



2005-001 Colorectal Cancer Awareness Campaign (NCRF, \$10,000)

Education to raise awareness in Northwestern Ontario about colorectal cancer

The NCRF launched *The Bottom Line* campaign in March 2005 to coincide with Colorectal Cancer Awareness Month. TV ads, radio spots, newspaper ads, and a whole section on the NCRF website promoted the importance of recognizing the danger signs of colorectal cancer and discussing the disease with a doctor or healthcare professional. Floor stickers were also placed at Quality Market, in every Medi-Plus pharmacy in Thunder Bay, and throughout the Thunder Bay Regional Health Sciences Centre as a unique way to get the message out. Caught early colorectal cancer is 90% curable.

2005-002 Prostate Awareness Campaign (NCRF, \$10,000)

Education to raise awareness in Northwestern Ontario about prostate cancer

The annual *Take It Like a Man* campaign raises awareness about prostate cancer throughout the region using several media including TV ads, radio spots, and newspaper ads. The odds are 1 in 8 men will have prostate cancer in their lifetime. This campaign is funded directly from proceeds of the annual *Bell Motorcycle Ride for Dad*.

2005-003 COPE – Linda Buchan Speaker Series (McMullen, \$3,000)

Education series for medical professionals

The Community Oncology Professional Education (COPE) is an annual professional education workshop for healthcare professionals focusing on screening, prevention, diagnosis, management, and prognosis of a different disease site each year. The Linda Buchan Speaker Series will allow COPE to invite relevant cancer experts from around the world to deliver the keynote speech. A short tribute to Linda will be included in each introduction to recognize her tremendous commitment to cancer research and treatment.

Dr. Mike Richards, National Cancer Director, National Health Service – England, introduced the series at the 6th National Summit on Community Cancer Control in June 2004.

2005-008 Volatile Organic Compounds in Breath as a Diagnostic Tool for Lung Cancer (Ross, Vergidis, \$97,835)

Research into a new method of diagnosing lung cancer

Prognosis for those diagnosed with lung cancer is poor and the 5-year survival rate is just 15%. The main factor is that lung cancer tends to be diagnosed in later stages where treatment options are limited. In a joint project between Regional Cancer Care and the Northern Ontario School of Medicine (NOSM), researchers will investigate the possibility of detecting gases released from the tumour on the breath of patients. This approach shows promise as a non-invasive routine test to catch lung cancer in its early stages. The initial research will study 50 patients with confirmed lung cancer, and measure specific markers of the disease in their breath before and after treatment.

2005-010 Anti-Cancer Activity of Boreal Shrub Extracts (Malek, Duivenvoorden, \$9,500)

Research into anti-cancer properties of local plants

Aboriginals of the area have traditionally used many local plants to prepare medicines for a variety of illnesses. This research project will take extracts from several selected boreal forest shrubs, and test their effectiveness in fighting cultured cancer cells in the lab. The research will provide insights into this novel approach to finding anti-cancer compounds, and will provide a foundation for future research into a broader range of plants.

2005-014 Blood Concentrations of Oxidants, Antioxidants, and Markers of DNA Damage in Cancer Patients of Different Ethnic Backgrounds (Vergidis, Suntres, \$150,000)

Research measuring levels of oxidants, antioxidants, and DNA damage in patients with select cancers

Over the last 25 years, scientists have found a connection between cancer and significant levels of DNA damage. Oxidants are one of the sources of this damage. Several antioxidants including Vitamin E, Vitamin C, glutathione, and lycopene are known to reduce the risk of cancer, though few studies have been conducted to examine the exact associations between oxidant/antioxidant imbalances and DNA damage.

This study will measure blood levels of oxidants, antioxidants, and markers that indicate DNA damage in patients with primary colorectal, lung, and breast cancers. The research will also note differences between patients of different ethnic backgrounds. This is a joint study between RCC and NOSM.

2005-015 Screening Guideline Tools (McMullen, Vergidis, \$14,975)

Education for health care professionals about the importance of incorporating screening guidelines

Family Physicians play a critical role in screening and early detection of cancer. However, despite the availability of clinical guidelines for early detection of cancer, evidence shows that health care professionals do not routinely use these guidelines in their daily practice.

This project aims to integrate nationally- and provincially-produced cancer screening guidelines through several clinical learning modules for breast, cervical, colorectal, and prostate cancers. These modules will be presented to Family Physicians, Family Medicine residents, community health representatives, and other healthcare professionals. Screening guidelines will also be produced including examination room posters and tear-off pads distributed regionally.

2005-009 Polymorphisms of Pro-Inflammatory Cytokine Genes (Zehbe, Holloway, \$215,590)

Research into why most cervical lesions regress while some develop into cancer

Virtually all cases of cervical cancer are caused by the HPV virus, but only about 1% of women who get this viral infection actually develop cancer. There are probably several factors involved, and one of those factors could be the woman's own immune system. This study will compare protein levels in the immune system of women who have lesions that regress with those that progress to see if a connection exists between low proteins and progression. If so, this knowledge can be used to design non-toxic and patient-specific immune therapies against cervical cancer.

2005-017 DNA Quantification of Radiation Dose (Arjune, Tassotto, \$62,700)

Research into cell damage of surrounding tissue during intensity-modulated radiation therapy (IMRT)

IMRT allows targeted delivery of radiation doses to tumours, which reduces the risk of affecting healthy tissue by screening the radiation stream at the source. As a result, higher doses of radiation can be used. However, not enough research has been performed to confirm that surrounding cells are in fact unaffected. This study will examine the tissue outside treatment field of radiation therapy patients to see how much radiation these cells receive. By quantifying the level of damage, oncologists and medical physicists will have more information when deciding appropriate treatment doses for specific patients.

2005-005 Assessing Distress in Haematology Patients (Sellick, Edwardson, \$9,794)

Research to find out when best to screen for psychological distress

Patients entering cancer treatment are routinely screened for psychological distress, which has been effective in identifying those who may require Supportive Care services as part of their treatment. Currently patients are assessed before their first consultation with a specialist, so there are no data on the benefits of testing at other points during treatment. This study will test haematology patients before and after their first consultation and compare results to determine the best time to test for psychological distress. This study will also examine the impact on the cancer system of treating haematology patients.

2005-023 HDR Brachytherapy Program for Advanced Stage Prostate Cancer (Gulavita, Pilatzke, Heiskanen, McGhee)

Treatment program using High-Dose Rate (HDR) brachytherapy for patients with advanced stage prostate cancer

Unlike most types of radiation treatment, HDR brachytherapy allows internal radiation dosing through a series of tubes that can be inserted into a body cavity or surgically implanted directly into a tumour. The Radiation Therapy Network at Regional Cancer Care is taking advantage of this flexibility by expanding their treatment scope to include a program for patients with advanced stage prostate cancer. Not only will this increase the disease-free survival period and reduce complications, it will also reduce treatment time from seven to five weeks.

2005-007 Real-Time PCR Machine (Northan, \$86,228.60)

Equipment for the Research Lab used to rapidly replicate DNA

Polymerase Chain Reaction (PCR) is a method of detecting and replicating DNA strands or even specific genes so that they are easier to study. This can help in a wide variety of research. For example, scientists can identify genes in certain patients that are resistant to chemotherapy, eventually leading to a method of “customizing” chemotherapy based on the patient’s genetic make-up. It will also help identify and examine specific genes related to cervical cancer (see 2005-009) and detect micrometastases (see 2005-16).

2005-006 Chemotherapy Equipment Upgrade (Sioux Lookout) (Hildbrand, \$9,950)

Equipment upgrade and expansion

The Chemotherapy Program at Sioux Lookout Meno Ya Win Health Centre is projected to increase by 5-7% in the next year. However, current resources have reached capacity and the equipment is aging. New equipment to be used to administer chemotherapy will help meet the increasing patient load and provide a higher level of comfort for patients.

2005-027 Enhancing “Closer to Home” Care (Fort Frances) (Clark, \$7,457)

Equipment upgrade and expansion

The Riverside Health Care Facilities Chemotherapy Unit has expanded its patient load capacity and space to meet growing demand. New equipment, including two chemotherapy chairs, an oxygen saturation monitor, and an IV infusion pump, will help increase patient service.

2005-025 Patient Safety Initiative (Dryden) (Furlong, \$16,555)

Equipment upgrade and expansion

The Chemotherapy Unit at Dryden Regional Health Care Services is expanding its patient care program and therefore requires new equipment including chemotherapy chairs, an infusion pump, and a vital signs monitor. A workstation will also be purchased for its new mental health counsellor.

2005-012 Treated Live Cell Imaging (Landry, McGhee, \$60,000)

Research into live cell imaging

The Medical Physics Lab at Regional Cancer Care has developed a novel imaging system that allows scientists to view live cells longer under a microscope with less interference in cell behaviour. Now that the method has been proven to be effective, researchers will take the next step by using these new techniques to study normal and cancer cell behaviour after selected treatments.

2005-004 Thunder Bay and District Breast Cancer Support (Varga, Hughes, \$5,000)

Program that supports women diagnosed with breast cancer

The Thunder Bay and District Breast Cancer Support Group provides much needed support to women who have recently been diagnosed with breast cancer and are undergoing treatment. The Group holds monthly meetings and publishes a monthly newsletter for women with breast cancer and their families.