Cows play role in cancer prevention in humans

Flinders University researchers expect to have clear evidence by the end of this year on the role that the humble cow could play in boosting the anti-cancer properties of the natural trace element, selenium.

In a ground-breaking human trial now under way, a research team led by Professor Graeme Young is testing the beneficial impact that selenium delivered through cow’s milk has in preventing bowel cancer compared with other forms of the dietary supplement.

The latest trial followed earlier research that confirmed selenium in cow’s milk could lift levels of selenium in the blood. The current study, involving 20 healthy South Australians, is trying to establish the extent to which the selenium is delivered to cells in the lining of the bowel for maximum effect.

Professor Young said chemical and yeast-based forms of selenium available ‘over-the-counter’ as dietary supplements have varying degrees of absorption and impact on the body.

“So those forms of selenium will differ in their capacity to change someone’s antioxidant status and capacity to prevent cancer,” Professor Young told Flinders Journal.

“It just so happens that when you feed selenium to cows and they produce selenium-enriched milk, the selenium seems to be in a chemical form that is both highly absorbable into the body and also more effective in terms of preventing cancer,” he said.

“We are comparing the milk form of selenium with a yeast-form of selenium in...
So strong is Robert Mugabe’s hold on power that the desperate position of Zimbabwe is unlikely to change unless he dies, is deposed or – least likely of all – accepts the recent election results, according to Flinders politics lecturer Dr Tanya Lyons.

But, she says, with the economy in disarray and no sign of an obvious successor within his ZANU-PF party, an involuntary departure could well result in a power vacuum that could lead to the country’s total collapse.

“Ironically, Mugabe was seen as the well-spoken, educated and moderate alternative,” Dr Lyons said.

Dr Lyons, who is also editor of the Australasian Review of African Studies, said that ethnic and tribal loyalties continue to play a crucial role in Zimbabwean politics, along with the urban-rural divide: Mugabe’s main support base is among the country’s northern Shona group and the rural poor; most southerners are Ndebele, and are supporters Morgan Tsvangirai, as are the majority of educated city-dwellers.

While Mugabe scapegoats Britain for racist and colonial attitudes and as the cause of the collapse of the Zimbabwean economy, his own rise to power came with British backing. In the wake of the military struggle against the white Rhodesian regime, British negotiators favoured Mugabe’s Chinese-backed resistance fighters over Joshua Nkomo’s Russian-backed group and a third, more revolutionary movement.

“My sources suggest he is capable of bringing the country back together – there is confidence that he would be able to resurrect Zimbabwe from its utter disaster without falling prey to the corruption that almost every African leader is consumed by,” she said.

But, Dr Lyons cautions, any peaceful transition would require the support of the army and its generals. And as long as the 84-year old Mugabe remains President, such a scenario is unthinkable.

Charles Gent

The anti-cancer impact of selenium is achieved by the way in which it encourages the body to rid itself of mutated cells that might otherwise become cancerous.

Previous research by the team from Flinders Centre for Cancer Prevention and Control – published in the June issue of the international journal Cancer Research – showed that selenium-enriched cow’s milk produced a significant cancer preventing effect in mice.

The focus of the selenium research by the Flinders team is on prevention rather than the treatment of existing cancers.

“We are looking for the preventative effect in healthy people – and also watching for any potential side-effects but, so far, have seen no evidence of any negative effects. We will have been able to have reached an initial conclusion as to the likely benefits of selenium by December this year.”

Professor Graeme Young

“We are looking for the preventative effect in healthy people”

Peter Gill

Dr Tanya Lyons

......continued from page 1

this human study and looking to see how readily the selenium gets into the body.

“We are also taking biopsies from the lining of the bowel to make certain that the selenium is being delivered to the cells lining the bowel. If we can establish that is occurring, then we will be more confident that selenium is going to regulate the cells lining the bowels in humans.”

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“With the approach we are taking to prevention, you probably only need to achieve a slight, subtle effect with selenium for benefit to become evident,” Professor Young said.

“We are looking for the preventative effect in healthy people – and also watching for any potential side-effects but, so far, have seen no evidence of any negative effects. We will have been able to have reached an initial conclusion as to the likely benefits of selenium by December this year.”

Peter Gill
Campus mural captures Indigenous culture

Bush Tucker, traditional dot-painted circles and footprints leading to a gathering point are three of the central features of a stunning mural painted by Indigenous student Angelina Parfitt, which was recently unveiled at Flinders University.

Covering three large, horizontal panels, the mural has been positioned as the centerpiece of the main wall of the Community Centre, a popular venue for residents of the University’s on-site student accommodation complex at the Deidre Jordan Village.

Entitled ‘Aninge-are apurteirrerelte-aneme Akaltyirityeke’ in her local Arrernte language, or ‘A place where people gather to socialise and learn’, the central panel is a blend of traditional elements from Indigenous painting and the artist’s personal touch.

I love painting circles, so I decided to use circles in each corner of the painting to reflect the places where students were coming from, and a few others to show the places they had visited along the way and one in the centre to reflect the University and where they were gathering now,” Angelina, a Bachelor of Education student, said.

The outer two panels, entitled ‘Merne Bwetyarinye akerte Central Australia arinye’ or ‘Bush food from Central Australia’ feature Angelina’s bright interpretations of bush bananas, wild cherries, honey ants and witchetty grubs.

Commissioned by the Dean of Flinders Housing, Ms Helen Fletcher, the mural has become a talking point for both students and staff at Flinders Housing.

“We wanted to create something that felt as though it had links to the local area and that could truly symbolise what the Community Centre and Flinders Housing are all about — bringing people together from all walks of life — and Angelina has managed to achieve this quite brilliantly,” Ms Fletcher said.

Indigenous researchers required

One of the biggest challenges facing the Yunggorendi First Nations Centre for Higher Education and Research is to qualify the people required to research Indigenous issues, according to former Director, Emeritus Professor Paul Hughes.

At a function marking his retirement and accomplishments, Emeritus Professor Hughes said Yunggorendi’s staff needed to complete the qualifications required to underpin research projects.

“The big challenge is to get our staff through to the doctorates that allow them to get into the research game, and for the University to support them while they build a research reputation,” Emeritus Professor Hughes told Flinders Journal.

“Research underpins reform. It’s not just a matter of our mob getting into research to do research about Indigenous people – you can’t reform policies without it being based upon research and facts,” he said.

“Many of our issues are very emotional but we have got to take that out of the equation and do the research that our people can own, based on the realities that we have to face – and the young people are the ones to do it.”

Asked to describe the significance of the Rudd Government’s recent apology to the Stolen Generations, Emeritus Professor Hughes replied: “From the Indigenous point of view the significance of the apology was absolutely massive. After all these years (and I have connections in family that have come from the Stolen Generations) the effect on our community has been huge – for the Government to actually say ‘Sorry’, is psychologically outstanding.”

Yunggorendi Director, Dr Lester-Irabinna Rigney, said Emeritus Professor Hughes’ contribution to Aboriginal education resulted in the first major national Aboriginal education policy in 1989 that set new directions for the education of Indigenous children.

“Flinders University has benefited greatly from Emeritus Professor Hughes’ expertise as an educator, collaborator, teacher and previous Director of Yunggorendi First Nations Centre for Higher Education and Research. We wish him well in retirement,” Dr Rigney said.
Flinders support for peace takes flight

Flinders University staff and exchange students took 1,000 origami cranes to Hiroshima this month to participate in the Peace Memorial Ceremony that remembers the dropping of the atom bomb on the Japanese city during World War II.

Senior lecturer in the School of Political and International Studies, Dr Andrew O’Neil, and Dr Vandra Harris, a research fellow in the School of Law, and two Flinders students, Erin Goddard (International Studies) and Joe Rafalowicz (Law and Development Studies) represented the University.

The paper cranes delivered by the Flinders delegation were the result of an initiative by staff of the University’s International Office which involved weeks of folding the origami shapes by family, students and friends. Paper cranes have become an international symbol of peace and commemorate the efforts by Sadako Sasaki, a victim of the bombing who suffered leukaemia, to be granted her wish to walk again. A Japanese legend says that anyone who folds a thousand paper cranes would be granted a wish.

Dr O’Neil, who also attended the ceremony last year, said the event attracted students and peace groups from all round the world.

“While the ceremony itself is very formal, there are also opportunities to wander around Peace Park and visit the museums, which is a very moving experience,” Dr O’Neil said. “The symbolism of the event is very powerful,” he said.

Peter Gill

Lawyers embrace ‘hot-tubbing’ in the courtroom

‘Hot-tubbing’ may not be an expression heard often in the courtroom but the legal fraternity is actively discussing its merits, according to the Dean of Flinders Law School, Associate Professor David Bamford.

Associate Professor Bamford told Flinders Journal that evidence from accountants, valuers, engineers, doctors and other experts is often critical to the outcome of trials but many judges, lawyers and expert witnesses are concerned at the quality and integrity of the expert evidence. He says many practitioners “are concerned that the way expert evidence is provided to courts is partly to blame”.

And that is why ‘hot-tubbing’ has now entered the legal lexicon.

“Giving evidence concurrently, or ‘hot-tubbing’ as it’s been called, involves experts meeting together before the trial without lawyers to identify where they differ,” Associate Professor Bamford said.

“At trial, instead of the traditional approach of having one party complete its case before the other begins, the expert witnesses for both sides all appear in court at the same time,” he said.

“The experts can be questioned by both the judge and the lawyers and are even able to comment on the evidence presented and ask questions of each other.”

The merits of ‘hot-tubbing’ were discussed recently when Justice Peter McLelland, Chief Judge in Common Law of the New South Wales Supreme Court, visited Flinders Law School and outlined some of the “revolutionary” changes taking place within litigation to students and staff.

Associate Professor Bamford said Justice McLelland had indicated that the complexities of the current approach to expert evidence had reached a point where “some leading experts are reluctant to be involved in court cases”.

“Justice McLelland believes this new approach helps the court gain a better understanding of the expert evidence and the strength of the competing views. Experts also feel they are able to present their evidence more accurately and efficiently,” Associate Professor Bamford said.

“Hot-tubbing is being increasingly used across different jurisdictions and this new approach to concurrent evidence was recently adopted in a large medical negligence case in the South Australian Supreme Court,” he said.

Peter Gill
New tool for early detection of autism

A new assessment tool designed to identify developmental and behavioural issues associated Autism Spectrum Disorders (ASD) in children under 12 months of age is the focus of a new study at Flinders University.

At present, autism is rarely diagnosed before a child is 18 months of age. The new process, which is being researched by Psychology PhD candidate Danielle Robson, has the potential to benefit autistic children and their families in relation to early delivery of assistance.

“If we are able to detect signs of autism within the first year of life, parents will be able to immediately implement an early intervention plan, which has already been shown to significantly improve the prognosis of children with autism,” Ms Robson said.

According to Ms Robson the infant assessment tool would incorporate a questionnaire for parents, along with a structured play session with the infant, during which they are scored on their responses to a number of specific tasks.

“During each session I assess a range of behaviours, including those that previous retrospective research has suggested are impaired in infants who later develop autism, such as eye contact, social and joint attention, sensory motor behaviours and temperament. I also assess overall development, parental concern and closely monitor the infants’ behaviour,” Ms Robson said.

A group of 40 children, including 25 ‘at risk’ infants who have older siblings with the disorder, are currently taking part in the study, which includes an evaluation from as young as two weeks of age and an assessment once every two months until the child is 18 months old. Follow up reviews will be performed at 24 and 36 months to assess the diagnostic status.

“So far I have identified at least six babies who are displaying behaviours or patterns of development that are of concern and may be indicative of autism. All of these infants are under 12 months of age, which is far younger than the current detection age of between 18 months to 3 years,” Ms Robson said.

“This is very promising and suggests that autism may be able to be detected during infancy – much earlier than is currently occurring – but I won’t be able to draw any conclusions until the final evaluations have been completed and analysed,” she said.

Emma Kibble

Standing tall in science research

Outstanding research that aims to make the most of the resources of the natural world has brought Young Tall Poppy Science Awards for two Flinders University scientists, Dr Kirsten Benkendorff and Associate Professor Wei Zhang.

The annual awards are made to scientists under the age of 40, who are selected on the basis of research achievement and passion for communicating their work.

Dr Benkendorf, a marine biologist, is focusing her research on Southern Australian marine organisms, in particular a local sea snail that has been identified as a source of a potential chemotherapy treatment for cancer patients. Her research cultivates production of these snails and tests the effectiveness of the snail extract against particular strains of cancer.

As well as teaching students about modern design and development processes for drugs, nutritional and biological products, Associate Professor Zhang also leads a research team that is developing cheaper and environmentally cleaner production processes for supplying these products using cells from bacteria, plants and animals.

Flinders Tall Poppies will take the message of the merits of science into high schools with a series of presentations over the months ahead.

In other awards, the University’s academic teachers and general staff have again received multiple Citations from the Australian Learning and Teaching Council, (formerly the Carrick Awards) presented for Outstanding Contributions to Student Learning.

Full details of the Flinders winners of 2008 ALTC Citations can be found at: www.flinders.edu.au/news

Charles Gent

Ms Danielle Robson

Dr Kirsten Benkendorff and Associate Professor Wei Zhang
Around the ridges

Archaeologists get down and dirty

Our archaeologists have a message—they want us to get our hands dirty. Eminent national and international archaeologists attending a September 24-28 conference hosted by Flinders University will discuss ways of encouraging the public towards greater participation in uncovering and documenting the past. ‘Archaeology from Below: Engaging the Public’ will bring together members of three professional associations, the Australasian Society for Historical Archaeology (ASHA), the Australasian Institute for Maritime Archaeology (AIMA) and the Australian Association for Maritime History (AAMH) in an annual conference.

Dr Heather Burke, Head of Archaeology at Flinders, said that in many other countries it is quite common for committed amateur volunteers, known as avocational archaeologists, to be involved in both major and minor archaeological projects.

“In the UK or America, it’s perfectly accepted for those people to be part of bigger archaeological projects or of work that universities are doing in the community, while they don’t have qualifications, they are so dedicated, enthusiastic and hard working, that you want to harness their energy,” Dr Burke said.

Local communities also play a significant role in providing anecdotal or personal histories of specific sites or events to archaeologists, and Dr Burke said that eliciting and collecting stories was crucial in creating a sense of community, even if subsequent archaeological explorations are unable to verify or authenticate them.

Part of the Adelaide conference will be devoted to forming strategies to engage the public in archaeology, including overcoming basic problems of perception.

“It’s something we don’t do very well in Australia at the moment.”

Dr Burke said the Department of Archaeology at Flinders is currently working towards setting up a volunteer program to assist with University projects.

“For us, it’s a great way to extend our capacity to do the things we want to do—we’re always limited by the fact that there are seven staff and half a dozen postgraduate students.”

Support needed for Timor-Leste

The February shooting of President Jose Ramos-Horta was a reminder of the fragility of social and political achievements in Timor-Leste, and is evidence of the country’s need for further support in bedding down governance and economic reforms, according to a Flinders University law academic.

The establishment of security and public safety remains a key issue, Professor Andrew Goldsmith says. “Both aspects are vital to the future prospects and progress of Asia’s newest and poorest nation,” Professor Goldsmith said.

Professor Goldsmith said many of the problems facing Timor-Leste stem from the high numbers of under-employed, under-trained and under-educated youth—approximately 50 per cent of the population is under the age of 15.

The phenomenon of the ‘youth bulge,’ and the challenges presented by youth gangs, will be among the themes examined at a forthcoming workshop hosted by Flinders University.

“Some people are willing to be involved in projects relating to heritage in their own backyards, but don’t show a wider interest or awareness; and there are still plenty of people who associate archaeology only with the ruins of Egypt or ancient Greece,” Dr Burke said.

Charles Gent

“Achieving an adequate level of security is fraught with its own pitfalls”

“Security is fundamental—as long as a stallholder cannot make his livelihood at a local market for fear of violence and disruption, there is no hope for the wider economy,” Professor Goldsmith said.

“But achieving an adequate level of security is fraught with its own pitfalls,” he said.

Professor Goldsmith said that the ongoing political instability leading to the attacks on the President and the Prime Minister in February this year led to the formation of a joint command between the army and police force, which had in turn created problems of its own.

“The conflation of army and police operations is a problem that many developing countries struggle with, and in Timor-Leste, in some respects, it seems like a reversion back to a less desirable state of affairs,” he said.

“As a consequence of the activities of this command, a number of serious human rights abuses were alleged, and are a concern both to those affected and to the international community.”

Professor Goldsmith, Mr Julio Tomas Pinto, Timor-Leste’s defence secretary and Mr Hernani Coelho, the country’s Ambassador to Australia, will speak at the workshop.

Charles Gent
As water allocations become ever tighter, Flinders University water scientists are helping the City of Onkaparinga explore the possibility of using recycled water to maintain vital environmental flows in the fragile Onkaparinga River.

In a two-year, $140,000 project, a team from the Flinders Research Centre for Coastal and Catchment Environments will run an exhaustive study to establish the impact (if any) on the river system and its users of the possible introduction of ‘grey’ water to replace stormwater flow from normal catchments. The project is a component of ‘Water Proofing the South’, a major long-term water resource management program that seeks to maximise water usage in the region.

Dr Rebecca Lester, who is part of the Flinders team, said the brief is to identify any potential problems associated with using treated wastewater as an alternative and reliable source of environmental flow for the Onkaparinga River.

Dr Lester said the study aims to identify any possible effects on human health and biodiversity in the river system and its estuary, as well as in the gulf waters that receive the river’s outflow. Flooding potential will also be covered.

“It’s really seen as a possible replacement for water from the Murray or the Onkaparinga catchment that could otherwise be used for drinking water,” Dr Lester said.

Conscious of the Onkaparinga River’s popularity for recreation, the researchers will consider all levels of exposure to the wastewater through activities such as swimming and fishing. The levels of nutrient load from wastewater and its effects on the river’s ecology will also be carefully assessed.

Dr Lester said that it was common practice overseas for treated wastewater to be put back into waterways.

Charles Gent

Flinders explores recycled water use

Having firmly established its reputation as a quality teaching, learning and research institution, the next challenge for Flinders University is maintaining these high standards in a dynamic sector, according to the newly appointed Chair of the Academic Senate, Professor Marika Tiggemann.

“For its size, Flinders has performed remarkably well on the national stage and should be proud of its record in the key areas of teaching and learning, research, and community engagement, but we need to work hard to maintain this,” Professor Tiggemann told Flinders Journal.

“Indeed, in this ever changing sector we need to ensure that Flinders is prepared across the board to respond to any new trends and challenges that may emerge. That’s how we will remain competitive,” she said.

A past recipient of the Vice-Chancellor’s Award for Excellence in Teaching, Professor Tiggemann is an internationally regarded expert on body image, having published more than 170 refereed journal articles across the globe. She has also enjoyed a long career at Flinders University, having joined as a senior tutor in psychology in 1981.

During that time, Professor Tiggemann has taken on several administration roles, including Acting Head of the School of Psychology as well as Acting Associate Head (Academic) and (Research) for Faculty of Social Sciences, which she believes will greatly assist her in her new role with the University Council.

“I consider myself a bit of an all-rounder in that I’m seriously committed to teaching and research, as well as participating in the administrative areas of the University,” Professor Tiggemann said.

“As Chair of the Academic Senate, I look forward to contributing an academic perspective to Council as the principal policy and decision-making body of the University. There is also a large degree of expertise, experience and wisdom on the current Council, and I look forward to learning from that.”

Emma Kibble

The non-confidential minutes of the Flinders University Council Meeting held on Thursday 7 August 2008, are now available on: http://www.flinders.edu.au/comperv/ucs/public
Creativity has been one of the buzzwords of the last decade, but according to Professor Richard Maltby, it might be time to think a bit harder about what is meant by it. Flinders Deputy Head of the Faculty of Education, Humanities, Law and Theology said that since the arrival of Britain’s Blair government, the idea of the ‘creative industries’ – which jams the arts together with advertising, public relations and marketing as opportunities for wealth creation through the exploitation of talent and intellectual property – has swept its way around the world.

“The concept of the ‘creative industries’ is, basically, an economic one,” Professor Maltby told Flinders Journal. “As the global pursuit of profit moves manufacturing to the cheapest source of labour, politicians and pundits in the West have embraced the proposition that the salvation of their economies lies in the commercial exploitation of ideas, imagination and their products.

“Cities and states all over the world have commissioned reports that explain how their particular circumstances are especially favourable to the development of creative industries and the virtually limitless prosperity and lifestyle market opportunities they promise.

“Meanwhile, some universities are sticking the creative label on programs that churn students through software courses teaching them how to rip, mix and burn existing ideas, so they can start up micro-businesses running on youthful enthusiasm, in order to feed the entertainment-industrial complex’s insatiable appetite for digital content.

“The Creative Arts Program at Flinders remains stubbornly attached to an older, less trendy definition of ‘creativity’ than the woolly economics of the ‘creative industries’ can provide.

“We have a long and established track record of training talented students in the craft skills, formal knowledge and intellectual rigour that equips them to make a genuinely creative contribution to our society. We don’t think that creativity is a magical, mysterious essence that can’t be defined or developed, but we also don’t think it can be measured, and we don’t think that it comes in the package with the software.

“Training students to be creative involves teaching them to recognise and access what is unique within them”

“Training students to be creative involves teaching them to recognise and access what is unique within them, and giving them the confidence, discipline and knowledge to use that uniqueness to shape matter – images, words, pixels, or their own bodies – into something new, surprising and valuable.”

Dr Robyn Archer, who has an honorary doctorate from Flinders University, will continue the discussion over ‘creativity’ and ‘creative industries’ when she delivers the Biennial Cherry Arts Lecture at the Playhouse Theatre on Friday, 5 September 2008 at 5.30pm. Dr Archer’s lecture is entitled ‘Unconditional Love: industry that pays and art that doesn’t’.