

CANCER CONTROL RESEARCH

BCCA CANCER RESEARCH CENTRE

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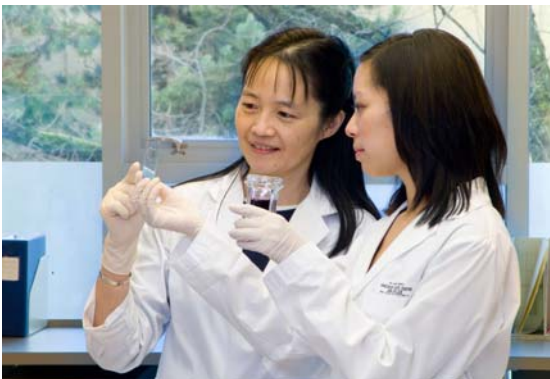
Our Research Focus:

The major effort of the Cancer Control Research (CCR) Program is directed toward reducing cancer incidence and mortality in BC through population-based projects. The program also plays a key role in the BC Cancer Agency's cancer control activities by monitoring the impact of cancer by region of the province, and by assessing the referral trends for the Agency's cancer clinics.

The BC Cancer Registry is part of the Cancer Control Research program. Mary McBride is the scientific director of the Cancer Registry. The Cancer Registry collects data and generates cancer statistics on the BC population. The Registry is the primary source of data for cancer control in BC. It reports on the scope of the cancer problem, provides information to plan programs to reduce mortality and morbidity from cancer, and monitors the effectiveness of such programs.



The registry is used in research. Research-based on population registries avoids one source of potential bias due to non-representative participation and are of better quality than those that use non-population based sources.



The Registry has been in existence since 1969, and has been maintained at the BCCA since 1980. It contains personal and demographic information as well as diagnosis and date of death information on all cases of cancer diagnosed to BC residents.

Progress Highlights during 2005-6

The past year has seen a significant expansion of our program investigating the interactive role of genetic factors and environmental exposures in accounting for cancer. New studies of breast cancer, melanoma, were initiated, and significant new scientific results from our ongoing studies of non-Hodgkin lymphoma and melanocytic skin cancer were published.

The BC Oral Cancer Prevention Program has developed new links with the BC dental community, with an eye to training dentists as first-line screeners for oral pre-cancer.

Perhaps the most significant progress involves the establishment of 2 major new research programs; the Childhood/Young Adult Cancer Survivorship (CAYACS) Research Program, and the Centre for Health Economics in Cancer (CHEC).

CAYACS represents the first program in Canada to study the long-term health, education and employment outcomes which result from successful treatment of childhood cancer. As a larger and larger percentage children with cancer are fully cured, it becomes important to recognize where long-term problems might occur and to minimize their effect as the children grow to adulthood.

CHEC has undertaken a vigorous program of research aimed at enabling us to make rational policy choices in cancer control in a climate of fiscal restraint. Results from the research program will provide valuable information to preserve the sustainability of our cancer care system.

Key Research Staff

<i>Researcher name</i>		<i>Position & Cross-Appointments</i>
Richard Gallagher	MA Medical Sociology	Head, Cancer Control Research
		Clinical Prof, Health Care & Epidemiology, UBC
		Associate Member, Dermatology, UBC
		Associate Member, Ophthalmology, UBC
		Associate Member, Surgery, UBC
Christopher Bajdik	PhD Epidemiology	Research Scientist
		Clin Assoc Prof, Health Care & Epidemiology, UBC
Marilyn Borugian	PhD Epidemiology	Senior Scientist
		Clin Asst Prof, Health Care & Epidemiology, UBC
Greg Hislop	MD	Senior Epidemiologist
		Clin Prof, Health Care & Epidemiology, UBC
Nhu Le	PhD Statistics	Senior Scientist
		Adjunct Professor, Statistics, UBC
Tim Lee	PhD Computing Science	Senior Scientist/ Computer Scientist
		Adjunct Professor, Computing Science, SFU
		Clinical Assistant Professor, Dermatology and Skin Science, UBC
		Associate Member, Health Care & Epidemiology
		Clinical Assistant Professor, Health Care & Epidemiology
Mary McBride	MA Genetics	Epidemiologist/ Senior Scientist, Cancer Control Research Unit
		Director, BC Cancer Registry

		Clinical Assistant Professor, Health Care & Epidemiology, UBC
		Adjunct Member, Department of Pediatrics
		Affiliate Scientist, Centre for Health Services and Policy Research, College of Health Disciplines
Stuart Peacock	PhD Health Economics	Senior Scientist Assistant professor, Health Care and Epidemiology, UBC
		Assistant Professor, Health Care & Epidemiology, UBC
Miriam Rosin	PhD Cell Biology	Senior Scientist
		Clinical Professor, Path. & Lab. Medicine, UBC
		Professor, Kinesiology, SFU
John Spinelli	PhD Statistics	Senior Scientist
		Adjunct Professor, Statistics and Actuarial Science, SFU
		Professor, Health Care and Epidemiology, UBC

Training

A.) Course Instruction

CD Bajdik	UBC DPAS	G Hislop	UBC HCE 525
CD Bajdik	UBC HCEP511	T Lee	UBC HCEP511
CD Bajdik	UBC HCEP 507/607	M McBride	UBC HCE 511
MJ Borugian	UBC HCEP 511	J Spinelli	UBC PATH 548S
MJ Borugian	UBC ISCI 448	J Spinelli	UBC ONCO 502
MJ Borugian	UBC HCEP 507/607	J Spinelli	UBC HCEP 511

B.) Summary of Trainees

<i>Total No. of Current Students</i>	<i>Post-doctoral</i>	<i>Post-graduate</i>	<i>Undergraduate</i>	<i>Clinical</i>
40	1	21	14	4

C.) Current Students – Degrees Completed

<i>Name</i>	<i>Supervisor</i>	<i>Date Completed</i>
MSc		
Vidya Kotamraju	T Lee	2005
Gurbakshash Singh	M McBride (J Spinelli)	2005
Celes Ying	M McBride (J Spinelli)	2006
Jinze (Robert) Li	M Rosin	2005
Corrie Baldwin	M Rosin	2005
Maria Lorenzi	J Spinelli	2005
Karey Shumansky	J Spinelli	2005
MET		
Vicki Fleming	M Rosin	2005
PhD		
Alma Barranco	M Rosin	2005

Trainee Awards

<i>Trainee</i>	<i>Distinguished Award/Honour</i>
Heather Biggar	Gold Medal Award from the College of Dental Hygiene of BC for achieving the highest standing of the graduating students in Bachelor of the Dental Science (Dental Hygiene) Program (June 2006)
Denise Laronde	Simons Foundation Doctoral Entrance Fellowship (2005-2006)
	MSFHR/BC Cancer Foundation Trainee Award (2006)
	AACR-GlaxoSmithKline Outstanding Clinical Scholar Award (2006)
SP Ng	Robert L. Schattner Award, Annual Meeting of the American Academy of Oral Medicine (2006)
Catherine Poh	AACR-GlaxoSmithKline Outstanding Clinical Scholar Award (2005)
	CIHR Clinician Scientist Award (2005)
	CIHR Operating Grant (2005-2008)
	AACR AFLAC Incorporated Scholar-in-Training Award (2006)
Ivy Tsui	Scholar-in-Training Award, AACR Prevention Conference, Boston. (2006)

Current Awards and Honours

<i>Name</i>	<i>Distinguished Award/Honour</i>
C Bajdik	MSFHR Scholar Award (2002-2007)
	Diploma of Achievement, International Biographical Centre, Cambridge, England (2005)
M Borugian	MSFHR Post-doctoral Fellowship (2003-2007)
M Rosin	John F. McCreary Prize, "Honourable Mention" was awarded to BC Oral Cancer Prevention Program (BC OPP) by the Interprofessional Activities Committee of the College of Health Disciplines

Select Current Contributions

<i>Name</i>	<i>Membership/Committee Involvement</i>
C Bajdik	Member, UBC BCCA Research Ethics Board, 2005 – 2007
	Member, MSFHR Health Services Trainee Evaluation Committee, 2003-2005
	Chair, MSFHR Health Services Trainee Evaluation Committee, 2005 – 2007
	Member, MSFHR Peer Review Oversight Committee, 2006 –2007
	Member, CBCF BC/Yukon Chapter, Grant Review Committee, 2004 – 2007
	Member, CIHR Team Grant Evaluation Committee, 2005 – 2007
MJ Borugian	Member, Scientific Advisory Council, Centre for Menstrual Cycle and Ovulation Research, 2003-present
	Member, CIHR Nutrition, Food and Health Committee
R Gallagher	Board of Governors, Canadian Society for Epidemiology and Biostatistics
	Past-President, Canadian Society of Epidemiology and Biostatistics (CSEB)
	Scientific Advisory Board; International Melanoma Foundation, USA
	Organizing Board Member, B.C. Occupational and Environmental Health Network
	Board of Directors, NCIC
	Board of Directors, Canadian Tobacco Control Research Initiative
	DEX Grant Review Panel, Canadian Breast Cancer Research Alliance,
	Population Health Panel B- Chairman, CIHR
Member, U.S NCI, Hormones and Reproductive Epidemiology Branch Site Review Committee.	

G Hislop	Member, Board, Dalit Freedom Network Canada
	Member, Board, Canada India Education Society
N Le	Scientific Officer, Scholars Career Investigator Program, MSFHR
M McBride	Executive Committee, Council of Canadian Cancer Registries
	Industry Canada National Antenna Tower Advisory Committee (2002-2005)
	Executive, Canadian Council of Cancer Registries
	Member, Canadian Cancer Surveillance Alliance
M Rosin	Member, BC Environmental and Occupational Health Research Network (BCEOHRN)
	Founding Member, Institute for Health Research & Education, Simon Fraser University
	Member, Centre for Environmental Biology (CEB), SFU
	Co-chair, Special Program of Research Excellence (SPORE) Inter-group Working Group: Preneoplasia
	Member, NIH Grant Panel (Cancer Biomarkers)
	Member, NIH Review Panel- Telephone, Bethesda, Maryland. Cancer Biomarkers Study Section
	Member, NIH Review Panel. Teleconference. Cancer Biomarkers Study Section
J Spinelli	Member, Accreditation Appeals Committee, Statistical Society of Canada
	Chair, Population Health Evaluation Committee, Research Trainee Program, MSFHR
	Co-Chair/ Chair, Molecular, Environmental and Lifestyle Cancer Epidemiology Review Panel, NCIC
	UBC, BCCA Research Ethics Board
	Chair, Peer Review Oversight Committee, MSFHR
	Research Advisory Council, MSFHR

Current Research

1. A cohort study of nurses' offspring examining adverse reproductive effects and childhood cancer	
<p>PI: ND Le, H Ward Co-I: K Teschke, JJ Spinelli, PA Ratner, RP Gallagher, L Arbour CIHR \$81,531 (2005) \$112,504 (2006) \$213,543 (2005-2007)</p>	<p>The purpose of the study is to determine whether registered nurses who were potentially exposed to agents that may interfere with normal fetal development, such as anaesthetic gases, antineoplastic drugs or ionizing radiation, are at risk for adverse reproductive outcomes and childhood cancer in their offspring.</p>
2. A methodology to understand cancer screening behavior of culturally diverse populations: A feasibility study using administrative data	
<p>PI: GT Hislop, A Kazanjian Co-I: MC Barroetavena, M Borugia, n TG Hislop, AW Chen, M Desmeules, SL McDermott CIHR \$95,740 (2005) \$95740 (2006-2007)</p>	<p>The goal of this linkage database study is to allow researchers to examine the differences in utilization of cancer screening services by immigrant women and the relationship between utilization of the two types of screening.</p>
3. An explanatory clinical trial of breast cancer prevention (London, Vancouver and Windsor Sites) RENEWAL	
<p>PI: N Boyd Co-I: TG Hislop CBCRI \$350,000 (2003-2007)</p>	<p>The study will evaluate whether a programmed dietary intervention to lower fat intake will reduce women's risk of breast cancer.</p>

4. Algorithms for automated computer image analysis for disease screening and follow-up	
<p>PI: TK Lee NSERC \$92,500 (2006-2011)</p>	<p>The goal of the project is to develop new computer algorithms based on advanced image analysis methods for screening, early detection and follow-up malignant melanoma and other skin conditions.</p>
5. Canadian component: International case control study of radio frequency fields and cancer of the brain, salivary gland and leukemias	
<p>PI: D Krewski Co-I: M McBride CIHR/Canadian Wireless Telecommunications Association \$659,877 (2001-2006)</p>	<p>The major long-term goal of this project is epidemiologic assessment of risk of brain tumours with exposure to radiofrequency fields or cell phones.</p>
6. Cancer genomics: A multidisciplinary approach to the large-scale high-throughput identification of genes involved in early stage cancers-Project 4: Oral Premalignancies	
<p>PI: V Ling, C Eaves, M Marra Co-I: M Rosin et al Genome Canada/Genome BC/Province of BC</p>	<p>For project description see Cancer Genetics</p>
7. Childhood/ adolescent/ young adult cancer survivorship research program	
<p>PI: M McBride Co-I: P Rogers, K Goddard, V Glickman, L Siegel, S Prichard, S Sheps, A Broemeling NCIC \$581,745 (2005) \$532,735 (2006) \$1,573,500 (2005-2008)</p>	<p>The goal is to assess the risks of these late effects among cancer survivors diagnosed before age 25. Their results will help to determine resource needs in health care, education, and other areas. This research will also identify new problems as the survivors age and treatments change, and will help in the development and evaluation of strategies for long-term management and support of these patients.</p>
8. Children's oncology group chair's grant	
<p>PI: P. Rogers (BCCH) Co-I: M McBride NIH US \$967,730 (2003-2008)</p>	<p>The major long-term goal of this project is to participate in COG Trials.</p>
9. Clinical determinants of breast cancer	
<p>PI: N Le Co-I: M Deschamps, P Band, G Hislop CIHR \$140,892 (2003-2005)</p>	<p>The goal is to identify the clinical features associated with breast cancer that will improve the screening, follow up and treatment of women presenting these symptoms. The results of this study might lead to the early detection of cancer in women presenting high risk clinical features.</p>
10. Clinical implications of EMSY gene amplification events	
<p>PI: D. Huntsman Co-I: C Bajdik, K Gelmon CIHR</p>	<p>For project description see Pathology and Laboratory Medicine.</p>

11. Clonal changes in oral lesions of high-risk patients-renewal	
<p>PI: M Rosin Co-I: L Zhang, W Lam, M Williams, Epstein, Lee, Berean, Hay, Durham, Hovan, N Le, G Hislop NIH US \$1,984,829 (2003-2008)</p>	<p>We continue to develop an approach in which cells collected by scraping the former tumour site with a spatula are analyzed for genetic changes that are indicative of the loss of genes that normally suppress cancer development. This study will validate the use of this approach to follow patients over time to look for the evolution of cells in the tissue that might predict tumour development/recurrence.</p>
12. Cohort study of aluminum workers: A 12-year update	
<p>Co-PI: J Spinelli, N Le, P Demers, R Gallagher Alcan \$381,500 (2001-2005)</p>	<p>We are updating, expanding and improving the original study to better assess quantitative dose-response relationships between exposures at the ALCAN aluminum reduction facility in Kitimat, BC and cancer incidence and mortality from cancer as well as other causes.</p>
13. Communication in cancer care: The trajectory of interaction between patients and health care professionals	
<p>PI: S Thorne (UBC) Co-I: SR Harris, TG Hislop, C Kim-Sing, J Oliffe, K Stajduhar CIHR \$53,795 (2005) \$68,411 (2006) \$210,544 (2004-2007)</p>	<p>Our goal is to conduct a longitudinal qualitative study (ie: from pre-diagnosis to the post-treatment period) to explore the ways in which people change and/or stay the same in regards to what they identify as helpful and effective communication during the course of their cancer care.</p>
14. Community screening and management for high-risk oral premalignant lesions	
<p>PI: C Poh Co-I: TG Hislop, M Rosin CIHR Training Grant \$44,375 (2005) \$57,500 (2006) \$115,000 (2005-2007)</p>	<p>The goal is to establish current research activity in the study of oral premalignant lesions (OPLs) within the context of community-based clinics in a high-risk population in Vancouver.</p>
15. Development of an integrated laser speckle imaging and reflectance colour imaging device for melanoma detection	
<p>PI: TK Lee Co-I: H Lui, D McLean, H Zeng, SDM Abraham CIHR POP \$150,000 (2006-2007)</p>	<p>The goal is to upgrade our recent invention of a laser speckle imaging device for measuring biosurface roughness with a conventional colour CCD camera for capturing the subsurface view of the skin. We will then test the effectiveness of the upgraded prototype on melanoma detection in clinical settings on a large group of skin patients.</p>
16. Development of custom array for the prognosis of prostate cancer	
<p>PI: M Sadar, Co-PI: ND Le Co-I: T Pickels, D Banerjee, U Takeshi CIHR</p>	<p>For project description see Genome Sciences Centre.</p>

17. Does insulin resistance increase risk of prostate cancer?	
<p>PI: R Gallagher Co-I: M Borugian, AS Whittemore, L Kolonel, A Wu, I Oakley-Girvan CPCRI \$49,895 (2003-2006)</p>	<p>We will analyze indicators of insulin resistance using serum prospectively collected from a healthy cohort of men some 10 years ago. Serum from each of these men will be matched with serum from 4 men in the cohort who have not developed prostate cancer. Several indicators of insulin resistance including insulin level, C-peptide level and C-peptide level will be measured.</p>
18. Double stranded break surveillance genes and susceptibility to non-Hodgkin's lymphoma	
<p>PI: A Brooks-Wilson Co-I: J Connors, R Gascoyne, J Spinelli NCIC</p>	<p>For project description see Genome Science Center</p>
19. Evaluation of a LED MD fluorescent visualization device as a tool to facilitate the identification of high-risk oral premalignant lesions (OPLs) and early cancer	
<p>PI: M Rosin Co-I: L Zhang, M Williams LED Medical Diagnostics \$200,000 (2004-2005)</p>	<p>The goal is to evaluate the VELScope as a fluorescence-visualization device, for facilitating clinical evaluation of oral mucosa in patients with oral lesions.</p>
20. Frequency and clinical significance of functional loss of protein involved in DNA double strand break repair in ovarian cancer	
<p>PI: CB Gilks (VHSC) Co-I: YZ Wang, ND Le NCIC \$112,386 (2006) \$230,083 (2006-2008)</p>	<p>The goals are: 1) to determine how often ovarian cancers lack the ability to repair DNA damage, and find a way to recognize these particular ovarian cancers in patients; and 2) to see whether a new class of anticancer drugs can be used to destroy these ovarian cancer cells while leaving the healthy cells unaffected.</p>
21. Genes, environment, occupation and cancer (GEOC)	
<p>PL: R Gallagher MSFHR \$456,828 (2005-2008)</p>	<p>The objective of this research unit is to discover those genetic, environmental and occupational factors and their interactions that define cancer risk and that can inform the development of new strategies for prevention, early detection and treatment.</p>
22. Genomics, Genetics and Gerontology (G3): A multi-disciplinary team for the study of healthy aging	
<p>PI: M Marra Co-I: A Brooks-Wilson, J Connors, S Jones, N Le, G Meneilly CIHR</p>	<p>For project description see Genome Science Center</p>
23. Goodness-of-fit for discrete data and statistical models: Biostatistical methods	
<p>PI: J Spinelli NSERC \$300,000 (2001-2006)</p>	<p>The major goal of this project is to develop tests of fit for discrete distributions and for models used in statistical analysis.</p>

24. Hepatitis B ESL education for Chinese	
<p>PI: V Taylor, TG Hislop Co-I: G Coronado, Y Kanno, B Thompson, S-P Tu, Y Yasui NIH \$99,012 USD (2005-2010)</p>	<p>The project will develop new ways of informing the Chinese community about long-term health risks associated with hepatitis B carrier status, and what can be done to reduce these.</p>
25. Improved methods for haplotype risk estimation in association studies, with specific application to cancer and diabetes	
<p>PI: J Spinelli Co-I: B McNeney, J Graham CIHR \$39,375 (2005) \$57,875 (2006) \$118,500 (2004-2006)</p>	<p>We are developing novel methods which properly take into account the uncertainty in the haplotype inference in estimation and testing of the effects of disease outcome of haplotypes and nongenetic risk factors.</p>
26. Innovative Bayesian methods for biostatistics & epidemiology	
<p>PI: P Gustafson Co-I: N Le, A Levy, Y McNab CIHR POP \$49,800 (2005) \$43,200 (2006) \$235,800 (2003-2007)</p>	<p>In principle, the Bayesian approach provides a natural way to describe the uncertainty about risk factor measurements, using probability theory. The goal of this research is to develop and evaluate Bayesian methods for dealing with EIC in case-control analysis. These methods will be tested on both real and simulated data, and they will be compared to existing classical methods.</p>
27. Liver cancer control among North American Chinese	
<p>Co-PI: G Hislop, V Taylor NIH US\$377,988 (2002-2006)</p>	<p>The major goal of this project is to increase the proportion of less acculturated Chinese adults who have been tested for HBV and, therefore, either have been vaccinated, are screened for liver cancer, or know they are immune to the disease.</p>
28. Lifestyle and breast tissue composition in Chinese & Caucasian women	
<p>PI: N Boyd Co-I: TG Hislop CBCRI \$416,207</p>	<p>The objective is to evaluate whether different patterns of diet and lifestyle in Chinese vs Caucasian women can account for differences in breast density, a major risk factor for breast cancer.</p>
29. Mammographic density, insulin resistance and breast cancer prevention	
<p>PI: M Borugian Co-I: RP Gallagher, TG Hislop, MN Pollak, JJ Spinelli CIHR \$30,737 (2006) \$110,377(2006-2009)</p>	<p>With a long-term goal of finding new ways to prevent breast cancer, the purpose of this study is to test whether mammographic density is influenced by level of insulin sensitivity (a measure of metabolic balance) and by phase of the menstrual cycle.</p>
30. Mechanisms underlying chromosomal instability in mammalian cells	
<p>PI: M Rosin NSERC \$158,400 (2003-2007)</p>	<p>We will test the hypothesis that one source of elevated chromosome alterations in cells results in reduced ability to correctly repair DNA double-strand break (DSBs) resulting in a higher level of residual damage that leads to complex chromosome changes.</p>

31. Methodologies for health impact assessment and gene identification	
<p>PI: N Le NSERC \$560,000 (2002-2007)</p>	<p>The objective is to develop statistical theories for improved health impact assessment and gene identification. The development will focus on three areas: spatial statistics, errors in co-variables, and gene identification.</p>
32. Molecular anatomy of head and neck cancer, a genomic/proteomic approach: Whole genome array CGH of progressing oral dysplasia	
<p>Co-PI: W Lam, M Rosin, L Zhang NIH US\$1,080,000 (2004-2008)</p>	<p>The goal of this project is to identify and catalogue genetic alterations and protein changes associated with development stages of oral cancer and to identify list of candidate genes that drive the transformation of oral premalignant lesions to tumours for further study and validation as molecular targets for novel early detection and treatment design.</p>
33. Molecular epidemiology of breast cancer	
<p>Co-PI: K Aronson Co-I: J Spinelli, C Bajdik, A Brooks-Wilson, et al CIHR \$261,062 (2005) \$118,483 (2006) \$783,418 (2004-2009)</p>	<p>The goals of this project are: 1) to determine breast cancer risk associated with relevant gene-environment interactions with control for confounders; and 2) to determine breast cancer risk associated with environmental factors according to various relevant breast cancer sub-groups (defined by ER status, PR status, HER-2/neu, etc.) with control for confounders.</p>
34. Multi-centric case-control studies of cancer and cell phone use: the Ottawa and Vancouver/Victoria components	
<p>PI: D Krewski Co-I: M McBride CIHR \$62,525 (2005) \$8,500 (2006) \$219,959 (2002-2006)</p>	<p>In an attempt to elucidate the role of radiation exposures in the etiology of selected adult cancers, the International Agency for Research on Cancer has developed a research protocol for a multi-site population-based case-control study in collaboration with investigators from 13 countries.</p>
35. Occupational oncology research program	
<p>PI: N Le Co-I: C Bajdik, A Brooks-Wilson, P Demers, R Gallagher, P Rather, J Spinelli, K Teschke WCB \$2,100,000 (2002-2005)</p>	<p>The major goals of this project are to provide data on occupational cancer relevant to the specific industrial and occupational context of BC, and to identify occupational cancer risk factors and potential carcinogens in the workplace with the overall objective of reducing risk.</p>
36. Occupational risk identification for ovarian cancer-renewal	
<p>Co-PI: J Bert, R Gallagher, B Lang, N Le WCB \$336,000 (2004-2006)</p>	<p>The purpose of this research is to identify potential carcinogens in the BC work environment for ovarian cancer.</p>
37. Oncology nutrition: Infrastructure program – team planning award	
<p>PI: R Levy-Milne Co-I: TG Hislop MSFHR Training Award</p>	<p>For project description see Sociobehavioural Research Centre.</p>

38. Optical systems for in vivo molecular imaging of cancer	
<p>PI: R Richards-Kortum, (U Texas) Co-PI: M Rosin et al NIH</p>	For project description see Cancer Imaging.
39. Optical techniques and oral precancer management	
<p>PI: MP Rosin Co-I: TG Hislop, ND Le, et al. NIH</p>	For project description see Cancer Imaging.
40. Organochlorines, ultraviolet radiation and gene-environment interactions in non-Hodgkin's lymphoma	
<p>Co-PIs: A Brooks-Wilson, J Connors, R Gascoyne, J Spinelli NCIC</p>	For project description see Genome Science Center.
41. Prediction of auxiliary lymph node involvement with molecular marker assessment of the primary tumor	
<p>PI: S Chia Co-I: CD Bajdik, DG Huntsman CBCF \$26,710 (2005-2006)</p>	The goal is to research the prediction of auxiliary (underarm) lymph node involvement with molecular marker assessment of the primary tumour.
42. Priority setting methods in cancer: Evidence-based marginal analysis	
<p>PI: S Peacock Co-I: J Spinelli, et al CIHR \$27,922 (2006) \$75,703 (2006-2009)</p>	The aim of the proposed study is to develop a new evidence-based method for setting priorities in cancer control and care in British Columbia. The objectives of the program are to develop two innovations in the program budgeting and marginal analysis (PBMA) framework, by: developing a new evidence-based approach based on economic principles; and, evaluating improvements in outcomes from evidence-based decision-making.
43. Selection bias and wire coding	
<p>Co-PI: M McBride, J Spinelli Co-I: G Mezei US Electrical Power Research Institute \$292,610 (2004-2007)</p>	The goal of this proposal is to evaluate the role of selection bias in the observed epidemiological association between exposure to extremely low frequency magnetic field (ELF-MF) and childhood leukemia.
44. Shift work, light-at-night and melatonin: Characterizing a new cancer-related occupational risk factors	
<p>PI: M Borugian Co-I: R Gallagher, N Le, K Aronson WCB \$29,322 (2003-2005)</p>	This pilot project will test methods to directly measure light-at-night during a 24-hour, 7-day protocol and to correlate shift work with measurements of light-at-night and melatonin levels.

45. Simulation of a population-based genetic testing program for cancer susceptibility	
<p>PI: C Bajdik Co-I: R Gallagher, J Spinelli, D Horsman, D Huntsman CIHR \$83,715 (2005) \$158,440 (2003-2005)</p>	<p>We will create a simulation model of cancer family history for people with germ line mutations in cancer susceptibility genes, and estimate the sensitivity, specificity and post-test likelihoods associated with family history as a predictor of carrier status for various cancer susceptibility genes and finally estimate the number of carriers that are eligible for a population-based genetic testing program.</p>
46. Solar exposure and melanoma survival	
<p>PI: Berwick Co-I: Gallagher, Armstrong NIH \$10,000 (2005-2006)</p>	<p>The aim of this project is to evaluate whether genetic mutation in the CDKN2A gene and sunlight exposure, which contribute to the development of melanoma, also influence survival from the disease</p>
47. Study of cancer risks among nurses in BC	
<p>PI: H Ward Co-I: R Gallagher, N Le, P Ratner, J Spinelli, K Teschke WCB \$1,825,850 (2001-2005)</p>	<p>The objective is to provide a feasible approach to developing the RN cohort registry and testing hypotheses on occupational cancer risks for nurses. The person-years estimates for this cohort have sufficient power to ascertain the relative risk for nurses developing a relatively rare cancer, such as leukemia. The results of this study will allow the WCB to target prevention efforts to high risk groups of registered nurses and other health care workers.</p>
48. Sun exposure, vitamin D, and prostate cancer	
<p>PI: R Gallagher Co-I: M Borugian, M Pollack, A Brooks-Wilson, J Spinelli CIHR \$166,513 (2005) \$490,908 (2003-2007)</p>	<p>We will determine whether there is an inverse relationship between ultraviolet radiation exposure and risk of prostate cancer and whether there is evidence of a dose-response relationship between exposure and risk.</p>
49. The psychological and behavioral consequences of providing information about mammographic breast density	
<p>PI: J Bortorff Co-I: TG Hislop Susan G. Komen Breast Foundation US\$260,000 (2001-2005)</p>	<p>The objective of this study is to conduct a randomized controlled trial of participants in the Screening Mammography Program of BC in order to determine the negative and positive outcomes of providing information about mammographic density, a strong risk factor for breast cancer .</p>
50. The role of prostate cancer support groups (PCSGs) in health promotion	
<p>PI: J Oliffe Co-I: JL Bortorff, TG Hislop, MR McKenzie CIHR \$30,128 (2005) \$61,010 (2006) \$147,021 (2005-2008)</p>	<p>This research project is an extension of a funded pilot study of three BC based PCSGs conducted during the past year. We will observe PCSG meetings and interview attendees to develop understandings about PCSGs, men's health behaviours and their connections to health promotion.</p>

51. The role of South Asian men's group (SAMG's) in men's health and illness behaviours	
<p>PI: J Oliffe Co-I: JL Bortorff, SK Grewal TG Hislop, CIHR \$75,00 (2005) \$75,000 (2006-2007)</p>	<p>The goal is to advance understandings about the role of SAMGs in men's health and illness behaviours. Using a qualitative ethnographic approach, fieldwork and participant observation will be conducted at six SAMGs and six men from each group will participate in individual interviews that focus on their health and illness behaviours.</p>
52. Translating target discovery into better health outcomes for women with breast cancer	
<p>PI: KA Gelmon, J Lee, M Bally, S Dedhar, S Chia, B Norris Co-I: CD Bajdik, et al CBCRA</p>	<p>For project description see Medical Oncology</p>
53. Treatment decision making and quality of life in East/South-East Asian women with ductal breast carcinoma in situ (DCIS)	
<p>Co-PI: G Hislop, S Wong CBCRA \$45,141 (2004-2005)</p>	<p>The goal of this study is to use data collected from focus groups to develop/refine decision making and quality of life measures to be included in a large scale survey of Caucasian and Asian women who are diagnosed with breast cancer.</p>

