



# Tumour Tissue Repository

*The Tumour Tissue Repository (TTR) is a provincial resource to support translational cancer research at the BC Cancer Agency, across Canada and internationally*

## TTR Supported Research

### IROC and Personalized Biotherapeutics

TTR continues to support the Immune Response to Ovarian Cancer (IROC) project at the Deeley Research Centre (DRC) located in the Vancouver Island Centre. The IROC project studies changes in patients' immune responses against ovarian cancer over time. The aim of IROC is to enhance how the immune system fights the disease and improve treatment outcomes by developing a personalized biotherapy for every ovarian cancer patient undergoing treatment. This personalized treatment would also help prevent future recurrences of the disease. The TTR works with oncologists, surgeons, and clinical and hospital staff to offer this project to eligible women and collect the invaluable biospecimens needed for this research.

The IROC project is an example of where research in cancer treatment is headed. Last year Dr. Brad Nelson, Director of the Deeley Research Centre, and DRC researchers became part of BioCanRX, the first Network of Centres of Excellence (NCE) devoted to cancer immunotherapy research, with a \$25 million commitment from the Government of Canada and an additional \$35 million from partners across the country. BioCanRX will develop new biotherapeutics, which are therapies derived from biological agents. This is one of the most promising areas of research in oncology. The national team will focus on three areas: oncolytic viruses, immune cells, and synthetic antibodies.

Recent publications in ovarian cancer by Dr. Nelson's team focus on identifying tumor infiltrating lymphocytes (TILs) that are prognostically favored (deLeeuw et al., 2014; PMID: 25480168), TILs associated with increased survival (Webb JR et al. 2014; PMID: 24323902), and tumor mutanome surveillance by T cells during progression from primary to recurrent ovarian cancer (Wick DA et al., 2014; PMID: 24190978). Dr. Nelson's lab is currently working on developing an adoptive T cell therapy: a personalized biotherapy that enables a patient's immune system to recognize and destroy cancer cells throughout the body. In the near future, the clinical trials for this adoptive T cell therapy will be done right here in BC thanks to the support of the NCE and the BC Cancer Foundation.



Photo courtesy of Tuzer Kakal

*The TTR is grateful for the continued support and generosity of patients, surgeons, anatomical pathologists, their clinical and administrative groups, and the hospital personnel in Victoria and Nanaimo.*

Dr. Peter Watson,  
TTR and OBER Director

The TTR Team: Sindy Babinszky,  
Tania Castillo-Pelayo, Simon Dee,  
Jodi LeBlanc, Sheila O'Donoghue

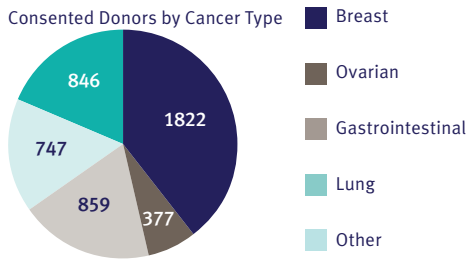
OBER TTR team: Simon Dee,  
Lise Matzke, Anna Meredith,  
Alex Slotty, Sheila O'Donoghue



Photo courtesy of Multimedia Services

## Accrual Update

TTR collects tissues from all different types of cancer. Patient participation fuels the critical research necessary to improve treatment and care, and of those patients referred to TTR 91% agreed to participate. TTR had 4651 consented donors by the end of last year.



## Provincial and National Initiatives

### UBC Office of Biobanking Education and Research (OBER)

Human biospecimens, like those collected by the TTR, are a critical element of health research. Up to 40% of the data in biomedical research papers contain data generated from human biospecimens, so ensuring that these specimens are of high quality and are collected in a standardized way is critical. The TTR partners with the University of British Columbia's Office of Biobank Education and Research (OBER) to develop strategies for improving biospecimen research and biobanking. OBER is the first biobank education and support centre in Canada and, to our knowledge, the world. Its mission is to provide support for biobanks and research involving biobanking to advance translational health research. OBER TTR staff members are involved in OBER initiatives to help researchers and biobanks in Canada, and abroad, follow best practice guidelines. OBER and TTR members lead education and certification programs, share standard operating protocols and documentation, and provide consultation services to researchers worldwide. Dr. Peter Watson is director of both the TTR and OBER. To date over 66 biobanks have enrolled in the biobank certification program, and the education program has been accessed by 294 independent users. To learn more about OBER's initiatives and researcher resource centre, visit: [www.biobanking.org](http://www.biobanking.org)

## Biobank Publications

**The Importance of Biobanking to Cancer Research.** Castillo-Pelayo T, Babinszky S, LeBlanc J, Watson PH, Biopreserv Biobank. 2015 (In press).

**A Practical tool for modeling biospecimen user fees.** Matzke L, Dee S, Bartlett J, Damaraju S, Graham K, Johnston R, Mes-Masson AM, Murphy L, Shepherd L, Schacter B, Watson PH. Biopreserv Biobank. 2014 Aug; 12(4): 234-9.

**Biobank bootstrapping: is biobank sustainability possible through cost recovery?** Albert M, Bartlett J, Johnston RN, Schacter B, Watson PH. Biopreserv Biobank. 2014 Dec; 12(6): 374-80.

**Critical issues in international biobanking.** Vaught J, Abayomi A, Peakman T, Watson PH, Matzke L, Moore H. Clin Chem. 2014 Nov; 60(11): 1368-74.

**Biobank classification: communicating biorepository diversity.** Watson PH. Biopreserv Biobank. 2014 Jun; 12(3):163-4.

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Contact Us: TTR Nurse

250.519.5713

1.866.898.0887

ttr@bccancer.bc.ca

[www.bccrc.ca/dept/ttr](http://www.bccrc.ca/dept/ttr)



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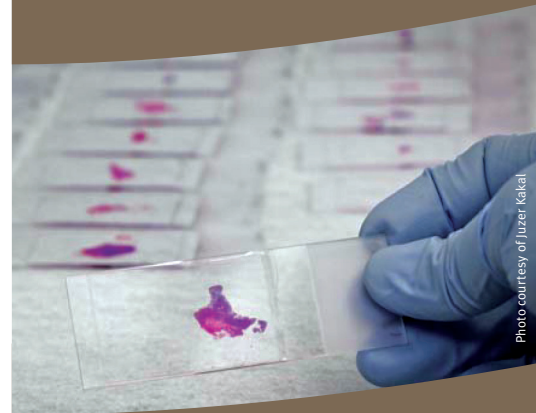


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