



PhD student Brian Gloss and Garvan researchers have identified biochemical changes that commonly occur in the DNA of women with ovarian cancer.

Making *NEWS*

Garvan scientists have identified biochemical changes that commonly occur in the DNA of women with ovarian cancer, which may help diagnose the cancer at an earlier stage in the future. Using whole genome DNA profiling methods, Garvan scientists have identified a panel of six genes that are affected by an epigenetic process known as 'DNA methylation' in ovarian cancer. The Garvan team collaborated with Professor Neville Hacker, Director, Gynaecological Cancer Unit, Royal Hospital for Women, Randwick, who provided tumour samples from ovarian cancer patients, as well as samples from normal ovaries.

Obesity, especially central obesity, is associated with insulin resistance which precedes diabetes, sometimes by more than a decade. However, it's not only a question of body weight or fat distribution because some obese people remain insulin-sensitive, with insulin working as well in their bodies as in someone lean. Garvan researchers reviewed 79 publications on this topic and say it also seems that in addition to having a lower risk of Type 2 diabetes than insulin-resistant people of the same weight, individuals who are obese and insulin-sensitive also appear to have greater protection against death from cardiovascular disease.

Anti-psychotic drugs for treating serious mental illness, such as bipolar disorder or schizophrenia are effective and often life-saving, but come with unwelcome side-effects. They dramatically increase weight as well as the incidence of metabolic disorders such as raised blood fats and Type 2 diabetes, say Garvan specialists. The rapid decline in physical health is so clinically significant, and of such concern, that the specialists put together a physical health protection algorithm last year, which they say should run in tandem with mental health treatment. It includes regular and specified measurement of tangibles – weight, waistline and blood chemistry – as well as counselling about lifestyle and diet.



**GARVAN
INSTITUTE**

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From the CEO

Welcome to the first issue of *breakthrough* for the year.

Earlier in the year, there was a lot of media attention around not-for-profit organisations and how they fundraise. I'd like to take this opportunity to address this in terms of Garvan and its work.

The issue related to expenses incurred by some charities in administration and fundraising costs. While the old adage, 'you have to spend money to make money' is widely accepted in the corporate community, it does also apply to not-for-profit organisations. The question raised in the media earlier this year was, 'how much is too much?'

I am very proud of the fact that the Garvan Research Foundation has one of the lowest administration and fundraising costs of any charity that I have ever worked for. In fact, for around nine cents in the dollar, not only do we run all of our fundraising activities, but we also run our large public engagement program including six free public seminars a year, monthly tours and our community speaking program.

For donors it means that, for every \$100 we receive, at least \$91 goes directly to funding Garvan's world-class medical research. The remaining monies are put to use helping us raise additional funds, allowing us to continue our vital work.

I believe it is important that we are as transparent as possible to you, our valued supporters, so please do not hesitate to contact me or my team at any stage if you have queries about any aspect of our work here at Garvan.

Thank you for your ongoing support.

Yours sincerely,

Andrew Giles
Garvan Research Foundation



Opinion



Professor John Mattick AO FAA
Executive Director

There have been three transformational advances in molecular biology: the double helix, gene cloning, and genomics.

The first, in the 1950s and 60s, provided the basis for understanding gene structure, gene expression and gene regulation – the first steps toward deciphering how our genetic inheritance programs our biology. The paradigm that emerged – the so-called 'central dogma' – was that each stretch of DNA (a gene) specified a protein through the intermediate of RNA, which was copied when needed and decoded.

The second, beginning in the 1970s, gave medical scientists the first chance to 'look under the hood'. The ability to isolate and amplify individual DNA sequences led to the discovery of many genes involved in human development, human physiology and brain function, whose protein products were invisible to the relatively crude biochemical approaches of the time. It also enabled the identification of those that malfunction in diseases, like cancer, which was the prerequisite to the development of new drugs to block them. These drugs are now, 20 years later (after all the required research and safety testing), being used in the clinic to successfully treat many previously lethal cancers – with many more in development.

The third revolution, genomics, has been made possible by the incredible advances in DNA sequencing technology over the past 20 years. Ten years ago the first human genome sequence cost \$3 billion dollars, and took years of work to complete. Now we can do the same thing for \$3,000 in a few days, and the cost is dropping by at least half every year.

This is enabling us to determine the full molecular signatures of different cancers, and the best treatment options and approaches. Genome sequencing has already saved lives by identifying rogue mutations that were not obvious from traditional cellular pathology. Garvan is pioneering the introduction of this 'next gen' approach to cancer in the soon-to-be-opened Kinghorn Cancer Centre. This is a joint venture with St Vincent's Hospital, where medical science and the clinic will interact, side-by-side to bring the state of the art to Australia.

Garvan will also bring these next gen approaches to dissecting the other complex diseases that beset our community – diabetes, immune disorders, osteoporosis and neurological disorders. The biological and medical revolution is now moving into top gear. It is clear that this will be the last generation to die from cancer, and there is every reason to expect that the other diseases will succumb to human understanding.

Be part of our first ever Garvan Australian Spectacular!

Stars of opera, musical theatre, jazz and country will join forces at the Sydney Town Hall on Saturday 28th April 2012 for our inaugural Garvan Australian Spectacular.

Featuring the Sydney International Orchestra, the Australian Army Band and VOX - the Sydney Philharmonia's Youth Choir, this family concert will include a variety of musical genres along with a tribute to the Anzac spirit and Australian talent.

Importantly, it will also help raise vital funds for cancer research at the Garvan.

The Garvan Australian Spectacular is the brain child of Pauline Cash Cumming, a retired physiotherapist and now children's book author. The loss of two of her children to cancer was the impetus for her interest in cancer research.

"As a chorister I have often sung in concerts in the Sydney Town Hall," said Pauline. "I thought it would be a beautiful venue to raise funds that will help put more cancer researchers into Garvan's laboratories, and find ways to control, and ultimately cure cancer.

"Everyone has been impacted by a diagnosis of cancer in some way. This is why I think it needs to be an absolute priority for medical research."

Ms Cash Cumming is also supporting Garvan by donating proceeds from her children's books for three to five year olds, *Skinky Poo - The Tale of a Skink* and *How the Gecko Got His Knob Tail* to Garvan's cancer research program. Both books will be available for purchase at the Garvan Australian Spectacular.



Ms Pauline Cash Cumming

Event organiser and musical director Dr Steve Watson added, "The Garvan Australian Spectacular is guaranteed to be a uniquely Australian event. Bring along your Australian flag for the rousing finale that will leave you with goose bumps, and filled with Australian pride."

Tickets start from \$40 adults, \$25 children and concession holders, \$90 family ticket (2 adults and 2 children aged 12 years and under) (plus booking fees). Tickets can be purchased from Ticket Direct Australia (TDA). Visit www.ticketdirect.com.au or phone **1300 79 85 50** to buy your tickets today.



Delta Goodrem cemented her support for the Kinghorn Cancer Centre

Delta makes her mark at the Kinghorn Cancer Centre

Delta Goodrem, along with the nation's media, donned a hard-hat and toured The Kinghorn Cancer Centre, of which she is a patron, to review construction developments and to leave her hand prints in concrete.

During the tour, Delta stated to the assembled media, "I wanted to be the patron of this centre and was honoured when asked. It's something so phenomenal and evolutionary, and the fact we will have such an amazing and incredible facility here in Sydney is so important to me.

"To have such a personal connection, and the fact that the actual centre is about personalised medicine, is truly incredible."

Tour de Cure

A huge thank you to all the riders in the 2011 Tour de Cure, and especially to Paul Egan who championed Garvan's cause throughout this mammoth ride. Funds raised for Garvan during the 2011 Tour de Cure are supporting our research to find better ways to diagnose, treat, and ultimately cure prostate cancer.

Andrew Giles congratulates Paul Egan on his outstanding effort during the 2011 Tour de Cure





Petre Foundation funds new Chair of Prostate Cancer Research

Australian philanthropist, Mr Daniel Petre has donated \$2 million to appoint a Chair of Prostate Cancer Research at the University of Sydney, who will work closely with Garvan's prostate cancer researchers.

This is not the first time the Petre Foundation has supported medical research in Australia. The Foundation also currently supports a Chair of Breast Cancer Research at the Garvan Institute and neuromuscular research at the Institute for Neuromuscular Research, Children's Hospital at Westmead.

Deciding to support prostate cancer research was an obvious choice according to Mr Petre, who had many reasons for committing to this Chair.

"While the profile of prostate cancer has increased over recent years, the funding allocated to prostate cancer research is still significantly less than, say, breast cancer research. Yet, the incidence and mortality rates are very similar.

"The other similarity between breast and prostate cancer is that they are both hormonal cancers, so there are a lot of common links between the approaches to solving these two cancers. As Garvan has both breast and prostate cancer teams actively looking for answers, I hope this funding will help lead to more breakthroughs for both diseases, sooner.

"Thirdly, the side-effects of prostate cancer treatment, which often involves removal of the prostate, can be severe, and include incontinence and impotency."

Mr Petre added, "I hope that, through the efforts and collaborations of Garvan, we can find a way to clearly identify tumours that can be left in situ. That would be the gold medal achievement for the medium term. Beyond better diagnosis of tumours the ultimate goal is, of course, finding a cure and one that hopefully does not require surgical intervention."

Daniel's commitment to philanthropy began when he worked at Microsoft with Bill Gates.

"Bill Gates' mother was very philanthropic, and she bestowed on him this theory - if you are well off or comfortable, it is your responsibility, not your choice, to give back to society, and I agree with that.

"The key is to find something that you care about, and then do not delay - do something now. I often remind myself and others that, if you don't donate today, you might be delaying the cure of a debilitating illness by another day, or more children will die due to a lack of clean water because you delayed acting for another day. When you think of it that way, there's really no argument for not doing something meaningful now!"

Feature story: Harnessing the power of the immune system

Inside our bodies, there is a powerful mechanism designed to defend us against millions of microscopic invaders. However, what happens when that defense is impeded, or worse, stops working altogether?

The immune system is designed to protect our bodies against dangerous attacks. These can come from outside the body in the form of infections, or from inside the body in the form of cancer. At the same time, the immune system must avoid attacking healthy tissue or over-reacting to minor threats like pollens and house dust mites. When the balance is upset and controls fail, the results can include diseases ranging from life threatening infections and malignant tumours to autoimmune conditions (eg Type 1 diabetes) and allergies (eg asthma).

The work of Garvan's Immunology program is divided between studying how a normal immune system functions in a balanced way, and how it goes wrong when disease occurs. Understanding the way the cells and molecules of the immune system function is key to both dampening the immune system or harnessing its power in order to fight disease.

Here we explore some of the diseases that are currently being researched by the Immunology team, as well as some of the progress being made in this important field of medical research.

Type 1 diabetes affects more than 140,000 children and adults in Australia, making it one of the most common serious diseases among children.

People with Type 1 diabetes produce very little, or no insulin. Insulin is a hormone that regulates the body's use of glucose (sugar), which is a major fuel source for our bodies. Insulin is only produced by specific cells in the pancreas called beta cells. Insulin travels through the blood and helps to get sugar from the blood into cells where it can be used for energy. Without insulin, blood sugar levels rise to dangerously high levels that can cause organ damage.

Type 1 diabetes occurs when the beta cells that make insulin have been destroyed by the body's own immune system. Like many complex human diseases, we are not sure why this happens, but we know that it is caused by an interaction between genes and the environment.

In people with Type 1 diabetes, the immune system treats the beta cells like it would a bacteria or virus, and for this reason, diabetes is called an autoimmune disease.

Garvan's Immunology program has several teams of scientists who research different aspects of Type 1 diabetes. They focus on understanding how and why an immune system turns on itself and destroys the insulin-producing beta cells. They are also trying to create new beta cells from other cell types.

Recently, Garvan scientists developed a reagent with the potential to prevent rejection of transplanted insulin-producing cells into people with Type 1 diabetes. It is one of the most promising immunology developments in recent years.

The best hope for restoring insulin production is for people to receive transplanted clusters of insulin-

producing cells from the pancreas known as 'Islets of Langerhans'. Each pancreas has around a million islets, which maintain the body's blood sugar levels in exquisite balance.

However, transplanting islets is a process fraught with challenges. Islets are fragile, the body rejects donor cells strenuously, and anti-rejection drugs are highly toxic. Even when heavy duty immunosuppressive drugs are given to a patient, that person will still have Type 1 diabetes - the autoimmune disease that destroyed their insulin-producing cells in the first place.

The new reagent, generated in-house by Garvan scientists has the potential to turn this situation around. Given to diabetic mice for two weeks, starting the day before islet transplantation, the reagent allowed mice to accept the donor cells as their own, with no need for immunosuppressive drugs, and no Type 1 diabetes. Permanently.

Sjögren's syndrome is a disorder of the immune system, where glands that normally produce tears, saliva and sweat are attacked and destroyed by immune cells. This results in abnormally dry eyes, mouth and/or other mucous membranes such as the intestines, lungs or vagina.

Sjögren's syndrome may occur by itself, known as Primary Sjögren's syndrome, or together with other autoimmune diseases like lupus and rheumatoid arthritis. This is known as Secondary Sjögren's syndrome.

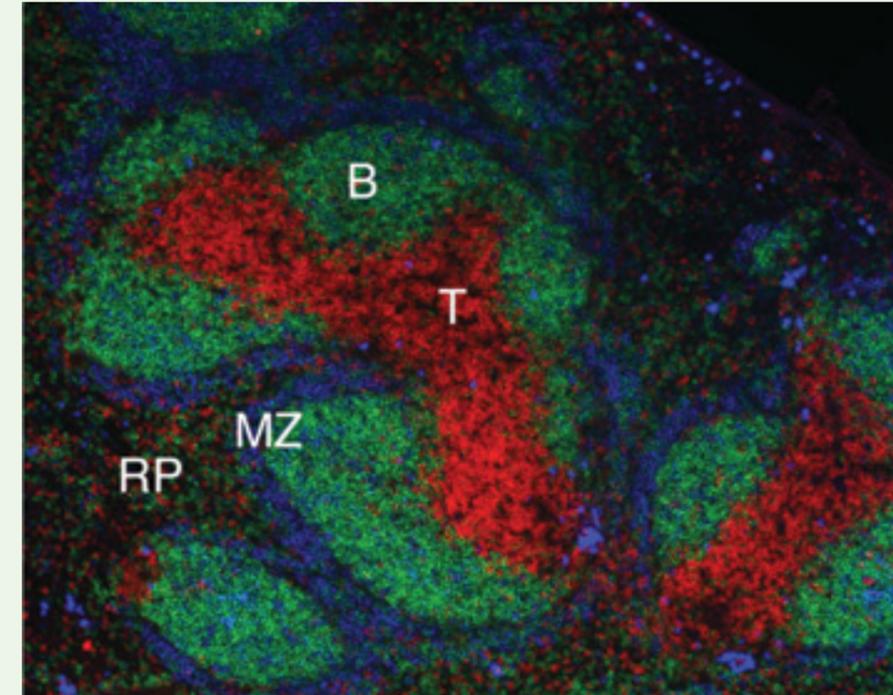
The cause of Sjögren's syndrome is still a mystery, though there appears to be a genetic influence, as it tends to occur in families where there are other autoimmune diseases.

Garvan scientists have identified a new group of immune cells that, for the first time, directly link two autoimmune diseases, Type 1 diabetes and Sjögren's syndrome. The newly identified population of cells is a sub-class of 'T helper cells', white blood cells that help other immune cells perform their tasks.

Garvan researchers hope to determine whether these cells could become a biomarker of disease as well as a therapeutic target for patients with both Type 1 diabetes and Sjögren's syndrome.

Lupus (also known as Systemic Lupus Erythematosus - SLE) is an autoimmune disease that causes various tissues in the body to become chronically inflamed. It is a complex disease that can affect many parts of the body, typically the skin, joints, kidneys, blood cells, heart and lungs. Lupus can be mild or life-threatening, depending on the area of the body that is affected.

Lupus affects one in 700 Australians. Nine out of every ten people with lupus are women, mostly aged between 15 and 45 years.



Organisation of immune cells within the spleen. T cells (T, red), B cells (B, green) and specialised marginal zone B cells (MZ, blue) congregate in distinct regions of the spleen. Upon infection, these cells rapidly migrate around the spleen to communicate with each other and additional populations of immune cells located in the external red pulp (RP) region. (Picture by Dr Dominique Gatto).

In the case of lupus, the immune system inadvertently produces antibodies that attack various structures in the body. It is the accumulation of these "autoantibodies" in the tissues that can cause inflammation, damage and pain. In other autoimmune diseases, particular tissues such as the peripheral nerves (Guillain-Barré syndrome) or the heart muscle (rheumatic carditis) are attacked by "organ-specific auto-antibodies."

At Garvan, scientists are using sophisticated strategies and technologies to examine the reasons why, in the case of lupus and other autoimmune diseases, the immune system produces antibodies that attack the body and not invading micro-organisms. An important clue that we are following up is the fact that autoimmune diseases often occur after bacterial or viral infections. It appears that, in these cases, the immune system's response against the infection has inadvertently resulted in the production of antibodies that attack the body's own tissues as well as the invading organism.

So far we have found that our immune system has a way of preventing the production of these "cross-reactive" autoantibodies under most conditions. However, we have identified that autoimmune attacks on particular organs are particularly likely to occur after infections. By devising a way to look directly at the immune cells responsible for making autoantibodies after an infection, we are now positioned to look at how this process is controlled and hope, in the future, to devise ways of preventing the movement of infection to autoimmune disease.

Asthma is an inflammatory condition that affects the bronchial tubes in the lungs. People with asthma have sensitive or hyperactive airways which narrow in response to certain stimuli. The narrowing is due to inflammation and swelling of the lining, tightening of the airway muscles (spasm) and production of excess mucus. This reduces the airflow in and out of the lungs.

More than two million Australians have asthma, yet the causes are still not clearly understood, but genetic and environmental factors do come into play. There is often a family history of asthma, eczema and/or hay fever or other allergies. Children with one asthmatic parent are three to six times more likely to develop asthma.

Garvan researchers are focused on understanding the key pathways in asthma and identifying unique sets of genes, inflammatory molecules and proteins that can be used to intervene in the process of asthma. Garvan is also looking to develop new therapeutic approaches for asthma, such as monoclonal antibodies as a treatment to reduce inflammation in the airways of asthma patients.

Research into diagnostics is also important: more effective tools to identify which patients will respond best to which treatments. Garvan research will lead to more effective use of existing treatments and the development of new and improved therapies.

Staff Profile: **Professor Peter Croucher**



best possible people, and create a high quality infrastructure to support the best possible research.

So far, what are you enjoying the most about working at Garvan?

I like the positive attitude that everyone has at Garvan, whether it is related directly to the research, or from those that support research. I also like having the time to be much more directly involved in research. In my previous role there was increasing levels of administration which meant I had less and less time to do the research that I really enjoyed. I even hope to get back into the lab myself here at Garvan.

So far, what are you enjoying most about living in Australia?

I really like Sydney, but surprisingly, the thing I like most so far is the climate. All the Sydney-siders I've met are complaining that this summer was the worst they can remember, but I have to say, I've loved it. However, I suspect this probably says more about UK weather than it does about Australia! I have also really enjoyed travelling around Australia, particularly western NSW and Kakadu National Park.

What is the biggest challenge facing your area of research?

Raising awareness about the importance of musculoskeletal diseases is a real challenge. Most people see the skeleton as a dead tissue – a structure that just holds you up. They don't realise it's a tissue that is constantly changing – the skeleton you wake up with is not the one you go to bed with. Most are unaware

that we are all likely to develop some form of musculoskeletal disease in our lifetime, whether this be one of the more common diseases such as osteoporosis, osteoarthritis or rheumatoid arthritis, or a less common disease such as the cancers that grow in bone.

Raising funds to be able to work on these diseases is a real challenge. Unfortunately we don't have the same high profile as other diseases, such as cancer or heart disease, so we are not at the top of people's lists when it comes to supporting research. However, the impact on people's health is just as significant as some of the more high profile disease areas.

Recruiting good people is also a challenge. People see that working in the bone field is challenging, particularly in getting long-term funding. Certainly in my experience in the UK, we lost a lot of great researchers in the field because of a lack of funding. I hope we can address this challenge at Garvan.

What do you enjoy doing away from the lab?

I spend much of my spare time with my children because they are still young. Outside of that, I do as much running as I can, particularly trail running and, when possible, I also enjoy cycling.

Professor Croucher will host Garvan's free Osteoporosis and Bone Public Seminar on Thursday 9 August 2012. To register for this event, visit www.giving.garvan.org.au/seminars or phone (02) 9295 8110.

Highly-respected bone researcher Professor Peter Croucher recently joined Garvan from the University of Sheffield to take up the Chair so generously funded by Mrs Janice Gibson and Ernest Heine Family Foundation. We are pleased to welcome Professor Croucher as the leader of Garvan's Osteoporosis and Bone Biology program, a role previously held by Professor John Eisman who stepped down as program leader in late 2011.

We recently sat down with Professor Croucher to discuss his new role.

What does your role as Director of Garvan's Bone Program involve?

As the Program Director, my overall role is to develop a world-class research program with the aim of having a significant impact on the most common diseases of the skeleton. To do that, I will be looking to recruit more of the

Ask Garvan

Q: Why will the new Kinghorn Cancer Centre include a Wellness Centre?

A: The Wellness Centre forms part of the Kinghorn Cancer Centre's integrative approach to medicine. The first of its type in NSW to be integrated with conventional cancer care, the purpose-built Wellness Centre will be a place where patients can retreat and get help coping with their cancer diagnosis and treatment.

With a 'Day Spa' feel, the Wellness Centre's design will provide a calm, caring and soothing environment for cancer patients to access the latest information and advice and the very best in evidence-based complementary health care. Services offered at the Wellness Centre will help alleviate stress, relieve symptoms and reduce pain and anxiety as well as promoting feelings of well-being.

Relieving the physical and emotional side-effects of cancer treatment is important in encouraging the completion of a treatment regimen. For example, it is estimated that more than 30 percent of chemotherapy patients prematurely cease treatment because of emotional difficulties.

At the Wellness Centre, evidence-based and non-invasive complementary therapies will be offered as an adjunct to conventional medicine in a patient-centred and holistic care program. This will allow open communication between all care providers and the patient, while promoting patient choice and quality of life. Importantly, researchers will be able to evaluate various therapies for efficacy, so that we build our knowledge of what really works for individuals.

Celebrate a special occasion with a truly *meaningful gift*

On special occasions, more and more people are asking family and friends to make a donation to a charity in lieu of gifts.

In September last year, Sue Thorley celebrated her 50th birthday, and asked guests to make a donation to Garvan instead of buying a gift.

Sue says, "I've been blessed to have a very full and rewarding 'first 50 years' and I felt the generosity of my friends would be better served in supporting a cause close to my heart, rather than material gifts for me.

"My mum, Judy Hellicar, suffered from Parkinson's for nearly two decades and she passed away in 2006. She also supported Garvan, and followed research developments closely. I feel anything I can do to help support Garvan in finding a cure for this insidious disease is so worthy."

Thanks to some stealth-like planning by Sue's husband Gerry and their children Anna and Max, Sue's 50th birthday party was a wonderful surprise. "It was the most special birthday celebration I've ever had, with friends and family travelling from all parts of Australia to be with me on the night. Wonderful memories I'll cherish forever.

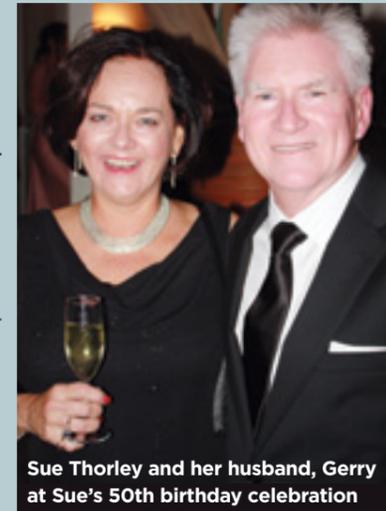
"In fact, my birthday celebrations seemed to go on for the entire month – we decided to rename September 2011 to Sue-tember!"

Creating a personal, online fundraising page through the Garvan website is a great way to tell people about your request for donations. Sue says, "I uploaded photos of my mum and myself and family over the past 50 years. It was a great way for my friends to 'connect' and leave a personal message. Plus it was seamless in terms of collecting the donations."

Sue is delighted with the result of her birthday donations, having raised \$1,685 to support Garvan's research.

"It was a wonderful and practical way for my friends and family to celebrate my birthday. With the funds I was able to raise, not only does it help Garvan in a monetary sense, but helps raise the profile and recognition of the invaluable work and research that the Institute undertakes, and hopefully might encourage others to do the same for special celebratory events."

If you have an upcoming celebration, and would like to ask friends and family to donate to Garvan instead of gifts, visit www.giving.garvan.org.au or phone (02) 9295 8110. With enough notice, Garvan can also provide you with donation envelopes, personalised for you and your special occasion.



Sue Thorley and her husband, Gerry at Sue's 50th birthday celebration

Young Garvan All Ribbons Ball

Young Garvan is hosting the third All Ribbons Ball on Saturday 18 August at the Sydney Hilton Hotel. The black-tie dinner for 450 guests raises funds for the Young Garvan Postdoctoral Fellowship, supporting a young scientist working on a major research project at Garvan.

The Fellowship (valued at \$50,000) has been awarded five times since its inception in 2003. Dr Ebru Boslem, the 2011 Young Garvan Fellow, has used the award to further her research into Type 2 diabetes as part of Garvan's Diabetes and Obesity program.

Tickets for the 2012 All Ribbons Ball go on sale in May. For further information, contact Kylie Sherwood-Kelly at the Garvan Research Foundation on 02 9295 8108 or visit the event website, www.allribbonsball.com



City2Surf

It's time to start training! Elite athletes will once again be rubbing shoulders with locals to run, walk or watch the iconic City2Surf race. Starting at Hyde Park in Sydney's CBD and finishing at Bondi Beach, the City2Surf also offers participants the opportunity to raise funds for a charity.

Entries will open in late May. For more information about registering for the City2Surf, and selecting the Garvan Institute of Medical Research as your charity of choice, visit www.city2surf.com.au

Clinical Studies

Study on Fat Metabolism

We are looking for healthy volunteers: men and postmenopausal women, aged 50-70 years for research into hormones and body fat. This study involves visits over a 14 week period to the Garvan to study the effects of three commonly used medications, oestrogen (women only), letrozole and tamoxifen on the burning of fat in the body. We will investigate how fat is utilised at whole body and liver level.

For further information please contact: Dr Vita Birzniece (02) 9295 8483, or email v.birzniece@garvan.org.au or Vanessa Travers (02) 9295 8232, or email v.travers@garvan.org.au (St Vincent's Human Research Ethics Ref No 09/090).

Diabetes Study

Are you interested in improving the control of your diabetes? We are studying the effect of the amino acid glutamine on glucose control in Type 2 diabetes. We are looking for people with Type 2 diabetes for less than five years, males and females ages 40-75 years, only on Metformin (ie not taking insulin or other diabetes medications).

For more information contact: Renee Richens on (02) 9295 8215, or email r.richens@garvan.org.au (St Vincent's Human Research Ethics Ref H07/059 version 1).

Metabolism - Genetics of Obesity Study

Do you think you could be overweight? Volunteers are needed to screen for a gene that links to obesity at the Garvan Institute. It involves only one visit during which measurements and a blood test will be taken. If you are suitable, you may enter the second part of the study to receive a full metabolic assessment.

For further enquiries, please contact: Dr Daniel Chen (02) 9295 8557, or email d.chen@garvan.org.au or Vanessa Travers (02) 9295 8232, or email v.travers@garvan.org.au (St Vincent's Human Research Ethics Ref HREC/10/SVH/133).

Pre-diabetes study

We need healthy volunteers for a study looking at the effects of immune function and autonomic nervous activity in Type 2 diabetes. We especially need people with a family history of Type 2 diabetes. If you are willing and are aged 50 to 60 years and healthy, please contact: Lynne (02) 9295 8231, or Dorit (02) 9295 8309, or email crf@garvan.org.au (St Vincent's Human Research Ethics Ref 06/147).

In Memoriam November 2011 - February 2012. Donations have been made in memory of:

Wendy Allen	Philip McAlpine
Secundino Arguelles	Joyce I Mealing
Jill Askew	James Mellor
Hans Bakker	Zivorad Mihajlovic
John R Barbour	Ron Miller
Karen Beaumont McCormack	Terry Moran
Helen Beh	Michael Morling
Peter Boersma	Arthur Nezis
Doran Catt	Rebecca J Nicholas
Rex Child	Adrian Notley
Dean Cooper	David Owen
Ronald A Cumming	Noel Pearce
Matthew Darrington	Robyn Joy Price
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Harvey R Dopp	Robert J Rice
Sue Dowlan	Patricia A Ricketts
Dianne Endycott	Ena Schofield
John S Falla	Leslie Semken
John Gates	Noeleen Shaw
Christine Gibson (Weir)	Vasiliki Simos
Robert Gowing	Kay M Smith
William Hall	Richard Smith
Thomas H Hill	Vincas Surka
John Hodgen	Klara Torheiden
Elizabeth Kane	Domenico Tranchini
Philip Kelly	James Van Rol
Zelma Lawrence	Diamantis Vlahos
Tim & Andrew Lynch	Barbara Vongalis
Mrs MacQueen	Thomas Wainwright
Peter Male	Charles Ward
Giuseppe Marinelli	Matthew Watson
Emma B Marquardt	Gloria Waugh
Anne Martin	Garry Welsh

Coming Up

24 May - Ovarian Cancer Public Seminar. 10am to 12 noon.

6 June - Young Garvan Forum. Topic TBC. 6pm to 8pm.

9 August - Osteoporosis and Bone Public Seminar. 10am to 12 noon.

20 September - Alzheimer's disease and other neurodegenerative disorders. 10am to 12 noon.

14 November - Type 2 diabetes and obesity. 10am to 12 noon.

For more information about any of these events, visit www.giving.garvan.org.au or phone (02) 9295 8110.



BE PART OF PROGRESS

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Please use this coupon if you would like to make a donation to Garvan's breakthrough medical research, or if you would like further information. We would love to hear from you.

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