

MAXIMISING THE IMPACT OF CANCER RESEARCH FUNDING IN AUSTRALIA:

A national resource to guide research investment and improve cancer outcomes

Developed by the Cancer Research Leadership Forum

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Foreword

Australia is fortunate to have a strong group of national charities whose mission it is to achieve positive step change in the experience of cancer by funding impactful cancer research. This may be by funding people, projects, research resources, or all of the above.

As a collective, we are uniquely placed. We have the freedom, agility and discretion to decide where it is best to invest the funds raised with, by and from the community, within the boundaries of accountability to our donors.

It is not our role to emulate government or private sector funding agencies. It is our role, with all the scientific, medical and consumer expertise and input at our disposal, to cast a weather eye across the cancer research system and decide where and how our interventions can make the greatest difference for people with cancer today, and those who will face it in the future. This includes funding where others do not; pooling funding to boost under-funded or critical areas of need; and constantly exploring the possibility of joint ventures.

In fundraising, our sector often uses the phrase 'Together, we can make a difference'. The members of the CRLF are the living embodiment of that truth: as a sector, we contribute 30 per cent of the total funding dedicated to cancer research in Australia. We are working together to make it count.



Carole Renouf
Chair, Project Steering Group

The Cancer Research Leadership Forum

The Cancer Research Leadership Forum (CRLF) is an alliance of Australia's peak national community-supported cancer organisations.

Current members are:

Australian Cancer Research Foundation
Bowel Cancer Australia
Cancer Council Australia
Cure Cancer Australia Foundation
Leukaemia Foundation
Melanoma Institute Australia
National Breast Cancer Foundation
Prostate Cancer Foundation of Australia.

Acknowledgements

This resource was developed by the Project Steering Group in consultation with members, cancer researchers and clinicians, consumers and other stakeholders. The CRLF gratefully acknowledges the input of individuals and organisations who made submissions in response to the CRLF white paper (listed in appendix 4) and the expert advice of participants at the National Cancer Research Summit (listed in appendix 2).

Project Steering Group:

Carole Renouf (Chair)
CEO, National Breast Cancer Foundation

Dr Alison Butt
Director Research Investment, National Breast Cancer Foundation

Patricia Hancock
Consumer representative

Edith Hurt
Research Program Manager, Cure Cancer Australia Foundation

Professor Ian Olver AM
CEO, Cancer Council Australia

Leanne Warner
CEO, Cure Cancer Australia Foundation

Secretariat:

Georgina Rogers
National Breast Cancer Foundation

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Background

About the CRLF

The Cancer Research Leadership Forum (CRLF) is an alliance of the national community-supported organisations that are the major non-government funders of cancer research in Australia.

It was formed in 2009 to enhance coordination of investment in research and collaboration between cancer charities. Current members are Australian Cancer Research Foundation, Bowel Cancer Australia, Cancer Council Australia (representing the eight state and territory Cancer Councils), Cure Cancer Australia Foundation, Leukaemia Foundation, Melanoma Institute Australia, National Breast Cancer Foundation and Prostate Cancer Foundation of Australia.

CRLF members share a common goal: to reduce the cancer burden in Australia.

In 2011 CRLF members collectively contributed \$83 million of the approximately \$300 million total investment in cancer research funding in Australia. To achieve their goal and make the greatest impact for all those affected by cancer, CRLF members are working together to coordinate planning, share learnings and co-fund national cancer research projects.



Development of this resource

One of the CRLF's major initiatives to date has been the development of a resource that identifies gaps, overlaps and critical needs in research funding to help inform the investment decisions of organisations that fund cancer research.

In 2011, the CRLF successfully applied for a grant from the Macquarie Group Foundation's collaborative funding scheme to support development of this resource in consultation with all stakeholders, through the process described below. The major cancer charities, researchers, consumers and other stakeholders have worked together to identify priorities and gaps in all types of research across the cancer spectrum, and to recommend potential strategies to ensure our research funding achieves the greatest impact for people affected by and/or at risk of cancer.

As a starting point for these discussions, the CRLF developed a white paper, *Towards a National Cancer Research Plan*. The paper was launched on 4 February 2012 and circulated widely to all key stakeholders. The CRLF received submissions and letters of support in response (from the organisations and individuals listed in appendix 4). All respondents expressed support for the CRLF's initiative and leadership in this regard. Most endorsed the rationale for greater coordination and collaboration across the sector and the key principles identified in the white paper. Respondents' comments and recommendations were considered in the development of this resource.

The second stage in developing this resource was a National Cancer Research Summit in Sydney in September 2012 with 89 invited participants, representing cancer researchers and clinicians, consumers, research institutes and funding organisations.

At an opening plenary, Professor Ian Olver, CEO of Cancer Council Australia, described the current cancer research funding landscape and potential new approaches. ABC health reporter and broadcaster Dr Norman Swan moderated a panel and audience discussion about the limits and challenges of existing funding models and new mechanisms to enhance research planning and funding. Summit participants were allocated to multidisciplinary groups and asked to identify issues and challenges related to Australia's cancer research workforce, infrastructure and funding mechanisms; priorities and gaps that are not being addressed; and potential solutions.

Participants with specific expertise from across the cancer research spectrum were then grouped according to their discipline and asked to identify the key research questions in their area, as well as pertinent roadblocks and issues. The working groups focused on:

- basic science
- epidemiology/prevention/public health
- screening
- treatment
- supportive care/psycho-oncology/survivorship
- palliative care.

Each group included a consumer representative.

The Summit program and a list of participants are at appendices 1 and 2.

Purpose and scope

The CRLF has developed this resource to encourage and support better planning and coordination of research funding in Australia. It will be available to all funders across the sector in the hope that it may encourage new co-funding partnerships, synergies, and strategies to nurture Australia's cancer research strengths, address priorities and accelerate progress in cancer control.

Overview

At current rates, 1 in 2 Australians will be diagnosed with cancer by the age of 85. Research is key to increasing our understanding of cancer, enabling advances in prevention, detection and treatment, and thus reducing incidence and improving outcomes for all Australians affected by this disease. In recent years, significant gains in knowledge about cancer types, causes and targeted treatments have increased the potential for major advances in cancer prevention and care in the next decade.

In Australia in 2011 approximately \$300 million was awarded to national cancer research projects, programs, infrastructure and support by a large group of government and non-government (community-funded and corporate) funders. While major funders such as the National Health and Medical Research Council (NHMRC) and Cancer Australia have a national charter, Australia does not have a strategy to coordinate planning and funding of cancer research across the myriad of funding organisations.

An opportunity exists to enhance the impact of our collective investment in cancer research to improve cancer control and outcomes in Australia.

Consultation with stakeholders across the Australian cancer research sector has highlighted strong support for funders of cancer research in Australia to further collaborate in planning, awarding and evaluating research funding and to develop new funding models to maximise the impact of their collective investment.

Contributors to the development of this resource (including Summit participants and respondents to the CRLF's white paper) identified a broad range of issues and opportunities to enhance the funding, conduct and translation of cancer research in Australia. Many of these were not unique to cancer research and extended well beyond the scope of the CRLF membership or indeed the community sector. Many echoed issues identified by the Strategic Review of Health and Medical Research in Australia ('the McKeon Review') including:

- opportunity losses due to gaps in national coordination between the multiple funders of research
- challenges for current funding mechanisms to support research priorities and long-term research
- onerous peer and ethical review processes
- restrictions on research activity in the health system, and opportunities to better integrate and translate research to clinical care
- core skills gaps, and the need for greater support for early- to mid-career researchers, to attract and retain high quality cancer researchers and build capacity
- the need to establish and maintain enabling infrastructure and technologies, and more adequately fund indirect research costs.



Many of the solutions that participants proposed to address these issues also were reflected in the recommendations of the McKeon Review, particularly those aimed at setting and supporting research priorities, supporting the research workforce, rationalising indirect cost funding, building enabling infrastructure, and encouraging 'scale' in philanthropy¹. The McKeon Review's recommended changes to Commonwealth Government approaches and mechanisms for funding health and medical research will, if effected, increase and improve funding for cancer research by addressing many of the broader issues and roadblocks. Participants encouraged community-funded organisations to maintain and increase their advocacy for policy and systems change that will increase support for cancer research and researchers.

Throughout the development of this resource, contributors recommended transformative, rather than minor, changes to priority-setting and funding approaches.

Cancer research funders were encouraged to avoid traditional and rigid funding mechanisms and instead consider the continuation and further development of new approaches and mechanisms that complement the NHMRC and other government funding strategies. It was suggested that a proportion of research funding be committed to mechanisms designed to:

- fund 'blue sky', innovative research
- enable long-term, large-scale, collaborative and cross-disciplinary research
- support priority-driven research to meet current and projected needs
- establish and maintain infrastructure to sustain research
- nurture and build capacity in the cancer research workforce.

This resource presents recommendations for new approaches and mechanisms that will support and complement the changes proposed by the McKeon Review and guide funding organisations in planning and funding their research investment to have the greatest impact in reducing the cancer burden in Australia.

Unless otherwise stated, the recommendations and statements in the following section reflect the general consensus of, or issues and suggestions most commonly cited by, participants at the National Cancer Research Summit and respondents to the CRLF white paper.

¹Strategic Review of Health and Medical Research in Australia. Consultation Paper: Summary. Australian Government Department of Health and Ageing, 3 October 2012.



Summary of recommendations

Enhance collaboration between research funding organisations

- Further collaboration in planning and funding cancer research in Australia should lead to better research outcomes, greater attraction for donors and the potential to leverage existing funding capacity.
- Community organisations should continue advocating for more funding for cancer research (particularly for priority-driven research and people and infrastructure support), better national coordination and more partnerships between funding agencies. Schemes could be developed to support multi-stream and multi-state initiatives (crossing disciplinary, tumour-specific and/or geographic boundaries); shared services platforms to reduce duplication; and funding mechanisms that ensure grant recipients are able to access funding for indirect research costs.

Develop novel funding approaches, mechanisms and criteria

- Cancer research funders should explore new models and mechanisms to support innovative, 'blue sky' multidisciplinary and cross-disciplinary research aimed at achieving significant and internationally relevant outcomes.
- Community organisations could develop a shared peer review process, with assessment criteria that are outcomes-focused and encourage innovation, collaboration and translation. All funders should provide longer-term, recurrent (upon 5 year review) and single line grants, with clearly defined performance measures to be assessed at agreed time points in the grant term.

Identify and fund research priorities and gaps

- Progress in cancer control in Australia could be hastened by targeting a greater proportion of the available funding to priority-driven research, addressing identified gaps and ensuring an appropriate balance of funding across the research spectrum and reflecting the burden of different cancers. A greater focus on translational, health policy and health economics research is needed to deliver better cancer outcomes through the health system and enhance the quality of life of people affected by cancer.
- Funding organisations should develop mechanisms to fund and sustain large-scale, longitudinal population studies to increase knowledge about cancer causes and risk factors, and to build capacity in health services, health economics, health policy and translational research and evaluation.

Establish and maintain research infrastructure

- New, longer-term and more flexible funding grants are needed to enable development and maintenance of the equipment, technologies and shared research infrastructure such as biobanks and genomics services needed to sustain cancer research.
- Existing national research infrastructure including data, equipment, technology and support services could be made more accessible to researchers through open access, or at least increased and simplified access. Funders might consider establishing an advisory group to recommend and speed up acquisition of new research technologies and equipment, and mechanisms to provide in kind financial or project management advice and mentoring to research teams.

Support and build the research workforce

- Recruiting, retaining and supporting the best researchers (particularly at the early- to mid-career stage) and a strong support workforce requires funding mechanisms that provide longer-term (5 year) grants, sustainable career pathways, and quality research environments and infrastructure.
- To strengthen the research culture, particularly in clinical settings, funding organisations could advocate for sequestered research time for clinicians, and development of research skills (particularly multidisciplinary and translational research) in the current and future clinical workforce.

Engage consumers and other stakeholders in research planning and funding

- Cancer research funding organisations should continue to promote and support meaningful consumer and stakeholder engagement in all stages of cancer research, including planning and making decisions about research funding. They might consider development of shared platforms for consumer engagement, including training and support in review of research grant applications.

1

Enhance collaboration between research funding organisations

Issues and opportunities

The existence in Australia of multiple funding organisations from the public, private and community sectors has resulted in multiple funding approaches and programs. While major funders such as the NHMRC and Cancer Australia have a national charter, Australia does not have a strategy to coordinate planning and funding of cancer research across the myriad of funding organisations.

There is potential to enhance the impact of the collective investment in cancer research through further collaboration and strategic planning.

Australia's community sector comprises a large number of cancer charities, which provide a significant proportion of research funding, but it lacks the impact of a large philanthropic cancer research foundation, as in the UK and USA.

While there are some collaborative, co-funding initiatives across the sector, individual charities often have different priorities and strategies for awarding research grants and support. Some target funding to one area or aspect of research, such as capital investment grants (for buildings and equipment), or project grants for early career researchers. Some direct their funding to research focused on a particular cancer type, or in one state. Existing rules mean some institutions or consortia are unable to access support for indirect research costs when they receive certain types or tiers of funding.

Several CRLF members are partners in Cancer Australia's Priority-driven Collaborative Cancer Research Scheme, which has increased the quality of peer review for research supported by some community organisations, reduced funding administration costs and created greater leverage in funding capacity.

Potential solutions

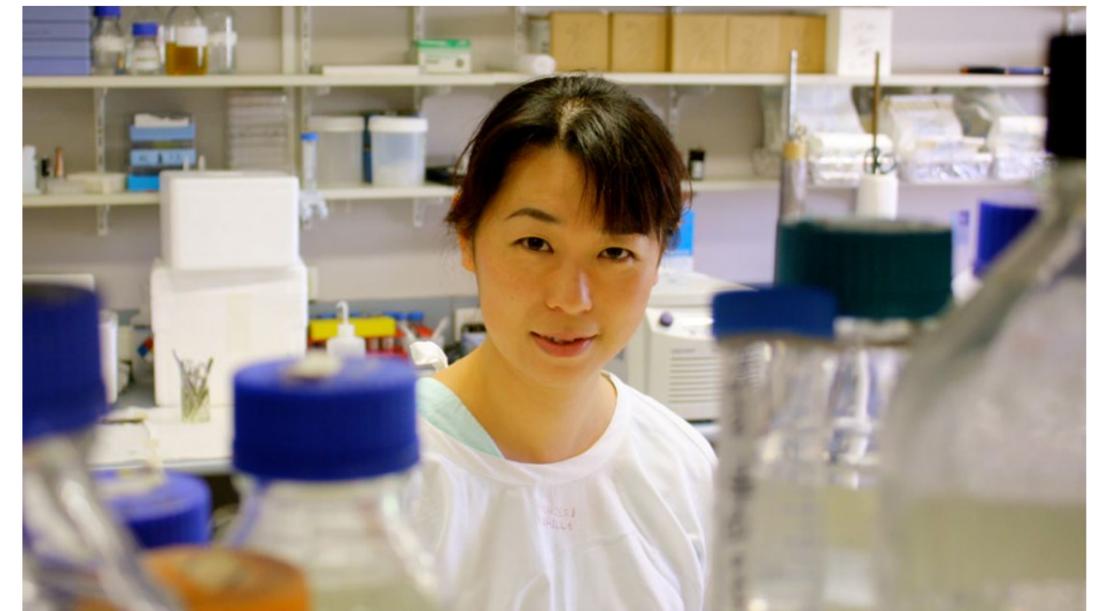
Summit participants endorsed the value of an alliance of community organisations (e.g. the CRLF) to drive enhanced coordination and some co-funding of cancer research. The McKeon Review has recommended the Australian Charities and Not-for profits Commission be tasked with encouraging 'aligned smaller charities to collaborate on research funding provision to increase impact'.

It was recommended that at least community organisations consider developing a charter committing to a coordinated approach, agreed research priorities and efforts to increase efficiencies and the impact of their collective funding.

Participants acknowledged the current role and potential of community organisations in advocacy and change agency. A commitment to greater coordination and collaboration would strengthen community organisations' combined 'voice' and capacity to engage with and communicate issues and priorities to governments, the donor community and people affected by cancer. It could also enable community organisations to leverage additional funds from government and/or industry for types of research not currently supported.

Strategies recommended for consideration

- Foster collaboration in planning and funding research, which should lead to better research outcomes and greater attraction for donors.
- Leverage existing funding capacity by encouraging more national coordination and partnerships between research funders.
- Develop funding mechanisms that support multi-stream and multi-state initiatives, to encourage collaborative research that crosses disciplinary, tumour-specific and/or geographic boundaries.
- Collaborate to develop mechanisms that ensure grant recipients are able to access schemes that fund indirect costs of research.
- Develop shared services platforms for administration of research grant applications and peer review to reduce duplication of effort on the part of both researchers and reviewers.
- Maintain and increase advocacy for more funding for cancer research (generally, and for priority-driven research and people and infrastructure support in particular) and more national coordination and partnerships between research funders.
- Develop an audit tool to evaluate the impact of funding decisions.



2

Develop novel funding approaches, mechanisms and criteria

Issues and opportunities

A number of roadblocks to efficient cancer research related to existing funding models and mechanisms were highlighted during the Summit. Many participants identified onerous grant application, peer review and ethical review processes as impediments to obtaining sufficient and timely funding for research. Challenges in obtaining comprehensive funding – covering the (often significant) indirect costs of research – means researchers frequently have to apply for support from multiple funders.

Current funding models (particularly public research funding) tend to favour ‘safe’ investments, with limited opportunities to fund novel, innovative research. Traditional short-term funding cycles create job insecurities, and are unable to support large scale and long-term research such as epidemiological studies.

Participants acknowledged the flexibility of community organisations, which provides a potential opportunity to develop new models that would complement, rather than mimic or supplement, traditional funding mechanisms.

Potential solutions

Community organisations have great potential to fund multi-state, multidisciplinary projects – to overcome traditional disease ‘silos’ – and/or to commit a percentage of their individual investments to innovative, ‘blue sky’ research. It was suggested that funders support more large-scale, strategic research aimed at achieving the most significant ‘big picture’ and ‘internationally relevant’ outcomes. Many participants felt this would be best achieved by fostering large-scale, multidisciplinary and cross-disciplinary research programs.

Funding organisations should direct funding to innovative and priority cancer research that other funders currently cannot or do not fund.

Participants urged funding organisations to avoid rigid funding mechanisms and develop new models, rather than mirroring existing government schemes. Funding organisations could look to the business world and investigate models of philanthropic ‘venture capitalism’ to fund ‘blue sky’ or high risk projects, and explore the potential for innovative partnerships with corporate/industry investors.

A key theme in discussions about funding processes was the need to shift to an outcomes-focused model. Participants suggested funding organisations consider developing a shared peer review process, potentially building on the process that several community organisations participate in through Cancer Australia’s Priority-driven Collaborative Cancer Research Scheme. They should also consider reviewing their funding assessment criteria, to focus on outcomes and place greater weight on criteria such as innovation, collaboration and translation, and less on traditional measures of track record such as first author publications.

The most common suggestions for new assessment criteria were:

- anticipated outcomes / potential impact of the research
- track record of translational outcomes (clinical or public health outcomes, commercialisation, input to policy development)
- large-scale collaboration – ‘multidisciplinary’, ‘multi-centre’, ‘multi-state’, ‘cross-disciplinary’ and/or international, and engagement of collaborators from outside traditional disciplines of cancer research
- innovation or novel concept.

All funding organisations were urged to provide comprehensive and longer-term grants. Funding organisations could consider awarding ‘single line’ grants to investigators to cover all costs of research including salaries and indirect research costs. This would reduce the impost on researchers to source indirect costs from multiple agencies, and provide them with some flexibility in using funds and potentially increase collaboration.

There was strong support for a standard long-term (5 year) ‘maintenance’ grant, with periodical review/s to assess performance indicators and an opportunity to cease funding if they were not met. There was some support for offering grants with an ‘option to renew’ clause, to allow natural extension and development of research programs that meet agreed benchmarks.

Strategies recommended for consideration

- Develop new models and mechanisms to support innovative research.
- Explore ‘venture capitalist’ models and partnerships with corporate/industry investors to support blue sky or high risk projects, and translation of promising preclinical findings.
- Develop a shared peer review process for community organisations funding cancer research, with assessment criteria that are outcomes-focused and encourage innovation, collaboration and translation.
- Provide longer-term, recurrent (upon 5 year review) and single line grants, with clearly defined performance measures to be assessed at agreed time points in the grant term.



3

Identify and fund research priorities and gaps

Issues and opportunities

There was general consensus that research funding in Australia is 'spread thinly', and that progress in cancer control could be hastened by targeting a larger proportion of the available funding to a smaller number of priority questions.

As noted by the McKeon Review, 'a portion of investment should be strategically focused to ensure key priority areas are addressed'.

Until recently, there has tended to be a focus away from defining and resourcing priority-driven research in Australia. Cancer Australia's analysis of research funding in 2003 to 2005 highlighted some gaps in the awarding of cancer research funding across the spectrum of research, and relative to disease burden and mortality. It found the majority of funding was directed to research in biology and treatment, and direct funding to research in aetiology, prevention, early detection, diagnosis and prognosis, and cancer control, survivorship and outcomes was comparatively low².

Summit participants acknowledged these discrepancies, but there was not consensus about the priority-setting measure: suggestions included burden of disease (mortality), incidence (achieving the greatest good for the greatest number), impact (measured by Quality Adjusted Life Years), priorities of people affected by cancer (patients, caregivers and survivors), or potential to reduce the future cancer burden (by focusing on cancer prevention and early detection).

There was agreement about the need to align cancer research funding with cancer control priorities, requiring greater investment in health services, health policy, health economics and translational research. Research in these areas has often been limited by funders' traditional focus on biological research, and the inability of most current funding schemes to support large-scale, longitudinal studies which are the foundation of most epidemiological research.



² Cancer Australia. Cancer research in Australia: An overview of cancer research projects and research programs in Australia 2003 to 2005.

Potential solutions

Various ideas about how cancer research priorities should be set and funded were proffered. Many participants recommended funding agencies pool their research funding to fund a small number (or some suggested just one or two) 'big' priority projects with potential to make a significant difference to cancer incidence, mortality and/or quality of life of people with cancer.

Most recommended funders form multidisciplinary groups (including consumers) to define the research priority questions and then either call for applications, or direct funding to established academic or integrated health research centres or research consortia with a track record of innovation, to address them.

There was significant support for better coordinating and prioritising investment in epidemiological, population health and health services research given the predicted increase in cancer incidence and prevalence in coming years. Participants highlighted the potential for investment in research into cancer causes, prevention and early detection – e.g. leveraging preventative health research into population-based screening or testing new screening methodologies – to reduce incidence and mortality rates. Increasing emphasis on such research would require new funding models to support large epidemiological studies and associated biobanks.

Participants recommended a greater focus on translational, health policy and health economics research to deliver better cancer outcomes through the Australian health system (and do it most cost-effectively) and enhance the quality of life of cancer survivors and people living with cancer.

To redress the imbalance in funding across the research spectrum and cancer types, it was suggested funders consider models or mechanisms such as Cancer Council NSW's Strategic Research Partnership (STREP) grants program, to prioritise investment and discovery in poor-prognosis cancers and cancers where the level of funding has not traditionally reflected the burden or impact of disease.

Strategies recommended for consideration

- While maintaining some support for investigator-driven research, target most research funding to priority-driven research to generate further improvements in cancer outcomes.
- Consider the benefits of more investment in funding partnerships that leverage funding to support research priorities (like Cancer Australia's Priority-driven Collaborative Cancer Research Scheme).
- Develop mechanisms to fund and sustain large-scale, longitudinal population studies (and data linkage) to increase knowledge about cancer causes and risk factors, to enhance prevention, early detection and therapeutic strategies.
- Develop a specific mechanism and strategies to build capacity in health services, health economics, health policy and translational research and evaluation.



4

Establish and maintain research infrastructure

Issues and opportunities

'Infrastructure' refers to the full range of sustainable resources required to support the research effort. This includes, but is not limited to large, shared national resources, such as biobanks and data registries, as well as IT systems, specialist equipment (and technical staff to use and maintain it) and other smaller scale resources required to enable research.

Participants identified significant gaps in the availability of, or access to, the strategic infrastructure needed to sustain and advance cancer research.

There is an opportunity to better coordinate funding to establish and maintain national research assets such as bio-specimen banks, genomics services (a national sequencing centre), and national databases and registries.

Biobanks have often developed on an *ad hoc* basis, and there is a need to improve access and reduce costs. Existing data is not well coordinated or linked, and researchers identified multiple barriers to accessing and using data, including onerous ethics and privacy requirements, 'ownership' concerns, and costs.

Continuing long-term and coordinated support for Australia's cooperative trials groups was recommended to advance cancer treatment, support retention of researchers, and ensure Australian groups remain internationally competitive.

Most cancer research requires specialist equipment, technologies and/or IT and informatics platforms. Researchers identified the speed of technological change, delays in accessing new technologies (estimated as up to two years for Australian researchers) and the length of grant funding cycles as impediments to cutting edge research: for example, a technology for which funding is requested may be obsolete by the time the grant application is assessed and the project is funded.

Identified disincentives to sharing and linking such infrastructure included competition between researchers, professional 'silo-ing', and costs (given distance between centres).

Researchers also acknowledged that the lack of business, project management and financial management skills in research teams is a barrier to the most efficient acquisition, use and/or commercialisation of infrastructure assets.

Potential solutions

New, longer-term and more flexible funding grants are needed to enable development and maintenance of equipment, technologies and other large-scale research infrastructure needed to sustain cancer research. Such infrastructure must be strategically developed in Australia to ensure our cancer research sector remains internationally competitive and collaborative and continues to generate outcomes to improve cancer control and care.

Summit participants' suggestions to increase researchers' access to essential infrastructure included:

- mapping existing biobanks and bioresources to identify gaps, duplication and barriers to access, and encouraging national coordination
- establishing a national advisory group to recommend and speed up acquisition of new technologies
- developing genomics capability by establishing a national sequencing centre (collection of annotated tissue from all patients at diagnosis and upon completion of treatment)
- developing an open access national registry of cancer patients, facilities, equipment, staff and bio-specimens
- supporting translational research by funding chemistry, biobanks and bioinformatics and mouse model resources.

The McKeon Review has recommended acceleration of efforts to build a national database of de-identified, linked patient and healthy population data for research purposes; development of a national biobanking hub; and long-term funding mechanisms to build capacity in enabling technologies and supporting services such as bioinformatics.

While maintaining investment in 'hard' infrastructure, such as buildings and equipment, funders were also encouraged to consider how to fund 'soft' infrastructure to support researchers. Participants suggested community and commercial organisations consider how they could inject better financial or project management into the research sector, for example, by developing partnerships with corporates to provide pro bono advice/mentoring by financial and business leaders.

Strategies recommended for consideration

- Develop funding mechanisms – ideally collaboratively and nationally – to establish and maintain shared infrastructure needed to support cancer research, such as biobanks, genomics services, meetings/travel, resources to enable large-scale drug development, population cohorts.
- Explore opportunities to partner with governments and industry to leverage the available funding for infrastructure development and long-term maintenance.
- Enable or advocate for open access – or at least increased and simplified, access – to existing national research infrastructure including data, equipment, technology and support services.
- Establish an advisory group to recommend and speed up acquisition of new research technologies and equipment.
- Develop mechanisms and partnerships to provide in kind financial or project management advice/mentoring to research teams.

5

Support and build the research workforce

Issues and opportunities

Australian cancer researchers have made significant contributions to knowledge and advances in cancer care. But Summit participants noted that maintaining and enhancing this reputation for excellence in cancer research requires further support for cancer researchers and action to address imminent gaps in capacity.

The key issues and challenges facing Australia's cancer research workforce are similar to those for the broader health and medical research workforce, which have been enunciated in many government and non-government reports in recent years and include:

- employment insecurity and lack of a supportive, sustainable career pathway
- uncompetitive salaries
- difficulties in obtaining funding at early- and mid-career stages
- poor career paths for clinical academics – resulting in low recruitment and retention
- the need to develop capacity in new disciplines, including bioinformatics, genomics, health service research, psycho-oncology research, biostatistics and health economics
- inadequate grounding in multidisciplinary and translational research skills in undergraduate training.

Many of these issues were attributed to short-term grants, which inhibit job security and career structure, and discourage long-term retention, professional development of researchers and opportunities for dual or cross-disciplinary training. Annual funding cycles mean some researchers are vulnerable to 'gaps' in funding that may jeopardise completion of research. Funding schemes in other countries (such as the US National Institutes of Health's) operate on more frequent cycles to prevent this.

Particular challenges for clinician-researchers are the restrictions on research activity due to clinical workload, time constraints and/or the absence of a 'research culture' in hospitals and health service delivery.

Potential solutions

Summit participants recommended initiatives aimed at recruiting and retaining talented cancer researchers, as a key mechanism to increase cancer research outcomes.

Several participants reiterated that having and supporting 'the right people' is the key to 'the right research'.

Suggested strategies to increase recruitment and retention of young researchers (particularly at the early- to mid-career stage) included providing longer-term (5 year) grants, to 'recognise excellence' and provide job security; enabling sustainable career pathways (via career planning); and providing quality research environments and infrastructure.

Participants noted a need to foster clinician and health service researchers in particular. It was noted that the current focus on developing medical research precincts around hospital sites encourages the co-location of researchers from different disciplines and with their clinical colleagues, and helps to build capacity and expedite research translation, while more firmly embedding research into clinical care.

Recommended strategies to strengthen the research culture, particularly in clinical settings, included embedding researchers in multidisciplinary clinical teams, and encouraging better linkages between hospitals, universities and research institutes.

Funding organisations could advocate for protected time for clinicians to engage in research; development of academic oncology programs; training to address research skills gaps (e.g. in functional genomics, systems biology, bioinformatics, molecular pathology); and focus on research skills (particularly multidisciplinary and translational research) in undergraduate medical training and retraining of the current clinical workforce.

Strategies recommended for consideration

- Develop mechanisms to provide more support for early and mid-career researchers.
- Provide longer-term (5 year) funding of individual researchers or groups, and consider offering more than one grant round per year.
- Direct research funding only to centres or consortia that encourage an integrated approach (through links with hospitals, primary care, etc.), enable multidisciplinary and cross-disciplinary collaboration, and provide support and mentoring for junior researchers.
- Encourage/advocate for recognition of importance of sequestered research time for clinicians, and development of research skills (particularly multidisciplinary and translational research) in the current and future clinical workforce.



6

Engage consumers and other stakeholders in research planning and funding

Issues and opportunities

Cancer research funders' investment in Australian research and researchers has enabled significant advances in cancer control in this country and globally.

People affected by cancer and advocacy groups are important contributors to and advocates for cancer research. Summit participants emphasised the benefits of consumer involvement in research planning and funding decisions, to ensure the research agenda reflects the needs and issues of greatest priority to people affected by cancer.

In addition, researchers, clinicians, policymakers and industry need to be engaged at each stage from research planning to the dissemination of findings and translation to practice. Drawing on the expert advice of clinicians and policymakers in particular would inform priority setting to maximise impact and translation of research findings to practice and policy.

Participants at the Summit acknowledged the outcomes, and mostly efficient processes, of community organisations' funding of cancer research in Australia. But they noted the potential for greater coordination and collaboration, and a need to assess funding structures and process to ensure consumers and other stakeholders are appropriately engaged in decision-making about research priorities and funding.

Potential solutions

Summit participants recommended funders check that their research agendas and priorities align with the needs of people affected by cancer now, as well as projected future needs.

Consumers need to be involved and supported to contribute in meaningful ways at each stage of research from planning and priority-setting to dissemination of findings, and in translation of research into practice.

There is potential for greater efficiency and knowledge sharing if funding organisations develop shared platforms for consumer engagement and training.

Participants also noted the importance of encouraging stakeholders – particularly those who are members of or advisors to boards of organisations funding research focused on a particular cancer type, or in one state – to consider the value of collaborative research that crosses disciplinary, tumour-specific and/or geographic boundaries.

Strategies recommended for consideration

- All cancer research funding organisations should continue to promote and support consumer and stakeholder engagement in planning and making decisions about funding of cancer research in Australia.
- Consider development of shared platforms for consumer engagement, including training and support in review of research grant applications.



Appendices

Appendix 1: National Cancer Research Summit program

Friday 7th September 2012

5.00pm- 5.30pm Registration

5.30pm- 5.45pm Opening Remarks, Carole Renouf, Chair TNCRP Steering Committee

5.45pm- 5.55pm Welcome Remarks, Lisa George, Head, Macquarie Group Foundation

5.55pm- 6.15pm The Cancer Research Funding Landscape, Prof Ian Olver

6.15pm- 7.20pm Panel Discussion with MC Dr Norman Swan, panellists included:
Prof Andrew Biankin, Ms Patricia Hancock, Prof Ian Olver, Dr Sam Prince,
Mr John Stubbs, Ms Leanne Warner.

7.20pm- 8.30pm Drinks & Canapés Reception

Saturday 8th September 2012

8.30am-8.50am Registration

8.50am-9.00am Opening remarks and recap from Friday, Carole Renouf

9.00am-10.00am Workshop on Workforce with Prof Jim Bishop

10.00am-11.00am Workshop on Infrastructure with David Brettell

11.00am-11.30pm Morning Tea

11.30am-12.30pm Workshop on Funding Mechanisms with Prof Steve Wesselingh

12.30pm-1.15pm Summary, Emerging Trends and the McKeon Review, with Prof Ian Frazer

1.15pm-2.00pm Lunch – the open sessions of the Summit finish here.

The afternoon sessions are closed, by invitation only

2.00pm- 3.30pm Working Group Sessions

- Basic Science
- Epidemiology/Prevention/Public Health
- Screening
- Treatment
- Supportive Care/Psychooncology/Survivorship
- Palliative Care

3.30pm- 3.45pm Summary of working group findings, Prof Ian Olver

3.45pm- 3.50pm Closing remarks, Carole Renouf

3.50pm- 4.00pm Afternoon tea and departure

Appendix 2: National Cancer Research Summit – list of participants

Dr Diana Adams	Mr Bob Prosser	Ms Patricia Hancock
Ms Amanda Maltabarow	Ms Jackie Coles	Prof Joseph Trapani
Prof Warren Alexander	Prof Roger Reddel	Prof Nick Hawkins
Prof Bruce Mann	Ms Annie Crawford	Mr Glen Turner
Ms Karen Avery	Ms Carole Renouf	Ms Elaine Henry OAM
Ms Julie Marker	Ms Sally Crossing	Prof Jane Ussher
Mr Colin Bartlett	Prof Rob Sanson-Fisher	Ms Lisa Herron
Mr Harry Martin	Ms Sharon Czerniec	A/Prof Claire Vajdic
Mrs Trish Bartlett	Prof Christobel Saunders	Dr Catherine Holliday
Mr Tony Maxwell	Ms Annabel Davies	Dr Claire Wakefield
Dr Megan Best	A/Prof Penny Schofield	Prof John Hopper AM
Prof Grant McArthur	Mr Ian Dear	Prof Robyn Ward
Prof Andrew Biankin	A/Prof Clare Scott	Dr Viive Howell
Mr Brian McFadyen	Prof Simon Foote	Ms Leanne Warner
Prof James Bishop AO	A/Prof Andrew Spillane	Ms Edith Hurt
A/Prof Paul McKenzie	Prof Ian Frazer AC	Ms Kelly Webster
Prof David Bowtell	Ms Catherine Stace	Ms Peta Jurd
Mrs Lesley McQuire	Dr Ofra Fried	Prof Steve Wesselingh
Mr David Brettell	Prof Andreas Strasser	Prof Maria Kavallaris
Prof Ian Olver AM	Ms Lisa George	Prof Emma Whitelaw
Prof Michael Brown	Mr Ian Stubbin	Prof Dorothy Keefe
Dr Andrew Penman	Mr Max Gosling	Prof Bryan Williams
Dr Alison Butt	Mr John Stubbs	Ms Victoria Kvisle
Mr Matt Pitt	Ms Nicca Grant	Dr Anna Williamson
Prof Suzanne Chambers	Dr Norman Swan	Ms Judith Lees
Ms Vicki Pridmore	Mr Paul Grogan	Ms Margaret Wright
Ms Kathy Chapman	Ms Danielle Tindle	Dr Yvonne Luxford
Dr Sam Prince	Prof Neville Hacker	Ms Leonie Young
Prof Georgia Chenevix-Trench	Dr Libby Topp	Prof Finlay Macrae
		A/Prof Nik Zeps

Appendices

Appendix 3: National Cancer Research Summit: List of professional facilitators and volunteers

Professional facilitators

Ms Karen Haig
Ms Sarah Humphreys
Mr Neil Jones
Ms Elizabeth Klaes
Mr Brian Maguire
Ms Cliona Molins
Ms Margaret Moore
Ms Maria Walsh

Volunteers

Ms Hannah Klaes
Ms Gabrielle Sheehan
Mr Joseph Sheehan

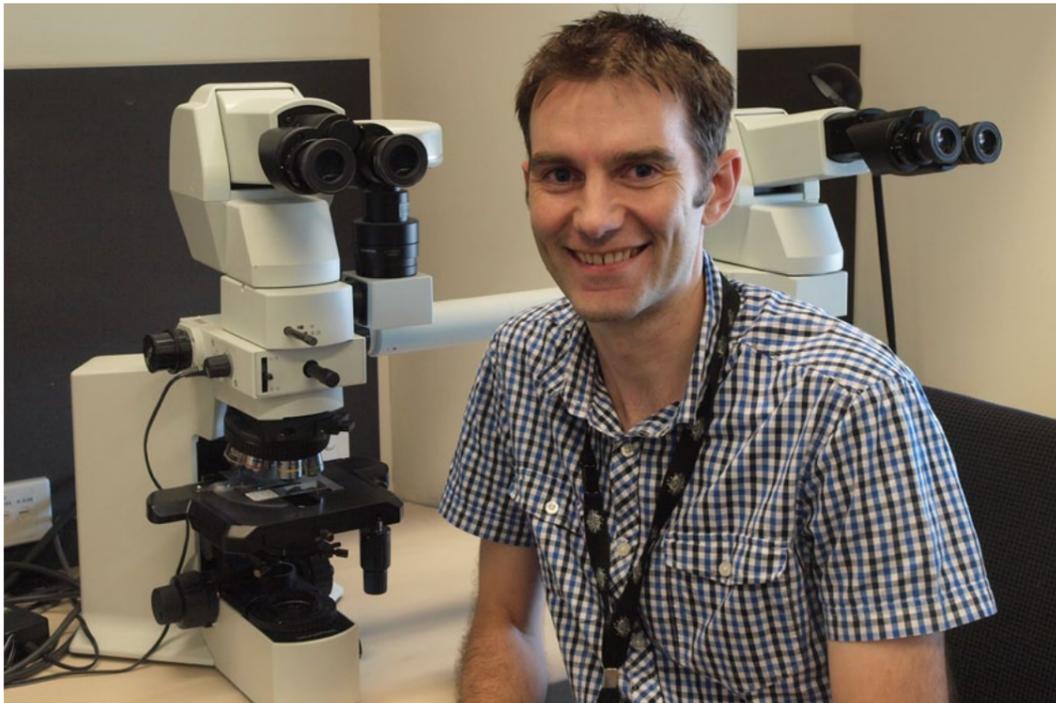
Appendix 4: Respondents to CRLF white paper, Towards a national cancer research plan

Submissions:

- Breast Cancer Network Australia
- Cancer Council NSW
- Cancer Institute NSW
- Clinical Oncological Society of Australia
- Emeritus Professor James Lawson AM, MD
- Medical Oncology Group of Australia
- State and Territory Managers of the breast, bowel and cervical cancer screening programs (joint response)
- Professor David Roder
- SA Health (incorporating feedback from the SA Cancer Clinical Network)

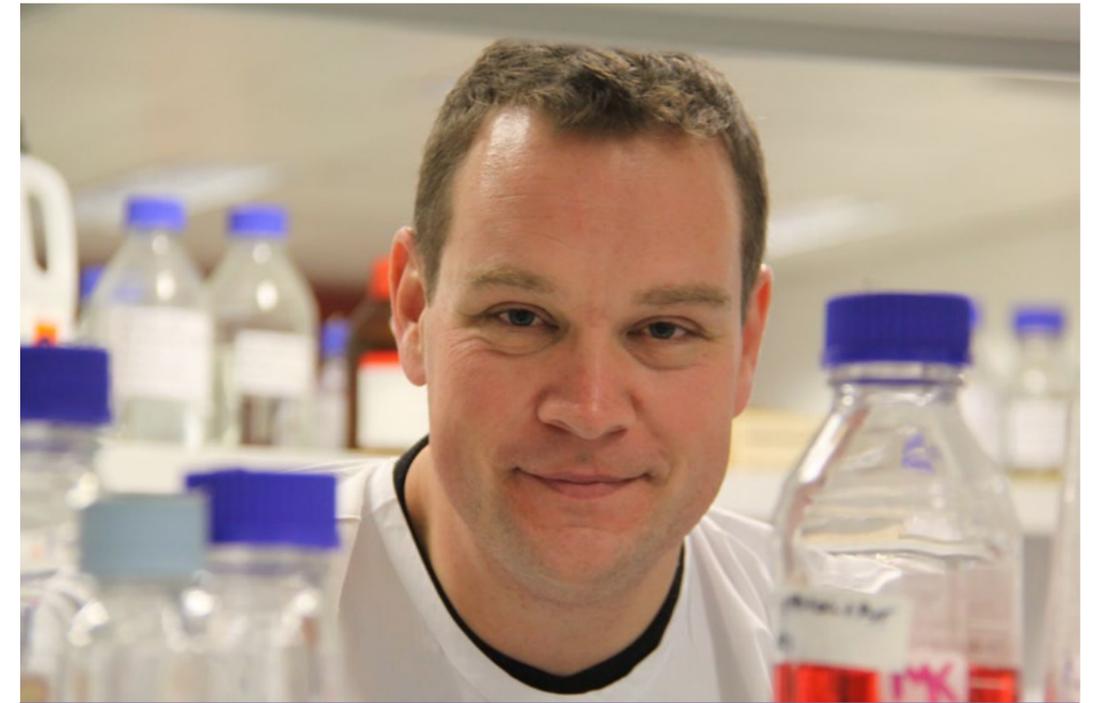
Letters of support:

- Breast Surgeons of Australia and New Zealand Inc.
- Cancer Council Victoria
- Consumers Health Forum of Australia
- Hon David Davis MP, Minister for Health Victoria
- Philip Felton
- Dr Kim Hames MLA, Deputy Premier and Minister for Health Western Australia
- Michelle O'Byrne MP, Minister for Health Tasmania
- The Hon Jillian Skinner MP, Minister for Health and Minister for Medical Research New South Wales



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Maximising the impact of cancer research funding in Australia:
A national resource to guide research investment and improve cancer outcomes



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c/o National Breast Cancer Foundation
GPO Box 4126
Sydney
NSW 2001

(02) 8098 4800

