breakthrough
April 2016 | Issue 31

Dr Paul Timpson

Making News

A 'biosensor mouse' that can predict the spread of pancreatic cancer

Garvan's Dr Paul Timpson and collaborators in the UK have created a "biosensor mouse", enabling them to watch as pancreatic cancer cells begin to "unzip" from each other in real time. This "unzipping" is a signal that cells are on the verge of spreading from the primary tumour. Remarkably, the researchers successfully rezipped these cancer cells by treating mice with anti-cancer therapies, stopping the spread of cancer before it had begun. "We now have a model that is one step ahead of the invasion process in pancreatic cancer – but we are also already using this model in our laboratory for other aggressive and highly invasive cancer types, such as breast cancer. Ultimately, we expect to use the biosensor mouse to explore zippering and cancer spread in a wide range of tumours throughout the body," said Dr Timpson.

Taking a 'diet holiday' could improve weight loss

Researchers from Garvan and the University of Sydney may have good news for those who struggle to stick to their diet: taking a break from dieting won't necessarily ruin your weight loss efforts, and it could actually improve them. In the study that was conducted in mice and published in the journal *PLOS ONE*, dieting was carried out for five to six days at a time, then interrupted by several days of unrestricted eating. The research found that taking a break from dieting could help weight loss by improving the efficiency of weight loss (the amount of weight lost for every kilojoule restricted).

How to wake a sleeping cancer cell – and why you might want to

Cancer cells that lie 'snoozing' in the skeleton can be awakened – or left to slumber on – by changes in the bone that surrounds them. In a world first, Garvan researchers have used state-of-the-art microscopy techniques to watch cancer cells sleep within living bone over a period of months. They show that cancer cells can be 'woken up' when bone tissue is broken down around them, suggesting new possibilities for treating metastatic cancer in bone. Garvan's Professor Peter Croucher said, "This means we can think in a whole new way about treating bone metastasis. We could inhibit the breakdown of bone by osteoclasts so as to keep cancer cells in long-term hibernation. There are already drugs that do this, and have been shown to improve survival in breast cancer patients. The other, more radical, option is to do the opposite – to wake the sleeping cells by activating osteoclasts and driving the breakdown of bone. Most cancer treatments target active, dividing cells, so waking the sleeping cells should make them susceptible to those therapies – and, ultimately, could eradicate any residual disease."

Inside this issue:

GARVAN INSTITUTE OF MEDICAL RESEARCH

From the CEO

Dear Friends,

Last year you will have read about Garvan's involvement in the establishment of the Pancreatic Cancer Alliance. Garvan, through its involvement in the International Cancer Genome Consortium, is recognised as a world leader in pancreatic cancer research and we have always strived to make sure that we engage with those people who are struck with this awful disease, their families and friends.

Under the Chairmanship of leading journalist Tracey Spicer (who is the patron of our pancreatic cancer program), Garvan was able to help bring the peak organisations working in this area in Australia together. The aim was simple – to collaborate, share and create a united voice.

It was a great honour for me to be in NSW Parliament House on 28 October last year when NSW Minister for Health, The Hon. Jillian Skinner, MP launched the new alliance that consists of Avner Pancreatic Cancer Foundation, Cancer Australia, GI Cancer Institute, Pancare Foundation, #PurpleOurWorld and Garvan.

This year we aim to build on this vital alliance and, as such, I would be delighted to hear from any of Garvan's supporters who are planning activities to raise awareness about pancreatic cancer throughout the year, so we can include them in the program of events. If you are planning an event, please send me a message at **a.giles@garvan.org.au**

In a similar vein, this year we are building a new collaboration in the key health area of osteoporosis – again building on Garvan's landmark research. A key aspect of this work will involve both school and GP education programs.

I highlight both these initiatives because the initial funding for both projects came from you, our donors. They are great examples of the impact that your support is having beyond our research areas.

Thank you for your support.

Andrew Giles, Chief Executive Officer Garvan Research Foundation

Photo of Janet Watters used with kind permission of *The Daily Liberal*, Dubbo. Photographer: Belinda Soole.

Janet Watters, Dubbo Clinic Nurse retires after 24 years

After 24 years as the Nurse Manager for the world-renowned Dubbo Osteoporosis and Epidemiology Study (DOES), Janet Watters has retired. Janet joined DOES in 1992, and fast became a driving force, looking after the volunteer clients – from young adults to the very elderly, as well as managing the everyday running of the clinic.

Janet said, "Not long after I joined DOES, I realised that the Garvan researchers are not doing this to make themselves rich, or for personal glory. They are there for the right reason – to improve outcomes for people with, or at risk of osteoporosis. In my 24 years, I have had their complete respect, and in return, I have given my all to make sure this study, and the Dubbo clinic, achieves the professional standing it deserves in the Dubbo community, as well as around Australia and the globe."

Professor Peter Croucher, head of the Garvan Institute's bone biology research division, says "Janet has been the linchpin of DOES, and much of its success can be attributed to, not only her outstanding professionalism as a nurse and clinic manager, but also to her real care for the project and the individual participants. We will certainly miss her here at Garvan, and I am in no doubt that she will be missed by the wonderful volunteers who participate in DOES."

The everyday running of the study is now in the capable hands of Jodie Martin, who has previously worked with Janet at DOES.

Key research findings from Dubbo bone study

DOES is changing the way the world thinks about the biology of osteoporosis, and our knowledge of the impacts of the disease and its treatment. Just some of the breakthroughs resulting from DOES include:

- Osteoporosis is not just a disease of elderly women. Once men over the age of 60 have had a fracture, the risk of a second fracture increases three to four fold, diminishing any risk protection males might have had prior to the fracture. While for women, the risk of a second fracture doubles.
- Any osteoporotic fracture in a person over the age of 60 years increases that person's risk of dying prematurely, even after a relatively minor fracture. More specifically, with hip fractures, there is double the risk of death for women, and three times the risk for men.
- Identifying a remarkable benefit of osteoporosis treatment. People taking bisphosphonates are not only surviving well (better than people without osteoporosis), they appear to be gaining an extra five years of life.
- The Garvan Fracture Risk Calculator was developed using data collected by DOES. This tool has the potential to allow individuals to make informed judgments about their individual risk of having an osteoporotic fracture and what steps they may wish to take to reduce that risk.

For further information about DOES or any aspect of Garvan's bone biology research, visit **www.garvan.org.au/research/bone-biology**

How a business transaction lead to passionate support of Garvan's work

When Claire Greaves was head of Human Resources for a major financial institution, she helped to establish a Workplace Giving program with the Garvan Institute. At that point, there was no way Claire could have known just how involved with Garvan she would become.

At the time, Claire was impressed by Garvan, and particularly the people. "They were so passionate and involved, which made them very easy to work with from the bank's point of view," said Claire.

So, when Claire retired from the bank, she was concerned about how she would spend her time. "Retirement was a huge step for me. I'd been with the bank for so many years that the thought of leaving and what I would do was a bit overwhelming.

"Then I thought, "I know! I'll go and volunteer with Garvan." After taking a holiday and waiting a few months, some project work became available in Garvan's HR department, so I did that for about 12 months. It started being only once a month, but quickly became once a fortnight, then once a week. I even stood in as head of Garvan's HR for a short time, while recruitment for a new head took place. Eventually I started volunteering with the Garvan Research Foundation, the fundraising arm of the Institute, and that's where I've been ever since.

"I now volunteer with the Foundation once a week, doing mainly administration work – putting information into envelopes, opening mail, some data entry, and I also help with the receipts for donations. It's nice – the people are so nice, and it keeps your mind active. If I don't come in, I really miss it."

By the time Claire was preparing her will, she was very passionate about Garvan's work. So, when she was deciding who to leave a bequest to, she says, "I didn't even think about anybody else."

As a Partner for the Future, Claire has not specified a particular disease area that will benefit from her bequest. She hopes it will be used for the area of greatest need at the time. She says, "That's the great thing about Garvan – the work is so diverse, across so many disease areas that, no matter where the money is used, you know it is going to help make a real difference.

"If someone is considering leaving a gift in their will, I would say, "do it!" It doesn't have to be everything. Every little bit counts. By supporting medical research, you are leaving a gift to future generations of your family, and others as well."

Claire summarised her feelings about Garvan by saying, "I think Garvan is a wonderful organisation. From what I've seen, from a number of different perspectives, it really is. If I had my life again, I'd spend less time in the corporate world, and more time working in an organisation such as Garvan."

If you would like information about giving to Garvan in your will or volunteering, please contact Carol O'Carroll on 02 9295 8117.

Claire Greaves, Garvan volunteer and Partner for the Future

L-R: Dr Yvonne Selecki, Dr Mohammad Ali Moni, Ridley's Megan Gourlay, Ken Davies' wife Helen Davies, and his daughter Melissa Pang.

The inaugural Ridley Ken Davies Award winners announced

The inaugural Ridley Ken Davies Award was recently presented to Garvan's Dr Yvonne Selecki and Dr Mohammad Ali Moni. The award of $50,000 is made by Garvan's partner, Ridley, in honour of Mr Ken Davies. Ridley is the country's largest commercial provider of high performance animal nutrition solutions.

Ken Davies, a Ridley employee of six years, sadly passed away in 2015, having lived with and been treated for cancer for a number of years. The Ridley Ken Davies Award is an investment in the future of scientists to deliver breakthrough medical research. It aims to support a research project that uses data obtained through Garvan's Dubbo Osteoporosis Epidemiological Study (DOES), the world's longest-running large-scale epidemiological study of osteoporotic fractures in men and women.

The project submitted by Drs Selecki and Moni will look at developing a web-based data portal, allowing researchers in fields other than osteoporosis to access the valuable data generated by DOES. Congratulations to the recipients of the Ridley Ken Davies Award, and thank you to Ridley for its ongoing support.

DreamLab has outstanding impact on research time

Launched in November 2015 with the Vodafone Foundation, the DreamLab app is having a phenomenal impact on the speed at which Garvan's researchers can analyse data.

DreamLab works by pooling the processing power of Australian mobile devices to create the nation's first smartphone supercomputer for cancer research. While a smartphone is plugged in and charging, the DreamLab app automatically downloads and solves a small cancer research problem, and then sends the result back to Garvan researchers via the Amazon cloud – like a giant crossword puzzle, with each user solving a different clue.

Five months since its launch, the DreamLab app has been downloaded more than 50,000 times, which means our research has been running at 1,500 times faster than we could manage without DreamLab's help. We are hoping to reach 100,000 downloads so, if you have an Android phone (DreamLab is currently available for Android use only), get on board and share your excess data. It's one of the simplest ways to donate towards cancer research.

If you've downloaded the DreamLab app, thank you! Make sure to keep an eye out for some of the new improvements and features. For more information about the DreamLab app, and how you can help speed up Garvan's cancer research, visit **www.vodafone.com.au/dreamlab**

Your support helps 'Hedgehog' research progress towards vital treatment for triple negative breast cancer

Scientists know that breast cancer is not just one disease, but a number of different cancers – potentially up to five or more – with different molecular causes and outcomes for patients. Triple negative breast cancer is a highly aggressive form of the disease. It does not produce any of the three receptors – oestrogen, progesterone or HER2 receptors – which are targets for the drugs Tamoxifen and Herceptin®, often effective in treating other forms of breast cancer. As such, triple negative breast cancer patients do not respond to receptor targeted treatments and chemotherapy remains their only drug option. Therefore, finding an effective drug target is a very high priority.

Blocking 'Hedgehog' could slow tumour growth

In 2011, Garvan researchers Clinical Associate Professor Sandra O'Toole and Dr Alex Swarbrick made a very significant breakthrough in understanding how breast cancer cells instruct nearby healthy cells to support them. A molecule known as 'Hedgehog', which is normally only active during embryonic development is reactivated in triple negative breast cancer, even in the early stages of the disease. Hedgehog was found to be at the centre of a cellular 'switchboard', transmitting malignant biochemical messages between cancer cells and the surrounding healthy cells.

Dr Swarbrick's team successfully created a mouse strain to use as a model for triple negative breast cancer. They were looking to see if the administration of an antibody against Hedgehog would block its harmful action. The results of these experiments were extremely positive. The tumours in the mice given the antibody were 1/3rd the size of the tumours in the control group. In other words, the antibody slowed the rate of cell division and tumour growth.

In addition, there was a significantly reduced rate of metastasis (the spread of the cancer to other parts of the body). Triple negative breast cancer typically metastasises to the brain, lungs and liver. There was no liver metastasis and reduced lung metastasis in the treated group.

These were exciting discoveries as high levels of Hedgehog are associated with increasing aggressiveness and progression of breast cancers. Importantly, drugs that silence Hedgehog are already approved for the treatment of patients with skin and brain cancers. With more research and a better understanding of 'Hedgehog signalling' in breast cancer, it may ultimately be possible to use these anti-Hedgehog drugs to stop breast tumours from growing and spreading.

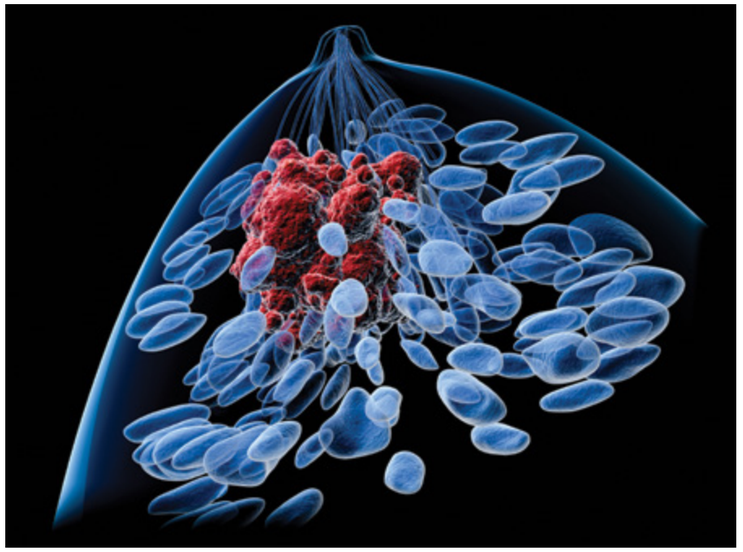
Since 2011, work has continued, and here we look at how far the research has progressed, and what's next for this promising project.

Promising progress

At the time of the initial discovery, Dr Swarbrick realised that more fundamental research was needed to fully explore the potential of the Hedgehog signalling pathway as a new drug target in metastatic triple negative breast cancer. This additional research was essential to discover the best way to block this lethal communication pathway, and to translate the discoveries to clinical trials for anti-Hedgehog drugs in breast cancer.

Dr Swarbrick and his team have continued working to gain a better understanding of the mechanisms by which Hedgehog works, and he says the team has now gained remarkable insights into how malignant cancer cells communicate with nearby healthy cells within the tumour.

Dr Swarbrick explains, "The Hedgehog molecule, secreted by the breast cancer cells, signals to a particular cell type known as a cancer-associated fibroblast, within the surrounding tissue. This signal tells the fibroblast to provide a local environment that promotes the breast cancer cells to grow and evade therapy. The cancer associated fibroblasts achieve this by secreting several molecules that stimulate the aggressive behaviour of the cancer cells."



Progress to clinical trials

"Based on the discovery of the details of this crosstalk between the cancer and the healthy cells, we undertook 'preclinical trials' of anti-Hedgehog drugs in concert with standard-of-care chemotherapy," says Dr Swarbrick. "In mouse models, this combination succeeded in blocking this malignant communication, subduing the tumour growth and spread. The results were far superior to treatment with chemotherapy alone."

The results are so promising, they have now progressed to clinical trial. Garvan is collaborating with the esteemed Spanish Breast Cancer Trials Group, led by MD PhD Miguel Martín, where a Phase I Clinical Trial of this combined therapy is now in progress.

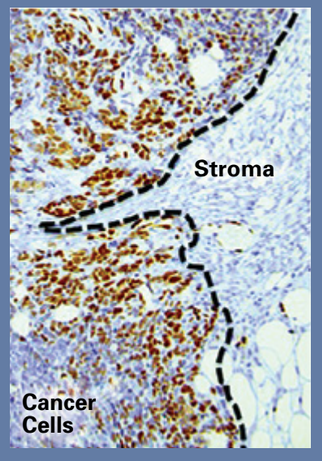
What's next?

While clinical trials continue in collaboration with Garvan, the technology developed by Dr Swarbrick's team for this project opens up a number of opportunities for future research. Dr Swarbrick says, "Just as every human being in a crowd is unique, cancer cells also have unique molecular signatures. We now think of tumours as ecosystems, and being able to analyse the uniqueness of each cell opens many research doors in oncology. We now have the valuable expertise and skill set to study both the cancer cell and its tumour microenvironment, and how complex communication between various cell types supports metastatic spread and drug resistance."

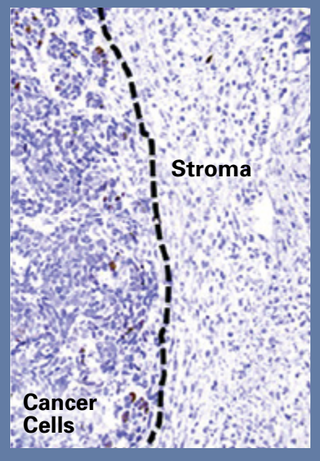
Philanthropic support

The Hedgehog project would not have reached this promising stage, or been eligible for the subsequent National Health and Medical Research Council funding it received, without your support and the philanthropic investment of several private trusts and foundations. We thank you for recognising the vital need for therapies to address triple negative breast cancer. We also thank you for supporting new research projects that do not yet have large-scale government funding. Your faith in Garvan's gifted and dedicated scientists has helped, and continues to help them move closer to achieving their goal of creating breakthroughs that will improve outcomes for patients.

Brown staining: Id3 molecule, marker of malignancy



Triple negative breast cancer tumour



Triple negative breast cancer tumour treated with an anti-Hedgehog drug

Ask Garvan

Q: I have noticed that some of your senior researchers have the title "Professor", while others are "Associate Professor". What is the difference?

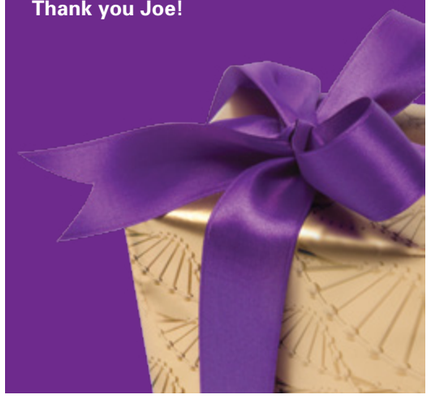
A: Titles of Associate Professor and Professor are an indication of seniority and academic achievement and are awarded to individuals at the discretion of the university they are associated with. These titles recognise an individual's experience and expertise, contribution to their field of research and education, and international standing. The titles of Professor and Associate Professor are only awarded to individuals with positions at a university. Generally:

- **Professor** is the highest academic rank awarded by universities in Australia. It is awarded to distinguished academics/researchers who have conducted outstanding original research that is recognised internationally. They will also have demonstrated outstanding academic leadership, and would be considered to be at the top of their field of work.
- **Associate Professor** is a title below that of Professor and recognises individuals who have conducted excellent original research that has been recognised internationally. They would also often have demonstrated academic leadership.

In celebration

Thank you to the generous supporters, like **Joe Fischer** who recently celebrated a special occasion and requested that family and friends make a donation to Garvan in lieu of gifts.

Thank you Joe!



Staff Profile: Dr Tracy Anderson

Student Programs Coordinator

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

I am a clinical psychologist with a PhD in psychology. After completing my studies in New Zealand, I moved to Sydney to work in the School of Psychiatry at UNSW as a Research Fellow. This proved to be an excellent opportunity to teach and supervise postgraduate research students as well as conduct research about mental health and wellbeing.

Several years ago I became interested in student wellbeing and student programs that foster achievement. I gained experience in the area while working at Australian Catholic University in the Faculty of Health Sciences. I am delighted to now join Garvan as the Student Programs Coordinator.

Garvan's reputation for research excellence means that it attracts high calibre students and the Student Programs role presents an exciting opportunity to work with talented students and supervisors.

What does your role at Garvan involve?

My role is varied and involves recruiting students to undertake research at Garvan, as well as assisting our current students to meet their candidature milestones. I also organise training and development programs for students and oversee initiatives to enhance wellbeing.

What inspires you about your work?

It is pleasing to find that students at Garvan are valued as important contributors to the life of the Institute and that Garvan fosters early scientific careers. At the undergraduate level, Garvan provides opportunities for internships and honours research projects so that students considering a career in research have a chance to be part of a research team, develop skills and create networks before making a decision. At the postgraduate level, Garvan is dedicated to ensuring an environment of research excellence where PhD students are supervised by experienced staff and have access to development opportunities that help form diverse scientific careers.

What do you enjoy doing in your spare time?

I love reading to my children (aged four and six years) every night. Much of the pleasure comes from addressing the often humorous questions and observations that children make. I enjoy shopping and spending time outdoors.

Researcher Profile: Dr Cindy Ma

Group Leader, Human Immune Disorders – Immunology Division

What is the current focus of your work?

I'm very interested in the immune system and primary immunodeficiencies, in particular, CD4+ T cells. They play an important role in regulating immune responses to pathogens and tumour cells, and in orchestrating overall immune responses. We have lots of different types of CD4+ T cells that each play important and specific roles during a particular infection.

What my research group is interested in is trying to work out the different signals and factors that determine how each type of CD4+ T cell is generated and activated, and how they function during the different types of infections by viruses, bacteria, fungi etc.

Importantly, patients with genetic mutations that alter the immune system, primary immunodeficiency, are often predisposed to a particular type of pathogen and find it difficult to mount an immune response to eliminate the pathogen from their bodies. Interestingly, a lot of these patients have susceptibility to one pathogen, but not others – maybe they can't mount a response to fungal infections, but they are OK with bacteria and viruses.

I take information from real patients with real diseases, and try to figure out what is happening to their immune system. I study CD4+ T cells, as well as the other immune cells to determine how a mutation in a single gene results in disease susceptibility. Ultimately, my aim is to find ways to deliver better and more effective treatments.

While I don't usually meet individual patients, I am working on individual's cases. I get to know them through their cells! The work that I do has the potential to improve health outcomes for these people as well as others that are affected.

What is the biggest challenge in your area of research?

Overall, funding is a big challenge. We are very heavily dependent on the National Health and Medical Research Council (NHMRC) for funding, and as the research community knows too well, the success rate for NHMRC grants is at an all-time low. So we also rely quite a bit on the generosity of individuals and corporations for philanthropic support.

What do you enjoy doing away from the lab?

I have a three year old son who keeps me very busy. Scientists work long hours, so I like to focus on him as much as I can when I'm home. I also enjoy catching up with family and friends and eating out.

Guests at the Ovarian Cancer Awareness Day Leaders' Lunch heard from (L-R) Ovarian cancer patient and advocate Letitia Linke, Gynaecologic Cancer Surgeon Dr Robyn Sayer, Garvan's Professor David Bowtell and Chair of Ovarian Cancer Australia's Board, Paula Benson.

Outstanding support for this year's Ovarian Cancer Awareness Day Leaders' Lunch

Ovarian cancer survivors, researchers, health care professionals, advocates and media were recently welcomed to Garvan's fourth annual Ovarian Cancer Awareness Day Leaders' Lunch at Parliament House, Sydney. Hosted by The Hon Pru Goward MP, this year's event was run in conjunction with Ovarian Cancer Australia, to promote the need for increased awareness about ovarian cancer, and increased funding for medical research. Guests were also introduced to Garvan's new Head of Ovarian Cancer Research, Professor David Bowtell.

Professor Bowtell holds joint appointments with the Peter MacCallum Cancer Centre, Melbourne; Imperial College, London and is a visiting Professor at Dana Farber Cancer Institute in Boston. He is also leader of the Australian Ovarian Cancer Study, one of the largest and most sophisticated studies of ovarian cancer in the world. His work has fundamentally changed the way we think about ovarian cancer, and has contributed to clinical trials of new treatments, and treatment combinations.

Throughout the years, Mrs Margaret Rose AM, an ovarian cancer survivor, has been passionate in her support of Garvan's ovarian cancer research program. While Mrs Rose was travelling and unable to attend this year's event, her daughters, Marisa Campion and Sacha Rose Calligeros, spoke on behalf of Margaret and announced a $100,000 leadership gift to support Professor Bowtell's work at Garvan. This gift is in addition to the *Margaret Rose AM Fellowship in Ovarian Cancer Research* which was established in 2014.

Guests at the Ovarian Cancer Awareness Day Leaders' Lunch joined with health professionals, advocates and patients for an important discussion about the way forward in the diagnosis and treatment of this devastating disease. Thank you to all those who attended, and all who support Garvan's ovarian cancer research.

Community Champion Awards

The Garvan Research Foundation recently hosted its annual Community Champion Awards which celebrate the commitment of various community and corporate partners to breakthrough medical research.

2015 marked an incredible year for the Garvan Research Foundation, thanks to support from committed organisations and passionate individuals. Six of these were honoured with awards at this year's event:

The Vodafone Foundation: Garvan and the Vodafone Foundation launched DreamLab, an Android smartphone app that gives Australians the power to help fast track a cure for cancer while they sleep.

Rod Wills and the crew of Great Xpectations: Rod and his crew set sail in the 2015 Sydney to Hobart Yacht Race to raise funds and awareness for Garvan's prostate cancer research.

State Custodians: Generously supports Young Garvan as its Platinum Sponsor.

Mr Gordon Eckel: After 12 years on the Young Garvan committee, four as chair, Gordon is stepping down for a well-earned break. Gordon has been a driving force behind the committee's fundraising achievements.

The Intermedia Group: The Intermedia Group has championed the Garvan Institute and Love Your Sister to be the charity of choice for the Hotel Management Awards, which engages the hotel and hospitality industry of Australia.

Tour de Cure: Garvan is honoured to be a recipient of funds raised through Tour de Cure's cycling events. Since 2007, *Tour de Cure* has raised in excess of $21 million and contributed funds to more than 240 cancer research, support and prevention projects.

We sincerely thank all our supporters for the time, passion and funds they contribute to Garvan's research.

Recipients of the 2016 Community Champion Awards.

In Memoriam November 2015 to January 2016
Donations have been made in memory of:

Diane Amey
Louisa Armstrong
Bob & Margaret Auld
Aydin
Maria Bellia
Tony Bingham
John Birmingham
Jennifer Blackmore
Daphne Boskovski
Yvonne Brodal
Jennifer Brown
Gail Burgin
Carolyn Byrne
Colin Campbell
Noel Cantrill
Warren Cantwell
Peter Catt
Warren Clayton
Graham Coomber
Owen Coulter
Suann Croker
Simon Curtis
Carmel Custy
Daisy Huckel's brother
Janelle K Davis
John Dawson
Joe Donaldson
Sue Dowlan
Bridget L Dunn
Bob Elliot
John Elliott
Aaron Everley
Mario Fabris
Gino Fazekas
Antoine Fricot
Susan Gamble
Les Gogoll
Rochelle Goulburn
Stewart J Graham
Mary I Green
Darryl Griffiths
Ian Hands
Adel Hanna
Emmanuel G Harris
Cheryl Hayek
Edith D Heffer
William A Henson
Jocelyn Hinds
Stuart Hoy
Ash Huggett
Albert T Jarrett
Evi Joannou
Peter C Jones
Victor J Jones
Andrew Kendall
Agathe Barbara Kersch
Henry Kleinman
Detlef Kramer
Graeme A Lawson
Sue Leahy
Robert Leece
Daryl L Levy
Julia M Linyard
Emma Love
Alice M Lowe
Roy Lucas
Tim & Andrew Lynch
Esme Maclean
Margherita & Michele Maldarella
Mary Malone
Sandy McDonagh
Jayne McEvoy
Frances McNamara
Vaike Meiers
Allan B Mitford
Margaret Moore
James Newton
Adrian Notley
Jane M O'Loan
Kenneth W Palmer
Gunter Pfeffer
Maryanne Pickup
Monty Ranawake
Una Ravenscroft
Shirley Rawlings
Colin Reid
Robert J Rice
Sydney Roberts
Kerryn Rufus
Phil Salter
Jacqueline Saunders
Geoffrey Seamons
Catherine Semovski
Jane Sherrard
Owen Simmonds
Andrew Sneddon
Belinda Spencer
John Spencer
Neil R Stevens
Kitty Stewart
Lee Tingle
John Truan
Carolyn Turner
Shirley Turner
Elaine J Twomey
Harlan Usher
Anthony Wallington
Clive Wannell
Philip G Ward
Jean Webster
Anne Wills
Pamela Wilson
Peter Winters
Cyril P Wong

Coming Up

2016 free public seminars

Wednesday 20 April – 10am – Pancreatic, ovarian and rare and neglected cancers

Wednesday 14 September – 6pm – Genomics and the revolution in medical research

Friday 28 October – 10am – Immune disorders

Space at these free public seminars is limited, so bookings are essential. To book, phone **1300 73 66 77** or **(02) 9295 8110** during business hours, or visit **www.garvan.org.au**

Clinical Studies

Ovarian cancer study

We are looking for volunteers with NO personal history of cancer to donate approximately 50-80 mL of blood to be used to optimise experimental protocols and/or biobanked for future use in cancer vs controls comparisons. This work is part of a project aimed at developing a blood-based test for early ovarian cancer. To volunteer, or for more information, contact Dr Kristina Warton 0438 649 073 or email k.warton@garvan.org.au (St Vincent's HREC Ref SVH14/257).

Brown fat and blood pressure study

Brown fat is a special kind of fat which burns fat in the body. We are looking for volunteers who have high blood pressure to participate in a trial investigating the effect of a medication on brown fat. Participants must be aged 18 to 45 years and currently on one blood pressure medication. For further information please contact Dr Paul Lee (02) 9295 8416 or email p.lee@garvan.org.au (St Vincent's HREC Ref 14/SVH/105).

Impact of medication on ability to process a meal

Volunteers are needed for a study testing an approved medication on your body's ability to process a meal. We are looking for healthy men and women, aged 22-65 years. The study involves one short (one hour), and two longer (four hours each) morning visits to the Garvan Institute in Darlinghurst. Participants will be provided breakfast and reimbursed for travel and time.
For further information, please call (02) 9295 8215 or email crf@garvan.org.au (St Vincent's HREC Ref 14/157).

BE PART OF PROGRESS

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.

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
☐ I do not wish to receive any appeal mailings

My Gift Details

Yes! I want to help Garvan make progress with a gift of

☐ **$50** ☐ **$100** ☐ **$250** ☐ **$500** ☐ **$1000** ☐ Gift of choice $_____

☐ My cheque/money order made payable to Garvan Research Foundation is enclosed

OR Please deduct the above amount ☐ once ☐ monthly ☐ annually

from my ☐ **Visa** ☐ **MasterCard** ☐ **Amex** ☐ **Diners**

Card Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Expiry Date ☐☐ / ☐☐ 2016 BT01

Cardholder's Name

Signature

Donations of $2 and above are tax deductible.

Please complete this coupon and mail it to:

Garvan Research Foundation
Reply Paid 68593, Darlinghurst NSW 2010

Call: **1300 73 66 77** (9am to 5pm)

Fax: **(02) 9295 8507**
(you can use this coupon)

Online: **www.garvan.org.au/support**

GARVAN INSTITUTE OF MEDICAL RESEARCH