Inadequate funding for rare cancers in Australia

A major discrepancy in research funding exists between common and rare cancers in Australia, according to a recent report by Cancer Australia.

The report, which provides an overview of funding to cancer research projects from 2006 to 2011, shows that less common cancers, such as pancreatic and endometrial cancer, receive only 20% of research funding, despite causing roughly 30% of cancer deaths in Australia in 2012. The report also reveals that more than AUS$1 billion was spent on cancer research programmes between 2006 and 2011, with only $90 million provided by tumour-specific funders, more than 91% of which went into research for high-incidence cancers, such as breast and prostate cancers.

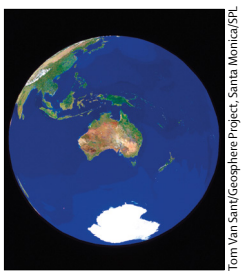
"Whilst there has been an increase in the actual dollar amounts invested in less common cancer research," explains Richard Vines, director of Rare Cancers Australia, "there is only a small increase in the proportionate spend when compared with common cancers. It appears that there is next to nothing invested in tumour-specific research, and although this absence of funding for rare cancers was highlighted in a similar 2005 report from Cancer Australia, the position hasn't significantly improved over the 6-year period."

Despite the total amount of money invested, the proportion of research funding allocated to rare cancers such as lymphoma, stomach cancer, and thyroid cancer, were each at 4% or less, whereas breast cancer received 26% of allocated funding between 2009 and 2011. The report also shows that cancers such as pancreatic cancer, lymphoma, bladder cancer, and kidney cancer received substantially less direct funding than breast cancer, prostate cancer, and leukaemia, relative to the mortality caused by each.

Helen Zorbes, chief executive of Cancer Australia, explains the reasoning behind this shortfall. "The size of the research workforce in rare and less common cancers is likely to be smaller than the research workforce for high-incidence cancers, attracting less overall funding due to the lower volume of research that can be conducted."

Despite this issue, however, there is optimism that the research funding gap between common and rare cancers will narrow in the future. "We are hopeful that advances in analysis at a molecular level would offer the hope of utilising therapies previously developed for common cancers for meaningful rare cancer research," Vines explains. "We now have documented evidence of a decade of inactivity that is reflected in unchanged survival rates for rare cancers over the past 20 years. We have to find a way to do better."

Alexandra Sklan



Tom Van Sant/Geosphere Project, Santa Monica/SPL

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For the **Cancer Australia report** see http://canceraustralia.gov.au/node/4008

For **Rare Cancers Australia** see http://www.rarecancers.org.au/

Antibody–drug conjugate for advanced melanoma?

Glembatumumab vedotin, an antibody–drug conjugate, has beneficial clinical activity in patients with advanced melanoma, according to the result of a phase 1/2 trial reported by Patrick Ott and colleagues.

Glenbatumumab vedotin is an antibody against GPNMB (a transmembrane glycoprotein expressed by various types of tumor cells including melanoma) linked to monomethyl auristatin E (MMAE), a potent inhibitor of mitotic spindle formation.

The phase 1/2 study was designed to assess the safety and activity of glembatumumab vedotin in patients with unresectable stage III or IV melanoma. In schedule 1, patients were given glembatumumab vedotin once every 3 weeks. For this schedule, a phase 1 dose escalation was followed by an open-label, single-arm, phase 2 expansion. Dosing schedules of once every 2 weeks (schedule 2) and once every week (schedule 3) were also assessed. 117 patients were included in the trial: 79 were on schedule 1, 15 on schedule 2, and 23 on schedule 3.

In the schedule 1 phase 2 expansion cohort (n=34), five (15%) patients had a partial response and eight (24%) had stable disease for at least 6 months. Two (33%) of six patients given the schedule 2 maximum tolerated dose (MTD) and three (25%) of 12 given the schedule 3 MTD had an overall response. Analysis of GPNMB expression in available cases revealed a non-significant increase in progression-free survival with glembatumumab vedotin treatment in melanoma with higher GPNMB expression. The most significant treatment-related toxic effects were rash, fatigue, alopecia, neuropathy, and neutropenia.

Douglas B Johnson (Vanderbilt University, Nashville, TN, USA) commented: "Despite promising clinical activity, the relatively modest overall response rate and duration of response warrants further investigation." He added that specific emphasis should be placed on combining this agent with other immune or targeted therapies.

Jeffrey Weber (Moffitt Cancer Center, Tampa, FL, USA) also agreed that further study is needed and suggested that the present findings should guide some novel combinations with checkpoint protein inhibitors and other drugs active in melanoma in the future.

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For the **study by Ott and colleagues** see *J Clin Oncol* 2014; published online Sept 29. DOI:10.1200/JCO.2013.54.8115