

### **VCB Annual Key Achievements**

July 2019 - June 2020

The Victorian Cancer Biobank (VCB) is a collaborative tissue bank network operating since 2006 with partnership between Austin Health, Eastern Health, Melbourne Health, Monash Health, Peter MacCallum Cancer Centre and lead agency Cancer Council Victoria. Our mission is to collect, manage and provide high quality biospecimens, data and services through a collaborative network of biobanks; and to promote open access for researchers globally improving cancer outcomes.



largest cancer biobank in Australia 1,037

Victorians have joined the VCB program this year resulting in 19,964 specimens



35,642

**donors** have participated since 2006



449,645

specimens from a broad range of tumours streams in inventory catalogue

View more



**46** researcher-led projects



28 clinical trials



Servicing 1

organisations, universities and commercial companies 92%

of researchers are based in **Victoria**, with 8% interstate/international



9,665

specimens supplied for research



TOP

tumour collections: colorectal, breast, gynaecological, lung and genito-urinary



18,073

donors linked to Victorian Cancer Registry for quality assured survival data



**COVID-19 contingency response** leadership within Asia-Pacific (<u>ISBER</u> Townhall meeting)



<u>Featured</u> as **successful network biobank** in top biobanking journal



Additional \$193,000 grant for **Quality Improvement Program**and CTRNet certification



21

publications including **Nature** and **JAMA Oncology** 



#### **Case Studies**

### Improving cancer survival - supporting clinical trials

Professor Jeanne Tie from the Walter Eliza Hall Institute for Medical Research (WEHI) is pioneering the use of circulating tumour DNA (ctDNA) as an indicator for risk of cancer recurrence and treatment response in colorectal and pancreatic cancer. To validate the clinical use of ctDNA, Professor Tie leads several multi-site phase II/III Clinical trials across 5 Melbourne hospitals recruiting over 200 patients. Since 2014 Professor Tie's team have engaged the services of the VCB to ensure co-ordinated and time-sensitive specimen collection, processing and dispatch across multiple hospitals.

**Impact:** Improving outcomes through use of a more personalised treatment approach.

# **Supporting Victorian Biotechnology**

Colorectal cancer is the second highest cause of cancer deaths in Victoria. However, if detected early, 90% of bowel cancer cases can be cured. Since 2008, the VCB has worked with CSIRO initially and later with Melbourne based start-up company Rhythm Biosciences Ltd to provide blood serum from over 500 cancer and control patients to develop a simple, inexpensive blood test using its pioneering ColoSTAT® technology.

**Impact:** The availability of a simple blood test, such as ColoSTAT® can improve bowel screening participation and life-saving early detection of bowel cancer.

## Insights into cancer cell biology

One of the most aggressive forms of lung cancer is small cell lung cancer (SCLC), which is associated with an extremely poor prognosis. Surgery is not an option for SCLC patients, leaving chemotherapy and radiotherapy as the key current treatment. While immunotherapy has shown some early promise in treating lung cancer, it has had limited benefits when targeting SCLC. Associate Professor Kate Sutherland from the WEHI is investigating why some patients are responding better to immunotherapy than others. To undertake this research, VCB is procuring high quality tumour tissue and blood derivatives from SCLC patients.

Impact: Through this investigation of cancer cell biology, Natural Killer cells (NK cells) have been identified as a potential target for immunotherapy strategy for SCLC patients.



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