

Help us understand who gets cancer and why.

Exploring the relationship between the gut microbiome and cancer is a major focus of the next stage of the Australian Breakthrough Cancer (ABC) Study.



Over the next 20-30 years, we will follow 52,000 Australians to see who develops diseases such as cancer and identify what factors might be involved. So far, study participants have completed online epidemiological questionnaires about their family history, diet, health and lifestyle, and provided a DNA (saliva) sample, and some have given a blood sample.

The ABC Study is one of the largest and most comprehensive studies of its kind in the world. We seek now to add another dimension to this rich data resource, by collecting

faecal samples from participants. Thanks to grants from philanthropic trusts, more than 1,000 ABC Study participants were invited to provide a faecal sample in 2019. 56% of those asked opted in and 88% of those returned their sample. Informed by these results, in 2020 we will approach all ABC Study participants and invite them to provide a faecal sample.

Collecting faecal samples will allow us to contribute to the global body of knowledge on gut health and gut microbiome and its role in the development of cancer and other diseases.

To date, we have collected blood samples from 20% of the ABC Study cohort. We have recently received further investment to expand blood collection in 2021. Blood samples allow us to analyse a wide range of relevant measures, such as levels of circulating hormones and other biomarkers in plasma, to assess their role in disease development.

Further, we have commenced genotyping all ABC Study participants using the DNA already collected via their saliva samples. This will allow us to understand how genetic factors combine with other risk factors to influence a person's risk of developing cancer and other diseases.

Impact

Based on our previous experience conducting large-scale cohort studies, we envisage that the ABC Study will lead to breakthroughs in genetics and in understanding why and how cancer develops. The findings from the ABC Study will also help us deliver effective and targeted public health messages and cancer prevention strategies.

This approach provides lasting scientific value for researchers around the world investigating cancer and other diseases for decades to come.

How can you support

We need to raise an additional \$225,000 a year to maintain the infrastructure of the ABC Study and conduct participant follow-ups. Maintaining contact with participants over the next 20 years is crucial. Encouraging them to complete questionnaires on their diet and lifestyle and providing samples will show changing behaviours over time and produce crucial evidence to predict who will and won't go on to develop cancer and why.

“We want to stop cancer before it starts. Prevention is better than a cure. We all know that cliché, but it really is true. We need to put the investment in now to establish resources like the ABC Study which will enable us to do cancer research into the next 20-30 years.” – Professor Roger Milne, ABC Study Principle Investigator
