

# MEDIA RELEASE

NEWS FROM THE UNIVERSITY OF TASMANIA

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ATTENTION: Chiefs of Staff, News Directors

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Walter+Eliza Hall  
Institute of Medical Research



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## Culprit found for Tasmanian devil transmissible cancer

Cells that protect nerves are the likely origin of the Devil Facial Tumour Disease (DFTD) that has been devastating Australia's Tasmanian devil population, an international team of scientists has discovered.

DFTD is a transmissible cancer that effects only Tasmanian devils and was first reported in 1996. It is spread by biting and quickly kills the animals. The disease is characterised by large tumours, mostly on the face and mouth, which often spread to internal organs.

The research collaboration, led by Australian scientists, has found that DFTD originates from cells called Schwann cells, which protect peripheral nerve fibres.

The results have been published today in the international journal, *Science*.

Through the discovery, the team has now identified a genetic marker that could be used to accurately diagnose the perplexing cancer, which has seen the devil listed as endangered and facing extinction.

Lead author Dr Elizabeth Murchison from the Australian National University said the Schwann cell discovery was significant as there are currently no specific diagnostic tests, treatments or vaccines available for the disease.

"We took biopsies from devil tumours and analysed genetic data from them," Dr Murchison said.

Dr Tony Papenfuss from Melbourne's Walter and Eliza Hall Institute then led the team that determined which genes were switched on in the tumours and identified their genetic signature.

“When we compared the signature of the tumours to other normal tissues, we found the tumours were most like Schwann cells,” Dr Papenfuss said.

Associate Professor Greg Woods from the University of Tasmania’s Menzies Research Institute said the Schwann cell find was an important step in the process to further understand the disease.

“Devils develop tumours of all different types and the genetic markers we have identified are useful for telling apart the tumours that occur in DTFD from other kinds of tumours,” Assoc Prof Woods said.

The Schwann cell research was conducted as part of the Save the Tasmanian Devil Program’s efforts to further explore DTFD. It was supported by the National Health and Medical Research Council and the University of Tasmania’s Dr Eric Guiler Tasmanian Devil Research Grant.

For more information or to make a donation to the Save the Tasmanian Devil Appeal, visit, [www.tassiedevil.com.au](http://www.tassiedevil.com.au)

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