Top honours for Liggins scientists

Fellowship remembers a special partnership

Evolutionary origins of modern disease
A year of achievements

2006 was a special year for the Liggins Institute, Patron and acclaimed scientist, Sir Graham (Mont) Liggins celebrated his eightieth birthday while the Institute itself turned five. Meanwhile, many researchers at the Liggins celebrated their own special milestones with the birth of six babies, including one whose battle for survival underpins the Liggins Institute’s philosophy. In June, the Sir John Logan Campbell Classroom was opened by the Prime Minister while Epi Gen, a new commercial consortium was launched at the Mystery Creek Fieldays.

Since its official opening by Her Majesty Queen Elizabeth II in 2002, the Institute has cemented its research reputation, attracting major funding and forming significant international partnerships. In 2004 the excellence of Institute’s research was formally recognised when it received the country’s top rating for health, biomedical and medical research in the inaugural Performance-Based Research Fund (PBRF). In 2003, the Institute was included in one of seven government-funded Centres of Research Excellence, the National Research Centre for Growth and Development. Over 30 million dollars in grant funding has been won by the Institute since its foundation. Collaborations have also been formed with AgResearch, and the universities of Cambridge and Southampton in the United Kingdom.

Liggins’ director Professor Peter Gluckman says the first five years of the Institute’s life have seen it grow in research strength and reputation. “We are now truly world-class in terms of technologies and the quality of our researchers. Our new “sequenom” facility is just one example of how we’re staying at the cutting-edge of research exploring the influences of genetics and the environment on the origins of disease. The Liggins is well on the way to becoming an iconic example of New Zealand intellectual achievement. There are challenges ahead, but we face them with the knowledge that we are truly at the head of our field.”

Associate director elected Fellow of the Royal Society

Liggins Institute associate director Professor Peter Lobie was elected a Fellow of the Royal Society of New Zealand in November. Professor Lobie is a molecular endocrinologist whose work on the role of growth hormone in the development of breast cancer has earned him international acclaim.

In congratulating Professor Lobie, Liggins’ director Professor Peter Gluckman said: “Peter Lobie’s expertise in unravelling the complex mechanisms of how locally produced growth hormone works in the cancer cells has led to a breakthrough in our understanding of how breast cancer develops and spreads. It opens the way for the development of new therapies to combat this deadly disease. “We are extremely fortunate that we were able to attract a scientist of his calibre to the Liggins Institute,” adds Professor Gluckman. “Our funding from the National Research Centre for Growth and Development has been a major factor in making this possible.”

Professor Lobie is one of 12 new Fellows elected in 2006. He joins three other New Zealand Fellows at the Institute: Professors Peter Gluckman, Murray Mitchell and Jane Harding.

Liggins fellow receives young scientist award

Research fellow Dr Mark Vickers has been awarded the Royal Society of New Zealand’s 2006 Hamilton Memorial Prize. The Prize recognizes outstanding achievement by young scientists in New Zealand and the Pacific.

Dr Vickers, who completed his PhD on the impact of poor fetal nutrition on adult health, recently published a groundbreaking study which showed that infant rats predestined for adult obesity did not develop obesity or insulin resistance if given leptin, a naturally occurring hormone associated with appetite regulation. Mark’s work focuses on the link between fetal malnutrition and a predisposition towards diabetes and obesity in adult life. Until the publication of his study, this predisposition was believed to be irreversible.

“IT is obviously a great honour and extremely satisfying to have our research recognised by the Royal Society in this manner,” says Dr Vickers. “This award serves to highlight the importance of the work undertaken at the Liggins and reflects the strong position we have on the world stage in the area of developmental programming.”

Liggins Institute director, Professor Peter Gluckman says Mark was nominated for the Prize because of the international impact his research had made. “His work has already received significant international recognition,” says Professor Gluckman. “I think most would regard his recent leptin study as arguably one of the most important advances in the field of developmental origins research in the past three years. He is now a major figure in the field.”

Dr Vickers joins two other members of the Liggins Institute who have previously won the Hamilton Memorial Prize: Associate Professors Bernhard Breier (1991) and Chris Williams (1993).

The first Hamilton Memorial Prize was awarded in 1923.
New fellowship established in memory of Celia

Sir Graham Liggins has established a research fellowship in memory of his late wife Celia.

The Celia Liggins Fellowship is awarded to leading young scientists working in the Director's own research team. The Fellowship was established with a substantial gift by Sir Graham.

When Lady Cecilia Liggins died in 2003 her legacy was manifold. As Auckland's first female obstetrician and gynaecologist, she was a popular and pioneering clinician. Despite these professional commitments, she also raised a family of four and provided Mont with the support he needed to pursue research interests which often took him away from home for months at a time. His generous gift is in recognition of Celia's lifelong support of his own research.

An international search for the inaugural Celia Liggins Fellow saw the appointment in August of Dr Candis-Lee Cupido, a geneticist who joins an expanding team at the Liggins exploring the relationship between human evolution and the development of modern disease. She joins the Liggins Institute from the University of Cape Town. For a profile of the inaugural Celia Liggins Fellow, turn to page 13.

Donations to help continue Celia's legacy can be made by contacting Pandora Carlyon: 09 373 7599 ext 82305 p.carlyon@auckland.ac.nz.

New Epi Gen consortium holds key to predictive medicine

A new joint venture between the Liggins Institute and three other agricultural and medical organisations was launched in June by Agriculture Minister, Pete Hodgson.

The consortium, known as ‘Epi Gen’, brings together the Liggins Institute, AgResearch, the United Kingdom's Medical Research Council Epidemiology Resource Centre and The University of Southampton. The group will explore the new science of ‘epigenetics’ - which contends that the way genes are expressed can be influenced by our environment.

Liggins director Professor Peter Gluckman likens epigenetics to the workings of a lighting dimmer switch: genetic potential can be magnified or diminished according to external influences in early life.

“Developing our understanding of the function of genes during the very early stages of fetal development will have significant benefits,” says Professor Gluckman. “It will enable us to develop the strategies and interventions needed to combat many of the major metabolic and degenerative diseases affecting humans and farm animals.”

AgResearch CEO, Andy West said the potential for Epi Gen is enormous. “The consortium's unique set of capabilities and resources offers us the opportunity to lead the way in discovering major factors between epigenetic change in humans and animals.”

Epi Gen was launched at the Mystery Creek National Fieldays.

Pioneering patron turns 80

The pioneering obstetrician who gave the Institute his name along with his support, turned 80 in June.

Most people who know about Sir Graham (Mont) Liggins know him for his groundbreaking work in the fields of preterm labour and neonatal medicine (the care of newborn babies). What they might not know is that while Mont Liggins has helped save the lives of thousands of premature babies worldwide, he also once saved the life of an elephant.

2006 sees this world-renowned scientist celebrate his 80th birthday. His contribution to obstetrics and neonatal medicine has been enormous. Not only did he discover a way of accelerating premature infants' lung development, allowing them to breathe independently and halving infant mortality rates, he also established that the fetus, not the mother, determines the onset of labour.

It's arguable as to which breakthrough was more significant. For Mont, the discovery that pregnancy could be prolonged if the fetal pituitary gland was not allowed to release key hormones, was his most exciting scientific moment. In reality, the serendipitous by-product of this research - the discovery that steroids given during pregnancy matured infant lungs so that babies born early could breathe - has been the most significant advance in neonatal medicine over the last forty years.

Mont's story begins in Thames, where he was raised alongside his twin sister and three brothers. His father James Liggins was the local GP. Despite the influence of medicine on the family, Mont's first calling was engineering. His hobby as a boy was 'inventing', and he and his brothers delighted in building problems with homemade rockets and electrical appliances. In retrospect, it is easy to see how this passion for discovery would later translate into a passion for research.

When Mont's elder brother, who was destined to be the next doctor in the family, changed his specialisation from medicine to dentistry, Mont felt the pressure to follow in his father's footsteps and enrolled in the medical intermediate-year aged just 16. By the time he returned to Auckland as a 22-year-old house surgeon, Mont had already begun what he calls in New Zealand's longest association with National Women's Hospital: prior to becoming a house surgeon he'd spent previous summers as a hospital carrier helping construct World War II's 48th General Hospital which would later evolve into National Women's.

As a young GP in Hamilton, Mont put in long hours, eventually deciding that a stint in the United Kingdom would be beneficial for his career. There he secured clinical posts with leading women's hospitals, gaining experience unparalleled anywhere in the western world. It was while he was applying for the last of these posts that Mont met his future wife Celia, who applied for the same role. Depending on who you ask, says Mont, either he got the job and they felt sorry for Celia, or she got it and they took pity on him. Either way, they both got a job.

It wasn’t until they returned to New Zealand in 1959 that Mont’s interest in research emerged. On advice from a colleague, Mont decided to tackle the biggest problem affecting obstetrics – preterm birth. The results were his steroid treatment of women in threat of preterm labour and the discovery that hormonal changes in the fetus trigger labour. Surprisingly, it was to be over twenty years before obstetricians worldwide accepted steroid treatment for pregnant women as standard practice, while here in New Zealand the treatment was immediately adopted, giving positive outcomes for infants far earlier than elsewhere in the world.

As for the elephant, it was Mont's reputation as a leading gynaecologist which saw him called to Auckland Zoo's aid: their female elephant Jamuna had developed a life-threatening hormonal imbalance. After consulting colleagues worldwide Mont decided that the last resort would be the removal of the elephant's ovaries unless cancer could be tried. It was, and Jamuna recovered, much to Mont's relief as he didn’t much fancy removing an elephant's ovaries.
Meet the parents: the Liggins’ family gets bigger every day

Many of the health issues explored by Liggins’ researchers are close to their hearts in more than one way.

Sonia Alix and daughter Adele.

As parents, our clinicians and scientists see the consequences of premature birth, diabetes and infant brain injury not just as statistics, but as real problems affecting families and children just like theirs.

In 2006, the Liggins welcomed six new children to its extended family. Girls were born to research fellows Mark Vickers and Dyanne Wilson, to Liggins’ writer Andrea Giacomo and biochemist, Sonia Alix. Research fellow Fahimah Rahnema and technician Chris Keven had sons.

Mark Vickers, whose work includes the post-natal effect of under-nourishment on the womb, became a proud dad to daughter Lila-Kate in May: “Being a parent to our daughter Lila-Kate and at the same time researching the effects of adverse fetal environments on early childhood growth and later adult health has both pros and cons. The adage ‘too much information can be a bad thing’ initially springs to mind. Being a parent suddenly reinforces how important research we undertake is and how you yourself have become a practical exponent of your own work. As researchers, we are exposed to a wealth of knowledge about pregnancy and early childhood outcomes and thus can ensure that we do everything (within our limits) to help optimise the environment we give our unborn child.”

Sonia Alix had the sort of experience in becoming a mother that most women dread: she went into premature labour at 24 weeks and five days and gave birth to a tiny daughter Adele weighing just 690 grams.

Ironically, Sonia works at the Liggins with neonatologist Professor Jane Harding, a specialist in the care of premature babies. Sonia herself had visited Auckland Hospital’s Neonatal Intensive Care Unit (NICU) with another Liggins’ neonatologist, Frank Bloomfield, in the first trimester of her pregnancy. She never expected to find herself three months later or having to make the heart-wrenching choice to treat or not treat her tiny baby. In the end, baby Adele made the decision for herself, surviving against the odds in the vital few hours after birth. Now a bright eight-month old, Adele spent 14 weeks in NICU and is meeting her milestones well.

“I didn’t really know too much about the Liggins’ work before I joined the Institute,” says Sonia, who arrived in New Zealand from the United Kingdom in 2005. “I wasn’t aware of the heritage of neonatal medicine in Auckland and until Adele was born, I didn’t appreciate just how important the work underway at the Liggins is. It’s ironic that I should be working for two of New Zealand’s leading premature baby specialists and end up having a premature baby myself. I am proud to be working with Jane Harding and proud that the work I do might help save another premature baby one day.”


Liggins wins significant Marsden grant

A project to determine what impact early life influences have on future health has been awarded a significant grant from this year's round of the prestigious Marsden Fund.

The project, which is lead by Liggins’ director Professor Peter Gluckman, will receive $780,000 over the next three years.

“Fortune telling during development – modelling life-history strategy and testing for canalisation genes’, aims to add a new dimension to the concept of the developmental origins of disease.

In a new approach, researchers will develop a mathematical model that will describe how environmental influences on the embryo, fetus or newborn modify the way certain key genes are regulated. They will then use this model to find key gene regulators.

“Finding the specific gene regulators that bring about these changes would be a conceptual advance in explaining how organisms tailor their development to meet the environment they will encounter as adults,” says Professor Gluckman. “It will give us the tools to predict the risks of some diseases at an early stage and help us find ways to alter those risks.”

The project brings together an international research team which includes AgResearch in Hamilton and the universities of Southampton and Cambridge in the United Kingdom.

Director named Auckland City’s Distinguished Citizen

Professor Peter Gluckman has been named Auckland’s Distinguished Citizen for 2006 by Auckland City Council.

Conferred in November by Auckland Mayor Dick Hubbard, the award recognises the significant contribution made to New Zealand and the City of Auckland by the Liggins’ director. Previous recipients are Sir Edmund Hillary, Jenny Gibbs and the late Sir Hugh Kanhuru.

In presenting the award, Mayor Hubbard said the distinguished citizenship was about recognising extraordinary New Zealanders who had arguably helped shape Auckland as much as the City’s previous mayors.

“Peter’s intellect and achievements mean that for a long time now he could have settled anywhere in the world. Yet he remains passionately committed to promoting Auckland as a centre of intellectual excellence.”

The Mayor described Professor Gluckman as an extraordinary Kiwi who has taken New Zealand medical research to the world stage.

In brief

Endocrine Society Award for Liggins’ research fellow

Liggins’ research fellow Dr Nicola Thompson has been awarded a Women in Endocrinology Nova Nordisk Young Investigators Travel Award. The Award is presented in recognition of research excellence by young women endocrinologists and was awarded in June at the American Endocrine Society meeting. Nicola is currently investigating the effects of fetal under-nutrition on adult obesity and diabetes. The travel award enabled her to present at Society meetings in the United States and Australia during 2006.

PhD student wins grant for premature infant study

PhD student Dr Jane Alseweiler has received a $35,000 grant from the Auckland Medical Research Foundation (AMRF) to study the effect of tightly regulating sugar levels in hyperglycaemic premature infants (babies with too much sugar in their blood).

A paediatric registrar based at Auckland City Hospital’s Neonatal Intensive Care Unit (NICU), Dr Alseweiler’s research hopes to clarify whether premature infants grow better when their sugar levels are lowered below the currently accepted level of 10 millimols per litre. The AMRF grant will enable her to conduct a NICU trial comparing current clinical practice with the more tightly controlled blood sugar levels of 4-6 millimols per litre. Jane also holds an AMRF Ruth Spencer Medical Research Fellowship, a prestigious fellowship awarded to a medical graduate to undertake a research project for full-time study towards a PhD.

Liggins’ student takes first prize in biotechnology competition

iTech (Hons) student Graeme Fielder has won first prize in The University of Auckland’s annual I-LOLVE competition. I-LOLVE, a competition established by the University’s bio-entrepreneur incubator Chiasma, allows students to present their commercial ideas to the biotechnology community.

Graeme, whose idea for an online trading site for biological materials was developed in conjunction with student Carthur Wan, is currently researching the role of novel genes implicated in the development of breast cancer under the supervision of Professor Peter Lobie. The awards were judged in May by Xcellence and Synamists founder Peter Shepherd, and New Zealand Trade and Enterprise Biotechnology director, Chris Boalch.
Inspiring a passion for science

Our new Sir John Logan Campbell Classroom manager has left school to encourage others to stay.

Why does the DNA move through the gel?

The programme

Researchers from the Liggins Institute and the University’s faculties of Science and Medical and Health Sciences, will all contribute to the Classroom's programmes. Topics are likely to include:
- Biotechnology techniques and their applications, including gel electrophoresis, PCR, ligation, micro-arrays and tissue culture;
- Biotechnology, genetics, mutations and gene expression - for senior biology;
- DNA and simple genetics - for middle school programmes.

Research contests that these topics and programmes will be linked to are likely to include breast cancer, the muscle protein myostatin and obesity. A new website will provide a programme of topics and resources for teachers and is hoped to be live early next year.

Teachers interested in booking Classroom programmes for their students should email: ligginclassroom@auckland.ac.nz.

Blooming late may mean a longer life

If you were shorter than your peers as a child and went through puberty late, then you're more likely than most to live to a ripe old age according to the work of clinical research fellow Dr Dyanne Wilson.

Dr Wilson is exploring the hypothesis that “late bloomers” (children who go through puberty at a later than average age), are more likely to be sensitive to the hormone insulin - a characteristic which distinguishes healthy centenarians from other elderly people.

“Insulin resistance (where the body becomes less sensitive to insulin), is an important indicator of health in later life which can be measured even in childhood,” explains Dyanne.

“Individuals with insulin resistance have a higher risk of developing cancer, high blood pressure, type-2 diabetes and heart disease, while individuals who are insulin sensitive have a lower risk of these conditions.”

Dr Wilson found that pre-pubertal children whose development lagged behind their peers were more likely to be insulin sensitive. Forty percent of these children had enhanced insulin sensitivity compared to children whose growth and development matched their actual age.

“Our research suggests that children who are late bloomers have a biological advantage with a lower risk of developing conditions such as diabetes and cancer. This has implications for children entering puberty early, as they may benefit from early intervention through lifestyle changes (and possibly medication) to prevent disease later on.”

Dr Wilson’s work is an extension of research by Associate Professor Wayne Cutfield and Dr Paul Hofman who found that growth restricted and premature babies were more likely to be insulin resistant than full-term infants.

“Given these results,” says Dr Wilson, “we’re going to do a study to see if insulin sensitivity affects the timing of puberty. If this is the case, it will open the way for new approaches to reducing the risk of adult disease in early bloomers.”

Dr Wilson’s research was funded by the Southern Trust.
Muscle protein may hold key to fetal growth

A muscle-restricting protein known as myostatin may be a vital factor in placental function, according to new research by Liggins' scientists.

A gene mutation that many bodybuilders must long for: his body can not produce a muscle-limiting protein called myostatin.

For years myostatin was thought to be responsible solely for restricting muscle growth, but thanks to a unique discovery by Liggins Institute scientists, this special protein has now been found in the placenta and gestational membranes and may have a role in nutrient delivery from mother to fetus.

If this is the case, it could be the answer to something researchers have long been searching for: a way to boost the growth of babies in the womb.

The scientists behind the discovery of myostatin in the placenta are Liggins' Professors Murray Mitchell and John Bass.

"It was exciting and surprising to find myostatin in the placenta and gestational tissues," says Professor Bass, a specialist in muscle biology and growth. "Given that it's now known that myostatin controls the balance of key nutrients in several parts of the body, our next step was to see if it was doing the same kind of job in the placenta. We found that myostatin does indeed control the movement of glucose across the placenta, which is of course vital for passing energy from mother to baby.

"It's a result which definitely warrants further study because thousands of babies worldwide suffer from nutrient deprivation due to placental problems. This leads to intra-uterine growth restriction, small, at-risk babies and currently there is no way to get more nutrients to these babies other than to deliver them prematurely, which itself poses huge risks."

Professor Mitchell, the Institute's research director, knows more about premature birth than most. His expertise is in the hormones that control labour and birth, and he leads research that aims to find the causes, an effective treatment and an accurate diagnosis for premature labour.

"Myostatin also influences some of the hormones and proteins that we know are key to switching on labour and delivery," explains Professor Mitchell. "Discovering the full story about what switches on labour is one of our main scientific goals – with the aim of using it to reduce premature births. It's exciting to find something that could be another piece in the jigsaw puzzle."

This work was funded by the National Research Centre for Growth and Development and was published as a rapid communication in the Journal of Clinical Endocrinology and Metabolism.

Coming Events: Science, Medicine and Society '07

The Liggins Institute's Science, Medicine and Society programme continues to draw increasing public interest. Aimed at non-scientists and designed to bring together clinicians, researchers and the public, the programme’s seminars are sometimes controversial and always highly topical.

The 2007 programme will again provide opportunities for the public to hear and meet some of the leading international scientists who visit the Liggins. These will include high-profile scientist, communicator and documentary maker, Professor Lord Robert Winston and experts in evolution and development: Sir Patrick Bateson, Dr Chris Kunze, and Dr Mary Jane West-Eberhard.

Parents, Friends and community groups will soon be able to share some of the excitement of Liggins’ discoveries and become "scientists" for a night. As an extension of the Logan Campbell Classroom’s 2007 programme for schools, the Institute will offer evening classes for parents of parents and supporters to learn more about the science behind the research and what it means for our health and society.

Inaugural fellow appointed through Celia’s legacy

South African Dr Cinda-Lee Cupido has been appointed the first Celia Liggins Fellow.

Cinda-Lee comes to the Liggins Institute from the University of Cape Town where she helped identify genes that may be associated with the development of bipolar disorder. Her Celia Liggins Fellowship sees her take up a position in the Institute’s newly formed Centre for Human Evolution, Adaptation and Disease (CHHEAD), a research unit which looks to trace the disease-inducing interaction between our modern lifestyle and our ancient DNA.

"A lot of the work at the Liggins is aimed at discovering the biological mechanisms underlying increasingly more common modern diseases. These diseases seem to have their origin in how humans evolved and the current mismatch between our environment and our genetic make-up. We’re beginning to understand that genetic modifications which were beneficial to humans five to ten thousand years ago, are now detrimental to our health. We’re aiming to look for genes and gene modifications that have evolved recently and which may be helpful in identifying risk factors for conditions such as type-2 diabetes, hypertension and obesity."

For Cinda-Lee, there is a romantic irony in her appointment as the first Celia Liggins Fellow: she started work at the Liggins through a gift which recognised a special marriage, on the same day that her fiancé proposed. "It is wonderful to be associated with Mont and Celia, and to be working among ground-breaking scientists here at the Liggins. I hope my time as a Celia Liggins Fellow will contribute to our understanding of human growth and development in a way that would have made Celia proud."
The Liggins Institute is set to benefit from a unique fusion of sponsorship, art and medicine through the 2006 Team McMillan BMW Art Awards.

Long-time supporter of the Institute, Team McMillan, BMW commissioned 11 well-known New Zealand artists to produce works on shortened BMW bonnets. This innovative category accompanies Team McMillan’s annual Emerging Artist Award. The bonnets will be auctioned at an event early in 2007 with proceeds going to the Institute.

At the Awards function in October, Liggins’ director Professor Peter Gluckman paid tribute to the generosity and commitment of the Team McMillan directors in supporting both art and science in Auckland. He commented on the synergies between them as two facets of human creative endeavours. Team McMillan director, Bob McMillan said it was important to recognise that innovation and experimentation are incredibly important to the country’s economic and social development.

Bonnet artists range from internationally recognised ‘conceptual’ artist Bills Apple, to Bonnet Award-winner Jenny Dolezel and Friends of the Liggins’ committee member, Sarah Guppy.

A full-time painter who trained in London and has exhibited widely, Sarah’s work depicts two heads, back-to-back. Sarah, who has been a Friend of the Liggins since 2004, describes her work as a metaphor for human thought. “The ivy pattern across the faces of both heads is symbolic of the different pathways of the brain we each have within us. The two heads are a commentary on all the things our heads contain: thoughts, actions, responses and feelings.”

While Sarah’s work was not influenced by Team McMillan’s choice of the Liggins as its recipient, the neurological content of her painting echoes the thought process behind scientific enterprise and discovery.

About Jenny Dolezel’s winning bonnet, “The Single-Minded Pursuit of More,” which will become part of the Team McMillan Art Collection while the other ten works will be donated to the Liggins Institute for auction at a suitable event.

The bonnets are currently on display at Team McMillan on the North Shore. For more information contact Pandora Carlyon on 09 373 7599 ext 52030, or view the bonnets online at www.liggins.auckland.ac.nz.

**Note to Friends**

The aim of the Liggins Institute is to give every child the healthiest possible start to life. In the last issue of Dialogue, I congratulated the Institute on turning five: five years of research success and public accolades. The celebrations continue as a series of prestigious awards and significant birthdays reinforce the Institute’s mandate of quality of life through quality of research.

This year, the Institute’s inspiration and founding patron Sir Graham Mont (Liggins) turned 80. It was his discovery that steroids help mature the lungs of premature babies which found him fame and encouraged a host of young clinicians to follow in his research footsteps. It is wonderful that Mont should choose to recognise his late wife Celia, with a significant donation to help fund post-doctoral fellowships at the Liggins.

It is similarly wonderful that the generation of researchers building on Mont’s legacy is now receiving their own accolades. Two Liggins’ researchers were recognised by the Royal Society of New Zealand: Professor Peter Lubie was made a Fellow while Dr Mark Vickers received the Charles Hamilton Memorial Prize for outstanding achievement by a young scientist. Liggins director, Professor Peter Gluckman was named Auckland City’s Distinguished Citizen for 2006. As Friends of the Liggins we should all be proud of the achievement these awards represent.

2006 also saw significant developments for the Friends. A vibrant new Friends’ logo was launched in September and can be seen gracing these pages above. Team McMillan continued its support of the Institute, this year through its annual Art Awards. We are very grateful to them and look forward to realising their gift of the 2006 BMW Art Bonnets next year.

Sadly, we made the difficult decision to cancel the fundraising event Carivale ’06 when ticket sales did not meet expectations. We would like to thank all those people and businesses who got behind our committee, made donations or contributed their time, effort, products and services. Our special thanks to Dawson’s, Webb’s, Studio 75 and Walker and Hall, Newmarket.

So as the year rolls to a close, please take a moment to congratulate yourself on the contribution you have made to the work of the Liggins Institute. Without the ongoing support of members, donors and sponsors, the Liggins would not be able to initiate many of the innovative programmes and research projects which set it apart. Your efforts to raise funds and the Institute’s profile are not only greatly appreciated, they will be of benefit to generations of New Zealanders to come.

Warm regards,

Roxane Horton
Chair of the Friends of the Liggins Institute Committee
New book links lifestyle diseases with evolutionary mismatch

A new book which explores the evolutionary disparity between our modern lifestyles and our ancient physiology will be officially launched in the United Kingdom this December.

Co-authored by Liggins’ director Professor Peter Gluckman and The University of Southampton’s Professor Mark Hanson, Mismatch — why our world no longer fits our bodies, re-ignites the nature-versus-nurture debate by proposing that the genes we are born with can be modified by our environment.

The book argues that the intra-uterine development of a 21st century human reflects a past out of sync with the contemporary world in which we live. This incongruity could be behind the explosion of modern lifestyle diseases plaguing our society, from diabetes and obesity, to early onset Alzheimer’s.

Influencing the body to adapt to its environment is one answer proposed by Professors Gluckman and Hanson: build babies better able to thrive in a world of plenty by programming them in-utero, and change our lifestyles to better suit our ancient body-blueprint.

Advance copies of Mismatch were favorably received by UK media with Professor Lord Robert Winston’s foreword to the book published in the Times Higher Education Supplement. Preview coverage also appeared in The Guardian and on the BBC.

See also the Oxford University Press blog for Mismatch: http://blog.oup.com/oupblog/2006/11/we_are_surround.html

Mismatch is available in New Zealand bookshops now. Professor Lord Robert Winston will be in Auckland next year for the book’s official launch.

To register your interest in this event, contact Pandora Carlyon on (09) 373 7599 ext 82805.

Share our dreams

As we celebrate our fifth anniversary it is timely to reflect on where we have succeeded, where opportunity lies in front of us, and where we face challenges.

First and foremost we have succeeded in the three domains that matter most: quality in research, quality in staff and in seeing our research being translated into practice. There is no doubt that the work we do is having increasing impact on promoting a healthier start to life, on protecting the brain from damage and on breast cancer research. I am proud that our staff have received recognition at all levels with a number of prestigious awards announced this year. At the same time our new Classroom continues to generate a huge demand for its programmes.

Increasingly we are being seen at the hub of the global network of researchers aiming to ensure a healthy start to life. Our international network continues to grow.

Last month I co-chaired a workshop with the World Bank on the cost-benefits of putting a greater focus on health at the beginning of life. This will result in a major project led from the Institute in collaboration with researchers in India and the United Kingdom. And next month I will chair a similar event sponsored by the Rockefeller Foundation. In February we will host some of the world’s leading developmental scientists at a workshop discussing how best to apply our knowledge of evolutionary biology and early life influences to major public health issues.

Our established and new scientific partnerships are all growing but they require resources to flourish. The cost of research is growing far faster than inflation. As universities face economic challenges their ability to assist becomes more limited. If we are to be world-class we must continue to grow, to develop, and to recruit young people.

The Liggins is on the way to being a recognised centre of world class medical research in Australasia that relies almost solely on grant and contract support to survive. Most of the major research institutes in Australia were started with government grants or have had very large levels of community support – the equivalent institute in Melbourne regularly expects donations of $8 million or more per annum. We are very grateful to those who have supported us with donations – the real benefit of those donations will be reflected in the ultimate translation of our research into improvements in our children’s development and long term health prospects. This will, in turn, underpin Auckland’s position as a recognised centre of world class medical research.

New book links lifestyle diseases with evolutionary mismatch

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Please enrol me as a friend
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Please accept my donation
☐ enclose a donation $ ________  ☐ Please contact me about where my donation is directed
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If you no longer wish to receive information about the Liggins Institute please tick here ☐

Please accept my donation ☐

Please enrol me as a friend ☐

Please contact me about where my donation is directed ☐

Thank you for your support.

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