

Submission 253 — Australian Genome Research Facility

Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector? (TOR 1 and 6)

Australia, as an island nation, has both global medical issues and local medical issues that require research and solutions to be implemented for the indigenous and non-indigenous members of our population. Many of these solutions will need to be driven from within the country itself to ensure they receive the necessary priority. In order to undertake internationally competitive research, access to critical infrastructure and a skilled workforce are essential.

The need for Australia to build and retain internationally competitive capacity across the research spectrum, from basic discovery research through clinical translation to public health and health services research. TOR 1.

Infrastructure extends from patient data and sample collections through platform technologies to clinical trials and device development.

With the advent of new DNA sequencing technologies, the ability to unlock the genetic basis of both simple and complex disorders has truly come of age. Cancer cohorts in particular have benefitted from large scale international studies of the underlying genetic susceptibility risk of an individual, coupled with a very detailed understanding of the biology of particular tumours.

Public health resources where longitudinal collections of health data can now be married with analysis of the genetics of each individual is giving additional insight into biological pathways for rational drug design and development.

R. Support the existence and ongoing development of collections of patient and public health data as a national resource and a vital component of the health and medical infrastructure.

R. Enhance synergies between federally funded capabilities such as NCRIS and EIF Superscience and NHMRC schemes in order to better leverage the investments already undertaken and planned.

R. Ensure this sector remains active in lobbying for the necessary infrastructure capabilities in future national infrastructure funding rounds.

Strategies to attract, develop and retain a skilled research workforce which is capable of meeting future challenges and opportunities. TOR 6

High calibre researchers expect ready access to the latest tools and technologies that enable their research. Thus a strong national infrastructure program that delivers this access is essential for their attraction and retention.

Additionally, mechanisms that better assess their research contributions given that the approach to medical research has moved over time from the individual to collaborative teams, is warranted.

R. Develop mechanisms for measures of success for researchers that recognize collaborative research as fundamental for our future.

R. Recognise the tremendous need to rapidly grow Australia's bioinformatics capability as an essential component of medical research and to implement a career scheme that is appropriate to assess the collaborative nature of the research undertaken.