

"That meant a lot, and demonstrated, better than anything else, that what we do is about much more than sport."

WORDS
MICHAEL VISONTAY
PHOTOGRAPHY
LOUISE COOPER

It also makes up for the unrelenting commitment expected of her tightly run organisation. For example, the Laos program involved three visits of various lengths over 10 months. She smiles at the memory: the crosscultural concentration requires a lot of intensity."

But Lauff wouldn't have it any other way, and if you look back at her life since leaving university, all roads have pointed her to the place she's at right now. Her passion for sport and international development was reinforced by a university placement with the Fiji National Games for the Disabled in 1999, followed by an Australian Youth Ambassador role in Suva for the 2003 South Pacific Games Organising Committee.

### Try everything, and let everyone have a go.

After qualifying as an occupational therapist, Lauff spent little time in traditional OT roles. Instead, she worked in major sporting events including the Sydney 2000 Paralympic Games, Melbourne 2005 Deaflympic Games, and Melbourne 2006 Commonwealth Games. She managed to complete two master's degrees simultaneously, one in Europe and the other by correspondence in Victoria.

The tipping point came in 2009, when Lauff was working as an inclusion officer with Basketball Australia and connected with local Alice Springs organisations to develop community partnerships. It was her first opportunity to bring Tesch along to deliver the series of coaching, refereeing and disability awareness workshops and it was clear that together they made a powerful team.

Later that year at a women's wheelchair basketball demonstration during an International Women in Sport Conference in Sydney, the pair were invited to deliver train-the-trainer basketball workshops in South Africa. That visit to South Africa was the first time Lauff had a chance to combine her expertise in sport, development and disability together. It reinforced her belief in the power of sport to change lives, and ignited a passion to do so on a much bigger scale.

Lauff decided the time had come to create a vehicle for social change with an international reach and she began the complex task of bringing the new organisation to life. Sport Matters is putting Australia on the map when it comes to sport for development and peace.

Today Lauff is its CEO and powerhouse. Her dedication is spread around the world, and in turn the world recognises what she has to offer, with invitations to speak at forums and symposia in Brazil, China, Germany and Canada.

Call it blue sky or a major growth period: either way, Lauff is demonstrating how and why sport matters. For more information about Sport Matters visit www. sportmatters.org.au

# THE INTELLIGENT XMAS God is back.

In the Middle East, on the internet, in churches, in mosques, on TV and in the press daily.

But, what if God was wrong; or is a woman; or has a plan; then there's God and death; God and prayer; and of course, there's the devil.

Stories of love, hate, murder and evil.

Includes Best Murder Story, Australian Literary Review, Nov 2011.

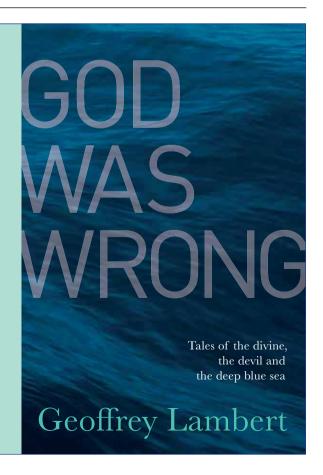
#### **GOD WAS WRONG**

by Geoffrey Lambert

Available at bookstores and online RRP \$19.95

ISBN 978-0-9873244-2-9

www.geoffreylambert.com Alumni 1962-1967



# BOOKS

REVIEWS COLLEEN COOK



#### HARLOTS, HUSSIES & POOR UNFORTUNATE WOMEN CRIME, TRANSPORTATION & THE SERVITUDE OF FEMALE CONVICTS 1718-1783

Edith M Ziegler The University of Alabama Press US\$49.95

The subject of forced transportation of female convicts to colonial Maryland in North America has been largely ignored. These mostly illiterate women left no diary notes or letters. They were isolated by distance, but through silence they were also forgotten. Edith Ziegler's commentary is largely extrapolated from male accounts, ships' inventories, public notices, gaol records and various civic documents.

Ziegler has brought to life specific convict women and created a vivid picture of the social conditions of 18th-century Britain. Gender influenced how judges and juries perceived these women, their appearances and their occupations. Whether petty thieves or hardened criminals, they were of little value as labour either in Britain or in the colonies.

These convict women were bought at market and often shackled next to slave labourers on established plantations, in already thriving cities and towns. Ships arrived frequently, so many women attempted to return home to families and familiar surroundings. Very few remained in Maryland once their sentences were completed.

By raiding every small piece of information, Ziegler has been able to assemble a compelling history of these forgotten women.



#### THE PEARL KING

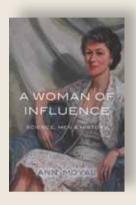
Robert Lehane Boolarong Press \$34.95

Without a driving force such as Robert Lehane, distinguished Australians like James Clark might go unnoticed. Lehane has given us not only insight into the man, but how his fledgling enterprises grew to contribute much to Queensland's development in the late 19th and early 20th centuries.

From a penniless start, Clark threw his energy into establishing a thriving pearl-shelling industry off the far north of Australia, and an oyster business, selling across Australia, initially from northern Queensland and later from Moreton Bay. He was a keen and successful yachtsman, racehorse owner and pastoralist.

The Pearl King reveals Clark's failures as well as successes in great detail. We learn of his relationships, and the tragic death of a son in World War I. The dangers of pearl diving and shipwrecks were everpresent. These adversities are countered by rich family lives in custombuilt mansions, balls and regattas, and extensive travels around the world.

Throughout, Clark's integrity shines through. On his death in 1933, *The Courier* wrote that he "damaged no man's self-respect ... He was a figure worthy of remembrance and respect." This book is a perfect memorial.



#### A WOMAN OF INFLUENCE SCIENCE, MEN AND HISTORY

Ann Moyal UWA Publishing \$34.99

What a wonderful idea it was for science historian Ann Moyal to create her second autobiography. Without a doubt, these past 30 or so years (Moyal is now in her 80s) have been memorable, and with the wisdom of age, even more meaningful. Moyal revisits her associations with Lord Beaverbrook, Manning Clark and wife Dymphna, Barry Jones, Alan Moorehead and others. With advancing age comes opportunities for rich, new encounters and the rekindling of old friendships in a different context.

Pulsing alongside lasting friendships and professional associations is Moyal's love of research and pursuit of detail. Her book Platypus: The Extraordinary Story of How a Curious Creature Baffled the World (2001), was shortlisted for several national prizes, reprinteed and translated. More recently, Koala: A Historical Biography, highlighted the plight of this threatened species.

Moyal is a strong woman in a man's world. She married three times, living alone by choice, and having no children. Her influence on *Science, Men and History* is substantial, but it's her personal stories that stand out – intimate moments with the men in her life and the close bond with her sister Mimi. Observations unfold with generosity and gentle affection, thanks to the author's masterful literary skills.

# **CLASSNOTES**









#### 1960s

#### WINSOME EVANS (BMus '63),

now an Honorary Associate Professor, has been teaching, creating and performing Renaissance and other period music for more than 50 years, most notably through The Renaissance Players ensemble. Winsome has just released a new double CD, titled Pilarimage to Montserrat. The disc features 18 sacred dance songs from the Iberian peninsula in Spain. The CD is dedicated to the late filmmaker. Robin Anderson (1950-2002) who produced the documentary, Facing The Music (2001), which focussed on financial struggles inside the University's Music Department.

#### EWA HENNER (MBBS '76)

has maintained her passion for art and painting during her career over the past 40 years as a doctor and psychotherapist. Ewa held her first solo commercial exhibition of paintings in August at Bay 5 Gallery in Sydney's Rocks precinct. After graduating as a doctor, she studied at East

Sydney Technical College during the early years of her medical career, and has had several group and solo exhibitions in drawing and painting at Willoughby Workshop Arts Centre, as well being finalist in the Portia Geach Prize six times, among other prizes.

#### DAVID HUSH (BA, BMus

'80) had a world premiere for his composition Three Etudes at the Australian Academy of Science in May. After completing degrees in Arts and Music at the University, David was the first Australian to be awarded a Graduate Fellowship in Music from Princeton, where he earned a Master of Fine Arts and a PhD.

#### MARAH BRAYE (BA '90) has

taken up a new role as chief executive of Harbourfront Centre in Canada, after eight years as Chief Executive Officer of the Sydney Biennale. The 16th Biennale of Sydney (2008) was the first under

Marah's leadership and realised the inaugural use of World Heritage-listed Cockatoo Island as a major venue. Since then, visitors to the Biennale of Sydney have more than doubled, with the 2012 exhibition achieving record visits. During her tenure, the Biennale many accolades: the 16th Biennale was awarded the 'Australian Event of the Year' and 'Best Cultural or Arts Event' at the 2009 Australian Event Awards and, most recently, the 2012 exhibition was awarded 'Best Cultural, Arts or Music Event' at the 2013 Australian Event Awards.

#### MAY SAMALI (BEcSocSc '09

LLB'11) has been awarded the prestigious John Monash Scholarship by the General Sir John Monash Foundation and the Gleitsman Leadership Fellowship from the Centre for Public Leadership at the Harvard Kennedy School. May commenced her Master in Public Policy at Harvard University in August. She is excited about her studies at Harvard. "Given Australia's social enterprise and impact

investment sector is in its infancy, there is an opportunity to learn from the more advanced experiences of the US," she says.

# ANNA LAU (BMedSc

Hons '06 PhD '11) has been named by Forbes magazine as one of its "30 under 30" innovators who are making a mark in American Science and Health Care. Lau. who is a staff scientist in the US National Institute of Health Clinical Centre, has worked on developing diagnostic tests for fungal infections, which is difficult to diagnose and treat. Her work has culminated in a new database that may help doctors to more accurately identify fungi in patient blood using mass spectrometry. Lau fell in love with microbiology at the University of Sydney, where she majored in microbiology then completed a PhD in medicine. She told the NIH newsletter that she was "fascinated by this world of organisms that were invisible to the naked eve and were beneficial to humans but could cause destructive and devastating disease at the same time."



## Irene Strodthoff is the first person to complete a PhD in the University's Latin American Studies program

WORDS SALLY SITOU

decade ago, while her compatriots from Chile travelled to Spain or the United States to pursue further study, Irene Strodthoff was one of the few Chilean students who chose to study in Australia. She was at the forefront of a trend that would see Australia become one of the most popular destinations for Chilean students.

"Spain and the US were the traditional destinations for postgraduate studies, but the trend started to change. In 2011, Australia became one of the top destinations to pursue a Masters degree," Strodthoff says.

Her interest in Australia began when she studied a Master of International Communications from 2005 to 2006. After completing her master's she returned to Chile and became something of an unofficial ambassador for Australia. Strodthoff took on the role of President of the Australian Alumni Association in 2008 (which has since come under the umbrella of the Australian-Chilean Chamber of Commerce) and published a bilingual book about her experience in Australia.

She was able to return to Australia to complete her doctorate thanks to the Becas Chile scholarship program. This program was the brainchild of current Chilean President Michelle Bachelet in 2008 during her first term as President. The aim of the program was to improve knowledge and productivity in Chile.

It is a bold initiative, offering a generous

stipend, removing age restrictions and encouraging women to apply. It allowed Strodthoff to complete her doctorate at the University of Sydney's Department of Spanish and Latin American Studies. She was the first fully supervised student to undertake a PhD with the department. She is also the first in her family to complete a PhD since her ancestors emigrated from Germany to Chile in 1852.

Strodthoff says she enjoyed the process of building her PhD thesis, which focused on the relationship between Chile and Australia in the context of the free-trade agreement signed in 2008. She described the moment she submitted her thesis as one of her most satisfying accomplishments. While that was her proudest moment, the memories she will take away from her time at the University will be the small things.

"I just loved the simple things of my daily routine. I loved having good coffee nearby, the environment and the architecture at the University, blossoming Jacarandas in November and every opportunity I had to share my work in academic conferences," says Strodthoff.

Her research found that despite being separated by the vast Pacific Ocean, Australia and Chile share some similarities. Both countries are represented as doors, bridges and springboards for entrepreneurs interested in doing business in Asia and in Latin America taking the region as a new

centre of power," Strodthoff says.

The free-trade agreement between Chile and Australia was signed in the same year the Becas Chile scholarship was introduced – 2008. Even though the FTA was signed six years ago, it remains the only agreement of its type between Australia and a Latin American country.

"The FTA and the increasing closeness between Chile and Australia have challenged the idea of geographical distance, different culture and geopolitical locations," Strodthoff says.

While the free-trade agreement lays good foundations for a strong relationship between Chile and Australia, Strodthoff believes there are ways in which the two governments can help to build stronger links.

"I think that governments both in Chile and in Australia are facilitating bilateral investment, research scientific projects especially in the mining sector, and education exchange opportunities, among other areas. These initiatives have been particularly diversified since the FTA signing. Nevertheless, I think there is still room for increasing the mutual awareness and sociocultural understanding of Chile and Australia in a global context, notably in the South and from the South," Strodthoff says.

After completing her PhD, Strodthoff returned to Chile and is now working as a researcher with the National Academy of Political and Strategic Studies of the Ministry of Defence.





Our researchers are making life-changing breakthroughs in the treatment of debilitating diseases.

Professor John Mitrofanis of Sydney Medical School has found that infrared light can reinvigorate brain cells and may stave off Parkinson's disease.

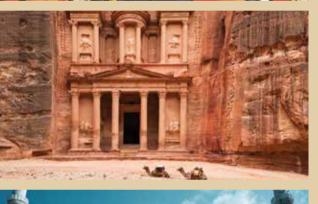
Your bequest can make revolutionary research possible.

Visit sydney.edu.au/bequest or call 02 8627 8492





# JOURNEYS WITH IMAGINATION



Each year Academy Travel conducts around 50 cultural journeys around the globe. With carefully thought out itineraries, expert tour leaders and small groups, we offer an experience that goes well beyond the ordinary.

#### CUBA: THEN AND NOW

January 30 – February 13, 2015. From \$7,350 per person Salsa, cigars and revolution – Cuba enthrals with its history, culture and sheer exuberance.

Tour leader: Dr Stephen Wilkinson

#### **MEXICO**

**February 13 – March 2, 2015. From \$7,500 per person** Includes Mexico City and its Aztec sites, the region of Oaxaca and the Yucatán Peninsula, home to stunning Mayan pyramids. Tour leader: Chloe Sayer

#### JORDAN & THE HOLY LAND

#### March 21 - April 4, 2015. From \$8,390 per person

Visit Petra, Roman cities and Byzantine, Islamic and Crusader sites, plus the key sites of the Holy Land and the Dead Sea.
Tour leader: Sue Rollin



#### April 1-17, 2015. From \$7,490 per person

Greek, Roman, Byzantine, and Ottoman Turkish cultures vie for your attention. Includes Istanbul, Cappadocia and the Aegean Coast.
Tour leader: Judy Roberts

#### BHUTAN: A HIMALAYAN IDYLL

#### April 15-28, 2015. From \$7,890 per person

Travel to the land where progress is measured in Gross National Happiness, not wealth, and mass tourism is not welcome. Tour leader: Zara Fleming

Full details at: www.academytravel.com.au





TAILORED SMALL Group Journeys

- > EXPERT TOUR LEADERS
- > MAXIMUM 20 IN A GROUP
- > CAREFULLY PLANNED ITINERARIES

Level 1, 341 George St Sydney NSW 2000 Ph: + 61 2 9235 0023 or

1800 639 699 (outside Sydney) Email: info@academytravel.com.au

www.academytravel.com.au