



Making *NEWS*

Possibility of activating 'brown fat' as a therapy for obesity?

A new study suggests that shivering and bouts of moderate exercise are equally capable of stimulating the conversion of energy-storing 'white fat' into energy-burning 'brown fat'. Brown fat's energy burning nature makes it a potential therapeutic target against obesity and diabetes. Garvan endocrinologist Dr Paul Lee, recently undertook the study at the National Institutes of Health (NIH) in Washington, funded as an NHMRC Early Career Research Fellow. His work uncovered a way that fat and muscle communicate with each other through specific hormones - turning white fat cells into brown fat cells to protect us against cold. Around 50g of white fat stores more than 300 kilocalories of energy. The same amount of brown fat could burn up to 300 kilocalories a day.

Molecular interplay explains many immunodeficiencies

Garvan's Dr Lucinda Berglund and Associate Professor Stuart Tangye are the first to describe an exquisitely balanced interplay of four molecules that trigger and govern antibody production in immune cells. As well as being an important basic science discovery, it helps explain why people with mutations in any one of the associated genes cannot fight infection effectively, and develop rare and crippling immunodeficiency disorders. Immunodeficiencies arising from mutations in single genes give scientists a unique opportunity to understand B cell signaling, and reveal potential targets for modulating B cell responses in immunodeficiency and autoimmunity.

Muscle is three times better than fat for bones

Garvan researchers, in collaboration with Vietnamese colleagues, have now shown that the impact of 'lean mass' is three times higher than the impact of 'fat mass', finally concluding a debate that has lasted for more than 20 years. Garvan's Professor Tuan Nguyen, in collaboration with Dr Lan Ho-Pham, Head of Rheumatology at People's Hospital 115 in Ho Chi Minh City, undertook a 'meta-analysis' of 44 studies, concluding that 21% of differences in bone mineral density can be explained by lean mass, and 8% by fat mass. While it may seem as if researchers are splitting hairs by trying to determine which aspect of body weight plays the more influential role, the finding is actually very important for public health because it will guide osteoporosis prevention. If muscle mass is critical, it makes sense to recommend improvement in physical activity and muscle-building exercise.

For more information about these, and other recent Garvan announcements, visit <http://www.garvan.org.au/news-events>

▲ Dr Paul Lee



GARVAN
INSTITUTE

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From the CEO

As always, it has been a hectic few months here at Garvan. As you will learn throughout this issue of Breakthrough, we recently became one of the first medical research institutes in the world to acquire machines that can sequence a whole human genome at a base cost of \$AUS1,500. There is no doubt that this new equipment, in the talented hands of Garvan researchers, will accelerate medical research and provide widespread medical benefits, with significantly lower health costs, through early prevention and more targeted treatments.

I note that the CEO of the company that makes this device commented that they approached Garvan due to its strength in the analysis and interpretation of genomic data, and its close affiliation with St Vincent's Hospital. Our partnership with St Vincent's goes back to our very foundation when the Sisters of Charity established the Garvan Institute of Medical Research to mark the centenary of the opening of the original hospital. That partnership continues to this day and is most closely demonstrated in The Kinghorn Cancer Centre that houses treatment facilities for St Vincent's patients and some of Garvan's cancer researchers. It is a truly unique and integrated facility – one that will be further enhanced by the arrival of the new sequencing equipment.

The first months have also been wonderful as we have welcomed Samuel Johnson home from his year-long odyssey to ride a unicycle around Australia, while raising awareness of breast cancer and vital funds for Garvan. In the end he broke the world record, increasing awareness for a vital cause, and raising more than \$1,500,000. An amazing achievement!

For those of us not able to ride a unicycle around Australia, it is just as possible to raise funds for Garvan through other existing sporting and fitness events. Garvan has teams in events as diverse as the Sydney City to Surf, Melbourne Marathon, Cole Classic, and The Gong Ride. For the past two years, my family and I have been proud members of Team Phil, raising funds for the Philip Hemstrich Fellowship in Pancreatic Cancer via the Melbourne Marathon. Members of the team run in each of the various sections – the marathon, half marathon, 10km and 5km run – and some of us undertake the leisurely 3km fun walk! It is a wonderful experience and a great way to raise funds for Garvan. If you would like to join one of our existing teams – or start your own at an event near you – just drop me an email a.giles@garvan.org.au

Thank you all for your ongoing support.

Andrew Giles



The Giles family at the end of the 2013 Melbourne Marathon 3km walk as part of Team Phil



Professor John Mattick AO FAA Executive Director

“Update”

Garvan is yet again at the forefront of genomics, with the purchase of technology that will allow us to sequence a whole human genome at a base cost less than \$AUS1,500. The Illumina HiSeq X Ten Sequencing System is capable of sequencing around 350 genomes a week, or 18,000 a year.

This acquisition, made possible thanks to the generous support of The Kinghorn Foundation, will see Garvan serve as a genomics hub for Australia and possibly the region as we are one of only four sites in the world to have acquired this technology. It will allow massive increases in human genome sequencing capacity, accelerating medical research and ultimately providing widespread medical benefits, with significantly lower health costs, through early prevention and more targeted treatments.

I am delighted to announce some exciting new appointments in our Cancer division. Professor David Thomas has been appointed as Director of The Kinghorn Cancer Centre, as well as Head of Garvan's Cancer division, from July 2014. Professor Thomas currently heads the medical oncology program within the Sarcoma Service at the Peter MacCallum Cancer Centre in Melbourne.

Professor Neil Watkins assumed the inaugural Petre Foundation Chair of Cancer Biology in January. Professor Watkins is a clinician-scientist and currently holds the positions of Director of the Centre for Cancer Research and Professor of Cancer Biology at Monash University.

Professor Vanessa Hayes has been appointed the inaugural Petre Foundation Chair of Prostate Cancer Research at the University of Sydney, with a joint appointment at Garvan. Professor Hayes heads the Laboratory for Human Comparative and Prostate Cancer Genomics at Garvan, and also holds a position as Professor of Genomic Medicine at the J. Craig Venter Institute in San Diego, California.

Change is also happening in another area of Garvan with the recent retirement – after almost 50 years – of Professor Ted Kraegen from our Diabetes and Obesity program. I am delighted that Professor Kraegen will continue his association with Garvan via his new role as Emeritus Professor. Also, Professor David James has accepted a position at the new Charles Perkins Centre at the University of Sydney and we all wish him well for this wonderful opportunity. Associate Professor Greg Cooney has agreed to accept the position of Acting Director of the division, and I am sure we will be introducing you to the new Division Head in a coming issue of Breakthrough.

15,995 Km. 364 Days. 1 Wheel.

On 13 February at Federation Square, Melbourne, Samuel Johnson was met by hundreds of supporters as he crossed the finish line of his epic, year-long Love Your Sister unicycle trek. A year on the road saw Samuel raise more than \$1.5 million for breast cancer research and awareness, as well as breaking the World Record for Longest Unicycle Journey. However, as he rode into Federation Square, Samuel was looking out for one supporter in particular – the inspiration for this remarkable journey – his beloved sister, Connie.

At the finish line, Samuel said, “Overwhelming seems like a small word today. I am very emotional.”

When asked what the future holds, Samuel was adamant. “We haven't found a cure yet,



Samuel and Connie acknowledge their passionate supporters at Federation Square

and Garvan's researchers are working as hard as they can to find one. I just want to keep raising money for them so they can stop our mums and sisters from getting sick.

“So now, instead of spending 8 to 10 hours a day on a unicycle, I can spend 8 to 10 hours a day advocating for increased awareness and support for breast cancer research.”

Funds raised during the Love Your Sister unicycle trek will help establish 'The Connie Johnson Fellowship in Breast

Cancer Research' at the Garvan Institute of Medical Research. This fellowship will ensure that Samuel and Connie's efforts will have a long-term and meaningful impact on breast cancer research in Australia.

Congratulations Samuel and Connie! Your dedication and determination are truly inspirational, and you have made a real difference to the future of breast cancer research.

It's not too late to donate! For details, visit www.loveyoursister.org

A long association with medical research

Ms Roberta Withnall is a valued volunteer at Garvan however, this is not her first foray into the field of medical research. During her time in the UK, Ms Withnall witnessed some truly important developments in the field. Following a few years teaching Nature and Physics in the UK and Sydney, and working for the Australian Atomic Energy Commission, Roberta was offered a post at the headquarters of the UK's Medical Research Council (MRC) in the Cancer Research Division, which she eagerly accepted.

“During this time, I had the chance to visit many UK research establishments, and it was really then that my interest in medical research was stimulated,” explains Ms Withnall.

A transfer to the MRC Clinical Trials Unit saw Roberta working with esteemed epidemiologist Professor Janet Darbyshire, CBE who lead the push to centralise clinical trial data in the UK. Then, when the HIV/AIDS epidemic took hold, a committee made up of representatives from

the UK, France and USA was established. Roberta was tasked with organising a meeting that had been convened in Sydney, co-chaired by the UK and France.

She says, “I particularly recall all of us being squashed up in a tiny office, in the building that was later demolished to make way for The Kinghorn Cancer Centre.”

Roberta is delighted to have retired to Sydney, and is now located only a short distance from Garvan.

She says, “The closeness of Garvan and The Kinghorn Cancer Centre has provided me with the opportunity to attend seminars, obtain literature, and keep up with the latest research developments – particularly in relation to cancer.” She is also delighted to be volunteering with Garvan's lively and hard working finance and accounts team, where she feels very much at home.

Ms Withnall is a Garvan Partner for the Future, which means she has decided to leave a lasting legacy to medical research by including a bequest in her will.



Roberta explains, “I am pleased to say that spending time at the Institute, and seeing the inspiring and important work being carried out by Garvan's gifted researchers has confirmed to me that including a bequest to Garvan in my will was a sound decision.”

If you would like more information about volunteering for Garvan or leaving a bequest to Garvan in your will, please contact Carol O'Carroll on 02 9295 8117, or email c.ocarroll@garvan.org.au

MLC'S historic partnership with Garvan continues



Dr Adam Cole

The MLC Community Foundation's social impact grants program addresses one of the most critical issues within Australian society; mental health. It does this by providing monetary support, advocacy and capacity building activities to a range of community groups involved in improving mental health outcomes for all Australians.

Garvan is proud to share a historical partnership with MLC Community Foundation. Garvan was established in 1963 with a significant philanthropic gift in memory of James Patrick Garvan, the founder of the company now known as MLC.

The MLC Community Foundation is supporting an important and exciting research program led by Dr Adam Cole, leader of Garvan's Neurosignalling and Mood Disorders Research Group. This funding addresses MLC Community Foundation's commitment to 'Help to further understand the brain'. The research project is called “Discovering novel therapeutic targets for the improved treatment, diagnosis and understanding of mood disorders and schizophrenia.” This work has received a \$200,000 MLC Community Foundation gift, and will receive a further \$100,000 gift in 2015.

Other philanthropic grant recipients include organisations working in the vitally important areas of mental health support services, advocacy and innovation. The addition of Garvan's breakthrough medical research into MLC Community Foundation's grant portfolio ensures that the complex issue of mental health is being addressed with a multi-disciplinary approach that will benefit future generations.

Feature story: *The ripple effect of the obesity epidemic*

Obesity is, arguably, the silent elephant in the room. Many of the diseases afflicting modern society today are rooted in the consequences of excess nutrition, excess body fat or obesity: diabetes, heart disease, stroke, even some cancers.

Obesity plays a significant and direct role in the development of cardiovascular disease, Type 2 diabetes mellitus, hypertension, obstructive sleep apnoea, gastro-oesophageal reflux disease, depression and arthritis.

It accelerates the onset of Type 1 diabetes, is the major cause of infertility in Australia and its presence predicts worse outcomes for sufferers of breast and other cancers. Obesity carries stigma and can be a source for discrimination: obese people earn less for their qualification levels, are promoted less frequently when appropriately credentialed and are discriminated against in many stations of life, from the cradle to the grave.

Obesity has reached epidemic proportions. Estimates show 60% of Australian adults are overweight or obese. The direct health costs of obesity are estimated to exceed \$2 billion annually. When the broader impact of obesity on the economy is considered (sick leave and premature loss of workforce), the cost in lost productivity is twice that of health costs.

Given the human and economic costs of obesity, we can no longer ignore the elephant in the room. At the Garvan Institute of Medical Research, researchers have been examining the impact of genetic and environmental factors on body fat, its distribution and human health for more than two decades.

The legacy of work started with Professor Lesley Campbell and Professor Donald Chisholm continues within the Diabetes and Obesity Program, with a broad network of national and international collaborations and bed-to-bench clinical scientific projects that are changing the way we consider the problem of excess body fat.



Fat cells

One area of research undertaken by obesity and diabetes researchers at Garvan is understanding how weight loss improves human health and improves diabetes and related diseases. Professor Katherine Samaras, working within a collaborative team that includes basic scientists, cardiologists and surgeons, has been examining the impact of bariatric surgery on health at Garvan for the last five years.

Modest weight loss, even five kilograms, improves many health problems. It improves diabetes control, blood pressure, cholesterol and systemic inflammation. It prevents the development of diabetes in those with a high risk. It improves outcomes in women who have had breast cancer. It restores fertility in polycystic ovary syndrome. Yet many people who have ever tried to lose weight find it exceedingly difficult to achieve and maintain even a modest loss.

Bariatric procedures, such as gastric banding, sleeve gastrectomy and gastric bypass are proven, effective treatments for obesity, particularly where diabetes co-exists. Data at 10 years show reversal of the majority of diabetes cases, 95% reduction in new diabetes cases, 50% reduction in new heart disease and 60% reduction of new cancers. The evidence for the benefits of bariatric surgery is compelling, yet little is known about how the surgery and its effects on weight mediate these health improvements. Some of the research conducted at Garvan has been examining these mechanisms, particularly the way metabolism and the immune system interact.

Our research team, led by Professor Samaras, recently showed that bariatric surgery reversed all cases of pre-diabetes and 70% of Type 2 diabetes within two weeks of gastric banding surgery. These findings were published in the prestigious international journal *Diabetologia*. The improvements were associated with a massive reduction in a type of white blood cell (T-lymphocyte) which act aggressively to promote systemic inflammation and tissue destruction. The reduction of these pro-inflammatory T-lymphocytes also predicted improved flexibility in the usually stiff arteries of people with diabetes, important since cardiovascular disease is the main cause of death in diabetes. Reducing heart risk is a mainstay of diabetes care and our researchers showed that a six kilogram weight loss achieved an improvement in arterial flexibility associated with reduced heart risk. Importantly, these effects were independent of the cholesterol reduction accompanying weight loss.

The research conducted at the Garvan Institute on the effects of bariatric surgery on health directly informs our understanding of the efficacy and benefits of surgery. It provides new information about how the hyperactive immune system is calmed by caloric restriction (fasting) and showed, for the first time, that this was directly linked to the rapid improvement in diabetes and arterial health.

Current work undertaken by Professor Samaras and collaborators includes examining adipose (fat) tissue genetic signatures that predict long term outcomes after bariatric surgery and the epigenetics of obesity – how our genes alter their expression with different environmental exposures.

Ask Garvan

Q: I've noticed the Garvan website looks different. Why has it changed?

A: If you haven't visited the Garvan website in a while, you will notice we have updated the look of the site. However, the changes are not purely cosmetic. They are aimed at increasing the amount of useful information contained on the site, as well as making it easier to navigate.

Q: What can I find on the site – www.garvan.org.au?

A: The Garvan website contains the latest news from Garvan's labs, as well as a breakdown of the research being carried out at Garvan. The site also provides a review of some of the major breakthroughs made by Garvan's scientists throughout the years. For students, there is information about postgraduate studies and undergraduate research, and for the industry there is information about how Garvan collaborates with other organisations around the globe. There are also examples of how people currently support Garvan's work, information about how you can support Garvan's research, and become involved with Garvan through seminars and tours, or as a volunteer. Also look out for our new video gallery!

Q: I notice something on the website called Garvan's Supporter Centre. What will I find there?

A: A quick way to access the Supporter Centre is to visit www.giving.garvan.org.au/supporter-centre. The Garvan Supporter Centre is a place where you can get involved with Garvan. For example, you can register for events, make a donation, or join Garvan's online community to receive our monthly e-News bulletin.

Celebrate with Garvan

Do you have a special celebration coming up? Why not ask your friends and relatives to help you celebrate by making a donation to Garvan in lieu of a gift? If you let us know in advance, we can provide you with attractive, personalised envelopes to distribute to your guests.

That way you and your guests will know you've made a meaningful contribution to medical research – another reason to celebrate!

For more information, contact the Supporter Care team on (02) 9295 8110.

Below is a list of just some of the generous people who celebrated with us recently:

Alexander Boyarsky's 70th birthday

Neville Moodie and Kim Yen's Wedding

Madhavi Parker's 40th Birthday

Nicholas Stewart and Sarah Shands' Wedding

Professor Vanessa Hayes,
Head – Laboratory for
Human Comparative and
Prostate Cancer Genomics



What is the current focus of your work?

We are a genomics lab focused on understanding the complexities of humans and the human cancer genome.

Specifically, how human genome variation has shaped us all as modern humans and how human genome variation influences the most common male-associated cancer in Australia, namely prostate cancer.

In the 'Human Comparative' side of our work, we are interested in understanding where we come from as modern humans and the extent and complexities of human genome diversity. This diversity dictates our evolution, our health and how we respond to common diseases. We have a particular interest in understanding how the human genome has allowed for the transition of modern humans from a hunter-gatherer, the impact of agriculture, and exposure to our ever changing modern environment.

Our 'Prostate Genomics' work is focused on defining the genetic basis for both risk and development of prostate cancer. Defining prostate cancer at the clinical level remains a challenge and one that requires immediate attention. Our hope is to identify DNA-based markers that can be used to determine who may die 'from' prostate cancer rather than 'with' prostate cancer. There is a critical need for better diagnostic and prognostic tools. In terms of risk and preventable and modifiable risk factors, the only certainties we have are that prostate cancer is a disease of older age; it has a strong link to family history; and a significant link to one's ethnic background. The latter two observations emphasise the importance of 'genomics' and 'genomic diversity' in determining both risk and outcomes. Like our human comparative work, it is critical that we begin to map genomic diversity of both the human and prostate cancer genome.

What is the biggest challenge in your area of research?

Funding. Although costs have come down dramatically, making genomics possible, there are still financial challenges. Staying ahead of the technology costs money. If you want to be at the forefront, you need access to philanthropic money. The Petre Chair funding has allowed us to acquire a new genome mapping technology which, complimentary to genome sequencing technology, will allow us to map large genomic rearrangements that are assumed to be critical drivers of aggressive prostate cancer. This type of work is always a challenge to fund through normal granting schemes.

What do you enjoy doing away from the lab?

I enjoy doing anything outdoors and with my family. My work has always been my hobby, which is why I've done some strange projects – it keeps it exciting for me. I do love photography, so when I was in Africa, working on the genome sequences of ancient African populations, I combined my work with my photography.

What does the Petre Chair mean for Prostate Cancer research in Australia?

The Petre Chair funding is incredible. It is so hard for scientists, in this economic climate, to drive science forward when we spend almost 40% of our time chasing money, and not focusing on science. It has allowed me to take a breath and focus on the science, which is what I am trained to do.

Maria Garcia-Cepillo,
Senior Database
and Supporter Care
Coordinator



Can you give us a brief outline of your recent work history?

Before joining Garvan, I worked at the Heart Foundation as a Donor Liaison Officer for four years. Prior to that, I worked with other not-for-profit organisations like Anglicare and Catholic Mission.

What does your role at Garvan involve?

As a Database and Supporter Care Coordinator, it is my job to ensure that Garvan's high supporter care standards are maintained. I am part of the hard-working Supporter Care team which processes and receipts the donations that come in and ensures that accuracy and timeliness is maintained at all times. We also do our best to communicate regularly and efficiently with both our donors and prospective donors regarding the wide range of services that the Foundation has to offer, as well as maintain an accurate donor database to aid in Garvan's fundraising activities.

What inspires you about Garvan's work?

Working for Garvan has been a truly amazing experience. I have the privilege of working with some of the best people in their respective fields and it is quite inspiring to know that I am working for an organisation that is committed to funding significant medical research that will have a major impact on health issues that affect so many of us. To be a part of this cause is quite rewarding and hopefully, in my own little way, I am helping in the realisation of many future breakthroughs.

What do you enjoy doing in your spare time?

I love spending time with my family, whether it be watching movies, travelling, swimming or going on walks. I also have a photography blog that I try (key word here is "try") to keep up-to-date.



The Tour de Cure team present Dr Goli Samimi with a cheque, supporting Garvan's ovarian cancer research.

Tour de Cure's pedal power raises \$100,000 for Ovarian Cancer research

The team from Tour de Cure recently visited Garvan to present Dr Goli Samimi, head of Garvan's ovarian cancer research program, with a cheque for \$100,000. The funds were raised during last year's Tour de Cure event, and will make a significant contribution to Garvan's ovarian cancer research. Dr Samimi sincerely thanked the team, and gave them a tour of the ovarian cancer research lab, explaining the work being carried out, and how these funds will contribute to this important research. Garvan extends its gratitude and a sincere thank you to the Tour de Cure team and all who participated.

Overwhelming response for Ovarian Cancer Awareness Day Leader's Lunch



Speakers at the Ovarian Cancer Lunch included (l-r) Dr Robyn Sayer, Dr Goli Samimi, Mrs Joan Swarbrick, Mrs Heather Watts, Mrs Margaret Rose AM

For the third year, Garvan marked Ovarian Cancer Awareness Day with a gathering of supporters, media and those working toward improving outcomes for women diagnosed with this devastating disease.

The response to the Ovarian Cancer Awareness Day Leaders' Lunch was overwhelming, with the Strangers Dining Room at NSW Parliament House at capacity. The lunch was hosted by The Hon Jillian Skinner MP, Minister for Health and Minister for Medical Research, and Mrs Margaret Rose AM, business leader, ovarian cancer survivor and dedicated advocate for Garvan's ovarian cancer research into improved early detection. The event aimed to encourage support for Garvan's ovarian cancer research program, raise awareness about this disease, and acknowledge Mrs Rose's outstanding support.

Guests heard from Mrs Rose who lamented that, 20 years after her diagnosis, outcomes for those diagnosed with ovarian cancer have not improved. She encouraged those in the room to join her in supporting Garvan's work to improve early detection, resulting in improved survival rates.

Dr Goli Samimi, head of Garvan's ovarian cancer research group, gave an update on her team's world-class research into early detection, as well as new and improved therapeutics to treat women with ovarian cancer. Dr Robyn Sayer, Gynaecology Oncologist at the Royal Hospital for Women called for increased GP education relating to ovarian cancer, and called on GPs to keep ovarian cancer on their radar.

Ovarian cancer patient, Mrs Joan Swarbrick (who is also the mother of Garvan cancer researcher, Dr Alex Swarbrick), and Mrs Heather Watts, founder of Border Ovarian Cancer Awareness Group and mother of Kelsey, who tragically passed away from ovarian cancer at the age of 33, spoke personally and passionately about their experiences with this disease.

In recognition of Margaret's outstanding philanthropic leadership and support, and her long-term advocacy in the field, Garvan Research Foundation Chairman, Mr Geoff Dixon unveiled the Margaret Rose AM Fellowship in Ovarian Cancer Research. This fellowship will be held by Dr Goli Samimi at the Garvan Institute.

Thank you to those who attended this event, and support Garvan's ovarian cancer research program. For more information about Garvan's ovarian cancer research, visit www.giving.garvan.org.au/ovarian

Garvan celebrates the generosity of its Corporate Supporters

To launch the working year, Garvan Research Foundation Chairman, Mr Geoff Dixon formally acknowledged the generous support of Garvan's corporate supporters at an event celebrating outstanding work in the field of employee engagement, Corporate Social Responsibility and campaign management.

Garvan was joined by Senior Executives from Accenture, ASX Group, BNP Paribas, CBP Lawyers, Fox Sports Australia, King & Wood Mallesons, National Australia Bank and Ridley AgriProducts. Members received an award for their considerable support of Garvan, with particular recognition of contributions through Workplace Giving.

As noted by Mr Dixon, in 2010 more than 100,000 employees across 2850 organisations donated \$28 million to charitable funds. This amount was matched by employers with a further \$12 million, resulting in \$40 million being contributed to worthwhile funds. Mr Dixon applauded Garvan's partners for being an active part of this giving process and challenged each supporter to do more, noting that if just 10% of employees made a payroll donation of \$5 each week, the community would benefit by more than \$260 million each year.

Garvan also welcomed the Australian American Chamber of Commerce (AMCHAM) and its NSW Health Committee to the reception, many of whom had not visited Garvan's facilities previously. AMCHAM guests enjoyed a tour

of Garvan's facilities and a private tour of Dr Adam Cole's lab to learn more about Dr Cole's work into new signalling pathways regulating neuroplasticity in the brain, with particular interest in a kinase called GSK3 and its elevated activity in bipolar disorder and schizophrenia. The AMCHAM guests were also treated to a tour of the fruit fly lab which plays a significant role in Dr Cole's research.

To learn more about how you can support Garvan or to arrange a private tour for your business, please contact Leonie Walton at l.walton@garvan.org.au



Chairmen Mr Geoff Dixon and Dr John Schubert with Garvan's Corporate Supporters.

Clinical Studies

Pre-diabetes study

We are looking for healthy male volunteers who have close relatives with Type 2 diabetes for a study investigating the role of the autonomic nervous system activity in the development of the disease. The study involves visiting the Garvan Institute in Darlinghurst for one morning during working hours. **If you are willing, 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 HREC Ref 12/102).**

Osteoporosis Study

Are you female and over 55? Have you had a vertebral (spinal) fracture due to osteoporosis? We are looking for volunteers to be part of a clinical trial that compares a new osteoporosis treatment to a current medication. Both are designed to stop further fractures. **For further information please contact Dr Yvonne Selecki on (02) 9295 8276 or y.selecki@garvan.org.au, or Vanessa Travers on (02) 9295 8269 or email v.travers@garvan.org.au (Southern Health HREC Ref HREC/12/SHA/6).**

Study on Urea Metabolism

The bulk of protein mass in the body resides in muscle. Protein mass is not static but constantly turning over in a dynamic process of breakdown and synthesis. Loss of protein is determined by urea metabolism in the liver. We have recently discovered that male sex hormone may modify protein loss through the liver. Now we have set up novel method to investigate amino acid recycling by studying the way our bodies produce urea.

We are looking for healthy volunteers: men aged 18-50 years for research into body protein metabolism. This study involves two visits over a one week period to the Garvan Institute to study urea turnover, each visit will take up to five hours. **For further information please contact Dr Vita Birzniece on (02) 9295 8483, v.birzniece@garvan.org.au or Clinical Research Nurse, Lynne Schofield (02) 9295 8231. (St Vincent's HREC Ref 13/127)**

Coming Up

Garvan Public Seminars

Thursday 10 April - Genomics: Getting Ahead of the Health Curve

Thursday 14 August - Healthy Ageing

Thursday 13 November - The Immune System in Health and Disease

To register for these seminars, visit www.giving.garvan.org.au/register-now or phone (02) 9295 8110.

In Memoriam November 2013 to January 2014. Donations have been made in memory of:

Susan Muriel Atkinson

Irene Bowser

Elyn Boyd

Robyn Helen Brodal

Gail Burgin

Sonia Butts

Iole Cafiero

Joy (Pat) Cahill

Annabel Catt

Kenneth & Patricia Cavenett

Graham Craig

Barbara Cranney

Suann Croker

Mary Dankhert

Janelle Kaye Davis

Helen Kay Dawson

Joseph Delia

John Robert Dengate

Glenda Dollin

Sally Donovan

Lynette Douglass

Sue Dowlan

Draggs

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Les Freeman

Gabi

Carmel Anne Galvin

Susan Gamble

Sarah Glasgow

John Hando

Brian Hannebery

Robert Harvey

Eunice Hatfield

Glen Hawken

Lynda Heaps

Loretta Henson

John Hodge

Lisa Hopewell

Christopher Charles Jackson

Helen Jenkins

Catherine Jones

Brian Keg

John Kidd

Heather King

Jeffrey Kusevitsky

Gloria Lardelli

Aksel Lind

Donald Lovell

Jane Luckhurst

Tim & Andrew Lynch

Cheryl Magill

John S Mansell

Bill Manusu

Pamela Mathie

Chris May

Graham Mayze

Salvatore Mazza

Catherine McCarroll

Brooke McLaren

Tony Mifsud

Marion Minihan

Alistair David Mitchell

Dino Leonardo Murphy

Adrian Notley

Maroulla Olymbios

Paul Anthony Pace

Merrill Phillips

Robert J Rice

Laurel Robinson

Steve Scrase

Susan Sinclair

Phil Slater

William Marcus Benjamin Smith

Cherry Stanford

Geoffrey Stewart

Bill Sutcliffe

Neil Sykes

Tracey W

Paul Walton

Gloria Weston

Julie Therese White

Christine Williams

Peter Charles

M Wilson

BE PART OF PROGRESS

My Contact Details

Title First Name

Surname

Address

Suburb State Postcode

Daytime Phone

Email

Garvan Supporter Number (if known)

Please Send Me Further Information About:

- Giving to Garvan in my will (strictly confidential)
 Volunteering with Garvan
 Giving regularly to Garvan through my bank account

Please Change My Communications:

- I no longer wish to receive this *breakthrough* newsletter
 I only wish to receive *breakthrough* by email
 I only wish to receive appeal mailings in May/June
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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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☎ Call: **1300 73 66 77** (9am to 5pm)

☎ Fax: **(02) 9295 8507**
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🌐 Online: **www.giving.garvan.org.au**

