CANCER RESEARCH IN NSW 2012

Fostering innovation in and translation of cancer research for the people of NSW
The Cancer Institute NSW is the largest NSW funder of cancer research. Funds invested in cancer research in NSW including $24.9m on clinical trials. 27% of all reported cancer research funds in NSW, 2007–2009.癌因性NSW研究会自2004年以来在癌症研究领域的投资

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>23%</td>
</tr>
<tr>
<td>Causes/Aetiology</td>
<td>6%</td>
</tr>
<tr>
<td>Prevention</td>
<td>4%</td>
</tr>
<tr>
<td>Detection, Diagnosis &amp; Prognosis</td>
<td>16%</td>
</tr>
<tr>
<td>Cancer Control, Survivorship &amp; Outcomes</td>
<td>12%</td>
</tr>
<tr>
<td>Scientific Model Systems</td>
<td>5%</td>
</tr>
<tr>
<td>Treatment</td>
<td>34%</td>
</tr>
</tbody>
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Cancer Institute NSW grant awards by Common Scientific Outline, 2004–2011

For more details and footnotes on these figures, please visit: [http://www.cancerinstitute.org.au/research-achievements-report](http://www.cancerinstitute.org.au/research-achievements-report)
FOR THE BENEFIT OF THE PEOPLE OF NEW SOUTH WALES

Clinical trials in NSW, 2004–2011

↑ 123%
more patient enrolments per year

↑ 80%
more active participants per year
4,559 in 2004 to 8,200 in 2011

National share of NHMRC cancer expenditure, 2004–2011
for research focused on improving patient outcomes and getting evidence into practice.²

NSW 36%
VIC 30%
QLD 20%

NHMRC total cancer research funding in New South Wales, 2004–2011 ($ millions)

2004 2005 2006 2007 2008 2009 2010 2011
8.8 10.6 14.3 15.5 17.6 21.0 23.5 24.9

1 based on survey of NSW cancer funding 2007-2009.

2 Includes Clinical Medicine & Science, Health Services research and Population Health. Excludes Basic Science as classified by NHMRC.

For more details and footnotes on these figures, please visit:
CREATING THE NEXT GENERATION OF CANCER RESEARCH LEADERS

The Cancer Institute NSW is committed to building capacity for cancer research in NSW by attracting the best and brightest cancer researchers to NSW and supporting existing researchers to become internationally competitive.

We currently fund more than 100 researchers so they can conduct independent cancer research of national and international importance.

Starting a career in cancer research can be quite overwhelming. Funding from the Cancer Institute NSW gives me confidence I have a foot in the door.

Ms Emma Ramsay
CANCER INSTITUTE NSW RESEARCH SCHOLAR

I am most fortunate to be able to combine melanoma research with clinical practice in pathology, which ensures my translational research is driven by clinically important issues and that the results will benefit patients.

Prof. Richard Scolyer
CANCER INSTITUTE NSW CLINICAL RESEARCH FELLOW

The cancer research environment in NSW attracted me to move to the State so I could have access to excellent research infrastructure and multidisciplinary teams.

Dr Liang Qiao
CANCER INSTITUTE NSW FUTURE RESEARCH LEADER

Helping NSW researchers become internationally competitive

48 Research Scholars
14 Early Career Development Fellows
27 Career Development Fellows

Supporting the research careers of NSW cancer clinicians

6 Clinical Research Fellows

Retaining NSW scientists and attracting cancer researchers from outside NSW

7 Future Research Leaders

Our investment has attracted researchers to remain focused on cancer and work in NSW.
NSW RESEARCHERS CONTRIBUTING ON THE INTERNATIONAL STAGE – BUILDING ‘BIG SCIENCE’ RESEARCH CAPACITY AND CHANGING PEOPLE’S LIVES

The Cancer Institute NSW is proud to be a major funder of Professor Andrew Biankin, who is leading the Australian Pancreatic Cancer Genome Initiative with Professor Sean Grimmond. This ambitious world-leading project is part of the International Cancer Genome Consortium and has brought the pioneering work NSW is doing in pancreatic cancer research to the forefront of global developments.

The initiative will give an unprecedented insight into the genetic abnormalities and mutations that characterise pancreatic cancer. Each cancer that is sequenced will be used for experimentation in the laboratory. Andrew and his team are using the genomic sequence data to perform pre-clinical and clinical trials of personalised medicine: matching the right treatment, with the right patient, at the right time, the right cost and with the right outcome.

Andrew sees his research leading to individualised treatment plans for people who have pancreatic cancer, with the ultimate aim of improving survival. “Our goal is to find the right treatment for the right patient and to personalise cancer care based on an understanding of the underlying biology of the cancer,” says Andrew. “We are already doing this now on a small scale, and working on ways to deliver it to the broader community. It is an immensely exciting time for all of the team; not only do they get to be involved in cutting-edge international scale research, but what they find is immediately impacting patients. What research laboratory scientist can say that the experiment they did last month has resulted in Mrs Smith’s cancer now responding to treatment. How could you not want to do that?”

“We are proud to represent NSW and Australia as a member of the International Cancer Genome Consortium, which gives us the opportunity to connect with ground breaking researchers around the world, and together, help shape the future of science.”

Professor Andrew Biankin
“I believe that, while prevention and cure are obviously the optimal outcome of research, ensuring that patients’ quality of life is as good as it can be while going through this traumatic experience is of critical importance.”

Professor Phyllis Butow

Making Sure People with Cancer Get the Best Care

Professor Phyllis Butow is a pioneer in the field of psycho-oncology, making sure people who have cancer receive the information and support they need in what can be a distressing time.

Phyllis has been an international leader in the movement to make effective doctor-patient communication a gold standard in medical care, producing some of the first evidence that effective communication reduces anxiety and depression in people who have cancer.

Many of the interventions that Phyllis and her team have developed and evaluated over the years have now been taken up in clinical practice, such as: question prompt lists for surgical, oncology and palliative care patients; a communication tool for informing patients of their genetic risk; a decision aid for patients considering participation in a clinical trial; and a training package for leaders of cancer support groups.

Phyllis is also the inaugural Chair of the Psycho-oncology Co-operative Research Group (PoCoG), a national organisation set up to develop Australian capacity to undertake internationally significant psycho-oncology and quality of life research, mentor young researchers and foster collaboration. Their research to date includes studies on the needs and communication challenges of immigrants with cancer, psychological morbidity and unmet needs in survivors of testicular cancer, and methods to reduce the impact of fear of cancer recurrence on the lives of cancer survivors and their families.
Committed to translational research that ensures new therapies reach people faster, Professors Michelle Haber AM, Glenn Marshall and Murray Norris go from clinical observation to the bench and back again to improve the survival rates of children with cancer.

The Professors jointly developed groundbreaking minimal residual disease (MRD) testing for the most common childhood cancer: acute lymphoblastic leukaemia (ALL), to predict which children are at highest risk of relapse on standard therapy, so that individualised treatment can be introduced in newly diagnosed children. In an international clinical trial run over a decade, and recruiting more than 650 Australian children, the use of MRD testing has taken survival rates for high-risk patients from below 40 to nearly 70 per cent and contributed to improved overall ALL survival rates of well over 80 per cent.

In their research into neuroblastoma, the most common solid tumour of young children, they have one clinical trial based entirely on their research currently open, another (co-funded by the Cancer Institute NSW and a National Cancer Institute USA consortium) about to commence shortly in both the USA and Australia, and they have a novel anti-cancer drug being developed for clinical trial with a US-based industry partner.

Professors Haber, Marshall and Norris’ crucial role in facilitating collaboration on a national and international scale, and their translational achievements, have recently been acknowledged as part of a successful bid for the Cancer Institute NSW-supported Translational Cancer Research Centre for Kids, now known as the Kids Cancer Alliance (KCA).

The KCA formalises the close affiliation between all major clinical and research centres focusing on childhood cancer in NSW and it is expected that this alliance will provide leadership on a national and regional level for driving improvements in childhood cancer clinical practice.

“To be able to translate innovations from research to practice directly benefits children with cancer. Children and their families in NSW are fortunate that this work is funded by the Cancer Institute NSW’s Translational Cancer Research Centre Grant.”

Ms Elizabeth Koff, CEO, Sydney Children’s Hospital Network.
“Until the advent of the Cancer Institute NSW, NSW had been the ‘poor relative’ in cancer research in Australia with many impediments, not the least of which were funding and infrastructure, to conducting world-class cancer research. But now our vision of being able to conduct multidisciplinary cancer research in NSW at the highest international standards and have it translated into real benefit for cancer patients may be a reality rather than fiction.”

Professor Rob Sutherland AO FAA

“The advances in medical research in the past 30 years have led to remarkable increases in outcomes for people with cancer. It is critical that we continue to invest in world-leading research in NSW to build on this momentum, which will continue to translate into improving cancer survival.”

Professor David Currow, Chief Cancer Officer and CEO, Cancer Institute NSW