growth for greater impact!

The George Institute for Global Health
2017 Annual Report
Our mission:
“... is to improve the health of millions of people worldwide...”

Our values:
- Integrity
- Creativity
- Emphasis on impact
- Humanitarian commitment
- Focus on excellence
- ‘Can do’ approach
Since '99

We've published 7000+ publications and other academic outputs & our publications have been cited 89,000+ times.

We have raised over $730M for health & medical research.

In 2016–17

We have 645 staff globally & 68% of us are women.

Projects in more than 50 countries.

500+ publications and other academic outputs, $86M & $21M in total revenue & in peer-reviewed funding.

Our affiliations*

* Affiliated with The University of Sydney until May 2017
This past year has, in many respects, been one of the most exciting in our history. We moved into our new global headquarters in Sydney, which for the first time brings together the majority of our Australia-based team, and will enable more collaboration across our research and enterprise programs. We are celebrating 10 years of results and impact in China and India. And, perhaps most significantly, The George became affiliated with UNSW Sydney (The University of New South Wales), in a new strategic partnership that will dramatically boost our medical research, thought leadership and capacity building, not only in Australia, but also across the globe.

We also welcomed Staph Leavenworth Bakali as the President and CEO of George Health Enterprises (GHE) and George Clinical announced a major acquisition of a US clinical research organisation with an oncology focus, expanding our footprint in the northern hemisphere. We were also pleased to receive a donation of $4 million from George Clinical, in support of our global work.

As always, at The George, we are continuing to look for ways to have the greatest impact on health outcomes globally. This past year has been no different.

Non-communicable diseases such as heart attack, stroke, lung disease and diabetes cause nearly 70% of deaths worldwide. Health systems around the world are under pressure, especially in low- and middle-income countries, where the burden of these conditions is disproportionately greatest and there is a continuing need to also address the high rates of maternal and newborn mortality and the burden of communicable diseases. In these countries too, rising rates of childhood obesity, and increasingly sedentary lifestyles and poor diets, paint a grim future. Solutions are urgently needed.

As outlined throughout this year’s annual report, we have been generating critical evidence and testing innovative ways to treat our biggest killers such as stroke, high blood pressure, and diabetes. We have been using mobile health technologies to change the ways that healthcare is delivered and mining big data to understand chronic disease patterns and risk factors to help improve health outcomes. We have also continued to grow our research and drive innovation in areas where there is an urgent need, such as identifying how chronic diseases affect men and women differently, and how to best strengthen health systems around the world.

To maximise our influence on healthcare debate and policy, our advocacy activities have also grown. We convened a series of policy forums in Australia, China and India on health financing, food policy, mobile health, and child and maternal health; engaged with governments on evidence-based policy reform such as salt intake; and helped make sepsis a global health priority at the 2017 World Health Assembly.

The people who are The George make us extremely proud, and the accolades they receive for excellence, impact and innovation are so well deserved. Examples this past year include winning the judges’ vote in the 2016 Google Impact Challenge for a simple text messaging program to prevent heart attack and other
chronic diseases; and being awarded the 2017 AustCham Westpac Australia-China Business Award in the category of Business Excellence for Sustainability, Diversity and Social Responsibility. In March this year, we welcomed Erika Burmeister as Director, Global Human Resources, and thank Sarah Hazell for her contribution in that role previously. We also welcomed Professor Rodney Phillips, Dean of Medicine, UNSW Sydney, to our Board of Directors as of May 2017.

It is the tremendous support of our Board, staff, funders, partners, collaborators and other friends of The George that keep us focused on improving the health of millions of people around the world. More than ever before, we are very excited about what the future holds!

Michael Hawker AM
Chair

Professor Robyn Norton AO
Principal Director

Professor Stephen MacMahon AO
Principal Director
Strategic partnership, a game changer for medical research

A new era for medical research began this year thanks to our new affiliation with UNSW Sydney in May 2017. This new strategic partnership will dramatically boost medical research in Australia and globally, driven by a common purpose – to improve the lives of millions of people around the world.

Our partnership will focus on non-communicable diseases and injuries, clinical trials, epidemiology and biostatistics, and health systems research. Other joint priority areas include: women’s health, Aboriginal and Torres Strait Islander communities, healthcare big data, health-focused social enterprises, and creating a global health policy think tank. We are also working closely to identify new international research opportunities in the Asia-Pacific region.

“At UNSW Sydney we aim to use our expertise to benefit the population of NSW and the broader global community. The complementary research strengths of our two organisations will enable us to find new ways to have a global impact.”

Professor Ian Jacobs, President and Vice-Chancellor, UNSW Sydney

“Chronic diseases like heart attack, stroke and diabetes are on the rise globally and we urgently need solutions to tackle this growing epidemic. Partnering with UNSW Sydney ensures we can deliver both affordable and accessible treatments and prevention programs that will make a real, lasting difference, especially in low- and middle-income countries.”

Professors Robyn Norton and Stephen MacMahon, Principal Directors & Co-Founders, The George Institute for Global Health
Celebrating culture
In July 2016, our team in Australia celebrated Aboriginal and Torres Strait Islander culture at its annual NAIDOC event. The event included cultural displays such as a traditional corroboree by Koomurri Dancers, a bush tucker lunch and an art exhibition by Aboriginal artist Chris Moore. Graeme Mundine, former Executive Officer of the Aboriginal Catholic Ministry in the Sydney Archdiocese and a Bundjalung man, spoke about the significance of land to Aboriginal and Torres Strait Islander peoples and the theme of NAIDOC 2016, ‘Songlines’.

Impacting health in the Asia-Pacific
In August, Professor David Cooper AO, Director of The Kirby Institute for infection and immunity in society, delivered the 2016 John Yu Oration, an annual George Institute flagship event. The Oration entitled ‘Antiretrovirals for HIV/AIDS – a modern medical miracle’, explored the importance of ongoing chronic disease research in the Asia-Pacific region. Professor Cooper was also awarded the Dr John Yu Medal for his impact on healthcare in the Asia-Pacific.

Google gives us a thumbs up
In October, our researchers won the judges’ vote in the 2016 Google Impact Challenge for a simple text messaging program to prevent chronic diseases like stroke, heart attack and kidney disease. The award was decided on by a panel of leading business and innovation experts, and includes working with Google and $750,000 to roll out the program in countries like Australia, China and India.

Collaboration for better heart health in China
The George Institute, China and Cardio Union, a leading private Chinese healthcare organisation, announced a collaboration in the creation of the Heart Health Research Center (HHRC). The new business entity will provide research services that will deliver efficient, high-quality and high impact research to customers focused on clinical, population and healthcare services for people at high risk of cardiovascular disease in China.

Healthy mothers and children in China
In November 2016, the China Center for mHealth Innovation, located at The George Institute, China, and the Department of Child, Adolescent and Women’s Health at Peking University, released a report on applying mobile technology to improve maternal and child health in China. Key experts from academia and industry in maternal and child health and mobile health gathered at Peking University to discuss the report findings, as well as future opportunities and challenges in maternal and child care in China.

“Our partnership with Cardio Union is built on the greatest expertise in China and the world in the management of cardiovascular disease and the conduct of high-quality medical research. These strengths will help us generate the best possible evidence about innovative disease management strategies designed specifically for the needs of China.”

Professor Stephen MacMahon, Principal Director, The George Institute for Global Health
Harnessing the power of technology
In December 2016, The George Institute, India held a conference to look at the usefulness of technology-enabled healthcare delivery. The conference focused on technology that utilises handheld computing devices, for example, point-of-care diagnostics, electronic decision algorithms and wearable as well as environmental sensors.

New home for greater impact
We began a new chapter in our history and growth by moving into new custom built global headquarters in Sydney in December 2016. Strategically located near the Royal Prince Alfred Hospital, this new location for our global and Australian teams, as well as George Health Enterprises and George Clinical, will facilitate better collaboration across research and our social enterprise programs.

Reducing salty habits
The George Institute, India in association with the global non-profit organisation, Arogya World, convened a Salt Summit in Delhi in February 2017. Key stakeholders attended from government, the food industry, academic and research organisations, civil society representatives and the media. The group discussed growing evidence that links high salt intake to non-communicable diseases and discussed a multi-stakeholder advocacy plan for salt reduction in India.

Switching what we eat
In February 2017, The George Institute’s innovative FoodSwitch program was selected to participate in LAUNCH Food – a global challenge to improve health outcomes by helping people make healthy food choices. FoodSwitch is one of 12 initiatives from around the world chosen to be in the program being run in partnership with the Australian Department of Foreign Affairs and Trade, the US Agency for International Development, and a broad cross-sector network of key opinion leaders and industry players.

“This move to our new headquarters represents a major milestone in our growth, from a small group of researchers based at Royal North Shore Hospital, to a globally established institute. It is a symbol of our work so far and also the work to come.”

Professor Robyn Norton, Principal Director, The George Institute for Global Health
More access to life-saving medicines
In February 2017, The George Institute, Australia convened a special policy roundtable to discuss funding models for medicines in Australia. The roundtable explored the potential structural and financial reforms needed to create sustainable access to medicines for consumers. A summary report from the day outlines suggested next steps towards equitable access of affordable medicines.

New era in medical research
In March 2017, The George Institute, China renewed its Memorandum of Understanding with Peking University Health Science Center, ensuring ongoing collaboration between the two organisations. “The relationship we have had over the past five years has been incredibly important to our growth and success,” said Professor Robyn Norton, Principal Director, The George Institute for Global Health.

Westpac & AustCham award
The George for excellence
In May 2017, The George Institute, China won the prestigious AustCham Westpac Australia-China Business Award in the category of Business Excellence for Sustainability, Diversity and Social Responsibility. The award recognises the diverse range of Australian business interests in China and the richness of projects and partnerships that are at the forefront of a key Australia-China business relationship.

Australia’s future in Asia
In June 2017, The George Institute’s Chief Scientist, Professor Anushka Patel, participated in a panel at the launch event for the Asia Society’s new publication ‘Disruptive Asia: Asia’s rise and Australia’s future’. The publication was edited by award-winning journalist and author Greg Earl, and features 20 essays including Professor Patel’s piece, ‘Making Asia Fit for New Growth’.

“The mission of The George Institute is to improve the health of millions of people worldwide and we are doing just that in China.”
Professor Craig Anderson, Executive Director, The George Institute, China
At The George, we are looking for real world, lasting solutions to prevent and treat chronic disease and injury and to tackle the growing challenge of delivering affordable, high-quality health services around the world. Non-communicable diseases are the leading cause of death in the world, representing nearly 70% of all deaths, while it is estimated that at least a billion people worldwide receive no medical treatment.

“We aim to transform the way healthcare is delivered – to make basic, yet life-saving care available where the need is greatest, especially in low- and middle-income countries, and to have the greatest impact on health outcomes around the world.” Professor Anushka Patel, Chief Scientist, The George Institute for Global Health

Our researchers within The George Institute’s Office of the Chief Scientist are working across our centres in Australia, China, India and the UK to expand our research and innovation impact in the face of the global epidemic of chronic disease. By guiding best practice and working with our other world leading experts, this team is also focused on helping our research deliver the best outcomes.

Our researchers are exploring ways to inform policy and practice globally by growing our research capabilities. We are strengthening health systems, promoting the use of new technology, finding better financing models and identifying novel approaches to encourage behavioural change.

Innovating to manage blood pressure

High blood pressure is the leading cause of premature death globally, the majority of this burden falling on developing countries. Although there are proven treatments to prevent the condition, many people do not have access to healthcare or medication. We have developed and are trialling a ‘three-in-one pill’ – combining low-dose blood pressure medications into one pill to be taken daily. “We are investigating if taken early on in the treatment of high blood pressure, this new pill manages the condition better, and whether this will mean fewer doctor visits and side effects and more uptake of this life-saving treatment,” said lead researcher, Dr Ruth Webster.
Reducing salt consumption to save lives

Millions of lives are potentially being saved through low salt advocacy programs developed by The George. We are working with governments to develop national low salt public health programs to reduce salt intake. Such programs are proven as one of the most cost-effective ways to prevent chronic diseases, like heart attack and stroke, by lowering blood pressure. Most evidence about salt reduction programs comes from developed countries. Now our researchers have shown how to translate these into culturally aware and practical programs for communities in small island settings like Fiji and Samoa in the Pacific where there are high rates of cardiovascular disease. These findings are being used to strengthen the programs in these countries and to inform international guidelines.

Health systems science changing lives

Health systems science means finding ways to translate research into healthcare. Our new health systems science program combines health services research, strategies to get evidence into practice and advocacy to maximise policy impact. The goal is to improve the efficiency, effectiveness and equity of complex health systems around the world so they are responsive to consumer needs.

We are challenging the status quo with new low-cost solutions: digital health, better health system financing, new workforce strategies and public health advocacy. For example, we are using mobile devices and supporting other health workers to ease the pressure on doctors and help better treat a range of chronic diseases. We are using combination medications which enable people to regularly take their medication while lowering the cost of drugs.

“Growing our work in health systems gives us a bigger chance to shift the needle in healthcare so people have the best treatment wherever they live in the world.”

Professor David Peiris, Director, Health Systems Science, Office of the Chief Scientist, The George Institute for Global Health
Our team in Australia is looking for new and better ways to prevent and treat chronic disease and injury; to improve healthcare delivery, for example, in rural and remote Australia; and to close the gap in health by working with Aboriginal and Torres Strait Islander communities. From multi-country clinical trials to healthcare innovation, our researchers are focused on the biggest health priorities such as kidney, respiratory and cardiovascular diseases, injury, mental health, diabetes and high blood pressure.

Treating Aboriginal children’s burns better
Aboriginal and Torres Strait Islander children have 2.4 times higher rates of burn injuries and longer stays in hospital compared to other Australian children. Our project focuses on better understanding long-term burns care for Aboriginal and Torres Strait Islander children. “Ultimately, we will be working with families and clinicians to improve children’s access to high-quality treatment by developing new models of burns care. Treating burns can be complex, particularly when families live far from hospital,” said lead researcher, Professor Rebecca Ivers. PhD student Courtney Ryder adds: “Better understanding the impact of burn injury on the child and their family is critical to developing culturally appropriate models of care.” Guided by an Aboriginal and Torres Strait Islander Reference Committee, the study is based in four Australian states.

Improving safety for older drivers
With road deaths for drivers over 65 increasing, our researchers are focused on helping older Australians maintain their driving licence and improve safety. We have mapped driving patterns using GPS in-vehicle monitoring technology and have found older drivers are cautious about where they drive and the conditions they drive in. We also found that accessing other means of transport and maintaining social contacts are particularly important in regional and suburban areas where people rely heavily on driving. Giving up driving is a major life decision and our work suggests psychological support is needed for many older people as they often feel isolated and depressed because of their decreasing independence.
Key trial to prevent hospital infection
Over 30% of critically ill patients on ventilatory life-support in intensive care will die because they are at increased risk of infections, such as pneumonia and blood stream and gut infections. The George is collaborating on an international trial to see if antibiotics administered orally through a technique called ‘selective decontamination of the digestive tract’ (SDD) reduces the incidence of hospital-acquired infection and helps save lives. Although SDD is not new, it has never been definitively evaluated. Lead researcher, Professor John Myburgh said: “The results of this trial will change clinical practice – if SDD works it will save the lives of thousands of patients worldwide. If it does not then clinicians will have an answer where there has been uncertainty for over 50 years.”

Reducing migraine drug side effects
In Australia, only 20% of migraine sufferers take regular preventative medication. We are trialling a new treatment of a combination of three low-dose blood pressure lowering drugs in one pill that have also shown promise in effectively controlling migraines. Migraines not only cause distress but also interfere with work and family life. There is a significant need for better migraine management around the world as many patients avoid medication due to unwanted side effects. For example, some drugs can produce weight gain and fatigue and this leads to people often overusing pain relief when a migraine starts. If proven to work, the pill will reduce the unwanted side effects of migraine medication while preventing debilitating attacks.
Common pain killers a back pain ‘no-no’

Back pain affects 80% of Australians at some time in their life and is the leading cause of disability worldwide, but common treatments are actually causing harm. Our researchers in Australia have shown that non-steroidal anti-inflammatory drugs used to treat back pain not only give little relief, but cause serious side effects. Only one in six people in the study reported any pain relief with the drugs, while the medications were shown to often be a cause of stomach ulcers and bleeding. The study was one of several over the past year looking into the effectiveness of pain medications for a variety of conditions.

Helping damaged lungs

A new GSK-funded study at The George Institute, Australia is looking at how to slow lung function decline in young smokers aged 25–45 who do not yet suffer from chronic lung disease. The trial is looking into the effectiveness of combining two different types of long-acting bronchodilators in one easy-to-use inhaler. Diseases such as chronic bronchitis and emphysema known as Chronic Obstructive Pulmonary Disease (COPD) can cause long-term loss of lung function and limitation of exercise capacity which is not reversible with smoking cessation. “Although quitting smoking is still the best solution for preventing lung disease, this trial aims to slow down and possibly prevent a young person developing serious lung problems,” said project lead, Professor Christine Jenkins.
‘Game changer’ for diabetes

The results of a study involving 10,000 patients across 30 countries are a ‘game changer’ in the treatment of type 2 diabetes according to lead investigator, Professor Bruce Neal. Findings published in the New England Journal of Medicine revealed that the drug, which is used to lower blood sugar in people with type 2 diabetes, prevented stroke and heart attack, slowed the progression of renal disease while also reducing weight and lowering blood pressure. The research reinforced findings from another recent study that showed similar results for a second drug in this class. It also identified important side effects that will be key to defining the use of the drug in patients with diabetes, which is now one of the leading causes of death and disability globally.
In 2017 The George Institute, China celebrates 10 years of preventing and treating chronic diseases and injury, which account for 85% of deaths in China. Heart disease, stroke, chronic respiratory disease, hypertension and diabetes are national priorities. Our researchers are focused on finding innovative solutions, such as new treatments and mobile health guidance systems, to manage these conditions in people living in the community and those who are admitted to hospital.
Global sleep study improving lives

Our international sleep study will help improve the lives of millions of people with obstructive sleep apnea (OSA). Researchers found depression levels in people with OSA dropped by 20% after using sleep apnea therapy machines. This is the first clinical trial of its kind. It was conducted in China and six other countries. It showed that Continuous Positive Airway Pressure (CPAP), using a ‘sleep machine’ at night, did not reduce stroke or repeat heart attack but was critical for mental health. Published in The New England Journal of Medicine, the findings are important evidence in understanding the effect of sleep apnea on people’s lives. “Those who used the sleep apnea machines for at least three hours a night felt more energetic and needed less rest in the day. Without the sleep machines people often reported being unable to cope. Sleep is so important and critical for mental health,” said co-author, Professor Craig Anderson.

Reaching remote villages to treat diabetes

Diabetes is a growing issue in China and in 2015 the Chinese government announced new policy guidelines for long-term primary care for diabetes. Appropriate treatment for people with diabetes in rural areas is an important issue in China as approximately half of the population live outside cities. The George Institute, China is conducting trials in villages, as well as urban areas, to determine how best to implement and evaluate diabetes treatment in primary care. These trials are seeking to improve diabetes care management by helping train health workers with easy-to-use technology. It is also providing more access to medication, as well as guidance on using clinical mobile-based applications. A trial will be conducted in over 860 villages throughout China to evaluate effective and long-term management of diabetes.
Integrating psychological and heart disease care

Many people living with chronic disease like heart disease also experience depression, which is often associated with increased risk of mortality and adverse cardiovascular events. We conducted a study in 16 hospitals around China to improve support for people when they are diagnosed with acute coronary disease. The integrated care program for both heart disease and depression has already shown success in improving people’s overall health. “We have found that early care for people with heart disease and depression does not need to be expensive and we can improve health outcomes by combining mental health support and clinical care. When someone is diagnosed with heart disease it puts a lot of stress on them and their family, leading to financial strain and anxiety. We are hopeful that this study can prevent this,” said lead researcher, Professor Yangfeng Wu.

Public education for a healthier lifestyle

A poor diet and little exercise remain leading causes of heart disease around the world, adding huge financial strain on health systems. To control the growing epidemic of heart disease in China we have created a new preventative health program to make people more aware of what they eat and how much weekly exercise they should do. To help lead a healthier lifestyle, we created a smartphone application that provides clinical health information so people can make better choices. Called ‘Smart Diet’, the program is helping people understand the ingredients in Chinese traditional food and also pre-packaged foods.

“I am happy to devote myself to the career of improving people’s health.”

Yuan Li, Leader, Nutrition and Lifestyle Program, The George Institute, China
In 2017 The George Institute, India celebrates 10 years of working to reduce the impact of the biggest causes of death and disability in India such as kidney and cardiovascular diseases, diabetes and injury. Examples of how our researchers are doing this include: developing better ways to deliver healthcare with affordable mobile health solutions; working in communities to identify barriers and find locally relevant solutions; and providing research to inform national prevention programs.
Reducing injury-related fatalities

Every year road traffic injuries cause over 231,000 deaths on Indian roads. As a result, the Government of India is committed to the Sustainable Development Goal ‘to halve the number of global deaths and injuries from road traffic accidents’ by 2020. Researchers at The George Institute, India are using injury surveillance systems to help save more lives, assessing the patterns and trends in a wide range of injuries, from road traffic crashes, to burns, falls and drowning. “We hope this work will give us better insight into the causes of injury around the country. More than 50% of motorcycle drivers do not wear helmets. Many road injuries are nearly always preventable and we are working to find more ways to save people’s lives and prevent financial stress on families,” said study lead, Dr Jagnoor Jagnoor.

Tackling multiple illnesses simultaneously

Many people suffering from tuberculosis in India also have to manage other chronic diseases such as type 2 diabetes, heart disease or hypertension. While there are clear guidelines to manage the individual disease conditions, there are no clear strategies to co-manage these disease conditions. Our new primary healthcare study in rural India is designed to care for people suffering from multiple long-term illnesses, like diabetes and tuberculosis, who often need complex, ongoing care. “Smartphones with clinical decision systems can transform the health of communities for doctors, health workers and patients. Simple measures like reminding people to test their blood sugar levels or take their medication can go a long way to improve these conditions and prevent further complications,” said study investigator, Associate Professor Rohina Joshi.
Improving treatment for diabetes in rural India

Diabetes can be difficult to manage in regions where there are limited resources. Our researchers are bringing hope to people who are not getting much needed care for diabetes in rural India. Our project, developing low-cost, mobile technology based care includes screening, diagnosis, treatment and follow-up for people with type 2 diabetes and its complications. The innovative project uses computer tablet technology to help regularly monitor and treat diabetes and manage blood sugar levels. Using mobile clinical applications helps overcome the issues of distance and cost and gets people care they would not have had otherwise. We are also hoping to identify and treat people who may not know they have diabetes by testing more people.

Improving ‘late-stage’ kidney care in India

Our new project will help better understand outcomes for people with advanced kidney failure who are on long-term dialysis therapy. Data collected through a standardised, easy-to-use platform, is helping understand and improve factors that can influence the survival and wellbeing of these patients. The research will also track what the treatment costs the health system and patients. This work will help optimise care delivery and support administrators and policy makers so they can be cost-effective with resources. The findings will have implications for other countries looking to extend this life-saving therapy to more people.

“I hope to contribute to sustainable and effective health promotion and disease prevention, particularly among adolescents, women and ageing populations.”

Josyula Lakshmi, Senior Research Fellow, The George Institute, India
Our work in the United Kingdom

The George Institute, UK is focused on generating critical evidence to prevent and treat chronic disease. Our researchers are using large-scale datasets from across the world – big data – to better understand chronic disease patterns and to determine how to improve health services and identify cost-effective treatments in priority areas like women’s and children’s health, cardiovascular disease, diabetes and cancer.

**Big data fighting disease**

In an exciting new chapter in our big data analyses, our researchers have initiated the new Oxford Martin program on Deep Medicine at the University of Oxford, to look at how machine intelligence can help understand and treat chronic disease. The study brings together people from different disciplines to analyse statistics from over 10 million patients using some of the largest and most complex biomedical datasets ever collected. “We are using this data and machine intelligence to help clinicians devise more comprehensive and effective patient treatment plans and to help manage chronic disease better, pinpointing which groups of people are likely to benefit most from treatment and what factors could be contributing to poor health,” said Director of this new program, Professor Kazem Rahimi.
Reducing women’s heart disease risk

Cardiovascular disease is the leading cause of death in women worldwide with an estimated 8.5 million women dying every year. The George Institute, UK aims to improve the heart health of women by looking at how the disease affects women and men differently, for example the impact of their socioeconomic background. One of our recent studies found that men and women in poorer areas both develop heart disease younger than men and women in wealthier areas. However, women from a lower socioeconomic background are 25% more likely to suffer a heart attack than men in the same circumstances. “This study highlights how important it is to improve access to care and prevention for women, so everyone, regardless of sex, can have the best possible health outcomes. Health should not be dependent on your level of education or where you live,” said research lead, Dr Sanne Peters. The study was conducted in North America, Europe, Asia and Australasia.

“Our focus on women’s health is not only about sexual and reproductive health – it aims to reduce the burden of chronic disease, the leading cause of death and disability for women.”

Dr Sanne Peters, Research Fellow in Epidemiology, The George Institute, UK
George Health Enterprises (GHE) is our commercial arm and a healthcare company with a unique vision – an innovative business with global impact that develops effective, affordable treatments and technologies that better treat and manage serious, chronic medical conditions. We work in established countries such as Australia, Europe and the US and emerging markets such as China and India, focused solely on the most common chronic conditions.

Chronic diseases are the leading cause of death globally. The world is facing a pandemic of chronic diseases such as heart and respiratory diseases, stroke and cancer. Around 40 million people die from these causes each year, many under 70 years. The human and financial costs are enormous – the four leading chronic diseases were estimated to have cost more than $6 trillion globally in 2010. This burden is projected to rise and the costs to increase to $30 trillion over the next 20 years.

There is increasing demand for new treatments and ways to manage chronic disease, driven by a growing ageing population and lack of access to appropriate medical treatments and services globally. To meet this need, GHE has three established businesses that are poised for significant growth and integrated in a way that enables innovative health products and services to be taken all the way from concept to market in a relatively short time frame. This capability is usually only available within big pharma or medical technology companies.

GHE has exclusive commercial rights to all intellectual property of The George, as well as exclusive access to expertise and support from the Institute. The Institute’s focus on late-stage clinical research for chronic disease means that medicines and technologies are proven before GHE commercialises, resulting in a much higher probability of success than is usual in the industry.

GHE is led by an experienced management team with a long industry track record in drug development and commercialisation, biotechnology, healthcare delivery and venture capital investment in established and emerging markets. Coupled with the global scientific leadership of The George, our business has potential for real social and economic impact.

“We are a unique business with a vision to provide affordable, sustainable solutions that help populations have equal access to healthcare irrespective of their location or economic situation. This is not only socially responsible, it is the foundation of a robust business opportunity.”

Staph Leavenworth Bakali, President and CEO, George Health Enterprises
George Clinical is the most established of the enterprises owned by GHE. George Clinical is a leading contract research organisation (CRO) that provides innovative clinical trial management services to biotech, pharma and diagnostic customers, ensuring that the latest treatments and compounds are tested to the highest scientific standards. Operating in over 13 countries with over 275 staff, George Clinical has managed more than 40,000 patients in trials across more than 1,700 global sites since 2007.

George Clinical contributes financial and operational support to The George Institute. This past year, George Clinical donated $4 million to The George Institute to enable further life-saving research.

In a major highlight this year, George Clinical acquired the CRO Division of the US company, Vector Oncology. This builds upon our Asia-Pacific focus and expertise to broaden our global reach, with major operation hubs in the US, Asia-Pacific, India and Europe, delivering early and late-phase operations expertise and scientific leadership in clinical trials. This move equips George Clinical with significant expertise in oncology. Oncology research has rapidly expanded in recent years, accounting for more than 50% of all clinical trials conducted globally.

In addition to strengthening our clinical trial management services in oncology, we have also strengthened our capability in medical device and diagnostic trials, and have continued to invest in our infrastructure, critical to support our growth. Our leadership, including the recent appointment of Sean Hart as Managing Director, US, has been instrumental in maintaining regional expertise and providing flexible and efficient global trial solutions and scientific leadership to our pharma and biotech customers. The US acquisition complements George Clinical’s well-established late-phase chronic disease expertise and will facilitate continued growth in chronic disease research, including oncology, globally.

Our staff

- 28% Australia & New Zealand
  - Sydney
  - Melbourne
  - Auckland
- 18% US
  - Kansas City
  - Memphis
  - New Jersey
  - Raleigh
  - San Diego
- 21% China
  - Beijing
  - Chengdu
  - Harbin
  - Shanghai
- 19% India
  - Bengaluru
- 11% East Asia
  - Hong Kong
  - Kuala Lumpur
  - Manila
  - Seoul
  - Taipei
- 3% UK & Europe
  - London
  - Prague

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George Medicines is focused on developing novel, high-quality drug treatments that are affordable, safe and effective. The need for new medicines is vital as over 50% of people worldwide are not receiving adequate care for chronic disease because they cannot afford or access them.

There are around 2 billion people globally with one or more cardiometabolic diseases. Hypertension is the most common, followed by diabetes. Another half a billion have established coronary, cerebrovascular, renovascular or peripheral vascular disease. Three quarters of these patients live in emerging markets in East and South Asia, Central Asia (including Russia), South America, South Africa and the Middle East.

By the end of the decade, global sales for all cardiometabolic drugs will exceed $200 billion. Over the same period, the global market for antihypertensive drugs alone will exceed $40 billion annually, while the market for diabetes drugs will surpass this, reaching more than $70 billion annually.

George Medicines is developing a series of affordable, high-quality novel drug formulations proven by research at The George. Using the infrastructure of George Clinical and the scientific expertise of the Institute, George Medicines can move quickly into late-stage drug development (rather than early high-risk stages of drug discovery and development). Our first product is a combination medication for patients with a history of coronary, cerebrovascular, or peripheral vascular diseases. A multi-million dollar investment in the development of this product was secured in Australia from our partner, the global health insurer Bupa. The product is expected to be launched in 2019. George Medicines has a pipeline of several other products, some of which have patents pending.
George Care is developing a Digital Clinical Intelligence (DCI) system that has been proven to improve the treatment of patients at high risk of cardiovascular disease in Australia and in emerging market settings.

Many patients have co-existing chronic diseases and find it hard to adhere to their treatment long-term, particularly with multiple drugs. In resource-poor settings, these problems are compounded by limited access to physicians, limited skills of other healthcare providers, limited drug options and the added complexity of having infectious diseases such as tuberculosis and HIV/AIDS.

DCI is a disease management system developed by physicians and researchers at The George. This innovative digital health solution generates real-time, state-of-the-art personalised treatment plans for cardiovascular disease and generates and monitors personalised care plans based on approved clinical guidelines and the best available scientific evidence.

We are also looking at opportunities to expand DCI to manage other common chronic conditions such as respiratory disease and depression. Currently we are evaluating potential partnerships in Australia, China, India and the Middle East. Interest has also been expressed in using an extended version of the system to manage patients with HIV who suffer accelerated cardiometabolic complications, due in part to side effects of antiretroviral therapy.
Our global leaders

Board of Directors

Michael Hawker AM BSc (Syd), FAICD, FAIM, SF Fin
Chair / Non-Executive Director
- Non-Executive Director • Aviva Plc Group (UK)
- Non-Executive Director • Macquarie Group Limited and Macquarie Bank Limited
- Non-Executive Director • Washington H. Soul Pattinson and Company Limited
- Chair • Australian Business and Community Network (ABCN) Foundation
- Non-Executive Director • Rugby World Cup Limited (RWC)
- Former Chair • Australian Rugby Union
- Former CEO / Managing Director • Insurance Australia Group
- Former President • Insurance Council of Australia
- Former Chair • Australian Financial Markets Association
- Former Board Member • Geneva Association
- Former Member • Financial Sector Advisory Council
- Former Senior Advisor to JP Morgan Australia
- Former Member – Advisory Board UBS O’Connor
- Former Global Head of European Equities for UBS London, and former Board member of UBS Investment Bank (London)

Dr Srinivas Akkaraju M.D., Ph.D.
Non-Executive Director
- Managing General Partner • Samsara BioCapital
- Director • Seattle Genetics
- Director • Syros Pharmaceuticals
- Director • Intercept Pharmaceuticals Inc.
- Director • Versartis Inc.
- Director • aTyr Pharma, Inc.
- Former Director • ZS Pharma, Inc.
- Former Director • Eyetech Pharmaceuticals, Inc.
- Former Director • Synageva Biopharma Corp.
- Former Director • Barrier Therapeutics, Inc.
- Former Director • Amarin Corporation plc
- Former General Partner • Sofinnova Ventures
- Former Managing Director • New Leaf Venture Partners
- Former Co-Founder and Managing Director • Panorama Capital, LLC
- Former Manager • Genentech, Inc.
- Former Partner • JP Morgan Partners

Russell Aboud MBBS (USYD)
Non-Executive Director
- Executive Chair / Founding Partner • Manikay Partners (New York)
- Non-Executive Director • George Health Enterprises Pty Limited
- Former Non-Executive Director • Australian Securities Exchange Limited, and Former Member of its Clearing Board
- Former Chairman • Ord Minnett (Australia)
- Former Senior Advisor to JP Morgan Australia
- Former Member – Advisory Board UBS O’Connor
- Former Global Head of European Equities for UBS London, and former Board member of UBS Investment Bank (London)
**Yasmin Allen**  BCom, FAICD
Non-Executive Director

- Non-Executive Director – ASX Limited
- Non-Executive Director – Cochlear Limited
- Non-Executive Director – Santos Limited
- Board Member – George Health Enterprises Pty Limited
- Member – ASX Limited Clearing and Settlement Board and Audit Committee
- Director – National Portrait Gallery, Canberra
- Member – Federal Government’s Takeovers Panel
- Former Non-Executive Director – Insurance Australia Group Limited (IAG)
- Former National Director – Australian Institute of Company Directors
- Former Chair – Macquarie Global Infrastructure Funds
- Former Board Member – Export Finance and Insurance Corporation (EFIC)
- Former Board Member – Film Australia Limited
- Former Board Member – Red Cross Blood Service
- Former Member – Salvation Army Advisory Board
- Former Director of ANZ Investment Bank, Sydney
- Former Vice President of Deutsche Bank
- Former Associate Director of HSBC, London

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**Gina Anderson**  BA, GAICD
Non-Executive Director

- Chair – The George Foundation for Global Health Limited
- Non-Executive Director – GDI Property Group and GDI Funds Management Ltd
- Advisory Board Member – Australian Charities and Not-for-profits Commission (ACNC)
- Co-Founder and Former Chair – Women’s Community Shelters Limited
- Philanthropy Fellow – Centre for Social Impact, University of New South Wales
- Former Executive Director and Chief Executive – Philanthropy Australia

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**David Armstrong**  BBus (UTS), FCA, MAICD
Non-Executive Director

- Non-Executive Director – National Australia Bank
- Chair – National Australia Bank Audit Committee
- Member – National Australia Bank Risk Committee
- Director – Opera Australia Capital Fund Limited
- Trustee of the Australian Museum
- Trustee of Lizard Island Reef Research Foundation
Board of Directors

David Baffsky AO  LLB (Sydney University)
Non-Executive Director (appointed 26 August 2016)

- Chairman – Investa Property Group
- Chairman – Ariadne Australia Limited
- Honorary Chairman – Accor Asia-Pacific
- Board Member
  – Sydney Olympic Park Authority
- Board Member – Destination NSW
- Board Member – Australian Brandenburg Orchestra
- Former Chairman – Accor Asia-Pacific
- Former Director – SATS Limited
- Former Trustee – Art Gallery of NSW
- Chevalier in the Order of National Légion d’Honneur of France

Melinda Conrad  BA (Wellesley), MBA (Harvard), FAICD
Non-Executive Director

- Non-Executive Director – ASX Limited
- Non-Executive Director
  – Caltex Australia Limited
- Non-Executive Director
  – OFX Group Limited
- Non-Executive Director
  – The Centre for Independent Studies
- Member – ASIC Director Advisory Panel
- Member – AICD Corporate Governance Council
- Former Non-Executive Director – David Jones Limited
- Former Non-Executive Director
  – APN News & Media Limited
- Former Non-Executive Director
  – NSW Clinical Excellence Commission
- Former Non-Executive Director
  – NSW Agency for Clinical Innovation
- Former Non-Executive Director
  – Garvan Medical Research Institute Foundation

Catherine Livingstone AO  BA (Hons)(MQ), Hon.
DBus (MQ), Hon.DSc (MU), Hon.DLitt (USYD), Hon.DBus (UTS),
Hon.DSc (UW) FCA, FTSE, FAICD, FAA
Non-Executive Director

- Chairman
  – Commonwealth Bank of Australia
- Non-Executive Director
  – Worley Parsons Limited
- Non-Executive Director – Saluda Medical Pty Ltd
- Chancellor – University of Technology Sydney
- President – Australian Museum Trust
- Member – The Commonwealth Science Council, and the Industry Growth Centres Advisory Committee
- Former President – Business Council of Australia
- Former Chairman – Telstra Corporation Limited
- Former Non-Executive Director – Macquarie Group Limited and Macquarie Bank Limited
- Former Member – New South Wales Innovation and Productivity Council

Paul McClintock AO  BA LLB (USyd)
Non-Executive Director

- Chairman of Myer Holdings Limited
- Chairman of NSW Ports
- Chairman of I-MED Network
- Chairman of Broadspectrum Pty Limited
- Chairman of Committee for Economic Development of Australia
- Chair of Sydney Health Partners
- Director of St Vincent’s Health Australia Limited
- Former Secretary to Cabinet and Head of the Cabinet Policy Unit reporting directly to the Prime Minister as Chairman of Cabinet
Management Limited, Symbion Health, Affinity Health, Ashton Mining, Plutonic Resources, and the Woolcock Institute of Medical Research
• Former Director of the Australian Strategic Policy Institute and Perpetual Limited
• Former Commissioner of the Health Insurance Commission
• Former Member – Australia-Malaysia Institute Executive Committee
• Honorary Fellow of the Faculty of Medicine of the University of Sydney
• Life Governor of the Woolcock Institute of Medical Research

Professor Rodney Phillips MBBS (Melb), FRACP, MD (Melb), MA (Oxon), FRCP (London), FAMS, FAHMS Non-Executive Director (appointed 26 May 2017)
• Dean of Medicine, UNSW Medicine, UNSW Sydney
• Director – Garvan Institute of Medical Research
• Director – Kinghorn Cancer Centre
• Director – Ingham Health Research Institute
• Director – Neuroscience Research Australia
• Director – UNSW Innovations
• Director – Children’s Cancer Institute
• Deputy Chair – Group of 8 Medical Deans
• Member of the Medical Deans Australia & New Zealand
• Member of the Academic Council, International Medical University, Kula Lumpur, Malaysia
• Former Professor – Clinical Medicine University of Oxford
• Former Director – Peter Medawar Building for Pathogen Research
• Former Chair – Research Assessment Exercise Working Group, Oxford

Jason Yat-sen Li BA, LLB (Syd), LLM (NYU) Non-Executive Director (until 26 August 2016)

Professor Stephen MacMahon AO BSc, MA (Canterbury), MPH, PhD (Syd), DSc (UNSW), FAA, FMedSci, FACC, FAHA, FCSANZ Principal Director & Co-Founder, The George Institute for Global Health
• For full bio, see page 33

Professor Robyn Norton AO BA, MA (Canterbury), MPH, PhD (Syd) Principal Director & Co-Founder, The George Institute for Global Health
• For full bio, see page 33

"We have a wonderful Board, which provides great support, expertise and insight to The George Institute, with a single focus – to improve the health of millions of people worldwide."

Michael Hawker AM, Chair, Board of Directors, The George Institute for Global Health
Global leadership

Professor Stephen MacMahon AO
Principal Director & Co-Founder, The George Institute for Global Health
• Professor of Cardiovascular Medicine, Faculty of Medicine, UNSW Sydney; Professor of Medicine and Oxford Martin Senior Fellow, University of Oxford; Honorary Professor, Peking University Health Science Center
• Honorary Consultant, Royal Prince Alfred Hospital, Australia
• Fellow, Australian Academy of Science, British Academy of Medical Sciences, Australian Academy of Health and Medical Sciences, and the American College of Cardiology

Professor Robyn Norton AO
Principal Director & Co-Founder, The George Institute for Global Health
• Professor of Public Health, Faculty of Medicine, UNSW Sydney; Professor of Global Health and Oxford Martin Senior Fellow, University of Oxford; Honorary Professor, Peking University Health Science Center
• Honorary Consultant Epidemiologist, Royal Prince Alfred Hospital, Australia
• Chair Emeritus, Road Traffic Injuries Research Network
• Fellow, Australian Academy of Health and Medical Sciences

Tim Regan
Chief Operating Officer, Chief Financial Officer
• Bachelor of Economics, University of Sydney
• Director and former President, Financial Executives Institute of Australia
• Fellow, Australian Institute of Company Directors, Institute of Chartered Accountants and the Australian Property Institute

Professor Anushka Patel
Chief Scientist
• Professor of Medicine, UNSW Sydney; PhD University of Sydney; SM (Epidemiology), Harvard University; MBBS, The University of Queensland; FRACP (Cardiology), Royal Australasian College of Physicians
• Cardiologist, Royal Prince Alfred Hospital and Central Sydney Cardiology
• Fellow, Australian Academy of Health and Medical Sciences

Professor Craig Anderson
Executive Director, The George Institute, China
• Professor of Neurology and Epidemiology, Faculty of Medicine, UNSW Sydney
• Neurologist, Royal Prince Alfred Hospital, Australia
• Senior Principal Research Fellow, National Health and Medical Research Council

Erika Burmeister
Director, Global Human Resources
• Extensive experience in human resources in Australia, the US, Europe and Asia
• Previously held senior positions at AMP, Citigroup and Colgate-Palmolive

Peter Dolnik
Director, Research Strategy and Services
• Extensive experience in research strategy and management at various institutions including UNSW Sydney and the University of Sydney
**Professor Terence Dwyer AO**
Executive Director, The George Institute, UK

- Professor of Epidemiology and James Martin Professorial Fellow, University of Oxford
- Chair, International Childhood Cardiovascular Cohort Consortium (i3C) and the International Childhood Cancer Cohort Consortium (I4C)

**Professor Vivekanand Jha**
Executive Director, The George Institute, India

- Professor of Nephrology and James Martin Professorial Fellow, University of Oxford
- President-Elect, International Society of Nephrology; Member, WHO Expert Advisory Panel on Human Cell, Tissue and Organ Transplantation; Chair, Education Committee, International Society of Nephrology; Executive Committee member, Asian Forum of Chronic Kidney Disease
- Editor, Cochrane Kidney and Transplant Group

**E. Richard Mills**
Director, Global Communications and Advocacy

- Extensive senior level experience in global development communications
- Former Director of Communications, The World Bank and spokesperson for the US Government on trade and economic issues

**Professor Vlado Perkovic**
Executive Director, The George Institute, Australia

- Professor of Medicine, UNSW Sydney
- Staff Specialist in Nephrology, Royal North Shore Hospital, Australia
- Member, National Health and Medical Research Council Principal Committee on Research Translation; Chair, International Society of Nephrology Advancing Clinical Trials Group
- Fellow, Australian Academy of Health and Medical Sciences, Royal Australasian College of Physicians and the American Society of Nephrology

**Dr Marisa Petersen**
Executive Director and CEO, George Clinical

- PhD, Clinical Pharmacology and Pharmacokinetics
- Over 25 years in clinical research management in the Asia-Pacific including as Vice President Asia-Pacific for Omnicare Clinical Research

**Dr John Wastell**
Director, Global Information and Technology

- PhD in nuclear physics from the University of Melbourne
- Extensive IT leadership experience in multiple industries, including insurance, internet services, defence and aerospace, global professional services and medical research
The opportunity to collaborate with such passionate and bright people, working towards an inspiring and impactful mission... that’s a real privilege.”

Erika Burmeister, Director, Global Human Resources, The George Institute for Global Health
Our supporters see an opportunity to make an impact – to be part of real solutions that help people live healthier lives.”

Louise Angelou, Head of Development, Nuffield Department of Obstetrics & Gynaecology and The George Institute, UK
“Everything we do at The George is about helping people live healthier lives. Making every dollar count and good governance are key to this. Knowing that's the impact we can have is really meaningful.”

Tim Regan, Chief Financial Officer & Chief Operating Officer, The George Institute for Global Health
### Statement of position

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY16</th>
</tr>
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<tbody>
<tr>
<td>Income</td>
<td>85,646,912</td>
<td>70,143,285</td>
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<tr>
<td>Expenses</td>
<td>(84,411,508)</td>
<td>(69,972,488)</td>
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<tr>
<td>Surplus</td>
<td>1,235,404</td>
<td>170,797</td>
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<td>Assets</td>
<td>75,628,685</td>
<td>48,308,113</td>
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<td>Liabilities</td>
<td>(62,915,489)</td>
<td>(37,126,244)</td>
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<tr>
<td>Net Assets</td>
<td>12,713,196</td>
<td>11,181,869</td>
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</table>

### Annual revenue growth

Since 1999, $734M total revenue
the george institute for global health

- A global, not-for-profit medical research institute, established in 1999 in Australia, affiliated with world class universities
- Tackling the leading causes of death and disability – chronic disease and injury
- Headquartered in Australia, with major centres in China, India, the UK and offices globally
- Over 600 staff globally, and projects in more than 50 countries
- Over $730m raised for health and medical research, over 7000 publications and other academic outputs, and publications cited over 89,000 times since 1999
- Challenging the status quo with innovation in healthcare delivery, treatment and prevention
- Research focused on changing policy and practice
- Awarded numerous accolades for world class research and published in prestigious academic journals
- Industry partnerships to maximise research impact and expedite translation
- A global network of collaborators from hospitals to leading academic institutes
- A unique funding model assisted by our enterprises for greater impact

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Our affiliations

UNSW Sydney
UNIVERSITY OF OXFORD
PEKING UNIVERSITY HEALTH SCIENCE CENTER