

Thanks to the kindness of people like you,
research breakthroughs are being made every day,
making tomorrow brighter for those with a breast
cancer diagnosis and their families.

Will you consider a Christmas gift
to NBCF today to help us power
research and stop breast cancer
taking our loved ones by 2030?

w: nbcf.org.au/donatetoday

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THE GREATEST GIFT

is a future where
no lives are lost
from breast cancer

BREAST CANCER RESEARCH UNWRAPPED

Your gifts to the National Breast Cancer Foundation (NBCF) this Christmas will help to make sure every single part of the breast cancer journey is improved upon, from detection and diagnosis through to treatment and life beyond. Every person diagnosed doesn't just need to survive – but thrive. That's the power that your gifts have today.

Our mission is to ensure that by 2030, every person who develops breast cancer lives. We can't get there without your support for our vital breast cancer research. So let's unpack exactly how your gifts are going to get us there.



As with all cancers, detecting breast cancer early gives a greater chance of better treatment outcomes and the best possible chance of survival.

Currently the cornerstone of early detection is regular breast screening. But this method is not exact, and issues like dense breast tissue can mean breast cancer tumours may be missed.

This is why it's so important that we work actively to improve the accuracy of breast screening to more effectively diagnose those who may be at risk from this devastating disease.



Advances in research and imaging technology have given a greater understanding of breast cancer from deep within the cells, which means treatment options can continually be improved and recurrence can be prevented.

Researchers have discovered that there are up to 11 different sub-types of breast cancer – and each sub-type develops, progresses and responds to treatment very differently.

This greater understanding of the complexity of breast cancers has led to more tailored, personalised approaches to treatment, based on the genetic 'signature' of a particular person's breast cancer. This in turn determines the most effective and targeted treatment options.



The effects of breast cancer can be long-lasting after treatment. As we near zero deaths from breast cancer by 2030, research that improves quality of life is vital.

The aim is to help people return to as close to a 'normal' life after breast cancer as they can, whilst they deal with the mental and physical after-effects of their diagnosis and treatment.

Understanding and minimising the side effects of treatment and recovery such as pain, fatigue, body image concerns, intimacy concerns and many other physical and psychological issues are needed to ensure patients are well cared for and can maintain a positive quality of life.

These key areas of breast cancer research are paramount to saving lives from breast cancer, as soon as possible.

Now you've had a good peek at where your gifts will go this Christmas, let's look at some of the research happening right now that will save more lives in the future, with your ongoing support.



DETECTION

Improving breast cancer diagnosis through Artificial Intelligence

Currently, breast cancer screening involves mammographers reading mammograms to see if any abnormal tissue is present. Artificial Intelligence (AI) is a growing technology that uses computer programs to read mammograms, potentially improving the accuracy of the screening.

NBCF-funded researcher, Dr Luke Marinovich and his team are looking into how effective and usable AI would be at reading mammograms. In particular, the team want to ensure that those going through breast cancer screening would be comfortable having their

mammogram read in this way. This is an important gap in our knowledge, as public trust is crucial to ensuring that screening programs continue to be successful.

By integrating AI into the screening process, up to a third of breast cancers could be detected earlier. As we know, the sooner a person learns they have developed breast cancer, the more likely they are to have a better outcome. This kind of machine learning could be hugely beneficial to saving more lives from the disease in the future.



“With your support, researchers are motivated to help reduce the risk of breast cancer deaths through new and innovative research. Thank you!”

– Dr Luke Marinovich,
NBCF-funded researcher

TREATMENT

Personalising immunotherapies to make them more effective against breast cancer

Immunotherapy is a treatment that encourages the immune system to attack the cancer itself. This has several benefits including less toxic side-effects and an ability to continue fighting the cancer once treatment is complete, making it less likely for the disease to come back.

Researchers are working tirelessly to find new, more specific targets (antigens) for immunotherapies, so that more people can have a better chance of getting rid of breast cancer for good.

One such NBCF-funded researcher is Professor Riccardo Dolcetti. With his team, Professor Dolcetti has developed a method to genetically identify specific antigens present in individual breast cancers, so that they can be uniquely targeted. Once a target has been identified, it can be used to personalise immunotherapy, shrinking the tumour and removing the breast cancer.

The results of this study may improve personalised immunotherapy of breast cancer, helping people going through treatment to have less aggressive side-effects and live longer, better lives.



“Thanks to your kindness, highly motivated researchers are able to invest in more time, tools and resources to work on developing life-saving breast cancer treatments. We can't do it without you.”

– Professor Riccardo Dolcetti,
NBCF-funded researcher

QUALITY OF LIFE

Getting back to work post-diagnosis

Associate Professor Georgia Halkett has seen the effects breast cancer can have on a family and home. Her own mother was diagnosed with the disease when she was eight years old. Many years later and her mother is still cancer-free and healthy, and A/Prof Georgia Halkett is as determined as ever to help others going through what her mother did.

In collaboration with a team of exceptional researchers across Australia, A/Prof Halkett aims to develop a new program to support people who have gone through breast cancer treatment who are looking to stay at or return to work.

The program assesses potential barriers, such as fatigue and pain, commitment to ongoing treatment schedules, difficulties communicating with managers

and potentially changed relationships with colleagues. This is followed by individually-tailored support for those who may need it.

Tailored services include unique planning and monitoring, as well as health coaching designed to give those who have experienced breast cancer the skills and confidence to better manage their move back to the workplace. It also encourages women to seek support about work and health issues.

This landmark study will provide the basis for a national roll-out of the holistic return to work support program. This is all part of NBCF's plan to not only help women live longer lives when faced with a breast cancer diagnosis, but better ones too.



“Thank you for supporting important breast cancer research. We are working to ensure this research can be implemented for the benefit of all women diagnosed with breast cancer in Australia.”

– Associate Professor
Georgia Halkett,
NBCF-funded researcher