

## **Physiotherapy Research Foundation**

### **Grant Case Study**

**Researcher Name:** Associate Professor Catherine Granger

**Grant Type & Year:** Tagged Grant, 2008

**Research Title** Exercise rehabilitation for patients following surgery for lung cancer: a pilot randomised controlled trial.

#### **Research Background**

Lung cancer is the fifth most common cancer in Australia, with an estimated 13,258 new cases of lung cancer diagnosed in 2020. It is the most common cause of cancer death in Australia, with 8,586 deaths in 2018. Individuals diagnosed with lung cancer have a 19% chance of surviving for five years.<sup>1</sup>

Treatment for lung cancer commonly involves surgical resection, chemotherapy and radiotherapy and leads to immediate deterioration in functional capacity and exercise tolerance.

#### **About the Grant Recipient**

Associate Professor Catherine Granger is an Associate Professor and Dame Kate Campbell Fellow in the Department of Physiotherapy at The University of Melbourne. She is also Head of Physiotherapy Research at The Royal Melbourne Hospital.

The PRF grant led to Associate Professor Granger undertaking a PhD at The University of Melbourne, after which she transitioned from clinician to full-time academic. She is a leader in the field of exercise and lung cancer and is on Health Department advisory committees in New South Wales and Victoria.

With opportunities for career progression a common challenge for physiotherapists, Catherine believes the key benefit of the PRF grant program is the support it provides early career researchers, particularly PhD students, gain the experience needed to progress along a research pathway.

#### **The Impact on Knowledge Production and Further Funding**

The original PRF funded research paper “Safety and Feasibility of an Exercise Intervention for Patients Following Lung Resection: A Pilot Randomised Control Trial” was published in Integrative Cancer Therapies in 2013. It was one of the first studies to assess the safety and feasibility of exercise interventions following surgery for lung cancer in the world. It has been cited 50 times and has been cited in 2 international clinical practice guidelines, 2 textbooks and 11 systematic reviews.

While the initial PRF grant funded project was small, it demonstrated that exercise interventions following lung cancer surgery were safe and generated interest in the topic. It also became a pilot for a subsequent body of research. Associate Professor Granger has gone on to attract over \$2 million in funding for research into lung cancer and cardiorespiratory physiotherapy between 2010 and 2020, from various sources including the NHMRC, Victorian Cancer Agency, Cancer Council Victoria and others.

### **Impact on Teaching and Training**

Research in this area is now part of education to physiotherapy students about the role of exercise in lung cancer management. Associate Professor Granger has written a section in one of the core cardiorespiratory physiotherapy textbooks used internationally. She also works extensively with the APA, presenting at conferences, workshops and webinars, to upskill and train practicing physiotherapists.

Associate Professor Granger is also focussed on getting the word out to the public. In 2018, she was a recipient of the ABC Top 5 Scientist of the Year Award, giving her a platform to educate patients and the public about the importance of keeping active and exercising. She regularly gives radio interviews, has taken part in ABC national television interviews and recently recorded a podcast, The Health Report.

### **Looking to the Future: Impact on Clinical Practice**

While exercise therapy following lung cancer surgery has had an influence on clinical practice, it is not yet routine in Australia. To change this, and with funding from the Australian Government, the Victorian Cancer Agency and Cancer Council Victoria, Associate Professor Granger is currently conducting a large-scale, high-quality trial into the impact of post-operative exercise programs for people with lung cancer. Looking towards a feasible delivery model, the trial comprises over 100 people in a home-based program, with patients exercising in their homes with physiotherapy support.

Associate Professor Granger's biggest hope is that patients diagnosed with lung cancer in Australia will be referred to a physiotherapist or exercise program through the public system, so they can easily access the support they need in a timely manner.

1. <https://www.canceraustralia.gov.au/affected-cancer/cancer-types/lung-cancer/lung-cancer-australia-statistics> Accessed 4/3/21