



From the Executive Officer

Since the first edition of Biobank Brief was published in December last year, significant progress has been made in expanding our collection network and streamlining our centralised access processes.

The centralised process for accessing fresh and archival tissues and biospecimens is working well. Applications have been received from researchers throughout Melbourne, including from universities' departments and research institutes that are non-Consortium members. The Access Committee has approved 11 applications in this first quarter of 2008 and the supply of requested biospecimens is underway.

Our staff have streamlined processes so that researchers are supplied with fresh tissue for culture within hours of surgery.

Of particular note are several applications for fresh tissue by researchers studying breast, ovarian, prostate and endometrial cancers. Our staff have streamlined processes so that researchers are supplied with fresh tissue for culture within hours of surgery.

Good quality clinical data associated with our biospecimens is essential to the research community. Four data managers, funded at each of the Consortium member sites have commenced reviewing all data to ensure clinical information associated with the biospecimens is up-to-date and datasets are consistent across the Biobank. We are aiming to complete this process in the third quarter of 2008. We also continue to work with BioGrid Australia to extend links to follow-up data.

Software options to enable biospecimens to be viewed and requested online is underway and it is anticipated that this feature will be available before the end of 2008.

We welcome any feedback and suggestions that will enable us to meet the needs of the research community.

*Dr Anne Thompson, Executive Officer,
Victorian Cancer Biobank*

Annual Report 2007

The Victorian Cancer Biobank Annual Report 2007 was published in March. The report highlights the activities, achievements and progress made in 2007.

The report is available for download from the Biobank website – www.viccancerbiobank.org.au

For a printed copy, please e-mail – enquiries@viccancerbiobank.org.au

- From the Executive Officer
- Annual Report 2007
- Presentations
- Interviews with Researchers
 - Dr John Haynes
 - Dr Izhak Haviv
- Our Operations Model
- Our Collection
- How to Apply





Presentations

During the first quarter of 2008, the following presentations have provided the opportunity for communication with researchers from the academic and commercial sectors:

- Certificate in Clinical Research (Oncology), School of Enterprise, University of Melbourne, 7 March (Anne Thompson)
- Australasian Health and Research Data Managers Association (AHRDMA) 17th Annual Scientific Meeting, Canberra, 13–14 March (Carmel Murone)
- Biospecimen Research Network (BRN) Symposium, Advancing Cancer Research Through Biospecimen Science, Washington DC, 13–14 March (Anne Thompson)
- The Cancer Council Victoria Seminar Series, 1 April (Anne Thompson)

To arrange a Biobank presentation at your hospital or research institute, please email enquiries@viccancerbiobank.org.au.

Interviews with Researchers

The following are interviews with two researchers who have applied to the Victorian Cancer Biobank for biospecimens for their research projects. We asked them to talk about how the Biobank is contributing to their work.

Dr John Haynes

Dr John Haynes, Senior Lecturer, Faculty of Pharmacy & Pharmaceutical Science, Monash University



How did you hear about the Victorian Cancer Biobank?

Anne Thompson (Executive Officer of the Biobank) gave a presentation to our faculty in August 2007.

Briefly describe your research.

We are currently trying to establish how changes in testosterone (i) modulate the functioning of prostatic smooth muscle and (ii) affect the interactions between prostatic epithelial (secretory) and smooth muscle cells. This research largely utilises fluorescence microscopy to investigate changes in intracellular calcium and signal transduction processes.

What biospecimens have you applied for from the Victorian Cancer Biobank?

Fresh prostate tissue

How are these biospecimens contributing to your research?

Most of our work uses cultured cells to generate sufficient quantities of tissue for research. Since these cells have only a limited capacity to grow, we constantly need fresh supplies of tissue. The Victorian Cancer Biobank is a real boon for our research.

What I like is the “set and forget” nature of the process (of fresh tissue supply) – the tissue arrives when it’s available, without any real effort on my part.

How have you found the experience of being supplied with biospecimens?

It works well, even if the supply is a little irregular. In three months, we’ve had one specimen delivered – and that one grew beautifully. Over the last month, we had three potential specimens for delivery – unfortunately, that has coincided with conference and holiday leave. What I like is the “set and forget” nature of the process – the tissue arrives when it’s available, without any real effort on my part.

Dr Izhak Haviv

Dr Izhak Haviv, Head of System Integrations, Blood & DNA Profiling Facility, Baker IDI



How did you hear about the Victorian Cancer Biobank?

As a researcher from overseas, I have found it incredible to have access to human tissue for cancer research in Melbourne. I participated in the PhD training of Dr Alex Boussioutas, who was involved as a founding member of the Peter Mac Tissue Bank. And Peter Mac is one of the four Consortium members of the Victorian Cancer Biobank (from Oct 2006).

Briefly describe your research.

From earlier research work, we noticed that the gene expression in cancer cells is influenced by neighbouring cells, called stroma (a discovery by Dr Alex Boussioutas).



This raised the question of how the stromal cells alter gene expression – what is the mechanism and which genes may be involved in promoting carcinogenesis.

We're using a method of culturing together epithelial cells and fibroblast cells (normal neighbours) *in vitro* (designed by Prof David Bowtell) to enable us to analyse the spontaneous reactions between these two types of cells.

In looking back at epithelial cells from different primary cancer sites in 795 patients, we observed differential gene expression patterns that were incredibly common across the cancer samples. All the genes observed to have altered expression *in vitro* were also altered *in vivo*. The immediate question that arises is where is the expression in the fibroblast cells coming from. This is critical in cancer aetiology. The outcome of patients is also dictated by the degree of expression. Greater infiltration of fibroblast cells is associated with more adverse outcomes – greater tendency towards metastatic disease and more resistance to chemotherapy.

I am involved in a series of six studies – each aimed at a different explanation.

What biospecimens have you applied for from the Victorian Cancer Biobank?

Fresh ovarian tissue.

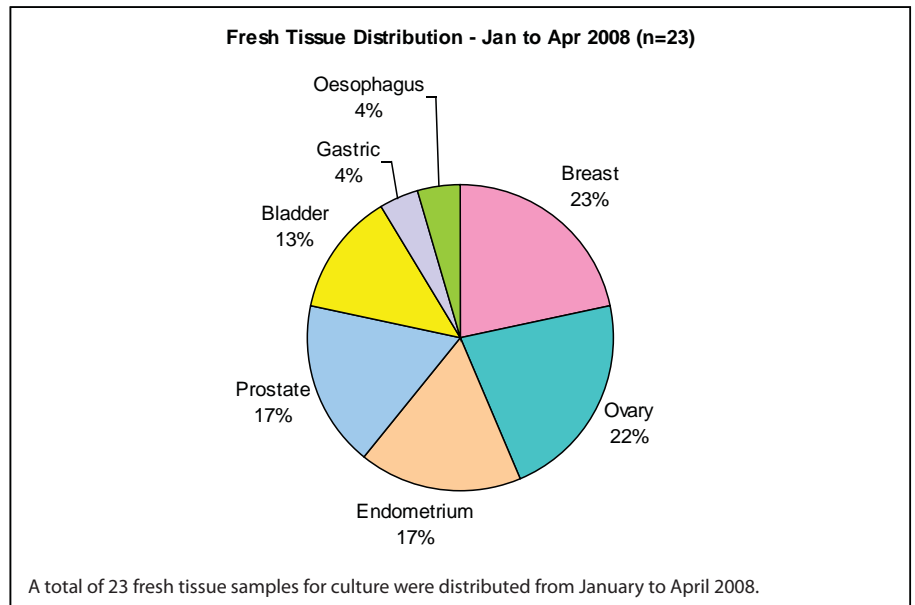
How are these biospecimens contributing to your research?

In order to characterise the living reaction of cells, we require fresh tissue in viable culture.

Previously, access to biospecimens was only from one or two hospitals involved in the research project. Now, through the Biobank Consortium, collection is from multiple sites and I have access to a wider network.

How have you found the experience of being supplied with biospecimens?

It has been fantastic! The fresh tissues have been transported in a timely fashion that is working well for the PhD student involved in the research – Wen Qiu (co-supervised with A/Prof Ian Campbell). And the interactions with Biobank staff have been very good.



I would like to see more tissues coming my way! Previously, access to biospecimens was only from one or two hospitals involved in the research project. Now, through the Biobank Consortium, collection is from multiple sites and I have access to a wider network.

I have to give credit to those who were involved in the establishment of the Biobank Consortium and those who are involved in successfully recruiting donors.

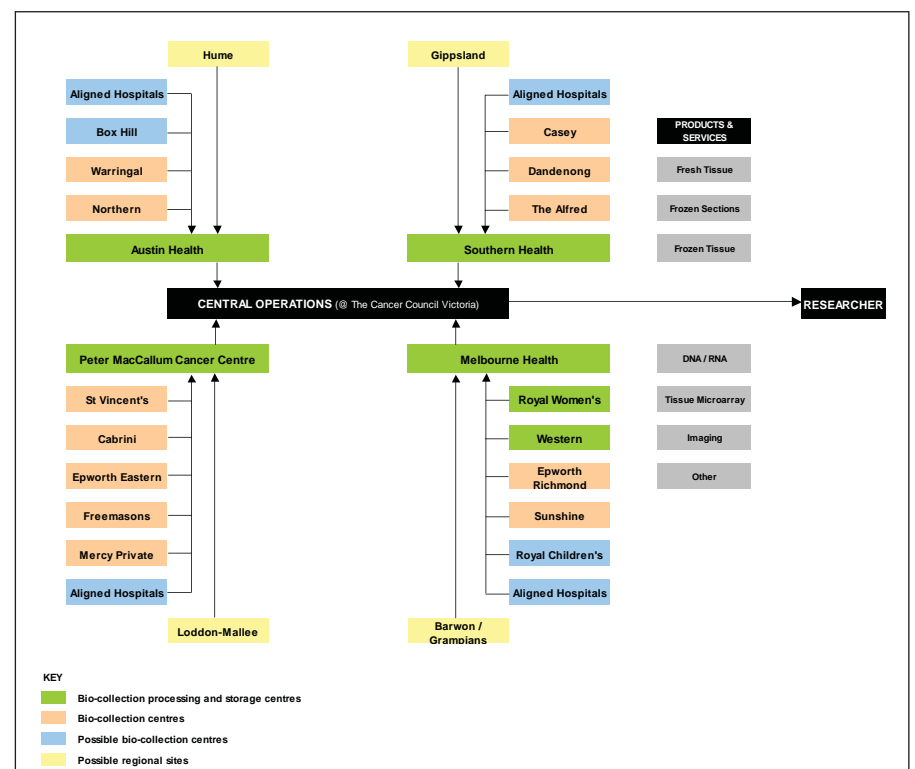
members of the Consortium, form the "spokes" around the four Consortium member "hubs" where tissues are processed and biospecimens stored.

Human Research Ethics Committee approval has now been obtained by the Austin Health Consortium member site for collection at Northern and Warringal Hospitals. Similarly, Southern Health has obtained approval to commence collection at The Alfred Hospital.

The ongoing support of the surgeons, pathologists and clinical staff at all our Associate member sites has enabled our staff to collect tissue across many different tumour streams from an additional 714 donors in the first quarter of 2008.

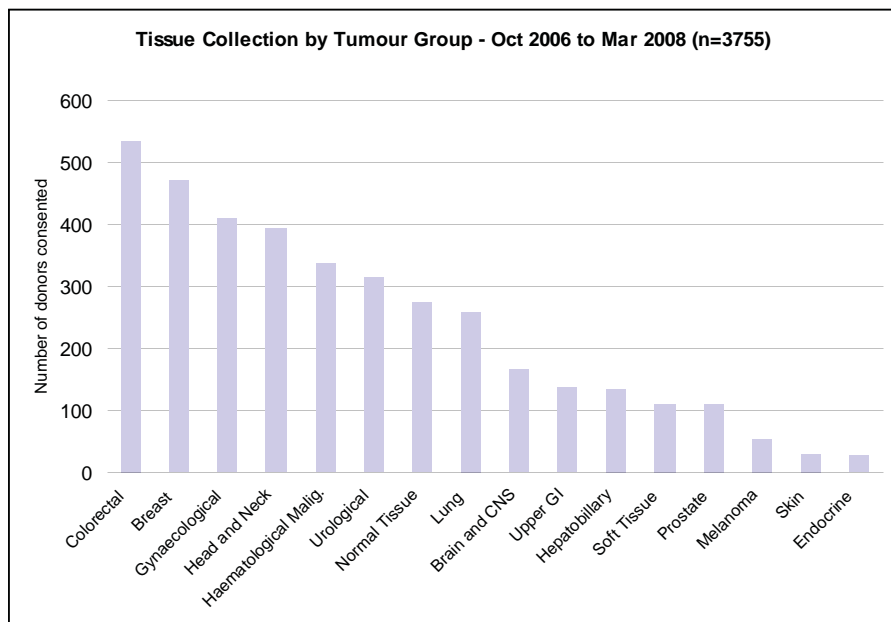
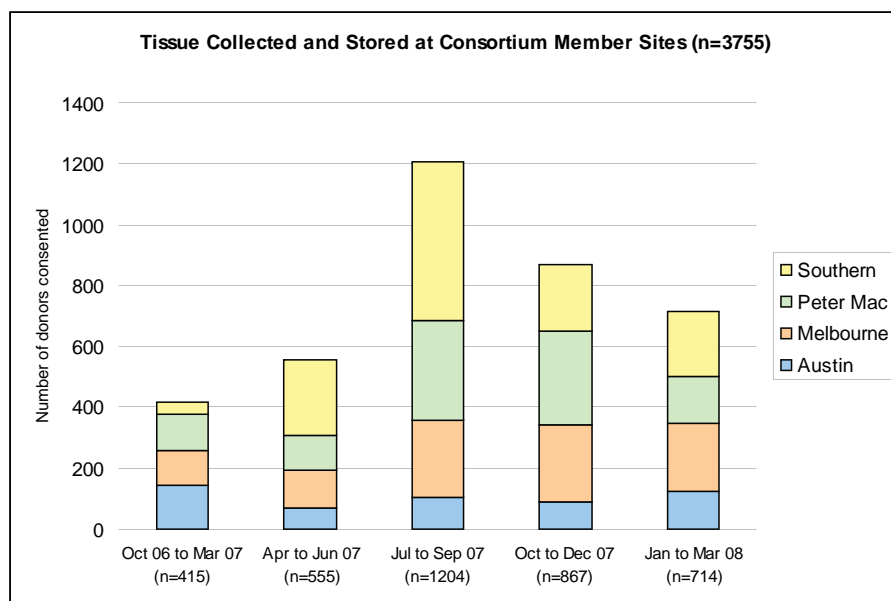
Our Operations Model

Our operations model uses a "hub and spokes" collection system where private and public hospitals, who are associate



Our Collection

More than 3,700 donors have consented to give their tissue and blood to the Biobank. Biospecimens across all tumour streams are collected along with associated clinical data.



The Victorian Cancer Biobank is a not-for-profit consortium supported by The Cancer Council Victoria and the Victorian Government.

Consortium members are Austin Health, Melbourne Health, Peter MacCallum Cancer Centre and Southern Health.

Vision

To be the first choice for the supply of cancer tissue to take hypothesis through to discovery.

Core values

Integrity a reliable and ethical approach to biobanking.

Excellence the provision of quality biospecimens and service to researchers

Innovation centralised access to multi-centre collections

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How to Apply

Step 1

Visit the website to read the Information on How to Apply and Conditions of Use.

Step 2

Contact the Biobank to check availability and to discuss your specific needs.

Step 3

Download the Application for Human Biospecimens form from the website. Complete the form and submit. A quote for the cost recovery fee will be forwarded to you. Once we receive confirmation of acceptance of the quote, your application will be processed.

Step 4

The Biobank Access Committee will review your application. Once approved, a Materials Transfer Agreement will be forwarded to you. Upon receipt of the signed MTA, your biospecimens will be dispatched.

