

<b>Fellowship title</b>	<b>Improving breast cancer surgery with a tool that helps the surgeon remove all of the tumour in one go</b>
Fellow	Dr Vincent Wallace
Institution	The University of Western Australia
Research description	<p>This study will develop and test a surgical tool that uses a new technology, known as terahertz technology, to help surgeons remove cancer. Every year, approximately 3,000 breast cancer patients in Australia will require a second surgical procedure because not all of the cancer has been removed during their first surgery. This is because it is difficult for surgeons to identify where the cancer starts and the healthy tissue begins so they can remove all of the tumour in one go. There is a real need for an accurate, real-time, non-destructive way to assess tumour margins (the boundary between tumours and healthy tissue) during surgery.</p> <p>Terahertz technology uses a special type of light that is invisible to the naked eye to create images of living tissues. The team have developed a hand held terahertz probe that can be used during surgery to tell the difference between the cancer and healthy tissue. This project will develop this tool further and test whether it is practical and economically feasible for it to be regularly used by surgeons who remove breast cancers. This tool could also be used for other cancers as well as any surgery that requires damaged tissue to be removed from the body without removing normal (healthy) tissue.</p>
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