



**2004-007** Assessment of Client Satisfaction (Edwardson, Sellick, \$34,297.33)

**Research** to determine patient satisfaction of Supportive Care Network services

This assessment will provide input about the Supportive Care Network's programs and the level of satisfaction of all clients (patients, family, and friends) who seek support or are referred to the program during cancer diagnosis, treatment, and follow-up. The results of the assessment will be evaluated to improve patient care services. The conclusions found in this study may also help similar programs elsewhere.

**2004-010** Monte Carlo Computation (McGhee, Tavares, Keeler, \$7,500)

**Equipment** to assist with radiation computations

The Monte Carlo (MC) computational technique is a method of *calculating* the interactions between radiation and matter (i.e. a radiation therapy patient) rather than *measuring* them, which is difficult. The technique uses a "law of averages" approach to calculate these interactions, but the process needs super computers and computer clusters in order to complete the calculations fast enough for practical use. A suitable system is nearing completion at Lakehead University; by participating in this project the Radiation Therapy Network team will gain expertise and capability using this new technique.

**2004-011** Lymphedema Program (McMullen, Pilatske, Anthes, \$88,000)

**Treatment** skills enhancement for treating Lymphedema

Approximately 15-20% of breast cancer patients develop lymphedema, an extremely debilitating condition that can occur when there is damage to the lymphatic system during surgery or radiation therapy. The lymphatic system removes excess water and proteins from the blood, as well as natural and foreign substances from tissue. The resulting lymph fluid then continues to the lymph glands, where it is filtered and returned to the blood stream. Damage or blockage to the system causes a build-up of lymph fluid.

Lymphedema is incurable and cannot be relieved by medication. It can lead to swelling, repeated infections, joint dysfunction, and associated pain. However the condition can be managed with the help of properly trained lymphedema experts.

The main goals of the project are to train three lymphedema health professionals, who will in turn pass along their knowledge to nurses and other health professionals in the region, and to formalize treatment pathways.

**2004-009** Treatment of Live Cells with Light (Landry, McGhee, \$10,000)

**Research** into Photodynamic Therapy (PDT) as a treatment method

The Medical Physics Research Group, a joint venture by the Medical Physics Department of the cancer centre and Lakehead University, has successfully established a live cell imaging system in its research lab. With the groundwork already laid, the next step is to investigate the effects of light on cell viability, with and without photosensitizing agents. This is the next step in developing a usable PDT treatment method against certain cancers including skin cancer. Grant includes equipment purchase of additional microscope components.

**2004-008 Equipment for Lake of the Woods District Hospital** (Tittlemier, \$12,000)

**Equipment** for Regional Cancer Care program in Kenora

Funds will be used to purchase an electronic vital signs monitor and a dedicated stretcher for the chemotherapy unit at Lake of the Woods District Hospital. Kenora is home to the largest chemotherapy unit in Northwestern Ontario outside of Thunder Bay. In 2003, the unit oversaw 620 treatments; the unit treats approximately 52 new patients each year.

**2004-017 Video Bronchoscope** (Bobinski, Gehman, \$40,000)

**Equipment** for video examination of the respiratory system

The main purposes of a video bronchoscope are to visually investigate suspected malignancies, and to provide bronchoscopic procedures such as tissue collection for biopsy and cleaning. The equipment can also be used to assist with the placement of radiation catheters during HDR brachytherapy for lung and esophageal cancers.

**2004-002 Equipment for In-Patient Cancer Care** (Hayden, \$40,000)

**Equipment** for patient treatment, in-patient oncology

Funds will be used to purchase IV Infusion Pumps, both dual and triple channel. Multi-channel pumps allow delivery of concurrent chemotherapy treatments for faster overall treatment times.

**2004-013 Research Lab Replacement Equipment** (Northan, \$85,000)

**Research/Equipment** for use in the Research Lab

Much of the equipment used in the Research Lab including sterilizers and incubators have outlived their expected operational life; some equipment is original from its inception. Funds will be used to replace aging equipment and to expand the lab's current inventory where necessary.

**2004-016 Oncology Interactive Education Series** (McMullen, \$41,684)

**Education** about site-specific cancers

The Oncology Interactive Education Series (OEIS), created by Princess Margaret Hospital, is a set of interactive CD-ROMs that describe 24 site-specific cancers in an engaging and meaningful way. Each CD contains information about the cancer and its treatments, and contains FAQs and links to other resources. The series is presented on two levels: General for patients, family and friends, and Clinical for health professionals. Funds for this project will also be used for upgrading the Patient Education Kiosk on the third floor (Main Reception area), and for purchasing new computer and server equipment dedicated to in-patient/out-patient educational use, available 24/7.

**Ongoing Grants (Year Two Funding)**

- Effects of BRCA1 and BRCA2 Mutations on Proliferation and Chemosensitivity in Breast Cancer – **Research** to determine if the presence of BRCA mutations results in faster tumour growth, increases in sensitivity to chemotherapy, and increases in the tendency for tumours to develop chemoresistance in both ovarian and breast cancers.
- CT Scanner – **Equipment** dedicated to cancer care for delineating tumour mass and planning radiation therapy. Previously only one CT Scanner was available in Thunder Bay, so the addition of this scanner has drastically reduced wait times.
- Targeted Spectroscopy of Biological Material – **Research** to develop and refine techniques for combining high-resolution imagery of tissues and cells with spectroscopic analysis. Associated with "Treatment of Live Cells with Light" (2004-009, above).