

Media release

Wednesday 21 October 2020

Imaging crucial for FECRI Breast cancer research

- *October is Breast cancer awareness month*
- *The Breast cancer research group commenced work at the Institute in March following a private philanthropic seed funding donation and February's Ballarat Cycle Classic that raised a record \$300,000.*
- *Lake Imaging have been a corporate partner with FECRI 5 years and are part of the process in obtaining patient samples for Breast cancer research.*
- *Researchers at the Fiona Elsey Cancer Research Institute have published results examining the aggressive subtype triple-negative breast cancer.*
- *Breast cancer is one of the most common cancers in women with 20,000 new cases diagnosed in Australia each year. It is the second most common cause of cancer related deaths in women with over 3,100 deaths per year.*

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October is Breast cancer awareness month and the Ballarat based research Institute, wants to shine a light its research and the important patient samples that facilitate it. Patient samples are essential to the Breast cancer research program at the Fiona Elsey Cancer Research Institute in assisting to better understanding breast cancer the how best to treat it. Lake Imaging is a long-term corporate supporter to FECRI and a key contributor the sample collection process, using state of the art technology imaging at Lake Imaging - St John of God Hospital.

Breast tissue samples are collected in biopsies, guided by ultrasound at both diagnosis and in treatment. These samples can be only collected from patients have already given consent to donate to research. The process is not an additional procedure and is done using samples collected for pathology. Samples are then stored in liquid nitrogen in the FECRI's tissue bank to be used later.

The FECRI project commenced in March of this year was made possible after seed funding from a private philanthropic donation in late 2019 and this February's Ballarat Cycle Classic that raised a record \$300,000 for the project. The research group has since published world first work first describing the behaviour and function of a pregnancy associated plasma protein (PAPPA), that is highly found in aggressive triple-negative breast cancers. This research has provided evidence that could lead to a potential therapeutic target for the subset of breast cancers with elevated levels of the plasma protein that will improve treatment outcomes for these patients.

Professor George Kannourakis from the Fiona Elsey Cancer Research Institute said "Our research program is possible, because of our tissue bank of nearly 4500 patient samples. Our Breast cancer project needs patient samples to continue to develop its work"

"With the support of community minded and forward-thinking businesses like Lake Imaging give important support to the Institute to develop world first research into all cancers including Breast cancer. We look forward to working with Lake Imaging to continue to undertake cutting edge research into cancer treatment development."

Established in Ballarat in 2002 as a single radiology practice, Lake Imaging now has 19 clinics throughout Central and Western Victoria, providing medical imaging to the people within these communities. As part of Lake's charitable fundraising program, they are proud to be aligned with FECRI to combine forces in the fight against cancer. By providing quality medical imaging for cancer research, Lake Imaging together with FECRI are making a difference in the lives of patients affected by cancer.

This month presents us with an opportunity to focus on the importance of being 'breast aware' and understanding the risk factors. To help detect this disease as early as possible, Lake Imaging offers a range of expert breast screening and diagnostic services such as mammogram, ultrasound, CT and MRI techniques.

If you have an upcoming medical procedure or are receiving cancer treatment and would like to donate tissue or blood samples to our research program, speak to your Doctor or call the Institute on (03) 53313101 for more information.

Research details

Breast cancer is the second most common malignancy encountered in women of childbearing age. Triple-negative breast cancers account for 10%–20% of breast cancers and have been reported to be more aggressive and associated with poorer survival than other subtypes of breast cancers. Notably, the triple-negative subtype of breast cancer is encountered more often in pregnancy and has an aggressive clinical course.

This is the first work in the field describing the behaviour and function of a pregnancy associated plasma protein (PAPPA), that is highly found in aggressive triple-negative breast cancers. High PAPPA concentrations are generally detected in blood of pregnant women. However, in breast cancer patients, researchers found that an abnormal overexpression of PAPPA negatively affects survival rates and increases the risk of the cancer recurring. The research sought to understand its functional consequences, and findings revealed that PAPPA plays an important role in regulating key cell motility networks in breast cancers.

This research has been recently recognised and published in international medical journal, *Scientific Reports*.

This is the first publication for the Institute's new Breast cancer research group lead by, Dr Aparna Jayachandran, whose work will focus on the immunology of breast cancer with special reference to high risk triple negative breast cancer.

The research has been undertaken by Dr Aparna Jayachandran, along Honorary Research Fellow and Oncologist, Dr Prashanth Prithviraj, Professor George Kannourakis and Federation University PhD candidate Revati Sharma. The group collaborated with groups from the Olivia Newton-John Cancer Research Institute, University of Melbourne, University of Alberta, Queensland University of Technology, Translational Research Institute and La Trobe University.

This research on PAPPA has led to understanding a plausible mechanism for accelerated cancer progression during pregnancy. A population-based study to support clinical and decision making in treating cancer during pregnancy is currently underway at the Institute.

Photo opportunity

Professor George Kannourakis and Lake Imaging technicians will be available on Thursday 22 October at 10am for interviews and photos at Lake Imaging, St John of God Hospital, Ballarat.

Phone interviews and catalogue photos are also available on request.

All media enquiries, please contact Sarah Stapleton- Marketing and Fundraising Manager at FECRI on 0475 383 687 or sarah@fecri.org.au.

Please tag the Institute on all social media using @fionaelseycr