

ST VINCENTS & MATER HEALTH SYDNEY SUBMISSION TO THE STRATEGIC REVIEW OF HEALTH AND MEDICAL RESEARCH IN AUSTRALIA

EXECUTIVE SUMMARY

St Vincents & Mater Health Sydney has a long and proud research tradition spanning the public and not-for-profit private sectors, that continues to deliver improved outcomes for people with, or at risk of disease, and which it pursues either directly or in partnership with others. We welcome the renewed government focus on health and medical research (particularly translational research) and are grateful for the opportunity to provide input into the Strategic Review of Health and Medical Research in Australia.

Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector?

As a healthcare provider who invests significantly in research, the viability and competitiveness of Australia's health and medical research sector is of utmost importance in accelerating the translation of new knowledge and discoveries into leading edge practices, devices, therapies and techniques that improve health outcomes for our patients and community. International competitiveness also enhances our ability to attract and retain talent and funding to ensure the ongoing success of our research endeavours and promotes models that generate sufficient size and scale to maintain viability.

How might health and medical research be best managed and funded in Australia?

Investment is needed in health care providers to enable the training and ongoing infrastructure and human resource support of world class health and medical researchers (including appropriate remuneration and protected time for clinician researchers). We believe that sufficient research infrastructure support and support for non-commercial research (i.e. hospital and community based quality and safety research) is needed from government. There is a prevailing view that health and medical research should not be managed predominantly by the NH&MRC, rather that infrastructure funding should be separately funded from the body that provides grants for specific research.

What are the health and medical research strategic directions and priorities and how might we meet them?

We believe health and medical research strategic priorities should be closely aligned with those of the Commonwealth and State governments. Additionally, Australia should seek to further grow and develop in areas where it already excels, particularly where these areas align with major causes of morbidity and mortality amongst the community, both locally and internationally. An example of how we have met local and international priorities is provided in our response.

How can we optimise translation of health and medical research into better health and wellbeing?

There is a pressing need to focus efforts on integration and collaboration across existing centres, settings and disciplines of health and medical research to ensure research is translated into better health and wellbeing. St Vincent's supports the construct of Advanced Health Science Centres in achieving this. We also see significant opportunities to work better

with the primary and community care sectors given the National Health Reform and are positive about opportunities for the health and medical research centre that may arise from the Commonwealth's e-reforms, particularly those relating directly to the health care sector.

BACKGROUND

St Vincents & Mater Health Sydney (SV&MHS) is the NSW-based arm of St Vincent's Health Australia which, together with its partners, is the largest diversified health care organisation within Australia's not for profit and Catholic health care sectors. SV&MHS has a long and proud research tradition that continues to deliver improved outcomes for people with, or at risk of disease, and which it pursues either directly or in partnership with others.

The SV&MHS Darlinghurst Campus is our major teaching and research campus and comprises St Vincent's Hospital Sydney, Sacred Heart Hospice, St Vincent's Private Hospital and the separately governed St Vincent's Clinic. The Campus's -

Direct research activities include:

- St Vincent's Centre for Applied Medical Research which incorporates the hospital's clinical research programs and the coordination of clinical trials
- Cunningham Centre for Palliative Care
- Faces in the Street Urban Mental Health Research Institute
- St Vincent's Therapeutics Centre
- The Kinghorn Cancer Centre – a joint Garvan and St Vincent's venture with a focus on translational research and personalised medicine (due to be opened in 2012)

Research partnerships and affiliations include:

- Garvan Institute of Medical Research
- Victor Chang Cardiac Research Institute
- The Kirby Institute for Infection and Immunity in Society at the University of New South Wales
- Nursing Research Institute with Australian Catholic University
- Clinical Research Unit for Anxiety and Depression with the University of New South Wales

As part of our overall vision for the future of research on the Campus, St Vincent's will aim to further invest in translational research that leverages and complements the expertise of our own researchers and those of our research partners, thereby driving treatment excellence across each of our clinical streams. We also hope to support clinical research skill development through structured education and mentoring programs for our future clinical researchers as well as developing a leadership structure to guide our research investments and forge effective research partnerships in pursuit of our translational research goals.

WHY IS IT IN AUSTRALIA'S INTEREST TO HAVE A VIABLE, INTERNATIONALLY COMPETITIVE HEALTH AND MEDICAL RESEARCH SECTOR? (Terms of Reference 1 and 6)

Need for Australia to build and retain internationally competitive capacity across the research spectrum

From a healthcare provider perspective, our core business is to deliver quality and safe care to our patients and community, helping them to realise their best possible health outcomes. Research across the continuum of care is a pivotal driver in achieving this goal and driving evidenced based practice changes and innovative models that allow health services to meet their objectives, despite increasing internal and external pressures. As a significant research campus, St Vincent's understands the importance of translating discoveries at the bench into clinical and public health research to accelerate the translation of new knowledge into leading edge practices, devices, therapies and techniques. The success of our ability to do this hinges on our international clout and competitiveness and resultant ability to attract funding and talent.

International competitiveness across the research spectrum relies on appropriate support, scale, governance and funding models. An internationally (and increasingly nationally) recognised construct that provides this is the Academic/Advanced Health Science Centre. Fundamental to the rationale for such a centre is the belief that the best health care for the community is delivered in an environment where active research is also taking place. Such environments attract the brightest minds among healthcare providers and are also very attractive to those working in basic medical research because of the exposure to clinicians and clinical care and the enhanced opportunities for research translation across the spectrum. There is documented evidence that such centres have been able to demonstrate the value to patients' lives with new clinical interventions and therapeutics and changes in clinical practice. They also allow adequate size and scale to enable them to be self sufficient in terms of their ability to attract funding to support research on an ongoing basis.

From a St Vincent's perspective, the progressive development of the St Vincent's Research Precinct to physically collocate and operationally integrate the shared infrastructure of the independent research institutes and health services provided on the Campus is our first step towards cementing our place as an internationally competitive research precinct. We believe the benefit to be achieved from this initiative is the critical mass required to support quality research, world class research talent and greater research funding to ultimately drive better outcomes for our patients and those of the wider Australian and global communities.

Strategies to attract, develop and retain a skilled research workforce

There is no doubt that the pace of advances in both scientific discovery and clinical medicine have accelerated in recent times. From a health service perspective, this means it is increasingly difficult for young (and indeed older) clinical staff who are well trained in research to be (or continue to be) successful in research careers whilst also meeting their clinical workload demands. Succession planning will also be a major issue to allow replacement of senior clinicians in coming years i.e. those who have been able to maintain research productivity as well as active clinical practice.

The construct of an Academic/Advanced Health Science Centre or similar, with international recognition has the potential to attract a skilled research workforce. The ability to develop and retain them however, will require significant systemic changes and increased internal and external support. One of the most significant issues raised by our clinician researchers is the need for provision of adequate remuneration and allocated time to be able to conduct their research. Going forward clinical positions will need to be structured to allow

appropriate remuneration and incentive as well as allocated time to allow for research and teaching as well as clinical obligations.

As an initiative of the imminent Kinghorn Cancer Centre due to be opened on the St Vincent's Darlinghurst Campus Research Precinct later this year, St Vincent's and Garvan are in the process of developing structured fellowships to recruit and retain the best and brightest rising cancer clinician researchers both locally and internationally. The fellowships are proposed to be funded by the various stakeholders with consideration as to clinical and research allocated time. The drawcard to Kinghorn for rising stars will be the opportunity to work at a state of the art cancer centre with a focus on translational research and personalised cancer care; as well as the opportunities that present from housing clinicians and researchers together in an open, interactive environment. Key to retaining such employees will be the provision of adequate support to enable their research endeavours, for which a funding source will need to be identified. Organisations abroad have well established programs encompassing of the above model and are in direct competition for these somewhat scarce human resources. An example is the Clinician Scientist Fellowship offered by Cancer Research UK (CRUK) which provides successful applicants: up to four years support; salaries for them and a research assistant; consumable costs; and an opportunity to renew for a further four years. More information about this and other fellowships offered by this group can be accessed at: <http://science.cancerresearchuk.org/funding/find-grant/all-funding-schemes/clinician-scientist-fellowship/>.

HOW MIGHT HEALTH AND MEDICAL RESEARCH BE BEST MANAGED AND FUNDED IN AUSTRALIA? (Terms of Reference 2, 3 and 7)

Need for a Shift from Discovery Research Dominated to a More Equitable Distribution of Research Funds

Historically funding for medical research infrastructure support has been focused in the biomedical and basic science arena and favoured independent medical research institutes (IMRIs) and to a lesser extent, universities. This trend is clearly demonstrated in the NSW Department of Health 2011 NSW Health and Medical Research Strategic Review Issues Paper¹. It is clear that strong and leading research, pivotal in translating bench outcomes to the bedside and beyond is done in hospitals. However, there is a misconception held and often conveyed by the IMRIs that clinical and public health research in hospitals is already funded through the health budget, which is simply untrue. In order to ensure world class research is achieved across the spectrum, investment in health care providers is needed to develop the capacity and capability to deliver the health care transformations promised through basic research breakthroughs. Health care providers (particularly public teaching hospitals but increasingly private hospitals) have a major role to play in the translation of research, particularly in respect to clinical trials (drug, devices, therapies) and new practices (clinical guidelines, practice and protocols). Hospitals are the natural choice to take the translational research agenda forward, but are under resourced to fulfil this role and need assistance to:

¹ NSW Department of Health (2011). NSW Health and Medical Research Strategic Review Issue Paper. NSW Department of Health, Sydney.

- Work with universities and other educational institutions to train world class clinician researchers (i.e. to support skill development, mentoring etc)
- Provide supporting research infrastructure (governance, ethics, legal, commercialisation/ business nous and expertise)

Issues with Current Funding and Potential Management and Funding Models to Achieve a Sustainable Health and Medical Research Business Model

It should be noted that in public teaching hospitals neither clinical research (including the time, facilities and infrastructure support for clinical research and the translation of basic scientific knowledge into clinical practice) nor the ethics or governance processes that support it (including infrastructure support for research governance including Human Research Ethics committee processes) are currently adequately supported by government funding. Given that teaching hospitals in Australia are funded by state health departments and there is little specific funding for clinical research we believe that clinical research infrastructure funding should be initially distributed through the teaching hospital system, with subsequent funding dependent on KPIs for research output. It is relevant to note that hospital accreditation standards from the Australian Council on Healthcare Standards (ACHS) require that hospitals maintain appropriate research ethics and governance processes in order to achieve accreditation.

At St Vincent's, our public hospital clinician researchers feel they are *"financially penalised for pursuing research in a Medicare-dominated system in which salary increments can only be maximised by seeing large numbers of routine patients"* (St Vincent's Hospital Sydney, Senior Staff Specialist). The challenge for Australia, as elsewhere in the world is to develop a more attractive clinical academic 'faculty practice' capable of encouraging the most ambitious talent to join in.

Once start up capital is received/procured to fund research support, governance and education in the health care provider setting, hospitals, either alone or through the Advanced Health Science Centre model should be able to drive efficiency through a self sufficient business model. Potential sources to underpin a sustainable business model may include (but not be limited to):

- Fee for service e.g. for the provision of statistical advice or project management to projects
- Rent for research space
- Profit from commercial or contract research such as clinical trials
- Government infrastructure and other grants attracted through high class research generated through investment in personnel, reputation and supportive infrastructure
- Donations, fundraising and bequests
- Sale of intellectual property or commercialisation rights
- Contributions or grants from foundations or medical research bodies

WHAT ARE THE HEALTH AND MEDICAL RESEARCH STRATEGIC DIRECTIONS AND PRIORITIES AND HOW MIGHT WE MEET THEM? (Terms of Reference 5, 12 and 13)

As alluded to in Term of Reference 12, health and medical research strategic directions and priorities should be closely aligned with Commonwealth and State government health strategic directions and priorities. Additionally, Australia should seek to further grow and develop in areas where it already excels, particularly where these areas align with major causes of morbidity and mortality amongst the community both locally and internationally.

If the above is adhered to, health and medical research discoveries and clinical practice implementation globally, and particularly to the developing world will logically follow. As an example:

St Vincent's has been at the centre of the HIV/AIDS epidemic since its beginnings with the 1st person with AIDS in Australia diagnosed in 1983 at St Vincent's Hospital. St Vincent's has since become an internationally recognised centre of treatment and research excellence. Professor Andrew Carr, one of our prominent and internationally recognised clinicians' research focuses on the side effects of antiretroviral therapy of HIV. The therapy-induced toxicities his group has helped identify over the last 15 years have changed the drugs that the WHO recommends as first-line therapy for HIV in resource-limited countries. This makes therapy less toxic and also much less likely to be stopped (and so more effective against HIV).

Additionally, there are particular trends in international health and medical research and service delivery which Australia, from patient centred and consumer expectation perspectives, has an obligation to pursue. One such example is molecular research and gene sequencing that will lead to personalised response to diseases such as cancers. Through initiatives such as the joint St Vincent's and Garvan Kinghorn Cancer Centre which will allow research and service delivery to synergise, Australia will be escalated to the forefront of delivering a patient centred, evidenced based care to our patients.

HOW CAN WE OPTIMISE TRANSLATION OF HEALTH AND MEDICAL RESEARCH INTO BETTER HEALTH AND WELLBEING? (Terms of Reference 4, 8, 9, 10 and 11)

There is a pressing need to focus efforts on integration and collaboration across existing centres, settings and disciplines of health and medical research to ensure research is translated into better health and wellbeing. Examples of successful organisational models in translational research come predominantly from the USA where the scale and size of translational research enterprises is overwhelming. Significant contributions also come from the UK, Europe and Canada. In successful campuses where universities, hospitals/health service providers and biomedical research enterprises have developed proven track records in translational research, there are some common elements:

- strong clinical capability and track record of superb patient care in the hospital
- strong basic research capability on campus including access to leading edge technologies
- efficient use of core laboratory facilities that are operated professionally (and at cost recovery plus perhaps a small margin to support technology upgrades) but also with

the leaders involved in research in next generation technologic development of the instrumentation

- well-developed information management systems especially for clinical care and clinical research
- investment in “enablers” which support clinical and translational research (e.g. clinical trials co-ordination, biostatistician support, epidemiology and study design support)
- equitable power-sharing in oversight and governance without dominance of one party in decision-making or governance structures
- good governance with clear delegations of authority and responsibility to streamline operations and create efficiency

The alignment of Local Health Districts and Medicare Locals in the National health reform process presents an enormous opportunity to bring the primary and aged and community care centres effectively into the construct of Advanced Health Research Centres or the like. This would enhance the translation of research not only from the bench to the bedside, but that extra and important step further into the community for wider implementation.

Similarly, the Commonwealth’s e-reforms present enormous opportunities for the advancement of health and medical research in Australia. With a geographically disperse population; the national broadband network and personally controlled electronic health records will present unprecedented (potential) opportunity for researchers to access patient data in a user friendly format (electronic as opposed to paper) and on a scale conducive to delivering world class outcomes. Obviously there are privacy issues here but it would be worth giving thought to putting processes in place to facilitate clinical researchers (with appropriate ethics approval etc.) to be able to access patient information on a broader scale than their local hospital.

Steven Rubic

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St Vincents & Mater Health Sydney