



## Anaesthetist awarded \$4.88 million grant for cancer surgery research

9 December 2018

A landmark Australian study into how the type of anaesthetic used in cancer surgery affects patient recovery and survival rates has received a \$4.88 million grant from the National Health and Medical Research Council.

Surgery remains the most common treatment used for cancer, ahead of chemotherapy, radiotherapy and immunotherapy. Up to 80 per cent of cancer patients are exposed to an anaesthetic during the course of their cancer treatment.

Chief investigator Professor Bernhard Riedel, Director of the Department of Anaesthesia, Perioperative and Pain Medicine at the Peter MacCallum Cancer Centre will use the funding to bring together an international team of researchers (including, anaesthetists, surgeons, oncologists and research scientists) to set up a five-year study of 5700 patients needing cancer surgery with the research findings likely to affect the surgical strategies used to treat cancer patients worldwide.

The research will be conducted under the auspices of the Sir Peter MacCallum Department of Oncology and the Centre for Integrated Critical Care at the University of Melbourne.

The study is comparing the most commonly used forms of general anaesthesia used in hospitals for patients undergoing surgery for lung or colorectal cancer: either a gas that the patient breathes (such as sevoflurane) or propofol which is administered intravenously through a drip.

Each year millions of Australians receive one, or both, of these anaesthetic drugs for all types of surgery.

Professor Riedel said earlier studies done in collaboration with Associate Professor Erica Sloan at Monash Institute of Pharmaceutical Sciences had found that mice given intravenous anaesthesia had better cancer survival rates than those treated with anaesthetic gases.

“It is imperative that this is explored in patient population as there is mounting evidence that surgical therapy and anaesthesia may adversely impact cancer outcomes,” Professor Riedel explained.

In Australia, more than 300,000 elective surgeries are performed each year for cancer resection and this number is expected to increase significantly over the next decade.

Professor Riedel emphasised that “as surgery, and as such anaesthesia, continues to be a major part of cancer treatment, research into this field is vital. We anticipate that this study will have a dramatic effect on individual well-being, population health and health care costs.”

The Vapor-C study (Volatile Anaesthesia and Perioperative Outcomes Related to Cancer) NHMRC Project Grant for 2018 follows an earlier pilot study funded by the Australian and New Zealand College of Anaesthetists (ANZCA) Research Foundation.