Thank you for your support

We are very grateful to Breast Cancer Research Aid for your support of The Royal Marsden's C-TRAK trial, an innovative research project that has the potential to change the lives of women diagnosed with triple negative breast cancer in the UK and world-wide.

The Royal Marsden was founded thanks to contemporary philanthropists and your generosity is continuing this important tradition. Thank you for helping us to drive forward advances in breast cancer research and provide patients with the best quality of life.

Transforming cancer treatment and care

In 1851, The Royal Marsden was established as the world's first hospital dedicated to the treatment of cancer and research into its underlying causes. Today, we are a world-leading cancer centre, caring for more than 50,000 patients every year.

Together with our academic partner, The Institute of Cancer Research (ICR), we are the largest comprehensive cancer centre in Europe and ranked third in the world for the impact of our research. We have been instrumental in the development of many of the most successful treatments used world-wide, such as the prostate cancer drug, abiraterone, and breast cancer drugs, tamoxifen and Herceptin.

With The ICR, we are the only National Institute for Health Research Biomedical Research Centre dedicated solely to cancer in the UK. We trial more cancer treatments for a greater number of patients than any other UK specialist hospital.

The Royal Marsden Cancer Charity raises funds to support all aspects of the hospital's work. It is only thanks to generous supporters, like Breast Cancer Research Aid, that The Royal Marsden can continue to revolutionise cancer care for all.

C-TRAK: Developing a novel way to detect and treat breast cancer

Breast cancer is the most common cancer in the UK, with around 55,000 women diagnosed every year. Of those women, 15 per cent will be diagnosed with triple negative breast cancer (TNBC).

Standard treatment for this type of cancer includes surgery and chemotherapy. However, TNBC is difficult to treat because it does not respond to common therapies, such as tamoxifen or Herceptin.

Furthermore, TNBC is more likely to recur than other breast cancers. Sadly, by the time TNBC returns and has grown large enough to be seen on a CT or MRI scan, the disease is often untreatable.

To meet this challenge, The Royal Marsden is leading C-TRAK: a two-part clinical trial that will assess if a blood test can detect TNBC as soon as it recurs and investigate a new therapy option to successfully treat the disease before it becomes life-threatening.

Detecting cancer earlier than ever

Breast cancers release DNA into blood and this circulating tumour DNA (ctDNA) is found in the blood plasma of over 90 per cent of women with breast cancer that has recurred or spread. Our initial research established blood tests as a more effective, patient-friendly way to detect ctDNA released from residual cancer that surgery and chemotherapy failed to eradicate. Through our world-leading research, we showed that cancer ctDNA can be identified through our blood tests approximately eight months before the tumour shows up on a scan.

Launched in January 2018, C-TRAK is examining the tumour tissues of 150 patients with TNBC to identify the particular DNA characteristics that alert us that the disease has returned. We use this information to create personalised tests to detect the ctDNA present in the patient's blood. We then will test patients' blood every three months for two years. Patients who have ctDNA detected will be entered into a randomised trial to either be observed or receive a promising new treatment.

Harnessing a person's own immune system to treat cancer

The immune system is a powerful defence against threats to the body. However, cancer can hide by taking advantage of the inherent 'brakes' that stop this system from attacking healthy cells. Immunotherapy drugs work by stimulating the body's immune system so it can identify and attack cancer cells. We are at the forefront of research trialling immunotherapies and have already seen promising results for patients with kidney, bladder, head and neck cancer, and melanoma.

In the second part of our trial, patients with ctDNA detected will receive pembrolizumab for one year, with regular ctDNA blood tests taken for two years.

Pembrolizumab is one of the most exciting and potentially effective immunotherapies currently available. This drug has shown high levels of success across multiple types of cancer and is currently licensed for use in advanced melanoma. This treatment is designed to be most effective against chemo-resistant disease like TNBC and previous studies have shown a positive response rate for patients with advanced TNBC.

Thank you

As a specialist cancer hospital with an international reputation for excellence in research, treatment and care, we have a responsibility to innovate and ensure that we continue to drive forward advances in treatment to give the ever-growing number of breast cancer patients a greater chance of being cured. We are making incredible progress and changing countless lives, thanks to support from people like you who are passionate about making a difference and investing in a better future.

We are grateful to Breast Cancer Research Aid for making a gift towards this vital project. By supporting our pioneering research, you are helping us give hope to patients today while driving forward progress to save lives.

Thank you.

The ROYAL MARSDEN Cancer Charity