Devil vaccine research leads to new weapons for fighting disease

Community support for researchers at the University of Tasmania’s Menzies Institute for Medical Research and the Tasmanian School of Medicine has led to an arsenal of new tools (video link) for fighting the insidious Devil Facial Tumour Disease.

The way cancer is treated in humans has changed in the past decade. Testing to determine if the advances in human medicine can be useful for devils takes a lot of work. The devil immunology research team could previously focus on only one or two potential drug or vaccine options at a time.

A paper published today in the prestigious journal Science Advances shows that a dozen key Tasmanian devil immune proteins look the same as they do in the human immune system. This allows the team to build on the vast amount of knowledge in human cancer, rather than having to start from scratch for devils.

The team also used the new tools to show that they could find tumour cells in blood, which could shed light on how the devil facial tumours kill devils.

The fantastic community support for the devil vaccine research allowed this place-based and globally connected research to happen right here in Tasmania. The new cost-effective technology can be used for research in many other species, including humans.

Director of the Menzies Institute for Medical Research, Distinguished Professor Alison Venn, said this research was vital for a Tasmanian icon.

“These new tools allow us to accelerate our devil immunology and vaccine research to help save the Tasmanian devil.”

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