



Research We Fund



Project:

Combating immunotherapy toxicities to guide safer gastric cancer therapy using a new pre-clinical model

Research team:

Dr. Lorraine A. O'Reilly, Prof. Andreas Strasser, A/Prof. Nick Huntington

Institution: The Walter and Eliza Hall Institute of Medical Research

Cancer type: Stomach

Years funded: 2019–2021

What is the project?

By developing a new model of human intestinal-type stomach cancer, we have discovered an aberration of expression of immune checkpoint regulators, both pre- and at advanced disease stage. Such an aberration is likely to be critical for the development of stomach cancer and therefore may be a promising therapeutic target.

What is the need?

Worldwide, stomach cancer is the fifth most common cancer and the third highest cause of cancer mortality. In Australia, more than 2,000 patients are diagnosed each year, with a low five-year-survival rate.

Current treatments (chemotherapy, radiation, surgical resection) are often given with palliative intent, therefore a need exists for more effective therapies.

Immune checkpoint blocking therapies has improved survival for a subset of cancer patients, but for stomach cancer they are still in their infancy and can cause immune-related effects.

What are you trying to achieve?

We want to test whether combinations of immune checkpoint inhibitors can delay tumour growth without eliciting severe effects in our models.

Our distinctive approach offers a highly innovative pre-clinical assessment of the potential of this therapeutic strategy. If our studies are successful, they will pave the way to innovative clinical trials and eventually to a change in the way we treat patients with stomach cancer.

Project timeline

Timeline	2019	2020	2021
Assess the impact of immune checkpoint inhibitors on gastric cancer and immune related effects.			
Continue to assess the impact of inhibitors in established disease stage.			
Complete assessment of inhibitors to determine effectiveness and results of immune related effects.			

“If our studies are successful, they will pave the way to innovative clinical trials and eventually to a change in the way we treat patients with stomach cancer.”