

Targeted therapy boosts cancer patients' outlook



Ovarian cancer survivor Merran Williams (centre) with Professor Arutha Kulasinghe and researcher Naomi Berrell.

Rachel Riley

Mapping the immune cells of deadly ovarian cancers has helped scientists unlock a secret to developing more targeted treatments to help patients live longer, in an Australian-first study.

Researchers at the Wesley Research Institute's Queensland Spatial Biology

Centre in Brisbane investigating high-grade serous ovarian cancer have discovered that the survival odds of patients may improve when certain fighter immune cells are located close to their tumours.

The findings, published in the *iScience* journal, could open the door to smarter, more personalised

treatment. The team, co-led by scientific director Associate Professor Arutha Kulasinghe, analysed tumour samples from 49 anonymous patients.

They found when two key immune cells – CD66+ cells and cytotoxic CD8 T-cells – were close enough to recognise and attack the tumour cells, patients fared

better. Professor Kulasinghe said it was an important finding to help develop a way to map every cell within the cancer in the hope doctors could tailor therapies to each patient that spared healthy cells and improved survivability.

Advanced ovarian cancer cases currently have a five-year survival rate of just 17

per cent. Cancer advocate Merran Williams, 71, who carries the deadly BRCA gene mutation, has had ovarian cancer three times and breast cancer over the past 17 years.

"I'm in remission. It's amazing, but I'm outlier," she said. "With chemo, it's a scattergun approach ... This research is precise."