By Lindy Brophy

A wait of just 60 seconds before clamping a newborn baby's umbilical cord could be the most important minute of that baby's life.

Clinical trials at King Edward Memorial Hospital and six other maternity hospitals around Australia are testing a well-researched theory that allowing another minute for blood to flow from the mother to the baby via the placenta after birth could prevent or reduce the risk of preterm babies developing infections, diseases and disabilities.

Babies born less than 30 weeks into a normal 40-week pregnancy have up to 100 times higher rates of death and illness and 10 times the rate of disabilities.

Winthrop Professor John Newnham, specialist in maternal fetal medicine in the School of Women’s and Infants’ Health, is one of many researchers involved in the Australian Placental Transfusion Study (APTS) which originated with British midwives delaying clamping the cord after homebirths, because they felt the rush to clamp it was unnatural.

“We have always clamped the cord immediately a baby is born, so that we can give the baby oxygen if needed and keep it warm,” Professor Newnham said. “But those midwives may be right: it’s not done in nature. An animal giving birth waits until the cord stops pulsating before severing it.”

About 1,600 very preterm babies are part of the nation-wide trial.

They represent just 1.5 per cent of all births but they account for a disproportionately high burden of mortality and conditions including brain injury, retinopathy, chronic lung inflammation, infections, poor nutrition and growth.

“Preventing these conditions is a global priority, given the associated penalties of mortality, permanent physical and intellectual impairment and long-term socio-economic cost,” Professor Newnham said. “Placental transfusion, which takes place in that extra minute before we clamp the cord, is a simple, low-cost intervention that may protect very preterm babies against these morbidities.”

Members of the APTS group conducted a smaller clinical trial in 2004 involving 297 babies of less than 37 weeks gestation. Evidence from that trial suggested that placental transfusion in babies at that stage of development was safe, well-tolerated and reduced the risk of brain haemorrhage and necrotising enterocolitis (death of part of the bowel wall) by 40 per cent or more. These are common in preterm babies.

Professor Newnham said if the complications associated with a very preterm birth were reduced, it could also lead to fewer cases of cerebral palsy, another condition found among babies born too early.

“This is potentially the most exciting development in the way we care for mothers and babies in preterm labour and birth,” he said. “And it is such a simple thing.”

continued on page 2
Leaders zone in on power shift

The rest of Australia might feel that WA is out of step without daylight saving.

But our time zone corresponds very significantly with about 60 per cent of the world’s population, including nations that hold the greatest economic promise for the 21st century.

The University invited the Prime Minister, Julia Gillard, into the ‘zone’ last month for discussions with senior business leaders.

The roundtable discussion, held at St George’s College, included Special Minister of State Gary Gray, Senator Chris Evans, UWA Chancellor and Chair NAB and Woodside Dr Michael Chaney, Director of the UWA Energy and Minerals Institute Tim Shanahan, UWA senator and former Australian Ambassador Dr Sue Boyd, Sam Walsh (Rio Tinto), Richard Goyder (Wesfarmers), Dr Dongyi Hua (Citic Pacific Mining), John Atkins (ANZ), Colin Beckett (Chevron) and Acting Vice-Chancellor Professor Bill Louden.

The discussions focused on WA’s position at the centre of a resource and minerals boom delivering growth that has seen a global economic power shift to the Asian and Indian Ocean region.

Dr Chaney chaired the discussions, part of the In the Zone conference series.

“There is a much bigger role for Western Australia as we acknowledge the importance of aligning our thinking with the prominence of the Asian and the Indian Ocean regions, and seek to optimise our relevance and influence within the zone’s political landscape,” Dr Chaney said.

Vice-Chancellor Professor Paul Johnson believes the advent of the Asian Century and the shift in the balance of global power creates unprecedented opportunities for all Australians.

“Across business and the community, we are in a position to harness the benefits of sharing ideas, innovation, technology and research across a multi-dimensional cultural and commercial landscape. Taking advantage of these opportunities requires new forms of interaction with the world on our doorstep, across sovereign borders and cultural boundaries, and an appetite for partnering with and learning from this dynamic region of the world,” Professor Johnson said.

Later this year (26-27 November), the In the Zone Conference will cover issues ranging from economic growth to foreign capital management, infrastructure development, leadership and resources security, providing participants with an opportunity to hear from a wide range of high-level international commentators (see zone.uwa.edu.au)

Blood from the placenta of a preterm baby is rich in stem cells that provide immunity against infection. They might also protect against inflammation and protect the nervous system.

The APTS trial is being run out of the University of Sydney with Professor Newnham as the senior obstetrician. Two UWA neonatologists, Winthrop Professor Karen Simmer and Associate Professor Andy Gill, are involved in the care of the babies after birth.

The grant of $2.7 million for the trial is the biggest NHMRC grant ever awarded in perinatal medicine.

The benefits of waiting even just 60 seconds to clamp the cord are presumed to be the increased flow of placental blood to the newborn baby.

“But maybe it could also be that the 60 seconds of just leaving a baby alone, instead of immediate intervention, even if it is only to cut the cord and swaddle the baby, could be important,” Professor Newnham said.

Preterm babies could benefit from extra blood

Photo: Julie Rutgers, KEMH

In the zone with the PM (front from left): Chris Evans, Sue Boyd, Michael Chaney, Sam Walsh; (back) Colin Beckett, Tim Shanahan, Richard Goyder, John Atkins, Dongyi Hua and Bill Louden
Historian visits ‘the scene of the crime’

The dramatic story of the Catalpa escape in the ocean off Rockingham has lured an Irish Jesuit historian to WA.

Professor Oliver Rafferty, a lecturer in church history at Heythrop College, University of London, is St Thomas More College’s annual Chair of Jesuit Studies. Each year a local benefactor funds a visiting Jesuit scholar. Professor Rafferty is the first historian to occupy the chair and he will take a series of six seminars in the Arts Faculty on Irish and British history, as well as delivering some public lectures, in his two months at UWA and Notre Dame University.

Professor Rafferty said he had always been interested in history, growing up in Belfast with his mother and grandmother sitting around the fire telling stories.

“My grandmother loved to talk about the Titanic and the stories surrounding its construction in Belfast,” he said. “I grew up in a very pious traditional Catholic home, despite my grandmother and the local parish priest constantly at odds over her late husband being a Communist,” he said.

“I always assumed that I would become a priest and the only time I really questioned it was soon after I had been ordained and I wondered if it really was the right thing to do.”

One of eight children, Professor Rafferty was named after the Blessed Oliver Plunkett, the last person in England to be put to death for his faith, in 1681. “My siblings all called me ‘Blessed Oliver’ and I thought that was my real name, until I went to school.”

The two threads of his life wove together when he studied history for his Doctorate of Philosophy at Christ Church College Oxford. His published thesis was The Church, the State and the Fenian Threat. He has studied theology, history and philosophy in the US, the UK and India, worked in schools in London and Glasgow and as a missionary in Western Guyana and held academic positions in the US, the UK and South Korea.

But this is Professor Rafferty’s first visit to Australia – to the famous ‘scene of the crime’ where six Fenian prisoners escaped from Fremantle Gaol (or, as it was then, the British penal colony of Western Australia) in April 1876, raced to Rockingham and narrowly avoided several attempts to recapture them as they were picked up by the whaling ship Catalpa, sailing under the American flag.

The Fenians were Irish revolutionaries, supporters of the Irish Republican Brotherhood with the aim of overthrowing British rule in Ireland.

Professor Rafferty’s public lecture at UWA, for the Institute of Advanced Studies, is The (Mis)use of Religion in the Justification of Political Violence. It will be in the University Club Auditorium on the evening of Thursday 23 August. His seminar series will be offered on Fridays from 1pm to 2.30pm from 10 August to 21 September.

St Thomas More College was founded by the Jesuits in the 1950s and the order has retained a long association with the College.

Future appointments to the Chair of Jesuit Studies include Professor Thomas Scirghi from Fordham University New York in early 2013 and Professor Guy Cosolmagn, the Pope’s astronomer, in 2014.
Global on-line offerings present new challenges for campus-based learning

Paul Johnson  
Vice-Chancellor

There have been some significant global developments in recent months in the provision of on-line education which support the view that we are on the verge of a change which will fundamentally challenge the traditional delivery of university courses.

While for many years, universities around the world have been providing options for on-line study in one form or another, the latest innovations involve partnerships and consortia made up of some of the very best universities in the United States, and now expanding to include significant international institutions in other nations.

At The University of Western Australia, we will continue to differentiate the UWA experience as a high-quality campus-based learning experience. Nevertheless, at an international level these new developments may represent just the beginning of one of the biggest challenges that we will have to face in the coming decade.

That’s because anyone who has access to the internet will have the opportunity to study with some of the best institutions in the world. The difference is that instead of official credits leading to a degree, those who choose this form of study will only receive certificates of successful completion.

Such is the standing of the universities involved that they are happy to let the marketplace and prospective employers determine what value should be put on such certificates of completion.

Among the latest developments are two high-profile consortia. The first is edX established in May between Harvard University and the Massachusetts Institute of Technology which last month welcomed the University of California (Berkley).

The second is the Coursera consortium which was established by Stanford, Princeton, Penn and Michigan Universities. They’ve just been joined by another 12 leading universities including Johns-Hopkins, Duke, Caltech, Toronto and Edinburgh.

A similar venture known as Udacity – has teamed up with the Pearson Group (the world’s largest education publishing group) which will provide the quality assurance around assessment and testing.

Forbes magazine has speculated that “we may be witnessing the beginning of a fundamental revolution in higher education”. It is a view being echoed by many in the US higher education sector who also believe that this is the start of a transformation in terms of operations and institutional structure.

Most important for UWA perhaps is the acknowledgement by many, including the Forbes correspondent, that there will be invaluable qualities that such systems can’t replace “… such as the education and maturation process that comes from campus life, from dwelling and studying for four years with other students, aged 18-22, who are also growing and learning. The ties and networks we create at that age tend to be lasting, and they carry us through our adult lives.”

This is central to what we must consider at UWA. We should not think that simply because we have one of the world’s most beautiful campuses, with a majority of face-to-face teaching and research of global significance, that we will be unaffected by these new developments. We must continue to develop the quality of the total UWA experience to ensure our courses remains sought-after and relevant to students in new eras.

Gateway to knowledge

A new search engine is bringing university research to the wider community.

Australia’s Knowledge Gateway (akg.edu.au) is an initiative by the Group of Eight universities to raise the visibility of Australian researchers and what they can offer in addressing national and global problems.

It is designed for a non-academic audience so that members of the community, government departments and diplomats overseas can link in to university research.

AKG is a searchable database that uses key words, so users don’t need to be familiar with academic terms or which researcher or university is involved.

The Go8 invites all Australian universities and research institutions to participate in the gateway to ensure it is a truly national initiative.

Australian government departments, both on and offshore, have already begun linking their websites to the gateway to showcase the research community to the rest of the world.

Deputy Vice-Chancellor Research Professor Robyn Owens said: “This is a great way to find potential collaborators within the Australian sector, or to find papers relevant to your own research. I’d certainly encourage researchers to try it out.”
Olá e bem vindos
(Hello and welcome)

A big oil find off the coast of Brazil has led to 100,000 university students travelling all over the world to study.

The Brazilian government put its profits into education for the country’s future science and technology leaders. And the first cohort of Brazilian students has started a year’s exchange at UWA.

Brazil’s Science without Borders program is sending its best students abroad to study between 2012 and 2014.

Dr Olivier Charpenay from UWA’s Centre for English Language Teaching (CELT) was in Brazil the day the Go8 signed an agreement with the Brazilian Government. “The next day, I was besieged by students from 10 universities all wanting to know about Australia and Australian universities,” he said. “The biggest challenge of this program is that the students don’t know anything about Australian universities but they have to choose where to study.”

Dr Charpenay promoted UWA, and 31 undergraduate students are now here studying a range of science, engineering and technology courses including biomedical and health sciences, computing and information technology, sustainable agricultural production, mineral and nuclear technology and marine science.

The students were welcomed by the Vice-Chancellor, Professor Paul Johnson, at a morning tea in the Lawrence Wilson Art Gallery.

“I hope that the personal connections and research links that you make at UWA will be sustained for years, if not decades, and perhaps continue over your whole career,” he said.

Director of the International Centre, Kelly Smith, said the arrangements for the Brazilian students had been finalised very quickly. “The agreement with the Go8 was only signed in March and here you are,” he said, paying tribute to the teams in the Student Exchange Office, CELT and the faculties.

Mr Smith told the students that some UWA staff, including Winthrop Professors Kadambot Siddique and Hans Lambers, were active in Brazil and it might be useful for them to seek out these academicians.

The Science Faculty Dean Winthrop Professor Tony O’Donnell and its overseas development manager, Shaun Wellbourne-Wood, are travelling to Brazil in the near future to make arrangements for the next cohort, which they hope will include postgraduate students.
Seeing in a new way

Greg Madson posted a news story on a UWA website that he will never see.

Mr Madson, an administrative assistant for two research centres in the Faculty of Natural and Agricultural Sciences, is blind and his ability to upload a story is testament to the accessibility of UWA’s website.

But Mr Madson had to learn html (hypertext mark-up language) because his screen reader software, Jaws, could not interact with all the components of MySource, UWA’s web content management system.

“I’m very interested in Web accessibility,” Mr Madson said. “So I was happy to go off and teach myself how to use html. I did a free online course over the Christmas break.”

He was then able to write and upload a story about Rob Williams, an adjunct senior research fellow in the Centre for Legumes in Mediterranean Agriculture, who had been awarded an Order of Australia for his work with the Seeds of Life project in Timor Leste.

“Using html can be complicated but I had a lot of help from Kylie Elston from the website office and we had lots of trial and error,” Mr Madson said. “I can do it by myself now, but I still need somebody to tell me if the photo is the right way up!”

He said that, overall, the UWA website was very good. “There are some aspects that are not as accessible as others, but when I come across them, I let the Website Office know, and they are on to it.

“Google has developed a specific search engine for people who are blind, which is great. And a lot of government department websites are very good.”

The Federal Government’s Web Accessibility National Transition Strategy will be in place by the end of the year. All government websites must comply with an international standard for web content accessibility.

Grant Malcolm, manager of UWA’s Website Office, said he was pleased that their work on accessibility meant that people like Mr Madson could not only read pages on the site but could also publish material.

“I’m impressed that Greg went off and taught himself html,” he said. “It’s a lot more effort than the system that sighted people can use. If you don’t get it exactly right, nobody can understand it.”

Mr Malcolm said there was still a way to go before UWA’s website was totally accessible but the team was working hard on it.

“The national transition strategy covers people with disabilities in the broadest sense,” he said. “Websites need to be accessible to people with perceptual difficulties (that is, using language that is simple); people who can’t use a mouse or a keyboard; those with all sorts of visual impairments, including colour blindness; and even people with hearing impairments. Websites must provide a transcript of videos and recorded voices.”

Kylie Elston, the University’s senior web content editor, who helped Mr Madson acquire his new skills, said it was a great step forward for UWA’s website and the Website Office, and she thanked her colleagues who also helped.

Mr Madson will continue posting news stories to the CLIMA newsroom.

Keep fit at work, not just after hours

It’s important to take good care of our bodies while at work, both to prevent injuries and maintain good health.

Recognising this, UWA staff identified back care and flexibility as important issues in the recent Staff Health and Wellbeing Survey.

A UWA Wellbeing initiative now available for staff is free group flexibility sessions in your work area.

Run by the UWA Health and Rehabilitation Clinic, the sessions will offer professional instruction in a set of dynamic movements you can do at or near your desk, or other work area, in order to help reduce tension in muscles, improve posture, increase range of motion in the joints and increase blood circulation around the body.

Bonnie Furzer, exercise physiologist and coordinator of the Health and Rehabilitation Clinic, says there are many simple things we can do at work to maximise mobility and flexibility.

“Regular exercise remains vital to looking after our bodies, but it’s also important that staff consider what they do at work and how to schedule effective small movements into their working day,” she said.

Another upcoming offering to staff is a free lunchtime presentation about what works in preventing and managing back pain. Hear from Bonnie, physiotherapist Cindy Davis, and ergonomics adviser Sarah Stearme about what you can do to keep your spine healthy on Tuesday 14 August, 12.30–1.30pm at the John Bloomfield Lecture Theatre, School of Exercise and Sports Science. RSVP to wellbeing@uwa.edu.au

More information on these initiatives is available on the Safety and Health website: www.safety.uwa.edu.au (go to the new wellbeing section). Or contact Sarina Radici, Health and Wellbeing Officer on 6488 7931.

To keep abreast of staff health and wellbeing initiatives subscribe to the monthly Wellbeing eNews by emailing wellbeing@uwa.edu.au with the subject ‘subscribe’.
New views alongside old images

A spectacular bird’s eye view of the circular garden in Jackson Court has won a place on the cover of the Centenary edition of the Friends of the Grounds calendar for 2013.

Associate Professor Paul Bourke, director of iVec@UWA, took the photo and constructed the image using stereographic projections, one of the many ways of mapping points on a sphere onto a plane. His photographs of the Crawley campus capture equally fascinating views of the New Fortune Theatre, Winthrop Hall and the reflection pond, and the tropical grove.

The 2013 calendar brings together favourite images from two of the Friends’ photographic competitions, Four Seasons at UWA (in 2009) and A Century of Seasons (in 2011). There are also some images from the UWA archives to complement the pictures from the 21st century.

For example, you can compare an old black and white photo of the Irwin Street building, the original University building in the city, in the 1920s, with Belinda Ireland’s snap of the building as it is now, on the edge of James Oval, with a cricket match being played in the foreground.

Next year’s calendar is designed to be a souvenir of a special year for UWA.

It is available now from “Friends of the Grounds for $15 plus postage and from the Visitors Centre and the University Club. You can order your copies online by going to your Alumni and Friends link, clicking on UWA Friends, and following Friends of the Grounds.

This particular group of friends has also commissioned a new native plant to celebrate the centenary, a weeping Hakea laurina.

The Hakea laurina is a shrub that is native to the south coast of WA, featuring beautiful compact red flowers. The new weeping variety will be known as the UWA Centenary Hakea and will be on sale next year.

Music of the century

How music has changed over the century since UWA was opened.

To celebrate that century, a CD of UWA’s musical treasures is being created, with music covering not just the past hundred years, but many centuries before.

The first of these, Cities Lost in Endless Slumber a modern piece for violin, clarinet and piano by graduate Lindsay Vickery, was recorded in the Callaway Auditorium recently.

Graduates and professional musicians Shaun Lee-Chen (violin), Emily Green-Armytage (piano) and Catherine Cahill (clarinet) recorded the five-minute composition in just two hours.

Befitting a piece of modern music, Lindsay Vickery used his electronic tablet to save the notation of the composition.

The CD has $73,000 of funding to commission composers and record their music. The fund was kicked off by Janet Holmes a Court, who offered to commission music for the Winthrop Hall organ. Nine individual donors and UWA Friends of Music quickly added to the fund.

Project co-ordinator Virginia Rowland said the CD would not be sold, but used as a gift throughout 2013. It will be launched at the Alumni Weekend, 8-10 February, with live performances of the music throughout 2013.

Composers include Lindsay Vickery, Cat Hope, Iain Grandage (organ), James Ledger, Jennifer Fowler, David Tunley, Craig Ogden, Cathie Travers and five composition students. They will all be recorded by UWA music alumni.

“Four existing pieces of music have also been donated to the project by Richard Mills, Carl Vine, Iain Grandage and Roger Smalley,” Virginia said. “Artists of the calibre of Sara Macliver, Paul Wright, Craig Ogden, Andrew Foote, Sean Lee-Chen, Annette Goerke and Graeme Gilling will record the pieces.

“Award-winning UWA graduate Shaun Tan has generously given permission to use a photograph of one of his paintings on the CD’s cover.”

The project is developed in consultation with School of Music staff Winthrop Professor Jane Davidson and Assistant Professor Chris Tonkin and Centenary Chair Sue Boyd. Jesse Stack, also from the School, is the project’s sound engineer and BA Practicum student Sean Bernard is assisting with the project.
World leaders fight a cancer that targets Western Australia

“In science, you don’t expect to find cures, you just hope.”

As Winthrop Professor Bruce Robinson looks back on more than 20 years of research into asbestos-related diseases and forward to more developments in detection and treatment, he says he had no expectations when he first began the journey.

“Soon after I returned from doing my doctorate in the US, the ‘tsunami’ of mesothelioma became apparent, with people who had worked in the asbestos mines at Wittenoom flooding through the hospital doors,” he said.

“My friend and colleague Professor Bill Musk asked me if I could do anything with the skills I’d learned in my doctorate on the immunology of cancer. So I said to the small group I was working with that I thought this was really important and they said ‘yes, let’s try it’.”

Professor Robinson said there were no resources at all available for research into mesothelioma. “I asked everyone around the world and there were just no antibodies, no cell lines, nothing. We had to start the field from scratch.”

The first task was to get some mesothelioma cells growing, then see what could actually kill them, testing drugs and immune killer cells. The next task was to try new treatments in patients with mesothelioma. “In the early days, we had a few surprisingly spectacular results with clinical trials of recombinant interferon. Patients who were expected to die within a few months ended up living for another five to 13 years. While most patients didn’t respond, it became the bait on the hook because it helped us realise that the mesothelioma cancer was quite vulnerable to immune attack. This was the start of a program producing at least 10 world-first clinical trials here to find the best treatments.”

The group is the hub of the National Centre for Asbestos Related Diseases, a powerful NHMRC-funded research co-operative.

“We haven’t cured mesothelioma yet – it is a difficult mountain to climb, just like curing other common human cancers. We all hope the answers could be just around the corner and we continue to push on, like explorers,” he said.

With mesothelioma and related diseases so concentrated in Western Australia, with the highest rate of the cancer in the world, it is not surprising that Professor Robinson’s group has done well with funding. The team is rated by others as the leading team in the world in this field. The Insurance Commission of WA has supported their research for about 15 years. “They fund us to look into early detection, which would lead to early intervention and hopefully a cure,” he said. “That research has helped us find the world’s first blood test for mesothelioma.”

The State Government has also funded the group for many years, but its focus has been on developing better treatment programs.

One of the lines of research into treatments is getting the immune system to attack the cancer. “But killer cells can’t just march in and kill the cancer cells – the cancer actually protects itself with cells that function like sentries and guards, stopping the killer cells from doing their job.

“We are working out how to ‘take them out’ so that our immune systems can get in to attack the cancer.

“This research is just starting to show some benefit in melanoma patients and we are translating it into the clinic in mesothelioma. We are also beginning to use the latest gene sequencing technology to ‘crack the code’: it’s pretty exciting stuff.”

When Professor Robinson began his mesothelioma research, he was clearly the leader of the group. Now the leadership is shared equally by three other senior colleagues, Professors Richard Lake, Jenette Creaney and Anna Nowak.

“It’s a great group, we all get along together really well and it makes the research sustainable. If any one of us

Two very different UWA research centres mark 20 years of operation this month. Both the Australian Centre for Geomechanics and the medical group researching asbestos-related diseases have achieved international acclaim after modest beginnings. And both have contributed enormously to the health and safety of Western Australians.
gets hit by a bus tomorrow, the research will continue. And we all have different and complementary skills: Richard is a molecular immunologist and cell/animal biologist, Jenette does the protein and gene work, Anna is an oncologist and immunologist and I’m a respiratory physician and an immunologist.”

But Professor Robinson doesn’t spend all his time in the laboratory. He cares for many mesothelioma patients, getting quite close to them as he ‘shares their journey to death’. He often has close relationships with their surviving family members, and finds these patients and their families inspiring.

“I also spend some time in the community because there are a lot of people out there who are scared. Everybody in WA has some asbestos in their lungs. But not all of us are going to develop mesothelioma.

“Although I don’t seek media attention at all, it is a responsibility to let people know what we’re doing, what progress we’re making and to give hope to the community.”

The establishment of the first mesothelioma cell lines 20 years ago was the springboard for this research and the 20th anniversary of mesothelioma cell lines was celebrated last week with a lecture by leading cancer researcher Professor Roger Reddel, and a cocktail party at the University Club.

Mining world-wide benefits from ACG

When the Beaconsfield miners were trapped underground by a rockburst in 2006, Yves Potvin and his team were already working on a safety system that would help protect workers from just that phenomenon.

Winthrop Professor Potvin is the Director of the UWA-based Australian Centre for Geomechanics, which celebrates its 20th anniversary this month.

His research at the Centre in the late 1990s and the ensuing training courses the centre developed and ran had already contributed to the mining industry’s achievement of a 75 per cent reduction in rockfall injuries and, a few years after the Beaconsfield disaster, Professor Potvin’s invention of High Energy Absorbing Mesh has the potential to reduce the future exposure of miners to rockburst injuries. (A rockburst is a mining-induced seismic event, caused by a change in stress, resulting in a fault slipping or violent local stress-fracturing of the rock. Technically, it is an earth tremor.)

The development of HEA mesh, which won the 2008 Inventor of the Year, is one of the highlights of a research centre that almost didn’t exist.

Geologists and geomechanics engineers wanting to set it up in 1992 failed in their application for a multi-million dollar Collaborative Research Centre grant and the Centre was started with a very modest budget, with the vision of and under the directorship of UWA’s Professor Richard Jewell. It was a joint venture between UWA, CSIRO the WA School of Mines, Curtin University and the Department of Minerals and Energy.

The partners provided seed funding of just $243,980.

In its first few years, oil and gas offshore geomechanics were part of the Centre’s brief, until ACG board member Professor Mark Randolph initiated a Minerals and Energy Research Institute of WA-funded project to create the Centre for Offshore Foundation Systems at UWA.

“The Centre then concentrated on mining geomechanics and in 1996, struck gold,” Professor Potvin said.

“The joint venture received a Centre of Excellence grant from the State Government of half a million dollars, $150,000 of which went to Professor Randolph to help in the purchase of a new drum centrifuge, an essential facility for the development of world-class research in soil geomechanics.”

Professor Potvin joined the ACG soon after and set about helping address the urgent safety issues in underground mines in WA. His courses on mine seismicity which had such success culminated in the creation of the first phase of the research project, Mine Seismicity and Rockburst Risk Management.

Now 12 years later, the project has entered its fifth phase with a budget of more than $1.5 million for the next three years.

“As well as software we have developed which is used in mining operations world-wide, the most significant legacy of this long-lasting project is a Masters and five PhD graduates who are all working for the benefit of the mining industry. Another two PhD students are currently supported by the project,” Professor Potvin said.

Also over the past 12 years, the ACG has organised and hosted 20 international events, and its seminars on issues including mine closure and deep and high-stress mining tour the world, creating an enviable international reputation, particularly in South Africa, Canada, Europe and Chile.

ACG is now a recognised acronym within the mining industry around the world.
When you think of Shakespeare, it is his sonnets and soliloquies that spring to mind.

But for New Jersey-based soprano Julianne Baird, it is Shakespeare’s songs that distinguish his literary works.

While the Bard didn’t actually write any music, he did include music, songs and musical references in his plays and it is these that add another layer, just as they do when Professor Baird performs them during her lectures.

The Institute of Advanced Studies (IAS) has brought Professor Baird from Rutgers University to bring The Shakespeare Songbook to UWA and the people of Perth.

She will discuss and perform music from Elizabethan and Jacobean times that were used in productions of Shakespeare’s plays.

Ophelia’s song from Hamlet, How Should I Your True Love Know? is probably the best-known Shakespearean song, and Desdemona’s The Willow Song from Othello would be a close second. But Shakespeare alludes to or includes more than 160 songs in his plays.

Music in his time ranged from lute songs and madrigals to “fa la la” (ballets) and verse anthems. Shakespeare seems to have had a genuine fondness for honest English popular and traditional songs.

The audience in his time would have expected each drama to have at least one song per play, with the exception of tragedies which often featured heraldic and military-style trumpets and drums.

Professor Baird is an internationally-recognised musician whose expressive vocal style is rooted in her scholarship. The New York Times described her as “one of the most extraordinary voices in the service of early music that this generation has produced.” She is one of America’s most recorded women.

She is an IAS Professor-at-Large for a month at UWA, the highlight of which will be her public lecture and recital in the Callaway Auditorium in the School of Music at 6.30pm on Tuesday 14 August.

Among the Elizabethan songs performed at the lecture-recital will be The Willow Song, Farewell Dear Heart, O Mistress Mine and Ah Robin, Gentle Robin.

Coming up at the IAS this month are lectures on archaeology, ethics, the media and the concept of beauty.

Dale Jamieson, Director of Environment Studies at New York University, presents a free public lecture, The Frontiers of Ethics, at the University Club Theatre at 6pm on Wednesday 15 August.

The following evening, Sally Young, from the School of Social and Political Sciences, University of Melbourne, poses the question of Australia’s news media: More Powerful than Politicians? at 6pm in the Social Sciences Lecture Theatre. This event is co-sponsored by the IAS and Equity and Diversity UWA.

In Beauty, Love and Art: The Legacy of Ancient Greece, David Konstan, Professor of Classics, New York University, compares the classical Greek concept of beauty with the modern dilemma that the idea of beauty has become today. His lecture, presented with the ARC Centre of Excellence for the History of Emotions, is on Tuesday 21 August at 6pm in the Webb Lecture Theatre.

The archaeology, mythology and folklore of fossil sea urchins is explored by Kenneth J McNamara from the University of Cambridge in The Star-Crossed Stone, at 6pm on Monday 27 August, also in the Webb Lecture Theatre.

All these lectures are free but please book through the IAS (ias@uwa.edu.au or 6488 1340).
While once we rode on the sheep’s back, we are now trying to reduce its burps.

Agriculture emissions represent about 15 per cent of Australia’s total greenhouse gas emissions and are expected to increase over the next decade due to improved crop and livestock production.

Livestock emissions account for 70 per cent of Australia’s agriculture emissions and three of 10 big UWA research grants, part of the Federal Government’s Carbon Farming Initiative, are devoted to reducing the amount of methane gas produced by grazing animals.

The 10 new grants awarded to UWA and its collaborators seek to understand and introduce new sustainable farming practices to reduce greenhouse gases and build up soil carbon.

“This program really shows our strengths in research across plants, soils and animals,” said Winthrop Professor Tony O’Donnell, Dean of the Science Faculties.

Two projects will identify plants that could reduce methane emissions: one will concentrate on pasture species, the other on shrubs and other plants that may produce less methane in grazing systems. Animal biologists will continue their work on finding out how certain plants and products may reduce methane production in the rumen, the ‘first’ stomach of sheep and cows.

Carbon sequestration is an important way of reducing carbon in the atmosphere by storing it in soil, but will increasing the carbon in the soil increase nitrous oxide emissions, affect crop production or alter the amount of nitrogen fertiliser needed to produce a profitable crop? Soil scientists hope to understand how increasing soil carbon affects emissions and crop production and to be able to assess the potential for soil carbon sequestration in greenhouse gas abatement.

One of three related projects will examine mitigating greenhouse gases with nitrification inhibitors and biochar (carbon-rich materials) in fallow land. Trials are being run using these amendments to understand how they interact with fertiliser applications on farms across WA’s wheatbelt.

Another study in the wheatbelt is looking at building soil health and carbon using perennial pasture and intensive grazing to increase sequestration of soil carbon.

A common approach to increasing soil carbon is to add animal manures and one project is investigating the effectiveness of adding pig, poultry and feedlot manure to soils. Carbon dioxide, nitrous oxide and methane emissions from manured soils will be measured in field and laboratory trials.

More than a million dollars has been allocated for collaborative projects with the WA No-Tillage Farmers’ Association and the Future Farm Industries Cooperative Research Centre. They include research into carbon amendments in no-tillage cropping systems and assessing the role of perennial forage plants in improving the management of soil carbon.

Another million dollar joint project, investigating the stability of soil carbon under variable climate and management practices, is with the Department of Agriculture and Food WA.

“Much of the work done will be in collaboration with industry and I’m confident that our agricultural scientists will make important contributions to the development of low-carbon farming methods of benefit to all West Australians and provide models for farming into the future,” Professor O’Donnell said.
If you want to buy a book or a bike, if you need help to recover from an injury or would like to do a recreational course ... you’re in luck.

Employee Benefits in Human Resources has added these to the already comprehensive list of benefits for UWA staff.

Bike Force is the latest in a list of companies offering corporate discounts to UWA staff. You can get 10 per cent off the cost of a new bike and 15 per cent off parts and accessories at 15 Bike Force shops around Perth.

Other corporate discounts include private health insurance, travel, financial institutions and motor vehicle corporate programs. These benefits have been negotiated with the providers and are not available to be salary packaged.

New in-house benefits include books from UWA Publishing, treatment at the UWA Health and Rehabilitation Centre, and courses through UWA Extension. All of these can be salary packaged and paid for with pre-tax dollars.

You can buy tickets for the Perth International Arts Festival, pay for your in-house podiatry, your University Club membership and your programs at the Robin Winkler Clinic all before tax.

Rose Cunningham, salary packaging coordinator, said it was important for staff availing themselves of these advantages to remember that there is a threshold on in-house benefits of $1,333 per Fringe Benefits Tax (FBT) year, which runs from 1 April to 31 March.

The threshold only applies to in-house benefits and does not include salary-packaged child care, parking fees, novated leases and gym membership.

“Therere is a separate tax ruling for on-site recreation facilities, as there is for parking.”

Ms Cunningham said that her office kept a record of staff salary packaging and in-house benefits and if somebody exceeded the threshold, she would notify the applicant.

“You might think it would not be easy to go over that threshold, but some employees purchase, pre-tax, up to $800 worth of PIAF tickets,” said benefits assistant Celine Gaudin.

“Things change all the time and it's hard for us to get that information out there. We are also keen to target people who are not salary packaging, to show them how they could benefit,” they said.

At the end of June, 2,500 UWA staff were salary packaging, with 990 of them packaging just one item. Parking and superannuation contributions are the most popular. Salary packaging for the last quarter was nearly a million dollars.

“There are a lot of changes to superannuation,” Ms Cunningham said.

“The threshold for concessional-taxed contributions – that’s employer’s contributions plus any pre-tax employee’s contributions – has been reduced to $25,000.”

The UWA website has useful information about changes to superannuation (hr.uwa.edu.au/page/90697), salary packaging (hr.uwa.edu.au/page/90696) and employee benefits (hr.uwa.edu.au/page/154585).

“There is another page on our website that I recommend to everybody, even people who have worked here for a long time, because there are still a lot of people who don’t know what all the benefits of working here can be,” Ms Cunningham said. “The page is Why Work at UWA? And it has great information about flexible leave, inductions and salary benefits among other things.”

If you would like to be on a mailing list about staff benefits, email rose.cunningham@uwa.edu.au or celine.gaudin@uwa.edu.au
You work at UWA so you think you know what goes on here.

Open Day on Sunday 12 August will make you think again.

Our big annual event is not just for prospective students: it’s a day packed with activities, displays and information that will delight, amaze and inform even the staff who work here every day.

Can you keep your balance on a mechanical surfboard? Would you like to see real weapons used in bloodthirsty mediaeval battles?

Have you ever seen inside our impressive Business School? Take a tour. How fast can the UWA Motorsport racing cars go? Watch them in action. Ever tried your hand at drawing? Take a still life class. Fancy yourself as a surgeon? Try it out with simulated patients.

For younger children, there are free balloons, bouncy castles and face painting, and for animal lovers of all ages, two petting zoos.

So round up your family, your neighbours and your friends and show off your workplace.

Most of you will have heard about UWA’s part in Australia’s biggest science project, the SKA. Open Day gives you an opportunity to find out more about it. To the Edge of the Universe is a guest lecture presented by a charismatic young researcher, Associate Professor Danail Obreschkow, in the Dolphin Theatre at 2.15pm. So get along there so you can join the conversation as this huge project takes off.

For those of you who are working on Open Day, the most important message is to get to campus early on Open Day to set up. There are always keen visitors strolling in well before 10am. Open Day volunteers will receive their T-shirts and lunch and coffee vouchers next week.

It’s not too late to offer your help – or just turn up to support your colleagues and enjoy the day.

Let Open Day open your eyes
Oceanography, especially in the area of coral reef hydrodynamics, building research collaborations in the USA, Europe and Australia. His work has had a significant impact on understanding the dynamics of shelf and near-shore environments in Australia’s northwest, from Ningaloo Reef to the Kimberley coast. He has given outstanding service to the University, the profession and the community. His efforts have been awarded by a prestigious ARC Future Fellowship.

ASSOCIATE PROFESSOR

Associate Professor Kym Guelfi (Exercise Physiology, School of Sport Science, Exercise and Health)

Associate Professor Guelfi’s research relates to the role of exercise in disease prevention and management (particularly obesity and diabetes), with emphasis on relationships between exercise, appetite and weight management. In 2010 she was awarded best scientific paper at the National Exercise and Sport Science Australia Conference. Dr Guelfi has built up a reputation of excellence through her publications and projects. She is involved in UWA Extension courses and is a consultant for The West Australian newspaper on health and medicine.

Associate Professor Julie Hill (School of Anatomy, Physiology and Human Biology)

Associate Professor Hill’s main focus is teaching. In 2006, as part of a multi-university team, she undertook a project, Online assessment feedback as an instrument of reflective learning practice in Human Biology, aimed to build appropriate feedback into online assessment to direct further study and to develop conceptual and reasoning skills. She has had an active role in the maintenance of academic standards and in the development of educational policy and curriculum in the Discipline, and also in the development of two off-campus locations, Albany and Singapore.

Associate Professor Nicole Jones (School of Environmental Systems Engineering)

Associate Professor Jones’s research focus is environmental fluid dynamics and physical oceanography. She has built up a strong research group and established research programs using a combination of field work and numerical modelling. Her research has had a significant impact on improving the understanding of coastal processes and shelf dynamics, particularly in the North West.

Associate Professor Jones has also made a significant contribution to teaching and service at UWA, receiving a UWA Faculty teaching award in 2011.

Associate Professor Eric Toher (Geology, School of Environmental Engineering)

Associate Professor Toher’s research is based on earth history, ranging in scale from instantaneous phenomena of impact cratering to longer term evolution of mountain belts to the formation and break up of supercontinents. He has built close connections with researchers in Australia and overseas and is regarded as a global expert in palaeoceanism and geochronology. He serves on the Editorial Board of Gondwana Research, and last year organised a new international conference on Carboniferous-Pennsylvanian Stratigraphy.

RESEARCH GRANTS

Grants awarded between 9/07/2012 and 25/07/2012

BHP BILLITON WORSLEY ALUMINA

Winthrop Professor Andries Fourie, Geel and Resource Engineering (School of), Offshore Foundations Systems (Centre for): ‘Investigate the consolidation of Bauxite Residue’ — $11,070 (2012)

DEPARTMENT OF FOREIGN AFFAIRS AND TRADE – ACIA

Dr Al Imran Malik, Dr William Erskine, Legumes in Mediterranean Agriculture (Centre for): ‘Rice Based Systems Research Technical Workshop’ — $3,000 (2012)

GRANTS RESEARCH AND DEVELOPMENT CORPORATION

Associate Professor Guijun Yan, Plant Biology (School of): ‘Travel Award – The Third Australia-China Wheat Genetics and Breeding Workshop – Climate Change Ready Wheat Cultivars for Australia and China’ — $3,200 (2012)

MEDICAL AND HEALTH RESEARCH INFRASTRUCTURE FUND

Professor Peter Henry, Medicine and Pharmacology (School of) — $11,715 (2012)

Dr Jennepher Downs, Child Health Research (UWA Centre for): ‘New Independent Researcher Infrastructure Fund (NIRIS)’ — $10,000 (2012)

NORFOLK AND NORWICH UNIVERSITY HOSPITALS NHS FOUNDATION TRUST

Winthrop Professor Peter Hartmann, Dr James Lui, Tracey Williams, Chemistry and Biochemistry (School of): ‘Comparison of Maternal Blood Glucose Concentrations in Diabetic and Non Diabetic Mothers and Baby’s Energy Source 72 Hours After Birth’ — $43,875 (2012)

OCEAN PARK CONSERVATION FOUNDATION HONG KONG

Winthrop Professor Charitha Pattiaratchi, Asha De Vos, Environmental Systems Engineering (School of): ‘New insights into blue whales, the Sri Lankan enigma: Linking oceanography and blue whale distribution in an ecological cul-de-sac’ — $14,000 (2012)

PHARMACEUTICAL SOCIETY OF WESTERN AUSTRALIA

Associate Professor Rhonda Clifford, Assistant Professor Deena Ashocrianan, Dr Rowan Davidson, Dr Daniel Rock, Medicine and Pharmacology (School of), Psychiatry and Clinical Neurosciences (School of), Population Health (School of): ‘Identifying a role for the Community Pharmacist in the Management of Mental Health Consumers’ — $11,622 (2012)

T-Ray Science Inc

Joelene Bizzintino, Paediatrics and Child Health (School of): ‘TSANZ 2011 Asha Zeneca Respiratory Research Fellowship’ — $160,000 (2012-13)

TALISON LITHIUM AUSTRALIA PTY LTD

Associate Professor Barbara Cook, Natural Resource Management (Centre of Excellence in): ‘Direct Toxicity Assessment of Effluents from the Lithium Mine Greenbushes Western Australia’ — $111,629 (2012-13)

UNIVERSITY OF ADELAIDE

EX ARC DISCOVERY Projects

Associate Professor Dennis Rumley, Social Sciences (School of): ‘Building an Indian Ocean Region’ — $14,000 (2012-14)

UNIVERSITY OF ADELAIDE EX NHMRc

Dr Timothy Jones, Child Health Research (UWA Centre for): ‘Early Environmental Determinants of Pancreatic Islet Autonomy: A Pregnancy to Early Life Cohort Study in Children at Risk of Type 1 Diabetes’ — $147,500 (2012-14)

UNIVERSITY OF MELBOURNE EX NHMRc

Professor George Milne, Professor Phillip Clarke, Professor Andrew Palmer, Computer Science and Software Engineering (School of): ‘Development and Validation of a Health Policy Simulation Model for Type 1 Diabetes’ — $69,880 (2013-14)

WA Energy Research Alliance & BHP CHEVRON

Professor Michael Johns, Dr Einar Fridjonsson, Mechanical and Chemical Engineering (School of): ‘Wet Gas Monitoring Using Multi-phase Flow Meters’ — $15,000 (2012)

Walter and Eliza Hall Institute of Medical Research EX NHMRc Program Grant

Professor David Smith, Associate Professor Bruce Gardiner, Computer Science and Software Engineering (School of): ‘Investigating the Role of a New Non-invasive Cardiac Signalising Systems in Colon Cancer Crypt Biology’ — $202,925 (2012-14)
NEW STAFF
14 June to 25 July 2012
Bianca Bleathman, Accounts Assistant, Financial Services
Gabriela Bruckner, Customer Support Officer, UniPrint
Winthrop Professor Robert Burrell, Law
Winthrop Professor Jonathan Carapetis, Centre for Child Health Research
Caroline Cole, Administrative Assistant, International Centre
Clare Cooper, Administrative Officer, Vice-Chancellor's
Henrietta Cserne Szappanos, Research Associate, School of Anatomy, Physiology and Human Biology
Sara-Michele Fayaz, Administrative Assistant, Faculty of Natural and Agricultural Sciences
Ellis Fitzpatrick, Receptionist, Oral Health Centre of WA
Harrison Flatou, Research Assistant, Psychology
Dr Ethan Ford, Research Associate, ARC Centre of Excellence for Plant Energy Biology
Jade Gibbs, Cashier, Student Services
Dr Claire Gourcuff, Data Officer, Vice-Chancellor's
Sural Harinath, Laboratory Assistant, Medicine and Pharmacology
Dr Paul Harrigan, Assistant Professor, UWA Business School
Tammie Kirk, Dental Clinic Assistant, Centre for Oral Health Centre of WA
Rong Liu, Senior Research Officer, Centre of Microscopy, Characterisation and Analysis
Sarah Lynn, Technician (Animal House), Animal Care Services
Dr Laure Martin, Research Associate, Centre of Microscopy, Characterisation and Analysis
Dr Phillip Melton, Associate Professor, Centre for Genetic Epidemiology and Biostatistics
Tiphene Merritt, Research Manager, Future Farm Industries CRC
Rebecca Millar, Research Officer, Faculty of Arts
Belinda Mumford, Receptionist, Oral Health Centre of WA
Royston Ong, Graduate Research Assistant, UWA Centre for Medical Research
Michael Perry, Business Manager, Faculty of Natural and Agricultural Sciences
Geraldine Pieterse, Administrative Officer, Primary, Aboriginal and Rural Health Care
Masa Radevic, Graduate Research Assistant, Psychiatry and Clinical Neurosciences
Professor Johan Rosman, Medicine and Pharmacology
Cecilia Ozsoo, Administrative Assistant, UWA Business School
Dr Tabita Tan, ACS Veterinary Officer, Animal Care Services
Vanessa Tham, Strategic Procurement Officer, Financial Services
Scott Thomas, Business Manager, Student Residences
Francesc Tinto, Technical Operations Manager, Centre of Microscopy, Characterisation and Analysis
Dr Jamie Tong, Assistant Professor, UWA Business School
Cathy Traynor, Receptionist, Oral Health Centre of WA
Dr Feida Zhang, Lecturer, UWA Business School
Dr Mi Zhou, Research Associate, Centre for Offshore Foundation Systems

CLASSIFIEDS
FOR SALE
APARTMENT: A charming, fully renovated two-bedroom apartment in Mt Lawley (Gudford Road) for sale by the owner. Floorboards, dishwasher, a small balcony and breath-taking views of the CBD (fifth floor). Bus-stop in front of the building; ten minutes away from Beaufort street; conveniently located shopping, and twenty minutes away from the University via the Graham Farmer freeway. The apartment is currently fully furnished (excellent washer, dishwasher, dryer, fridge and freezer and Sony TV, a fully appointed kitchen and tasteful quality furniture in plain wood and earthy colours). The entire furniture package could be included in the price of the apartment, leaving absolutely nothing to do but move in. An excellent investment, hide-away or dwelling for students. Price $370K. Please contact danijela. kambaslovice-sawers@uwa.edu.au

ACCOMMODATION
LONDON: Newly converted fully equipped London accommodation (can sleep four) with panoramic views and excellent transport to Central London. Available in nice area of Peckham from one week to three months, at very reasonable price from $400 and $600 during the Olympics. Cleaning fee of $100 and 50 per cent deposit required at time of booking with $500 damage deposit and remainder of rental due before arrival. Contact: melhon@optusnet.com.au

 Classified advertisements are FREE for all UWA staff.

 Send your ad to: staffads@admin. uwa.edu.au before each fortnightly deadline.

NOTICES
UWA Podiatry Clinic
Help students learn and have your feet cared for – both at the same time!
And it will cost you far less than going to an external podiatrist.
Podiatric treatment is available to the general public and UWA staff and students at reduced fees for a wide range of general podiatry services. Further information on our fees will be available on our website: podiatry.surgery.uwa.edu.au/clinic
Anyone can attend the Clinic for assessment: you do not need a medical referral.
Your visit will provide a valuable service in the clinical training of UWA Podiatric Medicine students. All students are supervised by qualified podiatrists during your visit.
For an appointment please call our receptionist on 6488 4622 or email clinic-podiatry@uwa.edu.au The clinic is on the corner of Park and Crawley Avenues, Crawley.
Please pass this information on to your friends and family.

UWA staff members can now salary package podiatry services. Visit the HR website or contact HR Employee Benefits: rose.cunningham@uwa.edu.au

Save the Children book sale
Clear out your bookshelves and get ready for the bounty of books at the annual Save the Children book sale in the Undercroft.
The sale opens on Friday 17 August at 5pm, but if you’re after a treasure, come early and join the queue alongside the reflection pond. It will be open that first night until 9.30pm.
The sale is then open from 8am to 6pm on Saturday and Sunday; and 9.30am to 6.30pm on Monday and Tuesday.
Tuesday is half-price day and there are always still thousands of books from which to choose.
Stocks are dwindling by Wednesday, the final day of the sale, which runs from 9.30am to 4pm. On that day, you can fill a box for just $15.
The sale raises money to help disadvantaged children in Western Australia and overseas, specifically in Bangladesh, Cambodia, Lao PDR, Papua New Guinea, the Solomon Islands and Vanuatu.
If you would like to help out at the sale, contact Euro on gerbazep@linet.net.au or on 9387 6215.

Australasian Society for Psychiatric Research 2012 Conference
The Annual Conference of the Australasian Society for Psychiatric Research will be at the Esplanade Hotel, Fremantle, WA, from 5 – 7 December 2012, with workshops being offered on 4 December.
The theme of the Conference is Brain, Mind and Society: Crossing the Boundaries, reflecting the multidisciplinary nature of the Australasian Society of Psychiatric Research as a professional association. This forum will enable the cross-fertilisation of ideas, and is an ideal meeting point for everyone wishing to discuss the interplay of the brain, the mind, behaviour and disease.
The conference includes international and national keynote and plenary speakers, invited symposia and streamed presentations, covering a range of topics in the biological, clinical, epidemiological, psychological, social, philosophical and sleep sciences.
For information on abstract submissions, please contact: fsw5ewaters@uwa.edu.au and visit the conference website at asprالية@uwa.edu.au

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UWA NEWS classified

The University of Western Australia
The legal, ethical and medical end of the road

By Meredith Blake
Associate Professor, Law School

There may be nothing more certain in life than death (and taxes). But with advanced medical technology, the process of dying has become increasingly more complex and medicalised.

Essentially, it has become more difficult to die.

We live in an increasingly secular community, in which individuals are comfortable in asserting their rights to control their own destiny, and questioning medical decisions. The coining of the term ‘right to die’, while often misappropriated, is a result of these attitudinal changes.

The issue of the ending of life in the clinical context is one which extends beyond medicine, and encompasses religion, philosophy, ethics and economics. It represents a complex, multi-layered challenge for legal regulation. When is it in the best interests of a person to cease life-sustaining medical intervention? Should people be able to request medical assistance in hastening death? In what circumstances can doctors decide not to resuscitate profoundly disabled young children? These are some of the questions which illustrate this challenge.

A letter to the Medical Journal of Australia of 16 July 2012, questioned the place of resuscitation of very sick elderly patients where the survival rate is only 3.4 per cent. It asks for earlier discussion about advance care planning and more clarity in documentation. An earlier edition debated the merits or futility of treatment as a factor in medical decision-making at the ending of life.

How the law can and does reflect the deeply-felt attachment to the sanctity of human life, and how it accommodates the challenges presented by modern medicine and an ageing population, as well as the growing culture of entitlement to rights, is hugely important for law and policy makers. Any system of legal regulation cannot afford to ignore the ethical discourse surrounding action and inaction at the end of life.

The primary way that society protects the sanctity of life is through the law on homicide. The most serious offence we have is murder. The law also criminalises the aiding of suicide.

The law also criminalises the aiding of suicide. The primary way that society protects the sanctity of life is through the law on homicide. The most serious offence we have is murder. The law also criminalises the aiding of suicide. Viewed through the prism of criminal law, several examples of medical intervention and non-intervention at the ending of life appear to represent potentially criminal conduct.

Of particular concern are those situations in which life-sustaining treatment is withdrawn, some instances of non-resuscitation, terminal sedation and where patients request help in dying. Medical professionals have a duty to act in the best interests of their patients; they also have a duty to respect a patient’s autonomous wishes. A request by a competent patient to withdraw life-sustaining treatment may give rise to a conflict of those duties. When the law adopts the language of rights, the conflict appears to become intractable; courts have long been troubled by arguments about when, if ever, the right to self-determination should trump the sanctity of life.

Whilst the law is inherently reactive in nature, and therefore can always be expected to be “in the rear and limping a little” behind medicine, it needs to be more consistent and coherent in its approach to the ending of life in the clinical setting.

Some steps towards this end have already been taken. At the beginning of 2010 the Guardianship Act was amended to reflect a growing desire of individuals to have more control over the ending of their lives, the introduction of formal advance health care directives, and the ability of appointed guardians to make end-of-life decisions. Interestingly, the main point of legal reference for the medical professional treating a currently competent individual at the ending of life remains the criminal law.

Brutal and indiscriminately caused death is one thing. The concern to relieve pain in the face of certain death, the desire to avoid the burden of resuscitation of a life of intolerably poor quality, and the wish to respect an individual’s preference for an end to artificial prolongation of life are different matters. The law needs to ensure it is reflecting these distinctions.

Associate Professor Blake presents a public lecture, Ending of Life and Medical Care at 6pm on Tuesday 7 August in the Social Science Lecture Theatre. It is a free lecture, but please RSVP to the Institute of Advanced Studies ias@uwa.edu.au