OncoRes Medical backed by MRCF to develop innovative imaging technology for breast cancer surgery

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PERTH, WA, AUSTRALIA – OncoRes Medical Pty Ltd, a new medical device company established to develop an imaging tool to improve the outcome of breast cancer surgery, will receive up to AU$6M of venture capital investment from the Medical Research Commercialisation Fund (MRCF). The funding will go towards developing a handheld imaging probe and console which will provide real-time intraoperative guidance to surgeons by assisting with the delineation of tumour from healthy tissue, at a microscopic level.

Breast cancer has the second highest mortality rate of all cancers in women. In 2016 there were approximately 16,000 new cases of breast cancer diagnosed in Australia and about 250,000 new cases diagnosed in the United States. Surgical removal of the tumour is a central component of treatment and the most common procedure is breast-conserving surgery which aims to remove the cancerous tissue whilst ensuring a good cosmetic outcome.

Unfortunately, complete removal of the tumour is challenging and a key issue facing surgeons is the accurate, microscopic identification of tumour during surgery. Currently, a pathologist examines the removed tissue post-operatively. If there are cancer cells in the margin surrounding the removed tissue, the patient will require additional surgery to remove the residual tumour.

As a result, approximately 25% of patients undergoing breast-conserving surgery will require a second surgery to remove residual malignant tissue not removed in the initial operation.

OncoRes Medical’s goal is to provide surgeons with an image which will assist them to identify residual cancerous tissue remaining within the breast so it can be removed during surgery, reducing the need for repeat surgery.

Over the past five years, a multidisciplinary team of biomedical engineers from The University of Western Australia and surgeons and pathologists from the Western Australian Department of Health have developed an innovative technology to address this problem. Together, they have explored how light and pressure can be used to enhance the microscopic visualisation of tissue stiffness, a property that can be used to differentiate between healthy and cancerous tissues within the surgical suite.

Previous grant funding received from a number of sources, including the National Health and Medical Research Council, the Australian Research Council, the National Breast Cancer Foundation, the Cancer Council of Western Australia and the WA Department of Health has enabled the researchers to demonstrate on >100 specimens that the technology has the potential to accurately delineate malignant tissue at the microscopic level. The engineers include Dr. Brendan Kennedy, Dr. Robert McLaughlin, Dr. Kelsey Kennedy and Professor David Sampson from the School of Electrical, Electronic and Computer Engineering at The University of Western Australia, in collaboration with leading breast surgeon Professor Christobel Saunders and pathologist Dr. Bruce Latham.
Dr. Brendan Kennedy will lead the ongoing development work and said “Our vision is to provide the surgeon with more information and the patient with a better outcome. If we can reduce the number of repeat surgeries by removing all of the tumour in the first operation, it will directly impact the lives of patients and reduce the considerable healthcare costs associated with repeat surgeries”.

The Company is establishing a Scientific Advisory Board to provide guidance to the company throughout its development program and OncoRes Medical is delighted that Professor Christobel Saunders will be joining this board. Professor Saunders is as an internationally renowned breast cancer surgeon and substantial contributor to breast cancer research.

Dr. Stephen Thompson, Chairman of OncoRes Medical and Managing Director, Brandon Capital, Sydney said “Surgeons, patients and healthcare providers are looking for solutions to this problem and OncoRes Medical is well-positioned to provide it with this innovative new technology. From an MRCF perspective, this investment is consistent with our belief in funding medical research with significant commercialisation prospects”.

OncoRes Medical is based in Western Australia and will develop the technology in partnership with the BRITElab team led by Dr. Brendan Kennedy at the Harry Perkins Institute of Medical Research and the School of Electrical, Electronic and Computer Engineering at The University of Western Australia, and Professor Saunders at the Department of Health. OncoRes Medical hopes to have a device ready for clinical trials within 2 years.

For more information, please contact:
Andrew Hamilton, Mana Communications
+61 (0)420 447 669
ah@manacommunications.com

Liza Dunne, CEO OncoRes Medical
liza.dunne@oncoresmedical.com
www.oncoresmedical.com

About Brandon Capital and the MRCF

Brandon Capital Partners is a venture capital firm that manages the MRCF collaboration which provides seed and venture capital investment to support the development and growth of Australian life science companies.

Established in late 2007, the MRCF is a unique collaboration between major Australian superannuation funds, over 50 leading medical research institutes and research hospitals in Australia and New Zealand. The MRCF supports the development and commercialisation of very early-stage biomedical discoveries originating from these member research organisations, providing both capital and expertise to guide the successful development of new therapies. The MRCF acknowledges the support of the Australian and New Zealand governments, as well as the state governments of Victoria, New South Wales, Western Australia, Queensland, South Australia and the Australian Capital Territory.

For more information visit: www.mrcf.com.au