8 June 2017

Australian Government Senate Committee Submission The impact of health research funding models on the availability of funding for research into cancers with low survival rates

GCMP National Program for rare and neglected cancers

The NSW Government Office of Health and Medical Research has supported the establishment of the Genomic Cancer Medicine (GCMP) at the Garvan Institute with $24M over 5 years. The GCMP is designed to address the huge unmet need faced by patients with rare cancers.

The GCMP has already enrolled over 170 patients with rare and advanced cancers. These patients have travelled to Sydney from Perth, Darwin, Adelaide, Hobart, Melbourne, Brisbane and Auckland, as well as from New South Wales. One quarter of patients have come from regional and rural Australia, and one in four patients have gone on to receive treatment.

Underpinned by Garvan's basic research, we are proposing a **national collaborative clinical trials project** to involve 3000 patients across six Australian sites, and possibly New Zealand.

This would include standardised sample collecting, biobanking, whole genome sequencing and telehealth to consent people remotely. The trials program would be coordinated by the NHMRC-CTC with sequencing done at Garvan. Data remains with the NHMRC-CTC in Sydney, accessible to all.

NHMRC-CTC at USyd conducts investigator-initiated clinical trials with national and international collaborators, and its trials reflects the shift of cancer treatment research toward immunotherapy and personalised medicine. Many trials now select patients on the basis of individual genetic characteristics and most include analysis of tumour tissue and blood for indicators for future research.

In Australia, rapid growth in health technologies contributes to the continuously increasing rise in health care costs, now more than $150B a year. In this environment new and existing recommendations and policy will be based on sound evidence of cost-effectiveness and strategies, that are smarter and better targeted. Trial programs have been shown to be much more cost-effective use of the healthcare dollar than many of the treatments accepted into routine care.

This collaborative national project would cost the taxpayer an estimated **$32M over 5 years**, and will leverage major investment from the pharmaceutical and biotechnology industry, as well as forming a focus for the philanthropic community in providing ALL people with rare and neglected cancers access to a clinical trial.

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Australian Genomic Cancer Medicine Program

Sites	2018	2019	2020	2021	2022	Total
Site enrolment [a]						
Garvan Institute's Kinghorn Cancer Centre	150 [b]	250	250	250	250	1150
Victorian Comprehensive Cancer Centre	75	150	150	150	150	675
Princess Alexandra Hospital		120	120	120	120	480
Sir Charles Gairdner Hospital		50	100	100	100	350
Queen Elizabeth II Hospital			75	75	75	225
Royal Hobart Hospital			25	50	50	125
Total patient enrolment nationally	225	570	720	745	745	3005
Budget						
Screening [c]	1660000	3178000	3838000	3948000	3948000	16572000
NHMRC Clinical Trials Centre [d]	600000 [b]	1300000	1339000	1379170	1420545	6038715
Garvan Central office [e]	500000	515000	530450	546364	562754	2654568
Site trials costs [f]	360000	912000	1152000	1192000	1192000	4808000
Garvan Translational Oncology Laboratory [g]	370000	381100	392533	404308.99	416438.26	1964380
Total costs	3020000	5905000	6859450	7065534	7123300	32037663

[a]: The timing of activation of sites nationally follows a 6 monthly schedule, focusing on the largest centres in order. Note that we have not included New Zealand in this budget, but would expect the opportunity to co-invest with the New Zealand government in this program.

[b]: Note that the funds from the NSW Office of Health and Medical Research to NSW will cover some fraction of accrual in NSW in the 2018 period, but expire in 2019.

[c]: Consent, data collection, speciment processing, sequencing, validation, and report from a molecular tumor board. Includes 1FTE data manager, 2 FTE bioinformatics, and 0.1FTE/site pathology. Molecular pathology can be site-specific or provided by central nodes (eg Garvan and VCCC). Molecular and clinical data on screened cohort stored at Garvan. An additional FTE is provided to each site for recruitment.

[d]: Protocol development, contracts, data management and statistical support; liaison with pharmaceutical partners. In addition, this includes a health economic evaluation and modeling for pharmaceutical industry partnerships.

[e]: National senior program co-ordinator and secretarial support, travel, co-ordination and communications budget. It also includes telehealth functions to support remote enrolment for regional/rural participants.

[f]: Assuming 20% of screened patients are enrolled onto a trial module; with a per capita cost of $7,000/patient. This includes site trials unit costs, and allowance for up to 2 biopsies and serial blood specimen collection. These funds would be paid to sites as an upfront payment for year 1, and then retrospectively based on per capita enrolment. Also funds for shipping of samples/biospecimens to Garvan Translational Oncology Laboratory.

[g]: Garvan Translational Oncology Laboratory comprises two full-time staff (postdoctoral research fellow and a research assistant), whose roles include target validation following screening, immuno-oncology and other cell-based assays, including flow cytometry and molecular assays to promote biological research. A consumables budget of $35,000/FTE is included.