



It is a great time to review our highlights of the past year, as we race towards Festive gatherings and New Year holidays with family and friends.

This year we have stepped up our collaborations with other organisations, accelerated a centre of excellence programme to attract more PhD students and made significant progress with fundraising to start our glioblastoma phase II clinical trial next year.

We have recently been recognised for our efforts as a 'not for profit' charity, working hard to find a more equitable and more sustainable treatment approach to disfiguring and life-threatening conditions, like strawberry birthmarks and cancer.

Gillies McIndoe Wins Business Excellence Award



Clint Gray and Margie Beattie at the awards. Photo courtesy of 2degrees Wellington Regional Business Excellence Awards.

It was a real thrill to be named the winner in the 'Not for Profit' category of the 2degrees Wellington Regional Business Excellence Awards at a gala awards function in Lower Hutt on 18 November.

The awards are organised by the Hutt Valley Chamber of Commerce, and our award was sponsored by the Open Polytechnic Te Pūkenga.

It recognises the hard work our whole team has been doing to make cancer treatment less invasive, more accessible, and more affordable.

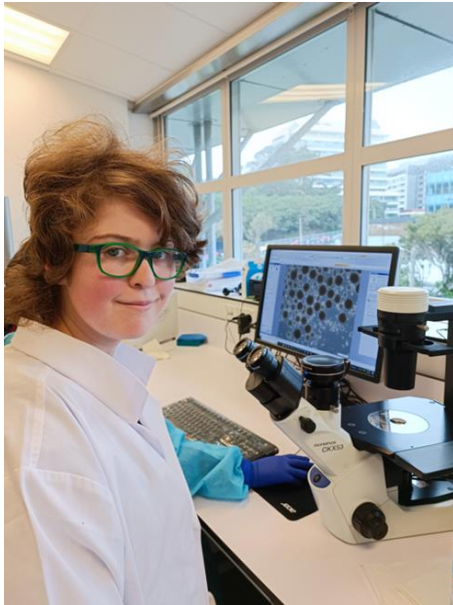
Our research takes a long time and costs a lot of money, but we do it as it gives cancer sufferers and others suffering from disfiguring conditions hope.

We are very grateful to receive the award.



Clint Gray, Margie Beattie and the Open Polytechnic Te Pūkenga sponsor representative at the awards. Photo courtesy of 2degrees Wellington Regional Business Excellence Awards.

Agreement to Progress Topical Strawberry Birthmarks Treatment



Heather Jenkinson in the lab.

Our work in understanding and treating strawberry birthmarks in children has moved a step closer to further development through an agreement we have reached with AFT Pharmaceuticals and Massey University.

We've agreed on how the intellectual property emerging from our research, which has shown the potential for a combination of well-known, off-patent medicines to be used in the topical treatment of strawberry birthmarks, will be managed.

It means we'll work with AFT Pharmaceuticals to finalise the ingredients for a topical treatment and then work with them on a full medicine development programme including clinical studies.

['Massive need' for new strawberry birthmark treatment | Stuff.co.nz](#)

A strawberry birthmark, or infantile haemangioma, is a benign vascular tumour that grows rapidly for about a year after birth. It affects about 10% of children and is not only disfiguring but can threaten bodily function and sometimes life.

This agreement will help develop a new treatment that is much cheaper, faster, more effective, safer and with fewer side effects than traditional treatments. If successful, the treatment will be a step closer to making it widely available.

The agreement has other benefits:

- It provides a link between our research and the practical application of that research
- AFT will pay for some of the costs of the work we do to meet our agreement obligations
- We will be able to further expand our research programme, by using any potential royalty revenue we receive if it results in a marketable product.



Scholarships Support Emerging Talent

We have been fortunate to receive funding for two new scholarships that will support our research efforts, as well as our efforts to develop emerging talent in our research field.

It's important to us that we play a role in developing the next generation of research scientists and Dr Clint Gray, our Chief Scientist, has been instrumental in attracting the funding to support and attract PhD students to our laboratory. We are working to develop a centre of excellence and an attractive pathway for promising scientists to broaden their skills, knowledge, and practice, and contribute towards valuable scientific research.

Melody Collins Memorial Scholarship



Melody Collins and family

Our new PhD student Jasmine White is the inaugural recipient of the Melody Collins Memorial Scholarship. Worth \$30,000 per year for three years, the scholarship was created by Melody's sister and brother-in-law, Kara, and Josh Isaac.

In early 2019 Melody was diagnosed with terminal cancer, facing her prognosis with courage, faith, hope and determination.

Kara and Josh have established the scholarship in the hope that the research it supports will one day help other families to get more time with a loved one suffering from cancer.

Jasmine will join us in January 2023. The focus of her PhD research will involve looking at glioblastoma tumours, growing organoids ('mini brains') and performing proteomics, metabolomics and lipidomics. Her work will examine metabolism and how the tumour feeds itself. She will also investigate if the tumour uses specific nutrients to grow and may be targeted to help slow or stop tumour growth.

Deane Endowment Trust Scholarship

We will shortly be announcing the inaugural recipient of the Deane Endowment Trust Scholarship, which is worth \$20,000 per year for three years. Sir Roderick and Lady Gillian Deane have been strong supporters of Gillies McIndoe and we welcome their latest support of our research efforts.

This scholarship will enable a PhD student to undertake research into keloids, which is a type of benign lesion that can form on scar tissue. They can be painful and effect the movement of the skin. It's a disfiguring and potentially life-threatening condition that warrants more research effort, as there is currently little understanding of its causes and few treatment options.

The PhD student receiving the scholarship will look at the molecular, metabolic and 3D genomic characteristics of keloids and how we may better understand and develop future treatments.

Some of our PhD positions are currently vacant. If you know of anyone who may be finishing university and/or considering further study, please encourage them to contact us about possible opportunities.

Glioblastoma Phase II Clinical Trial Expected to Begin in 2023

Our fundraising has been progressing, and early next year we hope to begin our phase II clinical trial on glioblastoma, the most common and most aggressive brain cancer.



We are very grateful for the significant and generous donation of \$1 million from the Hugo Charitable Trust received earlier this year towards the trial. Hugo backs our work and we have been working with other trusts and philanthropists since to help make the clinical trial happen.

[New trial to give valuable extra months to hundreds of brain cancer patients | Stuff.co.nz](#)

What we know, and are incredibly appreciative of, is that giving comes in many ways. And it is often through connections that good things happen.

For example, in September 16-year-old Hermione Sivasubramanian, a Year 12 student at Nga Tawa Diocesan School at Marton, suggested money raised from her schoolhouse fundraiser should come to us. She lost her father to esophageal cancer in November last year and wanted the fundraiser to support cancer research. When she learned of the work being done at Gillies McIndoe by Nga Tawa's former Dux, and one of our PhD students, Freya Weth, Hermione was keen to support it.

Freya's important work will inform the glioblastoma phase II clinical trial, by growing 'mini brains' and developing a model of glioblastoma, and then testing to see how they respond to different medications.

The fundraiser also helped to raise awareness of our work, as well as the many opportunities that exist for girls in science.

Hermione and some Nga Tawa representatives visited recently to learn more from Freya and her colleagues.



Dr Swee Tan, Dr Clint Gray, Hermione Sivasubramanian, some Nga Tawa representatives and Freya Weth

We are closing in on our fundraising target to start the phase II clinical trial and hope to be able to announce more details in the New Year.

While the full trial is expected to cost \$3.6 million, we intend to commence once \$1.5 million is raised.

The trial will use a new treatment approach targeting cancer stem cells by manipulating the renin-angiotensin system by repurposing a combination of low-cost, off-patent, safe oral medications.

Results from our glioblastoma phase I clinical trial showed the treatment is safe with minimal side effects and the quality of life and performance status of the participants are maintained during treatment and early indications show that the treatment may also improve median survival. The results were published in the international *Journal of Clinical Neuroscience* in December 2021 (<https://authors.elsevier.com/sd/article/S0967586821005713>).

The phase II clinical trial will be much larger and start earlier – with treatment beginning soon after patients are diagnosed with glioblastoma, rather than after they have completed conventional treatment of surgery, chemotherapy and radiotherapy and having relapsed with no further options available.

If you are interested in donating, please visit www.gmri.org.nz

Facts about Glioblastoma:

1. It is the most common, most aggressive, and devastating form of brain cancer
2. It has a peak incidence of 45-75 years
3. Between 180 and 200 people are diagnosed with glioblastoma each year in New Zealand
4. Conventional treatment consists of surgery, radiotherapy, and chemotherapy
5. Despite this intensive treatment the tumour recurs in virtually every patient with half of them relapsing at 6 months and half of them dying at 14.6 months
6. The last breakthrough occurred in 2005, with improvement of survival of 2 months using a new chemotherapy drug (temozolomide)
7. Only 2% of the patients survive 5 years.

Malaysian Fundraiser Contributes \$11k Towards Research into use of Repurposed Drugs



Malaysian High Commissioner Nur Izzah Wong Mee Choo, Margie Beattie and Carol Law

We are grateful to the Malaysian High Commission for hosting a fundraising lunch raising \$11,000 in support of our research into the use of repurposed drugs.

About 80 people attended the function, hosted by the Malaysian High Commissioner Nur Izzah Wong Mee Choo. Dr Swee Tan spoke about his humble beginnings in rural Malaysia, and subsequent study and work in reconstructive plastic surgery. He went on to talk about how this work led him to establish Gillies McIndoe and focus on finding less invasive treatment approaches, such as using repurposed drugs, for life-threatening and disfiguring conditions, like cancer.

It was a successful afternoon, and we thank all those who donated raffle prizes and supported the auction.

Summer Students Bolster our Efforts



Dr Sam Siljee, Georgia Hoggarth, Freya Weth and Anya Weth.

This summer we will have two university students join our team as part of our summer student programme.

Georgia Hoggarth will get to do some innovative research supporting our efforts testing the use of repurposed drugs in possible treatments for glioblastoma, and Anya Weth will be supporting our work on a genetic mutation study involving lung cancer.

We wish to thank Bloomsbury Associates, who are contributing \$12,000 to the summer student scheme.

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The scheme has been running for many years and has involved more than 30 students to date, including our current PhD student Dr Sam Siljee. Now a trained medical doctor, Sam describes his time in 2014 as a summer student at Gillies McIndoe as a great experience.

“I enjoyed sitting down with Swee over lunch and discussing the philosophy of what makes good science,” he said.

Sam is currently enrolled with Victoria University of Wellington and working on a lung cancer project in collaboration with Associate Professor Peter Pfeffer and Dr Lifeng Peng at the University's School of Biological Sciences and Dr Sean Galvin at the Cardiothoracic Surgery Unit at Wellington Regional Hospital. Lung cancer is New Zealand's leading cause of cancer death.

He's studying genetic mutations in lung cancer to better understand the disease process. Sam is developing a lung organoid system, in which stem cells from patients' lung tissues are isolated and grown in special culture media, forming human 'mini lungs' on the petri dish. He uses special techniques to uncover protein changes in cells in response to genetic or environmental alterations.

Open Days Prove Rewarding



Dr Clint Gray and Gillies McIndoe Ambassador Andrea Skews.

This spring we have hosted a series of Open Days in our Wellington-based laboratories, to enable some supporters to enjoy a tour of our facilities.

It has been a rewarding experience for us to provide some of those that go the extra mile for us with an insight into our activities and introduce some of our key people such as Dr Swee Tan and our Chief Scientist Dr Clint Gray.

We have been able to share some of the work we are doing, our focus areas and introduce some of our talented people – including our Postdoctoral Fellows and PhD students – who are tasked with informing much of our research.

As the Open Days have been so successful, we are planning more in the future. If you would like to visit, or arrange a group to visit, please contact Cindy Naresh on ea@gmri.org.nz or 04 282 0366.

Women's Golf Classic Chips In

We are grateful to have received \$2000 towards our research efforts through a recent raffle fundraiser held during a golf tournament at the Royal Wellington Golf Club.

The Heretaunga Women's Classic involved 128 women from 21 clubs from all over New Zealand. They, along with members of the Royal Wellington Golf Club, gave generously in support of Gillies McIndoe.



Dr Swee Tan ONZM MBBS FRACS PhD
Executive Director

Be part of our journey

Dr Swee Tan and his team at Gillies McIndoe have achieved remarkable success in advancing knowledge relating to strawberry birthmarks and other tumours. The Research Institute's focus is now on cancer.

