

**MEDIA RELEASE**

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## **Virus-antibody combo shows promise for treating advanced melanoma**

A new treatment that combines an antibody with a cancer-killing virus improves outcomes for patients with advanced melanoma, an international clinical trial has shown.

The study, led in Australia by Professor Georgina Long from the Melanoma Institute Australia in Sydney and Professor Jonathan Cebon from the Olivia Newton-John Cancer Research Institute in Melbourne, trialled the drug combination after it was found that only some patients with advanced melanoma responded to an antibody called pembrolizumab.

Pembrolizumab boosts the immune system's ability to attack tumours by blocking a cell surface protein called PD-1, Professor Cebon said.

"However when you give pembrolizumab to melanoma patients, only a small percentage of patients respond," he said. "Studies of these patients suggested that they were more likely to respond to pembrolizumab if their tumours had pre-existing inflammation."

To test this idea the researchers injected a cancer-killing virus called talimogene laherparepvec (TVEC) into melanoma patients' tumours to create an inflammatory micro-environment, while at the same time treating them with pembrolizumab.

The results of the study have been published today in the journal *Cell*.

Twenty-one patients participated in the phase 1b clinical trial, the majority from Melanoma Institute Australia in Sydney. Additional patients were recruited from the Olivia Newton-John Cancer Wellness & Research Centre in Melbourne and from other hospitals around the world.

Professor Long said the trial results suggested that injecting the oncolytic virus into the tumours increased the ability of cytotoxic T cells (a type of white blood cell that kills cancer cells) to infiltrate the tumour and therefore may improve the antitumor activity of pembrolizumab.

"62% of patients had a response and 33% had complete disappearance of their melanoma," Professor Long said. "We are now doing a clinical trial of the TVEC/pembrolizumab combination compared with pembrolizumab alone in large numbers of patients with advanced melanoma. This should confirm whether TVEC enhances the activity of pembrolizumab."

The clinical trial was co-sponsored by the pharmaceutical companies Amgen and MSD.

For further details or to arrange interviews:

Ms Penny Fannin; Head, Communications and Marketing; Olivia Newton-John Cancer Research Institute; M: +61 0417 125 700 | E: penny.fannin@onjcricri.org.au