

Neopec implant cures breast cancer

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Singapore: Neopec has demonstrated proof-of-concept for breast tissue growth using its breast reconstruction chamber in a pilot human clinical trial. This trial followed promising preclinical studies conducted by the O'Brien Institute up to 2009 and prior to the establishment of the Neopec consortium. Professor Wayne Morrison, non-executive director, Neopec, and head, trial research team, O'Brien Institute, presented the trial results at the Sydney International Breast Cancer Congress.

In the trial, five women were each implanted with an acrylic prototype of the device being developed by the Neopec consortium. During his presentation, Professor Morrison said that, "The trial has showed the concept to be safe and well-tolerated by patients."

Added Professor Morrison, "We were also very pleased that, in one of our trial participants, the chamber had filled with new tissue to replace that lost when her breast was removed due to breast cancer. This result is 'proof of principle' that the chamber can provide the environment for replacement tissue to grow in humans."

Dr Lyndal Thorburn, MD, Neopec, said that, "The Neopec project has been successful on a number of fronts. We have developed a number of new manufacturing techniques; have gained a new understanding of the role of biomaterials in implantable medical devices; have enhanced Victorian engineering design and manufacturing capabilities for future medical devices; and have obtained new insights into factors that govern soft tissue engineering."

"We also have an exciting development of an adipose-derived matrix (ADM) that may be used with our implantable chamber to promote growth of breast fat in human patients. However such a development is still some years away," Dr Thorburn

added.