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Adelaide Institute for Sleep Health

Dr Matthew Butlin
Chair and Chief Executive
SA Productivity Commission GPO Box 2343
ADELAIDE SA 5001

Professor Danny J. Eckert
Director, Adelaide Institute for Sleep Health
A Flinders Centre of Research Excellence
Deputy Director and Clinical Translation Theme Lead,
Flinders Health and Medical Research Institute
Mathew Flinders Fellow
Senior Research Fellow, NHMRC

Box 6, Mark Oliphant Building
5 Laffer Drive, Bedford Park,
South Australia, Australia 5042
Telephone: +61 8 7421 9780
Email: danny.eckert@flinders.edu.au

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RE: Response to issues paper for SA Productivity Commission Inquiry into Health and Medical Research

Dear Dr Butlin and members of the Productivity Commission,

I write this submission to share my personal opinions/experiences as a NHMRC funded medical researcher on some of the topics highlighted in the above-mentioned issues paper. By way of introduction, I have almost 20 years' experience in medical research having undertaken my sleep and respiratory research training here in Adelaide from 2001-2006 (UniSA, Adelaide University and the Repatriation General Hospital) before spending ~13 years working overseas (~5.5 years at the Brigham and Women's Hospital/Harvard Medical School in Boston) and interstate (~7.5 years at Neuroscience Research Australia [NeuRA]/UNSW). I returned to Adelaide in early 2019 to take up the role of Director of the Adelaide Institute for Sleep Health and more recently Deputy Director and Clinical Translation Theme Lead for the Flinders Health and Medical Research Institute. I lead a comprehensive basic sciences and clinical translational research program of over 50 researchers all of whom are dedicated to world-class research in respiratory and non-respiratory sleep disorders to improve health through the science of sleep. Our team has a broad range of expertise in clinical medicine and allied health (sleep, respiratory, dentistry, nursing, speech pathology, and psychology), biomedical engineering and various disciplines of science. Our research agenda is funded by via number of mechanisms including competitive category 1 funding schemes (i.e. NHMRC grants/fellowships and a CRE and the ARC), Defence, Professional Societies, and Philanthropic agencies. To facilitate our translational work, we have developed productive industry partnerships supported by Cooperative Research Centre funding (CRC and CRC-P, Key industry partners: Philips and Oventus Medical) and developed our own technologies/companies based on our research discoveries (e.g. ReTimer and Thim). Most recently, our discovery work on pharmacotherapy for sleep apnoea contributed to establishment of Apnimed Inc. and investigator-initiated clinical trial research support (Apnimed and Bayer).

With this background in mind, I provide some brief commentary on some of the quires raised in the issues paper:

Information request 3.1: policy environment

How should HMR research priorities be determined?

- In a state of our size, a combination of identifying and supporting existing areas of research strength/excellence, identifying opportunities that harness these strengths to facilitate further growth as well as identifying areas of future need/growth to support our health system capability should be the focus of priority decisions.

How efficiently are regulatory arrangements administered? How significant is the compliance burden on researchers/institutions?

Have recent reforms to ethics approvals processes, such as the introduction of mutual acceptance, been successful?

What is the potential for further simplifying or streamlining current HREC approval processes?

- Recognising the recent work has commenced on these topics since I returned to Adelaide 18 months ago, excessive regulatory requirements around HREC processes and particularly governance when University and Hospital employees collaborate on clinical research projects (conducted within or outside LHNs), remain major barriers to conducting clinical research efficiently in this state. These barriers are far more cumbersome than those I have experienced interstate and overseas.

Information request 5.1: workforce

Are there barriers to clinicians participating in research? How can any barriers be addressed?

- While the financial gap between research vs. clinical salaries cannot be overlooked as a major barrier to attracting clinicians to undertake research, cultural barriers also exist. Put simply, research is not a priority within a stretched public health system. This appears to be getting worse. Indeed, clinical research appears to be viewed as a burden/risk rather than a clinical care enhancer/improvement enabler within the SA health system. This is a major concern not only from a gap in the future workforce perspective, but the evidence clearly shows, and supported by my interstate and particularly overseas research experience, that clinical care is superior in institutions where research and clinical care occur concurrently/collaboratively. Thus, a shift of culture within our health system that places research as a key pillar with top down and bottom up integration is required.

Information request 5.2: access to data

What barriers are there to sharing data for HMR?

- Barriers appear to be at the “gate-keeper” middle management level. In addition, clinical trial data storage capacity is a major issue in SA. The capacity to house/securely store data for National/International clinical trials and clinical repositories here in SA and to make this information accessible to other researchers would provide a competitive advantage for our state.

Information request 5.3: infrastructure

- Aside from a few key areas, SA lags behind the other states in terms of HMR infrastructure. This limits our ability to compete for national/international competitive grant schemes. There also appears to be scope to break down some of the institutional silos regarding infrastructure capacity within the state to make these resources firstly more visible (most of us don't actually know what is available) and secondly more accessible to HMR's across the state.

Information request 5.4: collaboration

- Given our size and infrastructure disadvantages highlighted above, within SA, National, and International collaboration is essential for SA researchers to be competitive for National funding schemes (note: recent restrictions to NHMRC CI rules that limit the number of submissions for Australian based researchers which emphasises the need for international collaborators to strengthen applications). There are many examples of where this has worked well including within my field of sleep medicine where cross-institution researchers have come together to work on key sleep research projects.

Information request 5.5: funding

Why has SA's share of Australian Government HMR grant funding been falling?

- As highlighted, issues include infrastructure capacity/access, governance/regulatory barriers and a decline in access to undertake research with hospital employees and a decline in the perceived importance of research/loss of research culture within these stretched institutions. To rectify this, career support for clinician research leaders (at all career stages) is essential. These are the people that can build capacity and shift the culture but systems need to be put in place to allow them to do so.

Do the processes for ethics and governance approval have an adverse effect on the ability of South Australian researchers to secure Australian Government funding?

- Yes, I was very concerned about this before I moved from interstate as I had heard how cumbersome/time-consuming/inconsistent the process is in SA. This presents not only a barrier when trying to attract industry funding/support for clinical research projects where speed is always a priority, but also has carrier over effects in terms of competitiveness for Australian Government funding (e.g. these barriers lead to decreased output and therefore decreased competitiveness).

Information request 5.6: translation of research

- In the short time I have been back in SA I have noticed that IP issues for joint hospital/university employees has been a problem for some. Specifically, this has squashed commercialisation opportunity. As these joint employees have two employers, without any clear preestablished agreement around IP

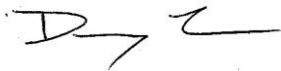
sharing, this process can take too long to negotiate or becomes impossible and the opportunity is lost. Similar to other points raised above, to realise clinical translation opportunities in SA, barriers between Hospital's and Universities need to be broken down. For example, in Boston the major hospitals and Universities formed "Partners HealthCare" which facilitated not only clinical discovery but also translation/commercialisation.

Information request 5.7-5.9: location, population and areas and areas of research

- Without a doubt, SA has several competitive advantages in attracting and retaining high calibre HMR's from interstate and overseas. These include the obvious lifestyle and affordability aspects which are particularly appealing to families. This was a major draw card for me and my family to relocate to Adelaide where the cost of living for HMR's in Sydney is very challenging. There is clearly an opportunity to promote this aspect and reverse the "brain drain" from interstate/overseas. Equally, living in Australia is appealing for international students and scholars although Adelaide is less on the radar than Sydney/Melbourne. This is where highlighting our research strengths becomes a priority. International talent will move to Adelaide to work with world leaders. Indeed, the international reputation of not only the Adelaide Institute for Sleep Health but also other sleep researchers in Adelaide at other institutions was a major factor in my recent decision to relocate to Adelaide. Other examples include world renowned cardiology leaders (e.g. Prash Sanders, Derek Chew etc.).

I congratulate the commission for their work in thoroughly investigating this important issue for our state. I look forward to hearing the outcomes of the inquiry and more importantly, the actions to follow to address issue raised. If I can be of any further assistance, please do not hesitate to contact me.

Yours Sincerely,



Professor Danny J. Eckert
Director, Adelaide Institute for Sleep Health (AISH)