



## Identification of new therapeutic strategies for aggressive breast cancer

**Cancer type:** Triple negative breast cancer

**Lead researcher:** Professor Roger Daly

**Research team:** A/Prof Sherene Loi, Prof Christina Mitchell, Prof Vinod Ganju, A/Prof Kaylene Simpson

**Project location:** Monash University, Peter MacCallum Cancer Centre and the Victorian Centre for Functional Genomics

### Aims:

Our team wants to develop personalised treatments for triple negative breast cancer (TNBC) to significantly reduce the morbidity and mortality associated with this aggressive breast cancer subtype.

### What your support has made possible:

We have used a specialised technology, mass spectrometry, to measure signals across TNBC cell lines. This has showed – for the first time – that TNBC can be sub-classified into different subgroups based on the chemical signals generated by targets for drug therapy. This was critical because we were then able to identify targets for drugs that are already in clinical use or clinical trials for other cancers.

**These exciting results indicate that our work has strong potential for rapid translation into the clinic, which we hope will then lead to new treatments.**

### What are our plans for the second year?

We want to extend our analyses to TNBC samples from patients, and undertake study into poorly-understood drug targets to determine whether any of these can be used in new treatments. With your support, ultimately this work will lead to the identification of therapeutic strategies for each subtype and personalised treatments.

### What is your definition of success?

TNBC becomes a disease of the past, reclassified and replaced by a series of different breast cancer subtypes that each have effective, personalised treatment approaches.

**“As researchers taking on this potentially ground-breaking area of study, it is so important to have the support of the Cancer Council community.”**



Photo: Monash University.

