



**PSI**  
PSI FOUNDATION

**2010**  
**ANNUAL REPORT**

*Research & Education Funded by the Physicians of Ontario*

THE  
PHYSICIANS'  
SERVICES  
INCORPORATED  
FOUNDATION



### APPLICATION PROCEDURE

In order that proper consideration may be given to each application, applicants for research projects should submit requests **at least six months** prior to requiring funds. For deadline submission dates please visit the Foundation website.

While independent appraisals are obtained on most applications, the final decision on each application lies with the Grants Committee and the Board of Directors.

Application forms are available on the Foundation's website, and any inquiries about grants and fellowships should be directed to:

The Physicians' Services Incorporated Foundation  
5160 Yonge Street  
Suite 1006  
Toronto, Ontario  
M2N 6L9

Tel: 416-226-6323  
Fax: 416-226-6080  
e-mail: [psif@psifoundation.org](mailto:psif@psifoundation.org)  
website: [www.psifoundation.org](http://www.psifoundation.org)

Although the Foundation does not solicit funds, as a charitable organization it is able to accept donations or bequests and to provide receipts for tax purposes.

## **MISSION STATEMENT**

**The Physicians' Services Incorporated Foundation is a public charitable foundation, originally funded by the physicians of Ontario, whose mission is to support research and education related directly or indirectly to health, the science and practice of medicine, and the healing arts in Ontario.**

**THE  
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5160 Yonge Street, Suite 1006  
Toronto, Ontario M2N 6L9

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\*special Committee members

\*\* resigned during 2010

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**THE  
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What an amazing organization, created in 1970 when the Physicians' Services Incorporated evolved from a physician operated health care insurance plan to the current Physicians' Services Incorporated Foundation, serving the health needs of Ontarians through supporting medical research and education. Truly, it is a good news story, one of successful management by a dedicated Board of Directors from both the financial and medical communities. Our quiet excellence is well recognized by the research community, who have acknowledged the care and consideration of their grant applications and respect the useful critiques to enhance their proposal in advancing their research careers.

I consider it a privilege and honour to serve as the President of the P.S.I. Foundation, as a member of the House of Delegates— representing North Peel. It is truly humbling to recognize the dedicated time and talent of the Board and especially of the Finance and Grants committees who individually and collectively steer the Foundation safely and securely by supervising both detail and vision.

In 2010 the Foundation experienced a surge in quality grant submissions that we met with an enhanced, from \$4.4 to \$6 million, financial grant allowance. Aware of the economic factors world-wide and the availability of funding locally— our collective response was satisfying in providing funds to quality applications.

The P.S.I. investment performance recovered with the world markets— no major changes in portfolio managers were made, though each sector is monitored quarterly with an annual in person review by our Finance Committee. Vigilance is provided to assure retention of capital with growth by monitoring our investments with Benchmark Funds. We are fortunate to have the insight, integrity, and interest of our business community Board members.

The composition of the Board of Directors has changed this year. Dr. John Duff of London, Ontario had effectively served 3 years as President of the Foundation, Dr. Grant McKercher of North Bay resigned from the Board but continues to be on the House of Delegates. Three new board members were recruited from the House of Delegates, Dr. John Toye of Orillia, Plastic Surgeon, Dr. Andrew Ballard, Family Physician of St. Thomas, and Dr. Albert Schumacher, Family Physician, former President of the OMA and CMA of Windsor, Ontario. Dr. Robert McMurtry, Orthopedic Surgeon and former Dean of Medicine of London is proposed as a new Board appointed member for 2011.

In response to the recommendation of the external review committee chaired by Dr. McMurtry in 2009, new members of the Grants Committee are being recruited independent of the Board of Directors, to serve in addition to the two independent Grants Committee members, Dr. David McNeely of Toronto and Dr. Graeme Smith of Queen's, currently serving. Each appointee provides a unique focus to balance the needs of the applicants' wide spectrum of interest. We now peer review each application with three external reviewers familiar with the project's subject, and their evaluation is greatly appreciated both for scientific merit and clinical relevance.

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Internally, the P.S.I. Foundation had a change in Executive Director in 2010. We formally appointed Mr. Sam Moore, a 5 year employee with our Foundation as grants officer, to be our Executive Director in November 2010 after a term as acting director from May 2010. The transition was smooth with approval by our long time employees and the Board of Directors. I would like to thank our previous Executive Director, Ms. Kathy McGuire, for her input and assistance in the transition.

At the annual meeting– we celebrate our successes for the past 40 years– our present status in the medical research community- our financial stability– and look forward to continuing our path with the support of the House of Delegates from across Ontario to enhance the Health of Ontarians through insight and research in many aspects of Medicine and Medical Care.



Kathleen Armitage, B.A., M.D., F.R.C.P. (C), *President*

March 09, 2011

## ORGANIZATION

The Physicians' Services Incorporated Foundation was incorporated on June 4th, 1970 under the laws of the Province of Ontario, and is registered with the Canada Revenue Agency as a public charitable foundation under the Federal Income Tax Act.

The membership of the Foundation is composed of physicians representing each of the seventy-five medical societies in Ontario, the Ontario Medical Association and six other persons appointed by the Board for their interest in the Foundation's activities. These six members and eight physician representatives of the medical societies form the Board of Directors. The management of the Foundation is vested in this Board. An Executive Committee acts for the Board when required between meetings of the Board.

Recommendations on investment policy and granting are made to the Board by a Finance Committee and a Grants Committee respectively, both composed of members of the Board.

The Foundation's program as approved by the Board is administered by an Executive Director responsible to the Board.

## SOURCE OF FUNDS

The original capital of the Foundation came from the remaining funds of Physicians' Services Incorporated, the doctor-sponsored prepaid medical care plan.

## HISTORICAL BACKGROUND

Physicians' Services Incorporated commenced operation in November 1947 and soon became the largest prepaid medical care plan in Canada. P.S.I. was sponsored by the Ontario Medical Association and supported by about 8,000 practising physicians in the Province of Ontario. These participating physicians agreed to allow the Corporation to prorate their medical fees in order to meet administrative expenses and provide the reserves required by law.

In September 1969, P.S.I. ceased operation because of the implementation by the Ontario Government of what is now the Ontario Health Insurance Plan. The Board of P.S.I. and the participating physicians decided that the funds remaining in the general reserve, after meeting all obligations to subscribers and physicians, should be used to establish a foundation, the income of which would be applied to charitable activities within the health field.

## GRANTING POLICY AND PROGRAM

The Foundation is a granting agency and does not normally engage directly in charitable activities other than awarding medical fellowships. In accordance with the Federal Income Tax Act the Foundation cannot award grants to other than registered charities as defined by the Income Tax Act. Hospitals and medical schools come within this definition for the purposes of the Foundation's granting activities. Organizations seeking funds from the Foundation must provide the Foundation with the organization's charitable registration number issued by the Canada Revenue Agency. It is a policy of the Foundation to devote its funds to charitable endeavours in the health field within the Province of Ontario only.

The Foundation's granting interests are currently limited to two areas - education of practising physicians and health research with emphasis on research relevant to patient care.

## EDUCATION OF PRACTISING PHYSICIANS

### FELLOWSHIPS FOR PRACTISING PHYSICIANS

This program is directed at physicians in established practice in Ontario, particularly those residing outside of the teaching centres, who wish to take a period of training to bring a needed clinical skill or knowledge to the community or to undertake training in research methodology.

The fellowships are provided to cover course fees, if any, transportation, room and board costs. Funds are not provided to replace income lost while undertaking a training program and the program is not designed to assist physicians taking refresher courses.

## SPECIAL FELLOWSHIP

### THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION - FELLOWSHIP IN TRANSLATIONAL RESEARCH

The terms of this funding program are currently under review, and the Foundation intends to launch this funding program in 2011.

## HEALTH RESEARCH

Within this broad category the Foundation's preference is to support research into any clinical problem (other than cancer, heart and stroke, mental health, drug and alcohol abuse, pharmaceutical drug studies or where there is substantial funding available through other agencies) that is of direct relevance to the care of patients. In order of priority, the types of research the Foundation will consider are:

- (a) Clinical Research
- (b) Medical Education Research and Development at the post M.D. level
- (c) Health Systems Research
- (d) Healthcare Research by Community Physicians

## CLINICAL RESEARCH

Clinical research is defined as research that is of direct relevance to patient care. Studies involving animals will be considered only if the animals are required as an immediate patient surrogate and this should be indicated in a written statement attached to the application.

Applications will be considered only where a practising physician is the principal investigator, which is defined as one having direct patient care responsibilities. Applicants must possess an academic appointment, and academic appointment is defined as someone who is allowed to apply for his or her own research grants and be an independent investigator. Further in establishing priorities among the applications submitted, when scientific merit and clinical relevance are equal, preference will be given to the new investigator as opposed to the established investigator.

Fellows are eligible to apply for research grants, but are required to have a co-investigator who has an academic appointment. The fellow must provide evidence of having official hospital status, which should be in the form of a letter from his or her supervisor or department chair.

The duration of projects considered by the Foundation will be for a maximum of two years with the possibility of renewal for one further year. Except under unusual circumstances, the Foundation cannot consider applications for projects requiring more than \$85,000 per year.

## RESIDENT RESEARCH

Clinical research being undertaken by a resident will be considered if the project is supervised by a physician with an academic appointment and this is best evidenced by the physician being shown on the application as the applicant, with the principal investigator being the resident. Projects must not extend beyond a twelve month period and the maximum amount that will be provided per project is \$20,000.

The maximum the Foundation feels it can award in any year for all resident research is \$300,000 but as these applications are in competition with all others, the maximum amount expended could obviously be less depending on the Foundation's available funds.

Proposals within this category should be short term, concise projects, which have been largely developed by the resident. The majority of the work involved in completing the research must be done by the resident and the resident must append a letter to the application clearly describing what his or her role in the study will be.

The following is set out for the purpose of clarifying eligibility under the resident research program.

1. Salary for the resident must be provided by The Ministry of Health.
2. The individual must be in a recognized program leading to certification by the Royal College of Physicians and Surgeons or the College of Family Physicians. Residents in Royal College programs by accreditation without certification are also eligible.
3. Must be registered as a postgraduate student at the university where residency training is being taken.

The restriction whereby the Foundation will not consider applications for research within the areas of cancer, heart and stroke and mental health does not apply to resident research projects.

### MEDICAL EDUCATION RESEARCH

Limited funds are available for support of research and development projects designed to assess the post M.D. educational environment such as curricula, methods and teaching resources. The Foundation recognizes that research within this area may involve teams that include non-medical researchers and consultants.

### HEALTH SYSTEMS RESEARCH

Projects of a special nature within the health care system, such as preventive medicine, care of the elderly, communications within the system, underserved regions and ways of enhancing the effectiveness of medical practice will be considered under this category.

Projects within these categories should not exceed the maximum of two years' duration and the limit of \$85,000 per year set for clinical research.

### HEALTHCARE RESEARCH BY COMMUNITY PHYSICIANS

Within this category of funding, physicians practising in a community setting may apply for a grant to assist them in undertaking a review of their practice patterns which would enhance effectiveness of practice and patient care in their own clinic, hospital or region. Grants up to \$5,000 are available to cover the costs of the data gathering and analysis, support staff and preparation of reports. Up to an additional \$600 will be provided for travel costs incurred in presenting papers on the results of a community practice study. The Foundation does not exclude support of research in the areas of cancer, heart and stroke and mental health under the program of community-based research.

### AREAS OF NON-SUPPORT

While not an all-inclusive list, the following areas are not supported by the Foundation:

- Annual fund raising campaigns
- Building funds or other capital cost campaigns
- Research in the areas of cancer, heart and stroke, mental health, drug and alcohol abuse, pharmaceutical drug studies or where there is relatively more funding opportunities available through other agencies
- Operating costs of any organization or department
- Budget deficits
- Service programs
- Ongoing research previously supported by another funding agency
- Major equipment, unless required for a research project being supported by the Foundation
- Projects outside the Province of Ontario
- Films, books and journals.

The Foundation will support only one project, per investigator, at any given time. If an investigator is currently being supported by the Foundation as the principal investigator, the Foundation will not consider an application for a new project until the current granting period has ended.

## ASSISTANCE GIVEN

If in doubt as to whether a proposal would come within the interests or policies of the Foundation, please telephone or email the Executive Director at the Foundation office. Additionally, we are quite willing to assist applicants in the preparation of applications and, where required, to direct individuals to persons skilled in research design and research methodology.

## GRANTING ACTIVITIES – 2010

The Foundation reviewed 253 applications during 2010, having a total value of \$22,158,547. In the prior year, 205 applications with a total value of \$17,288,762 were reviewed.

The Foundation started 2010 with grant commitments of \$4,233,350 and during the year a further \$4,874,450 was approved in grants and programs.

The amount the Foundation paid on grants during 2010 was \$3,845,933, taking into account grant refunds of \$211,767.

At the end of 2010, commitments for future years stood at \$4,761,650, of which \$3,459,450 is payable in 2011.

## HEALTH EDUCATION

### EDUCATIONAL FELLOWSHIPS FOR PRACTISING PHYSICIANS

During 2010, \$45,950 was awarded to provide fellowship support to the four practising physicians listed below:

PHYSICIAN	SUBJECT
G. DiDiodato, Barrie	Clinical Trials Research Methodology
M. Levin, London	Virtual Colonoscopy
A. Sharma, Kitchener	Patient Safety Leadership
R.L. Trenholm, Huntsville	Musculoskeletal Medicine

## SPECIAL FELLOWSHIP

The P.S.I. Foundation Fellowship in Translational Research was not awarded in 2010.

## HEALTH SYSTEMS RESEARCH

In 2010, 4 grants were awarded under this category, totalling \$252,700. Three of these projects are highlighted below.

### IMPROVING THE SAFETY OF PATIENTS WHO PRESENT TO THE EMERGENCY DEPARTMENT WITH RESPIRATORY DISTRESS: AN ANALYSIS OF ADVERSE EVENTS

In emergency medicine, the decision of who to admit versus discharge can be a difficult one. Patients who are short of breath often come to the emergency department seeking treatment. This study will look specifically at patients diagnosed with pneumonia, flare-up of chronic lung disease (COPD) and water on the lungs (congestive heart failure).

Dr. Lisa Calder and her colleagues at the University of Ottawa are seeking to find out why these patients return to the emergency department after being sent home, and if this is due to a problem with how they were diagnosed. These cases will be broken down in terms of how the diagnosis was made, and preventable problems will be identified. In doing so, ways of preventing errors in diagnosis will be proposed, which will enhance patient safety for short of breath emergency patients. The Foundation provided a grant of \$39,800 for this one-year health systems project.

#### **RURAL WELL WATER CONTAMINATION AND HUMAN HEALTH: AN INVESTIGATION IN EASTERN ONTARIO**

Approximately 26% of the Canadian population utilizes groundwater as their primary source of drinking water. In Ontario, close to 30% of residents rely on groundwater, not only as a primary source of drinking water in rural areas, but also for irrigation and livestock watering. Contamination of drinking water by pathogens has been responsible for many of the recent waterborne disease outbreaks in North America. Both short and long-term health effects can occur subsequent to the consumption of contaminated drinking water.

This study brings together a team of researchers from the natural sciences, engineering sciences and health sciences to undertake a trans-disciplinary investigation into the extent of host specific (human or bovine) bacterial contamination across a large area in Eastern Ontario. The study methodology will link contamination risks to land use/cover in order to ascertain the role of agriculture, industry, natural cover, etc., in identified clustering of contamination. In addition, the human impacts of contaminated well water will be investigated through data associated with hospitals across the study region.

The components of this study are designed to improve environmental policy related to ground source water protection across the country. A more thorough understanding of the implication of groundwater contamination is critical for long-term environmental protection and short-term safety interventions. The Foundation has awarded a grant of \$170,000 to Dr. Gerald Evans and his colleagues at Queen's University, for this two-year project.

#### **VIDEO-BASED STUDY OF COMMUNICATION DURING HANDOVERS: HOW DO INTENSIVE CARE PHYSICIANS USE SBAR?**

Hospital handovers are crucial and commonplace, and health professionals must frequently exchange information about, control over, and responsibility for their patients. Communication breakdowns during handovers have been associated with patient harm and system inefficiencies.

To improve patient safety, research groups and patient safety organizations have already been promoting handover best practices. In particular, using standardized procedures such as SBAR, a mnemonic reminding participants that every handover should include the patient's Situation and Background, and the clinician's Assessment and Recommendation, have been recommended worldwide. However, using SBAR has never been shown to improve handover's effectiveness or patient safety. Furthermore, it is remarkable how little is known that could provide a basis for improving handover practices.

Dr. Roy Ilan of Queen's University recently created a corpus of digital video to be used for physician handover research. In a preliminary study, Dr. Ilan found that experienced physicians did not consistently cover SBAR elements in their handovers.

The objective of this one-year study, for which Dr. Ilan has been awarded a Foundation grant of \$25,400 is to expand current understanding of communication during handovers between experienced intensive care unit physicians, and it will determine the structure and content of handovers, in particular the presence of SBAR elements.

#### **RESEARCH BY COMMUNITY PHYSICIANS**

There were no grants awarded under this program in 2010.

## MEDICAL EDUCATION RESEARCH

In 2010, 3 grants were awarded in this category for a total of \$136,300, and the projects funded are highlighted below.

### THE OTTAWA SURGICAL COMPETENCY OPERATING ROOM EVALUATION (O-SCORE) – EVALUATION OF A TOOL TO ASSESS SURGICAL COMPETENCE ACROSS SPECIALTIES

Surgical training programs are responsible for ensuring graduate competency. This includes the ability to perform surgical procedures successfully. In most training programs, the ability to do these procedures is evaluated primarily by general observations documented under “technical skills” on In-training Evaluation Reports. The investigators’ piloting of a novel surgical assessment tool anchored on competency for independent practice in a surgery program demonstrated a significant effect of postgraduate year (PGY) level with higher scores for increases in training level, except PGY 4 and 5, regardless of procedure type. Qualitative analysis indicated staff surgeons found it easy to use, and trainees found it improved feedback. This original scale has been refined to a nine-question tool named the O-SCORE.

This medical education research project, being undertaken by Dr. Wade Gofton and his co-investigators at the University of Ottawa, is designed to assess the reliability and validity of the O-SCORE, and its generalizability across surgical specialities. If the O-SCORE proves its validity and feasibility across procedures and specialities, it could provide a more objective and reliable measure of peri-operative decision making and procedural competency. It may also prove to be of value in determining the ideal number of cases that trainees should see/do to establish competency or be of value in identifying trainees in need of extra assistance earlier. The Foundation has provided a grant of \$24,000 for this one-year project.

### THE USE OF WEB-BASED INTERACTIVE 3D ANATOMIC MODELS FOR TEACHING ULTRASOUND GUIDED NEURAXIAL NERVE BLOCKS

Neuraxial nerve blockade is the technique of blocking nerve activity in the spine with local anesthetics to prevent pain during surgery, or relieve chronic pain. Neuraxial blocks are challenging, as the needle must be inserted between the bones of the spine to reach the spinal cord and nerves. Recently, ultrasound has been used for checking the spinal anatomy before the block, and guiding the needle insertion, reducing the time and number of attempts to achieve successful nerve blocks. This use of ultrasound introduces a new skill in delivering neuraxial blockade, creating a need for new teaching aids for physicians learning this skill.

Translating the two-dimensional ultrasound images into the three-dimensional anatomical structures of the spine is difficult. To allow students to understand the anatomic structures seen in ultrasound images, this study will create an online teaching module synchronizing video recording of the spinal ultrasound images with three-dimensional anatomical models of the structures seen in the ultrasound images. Ultimately, the module will be made freely available on the Web for medical educators and physicians being trained around the world. Dr. Ahtsham Niazi of Toronto Western Hospital was awarded a grant of \$69,100 for this one-year medical education research project.

### GUIDED ACUTE RESUSCITATION: DOES EDUCATION DEPEND ON TRAINEES’ INTERACTIONS AND PARTICIPATION? (THE GUARDED TIP STUDY)

Patient safety concerns and increased patient acuity have re-shaped postgraduate medical training conditions. These changes have put pressure on senior physicians supervising residents’ clinical activities to get more involved in patient care. Direct supervisor involvement, by altering the nature of the supervisor-trainee interactions and resident participation in patient care, could affect resident learning.

The main objectives of this two-year qualitative study, being undertaken by Dr. Dominique Piquette of Sunnybrook Health Sciences Centre and supported by the Foundation with a grant of \$43,200, are to better understand: 1) how a closer level of supervision during acute resuscitation episodes affects the interactions between the residents, their supervisors, and their clinical environment; and 2) how these changes affect resident understanding of specific resuscitation episodes. The study will identify factors that could be targeted by educational interventions in order to optimize resident learning when patient safety forces supervisors to directly intervene in patient care.

## CLINICAL RESEARCH

The total approved under the category of clinical research during 2010 was 50 grants for \$4,439,500 and some of the projects supported in this category are highlighted below.

### PROMOTE: PRESCHOOLERS AT RISK-OBESITY AND CARDIOMETABOLIC RISK FACTORS: TOWARDS EARLY IDENTIFICATION

Over 25% of preschool children in Canada are overweight or obese, and the metabolic syndrome comprises a cluster of factors including obesity, abnormal insulin, blood pressure, and cholesterol that is associated with diabetes and heart disease in adulthood. Cardiometabolic factors in adolescents were shown to increase risk of diabetes in adults, and large gaps in knowledge exist on these factors in preschool children.

The objectives of this study include to characterize cardiometabolic factors in preschool children, understand the relationship between these factors and obesity, and the influence of familial/lifestyle factors on these relationships. Early identification of these factors in young children can lead to directed obesity prevention interventions. The Foundation has awarded a grant of \$168,200 to Dr. Catherine Birken of the Hospital for Sick Children, for this two-year study.

### PATIENTS' PERSPECTIVES ON TOTAL ANKLE ARTHROPLASTY: A QUALITATIVE STUDY EXPLORING PRE- AND POSTOPERATIVE EXPERIENCES

To a person with ankle arthritis, tripping over a crack in the sidewalk or twisting an ankle on uneven ground can be extremely painful. It often leads them to be constantly vigilant about where they are about to step. Ankle replacement hopes to alleviate this pain and improve functioning for these people. Many questionnaires focus on walking distances or difficulty, but do not capture these important issues for ankle patients.

This program of research will conduct interviews with people who have ankle arthritis and get an in-depth description of the experience of ankle arthritis and the challenges faced before and after ankle replacement. In a later phase of the work, testing will be moved to a facility where the environment can be changed (slippery conditions, uneven ground) so that how well ankle replacement is working for patients can be tested.

This two-year study, being undertaken by Dr. Timothy Daniels and his colleagues at St. Michael's Hospital with a Foundation grant of \$85,500, will be the first to describe patients' views of total ankle replacements, and changes to their mobility after the surgery. By understanding the patients' experiences with ankle arthritis and total ankle replacements, improved patient-report tools can be designed to evaluate functional outcome, and nonsurgical treatment options can be further developed to address challenges to mobility before surgery, such as better shoe designs.

### NEUROVISION PILOT STUDY

Two hundred million adults worldwide have major surgery every year. A million of these patients will have an obvious stroke after their surgery. Another 10 million patients may have "silent" strokes. Although silent strokes are not diagnosed immediately, they are likely to reduce patients' short-term memory, concentration, and ability to function at home. However, it is not known how common silent strokes are after non-cardiac surgery, nor the extent to which they affect brain function.

This one-year pilot study, being undertaken by Dr. P.J. Devereaux of McMaster University with a Foundation grant of \$85,000, will determine the feasibility of a larger study to provide the definitive answer to this question. Participating patients will be assessed by questionnaire before and after surgery and will have a magnetic resonance imaging (MRI) study of the brain after the surgery to look for silent strokes. Combining the results of the MRI and the questionnaires will allow the investigators to determine the frequency of silent strokes after non-cardiac surgery, and their affect on brain function.

Over 10 million adults worldwide may suffer a silent stroke after surgery, and the NeuroVISION pilot study will determine the feasibility of a larger study to examine the frequency and the impact of silent stroke in patients who undergo non-cardiac surgery.

#### **PILOT STUDY FOR THE DETERMINATION OF DEATH AFTER CARDIAC ARREST**

Until recently, organ donation in Canada could only be done after a patient was declared brain dead. Because there is a shortage of organs for donation, people are dying while waiting for a transplant. To increase the number of organs, another type of organ donation called "donation after cardio-circulatory determination of death" is now being done. However, one concern for doctors and families is "How long to wait after the heart has stopped to begin organ donation?"

Currently, no standards exist for the cardio-circulatory determination of death, yet protocols have been implemented for cases involving organ donation after cardio-circulatory determination of death (DCDD). Prior to conducting a large, multi-centre observational study, a pilot study is needed to assess the feasibility of collecting data on the physiological changes that occur during the dying process and in the post mortem period after cardiac arrest following the withdrawal of life sustaining therapy.

The Foundation has awarded a grant of \$133,000 to Dr. Sonny Dhanani of the University of Ottawa, for this two-year study. It is hoped that the results will lead to the development and implementation of standards for the determination of death for the purpose of DCDD in Canada.

#### **PREDICTING ALLERGIC RISK AT BIRTH THROUGH CORD BLOOD ANALYSIS**

Allergic diseases have reached epidemic proportions in Canada; almost 40% of Canadians are now affected by at least one allergic condition. To slow this 'epidemic,' we must better understand what predisposes children to allergies. It is known that having a mother with allergy places a child at higher risk, but the reasons remain unclear.

In this two-year study, being funded by the Foundation with a grant of \$148,500, Dr. Anne Ellis of Queen's University will look for differences in the immune systems of babies at high risk for allergy compared to those that are low risk, and track these children to see if they develop allergy. The goal is to find biomarkers in umbilical cord blood that will help predict who is at risk for developing allergies in the future. In this way, high risk children will be identified for early intervention and preventative strategies to reduce the burden of allergic disease, both in the affected children and in the Canadian population as a whole.

#### **PLACENTAL STEREOLOGY IN COMPLICATED MONOCHORIONIC DIAMNIOTIC TWIN PREGNANCIES**

Most identical twins share a placenta. Unfortunately, having to share a placenta can cause problems for one or both twins. For example, one twin's growth may be slow, or it may become dangerously anemic. Sometimes these difficulties are severe enough to threaten the twin's lives and doctors have to intervene.

The placenta itself is composed of a branching, tree-like arrangement of structures called villi, each containing blood vessels that belong to the developing baby. These villi are microscopic structures that enable nutrients to pass to the developing baby while waste products pass safely to the mother. Problems with these villi can therefore have an impact on the baby's wellbeing.

The aim of this resident research study, being undertaken by Dr. Brendan Fitzgerald of Mount Sinai Hospital, and his supervisor Dr. Sarah Keating, is to perform a detailed examination of the structure of these villi, using a technique called stereology. This process uses principles from geometry and statistics to measure the development of villi in each twin's placental share. If differences are found between the villi of the two twins, it may help to explain why problems occur. Knowing why these problems occur is the first step towards better care of these patients. A grant of \$15,500 has been awarded to these investigators for this 18-month project.

#### **IN VIVO PREDNISOLONE/PREDNISONE PHARMACOKINETIC STUDY IN CHILDREN WITH ASTHMA EXACERBATIONS**

The standard of practice in treating children with an acute attack of asthma is to give corticosteroid drugs early in the course of the attack. These drugs decrease symptoms, provide faster time to recovery and improve quality of life. However, there is 100% variability in a child's response to corticosteroids at a standard dose which is based primarily on adult studies.

The overall objective of this study, being undertaken by Dr. Karen Forward, and her supervisor Dr. Michael Rieder of the University of Western Ontario, is to define the optimal dose of two corticosteroid drugs, prednisone and prednisolone, which are very commonly used in asthma exacerbations in children. In order to achieve this objective, the first step is to determine how the drug is absorbed, distributed, metabolized, and eliminated by the body via a pharmacokinetic profile.

Optimal dosing will help to minimize adverse effects of steroids, especially in children who have difficult or corticoid resistant asthma. This information is also important to increase education about how corticosteroids are metabolized by children with asthma, which can have consequences both in future studies of pharmacodynamics and pharmacogenetics of corticosteroid use in children. The Foundation has awarded these investigators a grant of \$19,000 for this one-year resident research project.

#### **DOES BREATHING HELIUM-HYPEROXIA INCREASE THE TOLERANCE OF ONE-LEGGED EXERCISE IN VENTILATORY LIMITED PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE?**

COPD is a lung disease. Regular exercise can help patients with COPD. Exercise training is the most important part of a respiratory rehabilitation program; therefore, patients with COPD go to respiratory rehabilitation. However, COPD patients have a hard time with exercise training. Their lung disease limits their ability to breathe. One way to improve their exercise program is to train with one leg at a time; another way is to make their exercise easier by breathing a mixture of helium and extra oxygen. It is not known whether putting the two methods, one-legged and helium, together will improve their exercise program even more.

The Foundation awarded Dr. Roger Goldstein and his colleagues at West Park Healthcare Centre a grant of \$54,800 to undertake this one-year study, which will assess whether breathing helium during one-legged exercise improves exercise endurance. If it does, there may be a reason for combining one-legged exercise with breathing helium as part of a respiratory rehabilitation program.

#### **SOFT TISSUE INJURY MODEL OF THE CERVICAL SPINE FOLLOWING UNILATERAL FACET DISLOCATION**

Unilateral facet injuries are relatively common in the sub-axial cervical spine. They include a spectrum of injuries, such as subluxations, dislocations and fractures; however, the range of instability varies greatly depending on the pattern of injury produced. Hence, the treatment for unilateral facet dislocations is variable and there is little in the way of established guidelines to direct and describe the most appropriate treatment. This is partially due to a lack of biomechanical studies focused on evaluating changes in spinal stability following various injury patterns. The extent of anatomical disruption secondary to unilateral facet injury is poorly understood, and few studies have been able to quantify the associated instability. This knowledge would allow physicians to better evaluate which treatment is most appropriate.

The objective of this resident research study, being undertaken by Dr. Melissa Nadeau, and her supervisor Dr. Chris Bailey of the University of Western Ontario, is to create an experimental model representing a unilateral facet dislocation of the spine. The nature of this injury is poorly understood, and improving knowledge surrounding the injury mechanism will ultimately lead to improved treatment. The Foundation has awarded these investigators a grant of \$19,200 for this four-month study.

#### **USE OF ACASI TO GATHER INFORMATION ON RISK BEHAVIOURS IN A REFERRAL POPULATION OF PREGNANT CANADIAN ADOLESCENTS**

The Hospital for Sick Children has a specialized, multidisciplinary program to care for pregnant adolescents. It has been noted that many of these patients are involved in high risk social behaviours, be they related to consumptions, abuse or exposure to violence. Anecdotally, it is found that many of these behaviours do not come to light unless a crisis develops, despite a thorough history-taking at initial presentation.

Dr. Rachel Spitzer of the Hospital for Sick Children proposes to use a novel interviewing methodology, ACASI (auto computer-assisted self interview) which is self-administered and therefore removes the perceived stigma of a traditional interview, and to compare the responses received to those obtained in the traditional history taken at the first encounter with the pregnant teen. ACASI has been known to elicit more evidence of stigmatized behaviours in an adolescent population than traditional interviewing methods. The findings from this two-year study, which the Foundation is supporting with a grant of \$37,800, could have widespread implications to improve the care and programs offered to pregnant adolescents, to minimize their risk behaviours and improve their and their children's health.

#### **POST-CONCUSSION SYNDROME IN PROFESSIONAL ATHLETES: A MULTIDISCIPLINARY STUDY**

Concussions are injuries to the brain that can be sustained in sports such as football and hockey, and may also result from other incidents such as motor vehicle collisions, falls and assaults. The long term effects of repeated concussions are not well understood, but anecdotal evidence suggests that in some cases multiple concussions can give rise to dementia.

In this study, being undertaken by Drs. Richard Wennberg and Charles Tator of Toronto Western Hospital, the possible link between repeated concussion and deterioration of brain function will be investigated, using a group of former professional football players with multiple concussions, versus two control groups: former professional football players who played in low concussion exposure positions, and healthy age-, sex- and education-matched adults who are not football players. Neurological, cognitive, psychosocial and pathological documentation of the long term effects of repeated concussions will provide the impetus for injury prevention and also help to understand the patient's long-term medical and supportive care needs, and guidance for therapy.

This study will not only provide a basic understanding of the pathogenesis of any potential neurodegenerative process associated with repeated concussion, but also has the potential to influence public health and clinical practice and guide the prevention of brain injury due to concussion in sports. The Foundation has provided a grant of \$170,000 for this two-year project.

## FINANCIAL REPORT

### 2010 OVERVIEW

- Original investment by the doctors of Ontario: \$16.7 million in 1970
- Market value of assets as of December 31, 2010: \$81.1 million before accruing for future grant commitments (2009 – \$80.7 million)
- Increase in value of assets over prior year: \$500,000 (2009 – \$7.8 million)
- Rate of return on investments: 7.0%, consisting of 3.8% from dividends and interest and 3.2% from an increase in market value of investments (2009 combined return 17.6%)
- Grants approved in 2010: \$4.8\* million (2009 – \$4.6 million)
- Grants paid in 2010: \$3.8 million (2009 - \$3.7 million)
- Total grants paid since inception: \$105.8 million
- Future grant commitments at 2010 year end: \$4.8 million, with \$3.5 million payable in 2011, the remainder in 2012 (2009 - \$4.2 million with \$3.3 million payable in 2010)
- Operating costs, including investment management fees: \$1.2 million (2009 - \$1.2 million)
- Operating costs as percentage of assets under management: 1.6% (2009 - 1.6%)
- Asset allocation at year end:
 

	2010	2009
Canadian bonds	33%	37%
Canadian equities	35	31
U.S. equities	20	18
International equities	9	11
Cash	3	3

\*before refunds and withdrawals

### 2010 IN DETAIL

The year 2010 was marked by uneven performance in equity markets with the first quarter continuing the recovery that began in 2009, but in the second quarter there was a sharp reversal in all markets as the repercussions of concerns about sovereign debt in the smaller economies of Europe started to spread to other international markets.

The third and fourth quarters featured the return to positive growth in North American equity markets, but uncertain conditions remained in Europe with Ireland joining Greece in requiring financial support and concerns about Portugal and Spain continued to increase. The uncertainties pertaining to European sovereign debt affected our international equity portfolio which is heavily concentrated in the financial sector in Western Europe and particularly in France and Spain.

The benefits of diversification in our overall portfolio were illustrated in 2010 as the strong performance of Canadian and U.S. equities along with another good year for the bond portfolio more than offset the negative return on international equities. We achieved an overall return of 7.0% on the market value of the assets of the PSI Foundation during 2010, resulting in a year-end value for our assets of \$81 million.

Although our fixed income portfolio managed by Beutel Goodman had a yield of 7.0% for the year, the extended period of low interest rates in the major economies of the world will eventually mean lower yield for the bonds in our portfolio, and a reduction in funding for our grants programme from this source. As a consequence we have allowed the fixed income component of our assets to decline to 33% of our total assets vs. our traditional allocation of about 40% and we expect this percentage to decline further in 2011.

The first signs of modest inflationary pressures in the major economies is likely to result in higher interest rates in the next few years which usually happens after large quantities of stimulus money is injected by governments such as has recently occurred.

The Canadian equity portfolio managed by Magna Vista, a unit of Doherty and Associates, had a satisfactory year with a return of 11.3%, although this was less than the TSX Composite Index which reflected a very good year due to commodity prices to which our portfolio is not particularly exposed, other than the oil and gas sector. Our portfolio does not have the index weighting in commodities such as precious metals and base metals.

The U.S. equity portfolio administered by Neuberger Berman had a good year with a return of 15.7% being slightly higher than the S&P 500 Index. The Canadian dollar remained close to parity with the U.S. dollar throughout the year and therefore foreign exchange adjustments did not have a major effect on the market gains made during the year.

The international equity portfolio managed by AGF International Advisors had a difficult year with a loss of 11.3% for the reasons mentioned above. However, our international equity investments represent the smallest component of our assets at 9% of the total.

Operating and administrative expenses in 2010 remained at \$1.2 million as they have since 2007, a reflection of the effective control of such costs by the small staff that manages the affairs of the Foundation.

A larger number of grants is now being approved from a larger number of applications and along with the intent to have grant applications screened by a larger number of reviewers, will result in some increased costs. Grants having a value of \$4.8 million were approved in 2010, but after refunds and cancellations the net amount recorded as an expense during the year was \$4.4 million. In 2011 the approved level for grants has been set at \$4.6 million.

It is difficult to project what is likely to be the net result of equity markets in 2011. The recovery from the difficult period of September 2008 to April 2009 has been somewhat erratic, but over a long period will inevitably be positive. Events during the first few weeks of 2011 have illustrated how susceptible market conditions are to unforeseen events, such as the upheavals and changes in North Africa with the consequent affect on the market price for that very important commodity oil, and which has now been followed by a very major earthquake in Japan.

The obligations of the U.S. government continue to attract concern and whether or not the U.S. government will be able to maintain its superior credit rating has been put in doubt recently by some major holders of U.S. government securities.

What is certain is that the P.S.I. Foundation will maintain its consistent level of granting to fund peer-reviewed medical research throughout 2011 as it has done for the last 41 years.

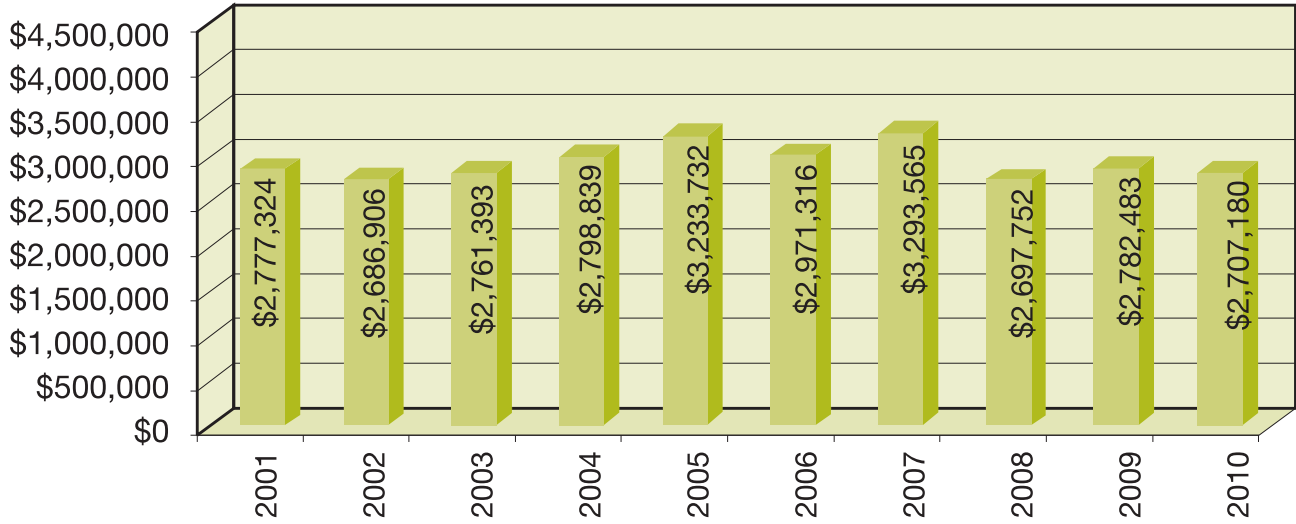
THE  
PHYSICIANS'  
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FOUNDATION

FINANCIAL SUMMARY

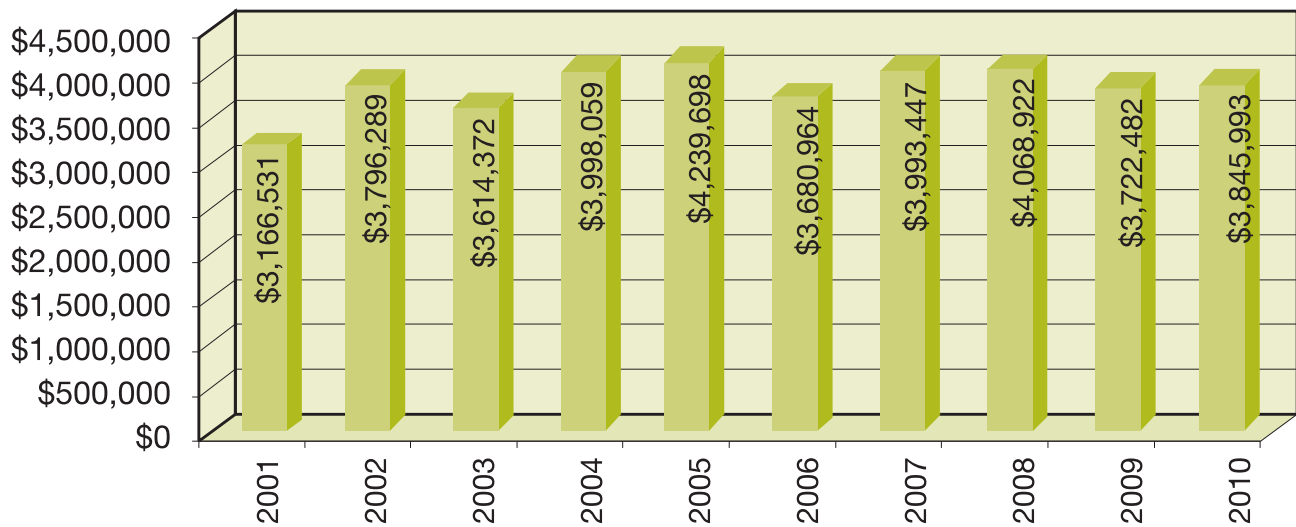
1970 - 2010

Donated Capital		\$ 16,693,123
Plus Capital appreciation	\$ 81,919,208	
Revenue earned	\$108,794,433	190,713,641
		<u>207,406,764</u>
Less: Charitable contributions	106,862,397	
Investment & administrative expense	24,237,622	131,100,019
		<u>76,306,745</u>
Net assets, December 31, 2010		76,343,906
Net assets, December 31, 2009		<u>76,343,906</u>
Decrease for year		<u>(37,161)</u>
Consisting of:		
Deficit for year		(2,935,430)
Capital appreciation on investments		2,898,269
		<u>(37,161)</u>

REVENUE 2001 - 2010



GRANTS PAID 2001 - 2010





## INDEPENDENT AUDITORS' REPORT

To the House of Delegates of The Physicians' Services Incorporated Foundation

We have audited the accompanying financial statements of The Physicians' Services Incorporated Foundation which comprise the statement of financial position as at December 31, 2010, the statements of operation, changes in net assets, and cash flows for the year then ended, and notes comprising a summary of significant accounting policies and other explanatory information.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform an audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of The Physicians' Services Incorporated Foundation as at December 31, 2010, and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

A handwritten signature in black ink that reads 'KPMG LLP'. The signature is written in a cursive, slightly slanted style. Below the signature is a horizontal line that starts under the 'K' and ends under the 'P', with a small upward tick at the end.

Chartered Accountants, Licensed Public Accountants

Toronto, Canada  
February 23, 2011

**THE  
PHYSICIANS'  
SERVICES  
INCORPORATED  
FOUNDATION**

**STATEMENT OF FINANCIAL POSITION  
DECEMBER 31, 2010, WITH COMPARATIVE FIGURES FOR 2009**

	2010	2009
<b>ASSETS</b>		
Cash and cash equivalents (note 2)	\$ 2,551,922	\$ 2,668,717
Bonds and debentures (note 3)	26,234,784	29,147,059
Shares (note 3)	51,909,999	48,366,936
Dividends and interest receivable	318,212	318,054
GST receivable	23,591	11,499
Capital assets (note 4)	-	1,502
Accrued benefit asset (note 8)	103,848	139,894
	<b>\$ 81,142,356</b>	<b>\$ 80,653,661</b>
<b>LIABILITIES AND NET ASSETS</b>		
Liabilities:		
Accounts payable and accrued liabilities	\$ 73,961	\$ 76,405
Grants payable (note 5)	4,761,650	4,233,350
	<b>4,835,611</b>	<b>4,309,755</b>
Net assets:		
Invested in capital assets	-	1,502
Internally restricted capital (note 6)	76,306,745	76,342,404
	<b>76,306,745</b>	<b>76,343,906</b>
Lease commitments (note 7)		
	<b>\$ 81,142,356</b>	<b>\$ 80,653,661</b>

See accompanying notes to financial statements.

On behalf of the Board:

K.J. Armitage, M.D., *President*

G. Farquharson, Chairman, *Finance Committee*

**THE  
PHYSICIANS'  
SERVICES  
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FOUNDATION**

**STATEMENT OF OPERATIONS  
YEAR ENDED DECEMBER 31, 2010, WITH COMPARATIVE FIGURES FOR 2009**

	2010	2009
<b>REVENUE:</b>		
Interest on bonds and debentures	\$ 1,189,418	\$ 1,457,589
Dividends	1,516,869	1,322,217
Interest on short-term notes	893	2,677
	<u>2,707,180</u>	<u>2,782,483</u>
<b>EXPENSES:</b>		
Investment management fees	460,845	425,440
Administrative:		
Salaries and benefits	394,867	409,734
Board and committee expenses	97,212	121,603
Rent and maintenance	73,919	87,197
Office supplies and expenses	62,690	37,458
Safekeeping charges	64,680	60,805
Legal and audit fees	21,966	30,952
Information services and annual report	8,942	8,942
Amortization of capital assets	1,503	4,416
Delegate and annual meeting expenses	16,299	11,791
Referees' fees	65,455	47,881
	<u>807,533</u>	<u>820,779</u>
Grants	4,374,233	4,570,382
	<u>5,642,611</u>	<u>5,816,601</u>
Excess of expenses over revenue before the undernoted	(2,935,431)	(3,034,118)
Other income/expenses:		
Realized gain (loss) on sale of investments	1,802,718	(1,319,513)
Unrealized gain (loss) on investments	1,095,552	11,362,959
	<u>2,898,270</u>	<u>10,043,446</u>
Excess of revenue over expenses (expense over revenue)	\$ (37,161)	\$ 7,009,328

See accompanying notes to financial statements.

THE  
PHYSICIANS'  
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STATEMENT OF CHANGES IN NET ASSETS  
YEAR ENDED DECEMBER 31, 2010, WITH COMPARATIVE FIGURES FOR 2009

	2010			2009	
	INVESTED IN CAPITAL ASSETS	INTERNALLY RESTRICTED CAPITAL	UNRESTRICTED	TOTAL	TOTAL
Balance, beginning of year	\$ 1,502	\$ 76,342,404	\$ -	\$ 76,343,906	\$ 69,334,578
Excess of revenue over expenses (expenses over revenue)	(1,502))	-	(35,659)	(37,161)	7,009,328
Internally restricted capital (note 6)	-	(35,659)	35,659	-	-
Balance, end of year	-	\$ 76,306,745	\$ -	\$ 76,306,745	\$ 76,343,906

See accompanying notes to financial statements.

**THE  
PHYSICIANS'  
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INCORPORATED  
FOUNDATION**

**STATEMENT OF CASH FLOWS  
YEAR ENDED DECEMBER 31, 2010, WITH COMPARATIVE FIGURES FOR 2009**

	2010	2009
Cash provided by (used in):		
Operations:		
Excess of revenue over expenses (expenses over revenue)	\$ (37,161)	\$ 7,009,328
Items not involving cash:		
Amortization of capital assets	1,502	4,416
Unrealized (gain) loss on investments	(1,095,552)	(11,362,959)
Change in non-cash operating items	549,652	922,939
	(581,559)	(3,426,276)
Investing:		
Decrease in bonds and debentures	3,271,935	1,329,208
(Increase) decrease in shares	(2,807,171)	3,376,232
	464,764	4,705,440
Increase (decrease) in cash and cash equivalents	(116,795)	1,279,164
Cash and cash equivalents, beginning of year	2,668,717	1,389,553
Cash and cash equivalents, end of year	\$ 2,551,922	\$ 2,668,717
Supplemental cash flow information:		
Grants paid during the year	\$ 4,057,700	\$ 3,736,650
Grant refunds received during the year	(211,767)	(14,168)
Grants paid, net of refunds	\$ 3,845,933	\$ 3,722,482

See accompanying notes to financial statements.

**THE  
PHYSICIANS'  
SERVICES  
INCORPORATED  
FOUNDATION**

**NOTES TO FINANCIAL STATEMENTS  
YEAR ENDED DECEMBER 31, 2010**

The Physicians' Services Incorporated Foundation (the "Foundation") is incorporated without share capital under the laws of Ontario. Under the Income Tax Act (Canada), the Foundation is registered as a public foundation constituted for charitable purposes and, accordingly, is exempt from income taxes, provided certain requirements of the Income Tax Act (Canada) are met.

**1. SIGNIFICANT ACCOUNTING POLICIES:**

(a) Use of estimates:

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the year. Actual results could differ from those estimates.

(b) Bonds, debentures and shares:

Bonds, debentures and shares are valued at year-end quoted market prices, where available. Where quoted market prices are not available, estimated fair values are calculated using comparable securities.

Bonds, debentures and shares of foreign corporations and the income derived therefrom are recorded in the accounts in Canadian funds, based on the rate of exchange at the transaction settlement date.

(c) Capital assets:

Capital assets are recorded at cost and are amortized on a straight-line basis using the following annual rates:

Asset	Rate
Computer equipment	25%

(d) Revenue recognition:

Investment income is recognized on the accrual basis.

(e) Grants:

Grants are recognized in the statement of operations as an expense in the year the grant is approved by the Board of Directors.

(f) Employee future benefits:

The Foundation has a defined benefit plan covering its employees. The benefits are based on years of service and salaries. The cost of this program is being funded currently. The Company accrues its obligations under the employee defined benefit plan as the employees render the services necessary to earn the pension benefits. The last actuarial valuation was performed as of June 1, 2010 and the next actuarial valuation is required effective June 1, 2011.

## THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

### NOTES TO FINANCIAL STATEMENTS (CONTINUED) YEAR ENDED DECEMBER 31, 2010

(g) Financial instruments:

The Foundation applies the requirements of Section 3861, Financial Instruments - Disclosure and Presentation. In accordance with the Accounting Standards Board's decision to exempt not-for-profit organizations from the disclosure requirements with respect to financial instruments within Section 3862, Financial Instruments - Disclosures, and Section 3863, Financial Instruments - Presentation, the Foundation has elected not to adopt these standards in its financial statements.

#### 2. CASH AND CASH EQUIVALENTS:

The Foundation considers deposits in banks and short-term investments with original maturities of three months or less as cash and cash equivalents. Components of cash and cash equivalents are as follows:

	2010	2009
Cash on deposit	\$ 2,420,830	\$ 2,583,268
Beutel Goodman Cash Management Funds	131,092	85,449
	\$ 2,551,922	\$ 2,668,717

#### 3. INVESTMENTS:

Investments are managed by four independent investment managers.

	2010		2009	
	BOOK VALUE	MARKET VALUE	BOOK VALUE	MARKET VALUE
Bonds and debentures:				
Beutel Goodman and Company Limited	\$ 25,395,499	\$ 26,234,784	\$ 28,667,434	\$ 29,147,059
Shares:				
Magna Vista Investment Management	23,065,036	28,052,600	20,626,431	25,069,148
Neuberger Berman, LLP	13,867,010	16,228,347	13,582,209	14,517,258
AGF Asset Management Group	8,949,118	7,629,052	8,865,353	8,780,530
	\$ 45,881,164	\$ 51,909,999	\$ 43,073,993	\$ 48,366,936

#### 4. CAPITAL ASSETS:

	2010		2009	
	COST	ACCUMULATED AMORTIZATION	NET BOOK VALUE	NET BOOK VALUE
Furniture and equipment	\$ 28,752	\$ 28,752	\$ -	\$ -
Computer equipment	28,282	28,282	-	1,502
Leasehold improvements	18,141	18,141	-	-
	\$ 75,175	\$ 75,175	\$ -	\$ 1,502

#### 5. GRANTS PAYABLE:

Grants payable represent the balance of grants approved by the Board of Directors which are payable over the next two years.

## THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
YEAR ENDED DECEMBER 31, 2010**6. RESTRICTION ON NET ASSETS:**

The Board of Directors has internally restricted the original net assets which established the Foundation as the base on which investment income would be earned annually to fund general operations and provide funds for charitable endeavours in the health field. Annually, the Board of Directors increases or decreases these internally restricted amounts depending on the level of grants awarded in the year. These internally restricted amounts are not available for other purposes without approval of the Board of Directors.

**7. LEASE COMMITMENTS:**

The Foundation has leased office premises and certain equipment under net operating leases which expire at various dates to May 31, 2015. Future minimum payments, by year and in aggregate, are as follows:

2011	\$ 46,265
2012	46,265
2013	44,717
2014	41,021
2015	17,092
	\$ 195,360

**8. EMPLOYEE FUTURE BENEFITS:**

The Foundation makes contributions, on behalf of its staff, to the Employees of the Physicians' Services Incorporated Foundation Pension Plan (the "Plan"). Employees are required to contribute 5% of their earnings to the Plan. The Plan is a defined benefit plan which specifies the amount of the retirement benefit to be received by the employees based on the length of service and salaries.

Information about the Foundation's defined benefit plan is as follows:

	2010	2009
Accrued benefit obligation	\$ 725,692	\$ 752,757
Fair value of plan assets	605,732	579,679
Funded status - deficit	\$ (119,960)	\$ (173,078)
Unamortized transitional obligation	\$ 2,414	\$ 4,823
Unamortized net actuarial loss	221,394	308,149
Accrued benefit asset	\$ 103,848	\$ 139,894

The significant actuarial assumptions adopted in measuring the Foundation's accrued benefit obligation are as follows (weighted-average assumptions as of December 31):

	2010	2009
Discount rate	5.25 %	5.50 %
Expected long-term rate of return on plan assets	6.50 %	6.50 %
Rate of compensation increase	3.00 %	3.00 %

## THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

### NOTES TO FINANCIAL STATEMENTS (CONTINUED) YEAR ENDED DECEMBER 31, 2010

The net expense for the Foundation's defined benefit plan for the current year was \$58,856 (2009 - \$40,200).

Other information about the Foundation's defined benefit plan is as follows:

	2010	2009
Employer contributions	\$ 22,810	\$ 27,898
Employees' contributions	10,194	11,968

The fair value of plan assets consists of the following:

	2010	2009
Cash and cash equivalents	8.30 %	3.90 %
Fixed income	35.30 %	37.26 %
Equities	56.40 %	58.84 %
	100.00 %	100.00 %

#### 9. FAIR VALUE OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES:

The carrying values of cash and cash equivalents, dividends and interest receivable, accounts payable and accrued liabilities and grants payable approximate their fair values due to the relatively short periods to maturity of these items.

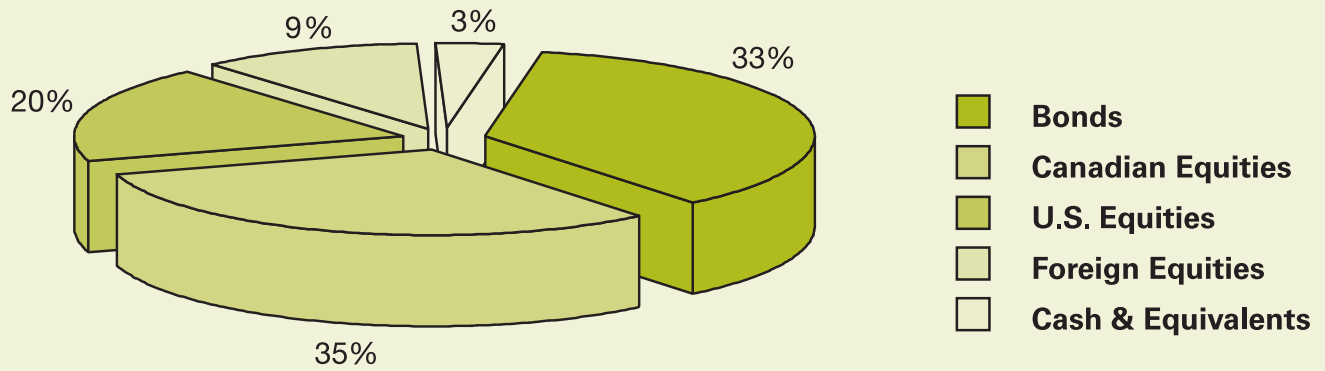
Foreign exchange risk arises from fluctuations in foreign exchange rates and the degree of volatility of these rates. The Foundation is exposed to foreign exchange risk in its foreign investment portfolios. The Foundation does not use derivative instruments to reduce its exposure to foreign investment risk.

Interest rate risk arises from fluctuations in interest rates and the degree of volatility of these rates. The Foundation is exposed to interest rate risk on its bonds and debentures investments. The Foundation does not use derivative instruments to reduce its exposure to interest rate risk.

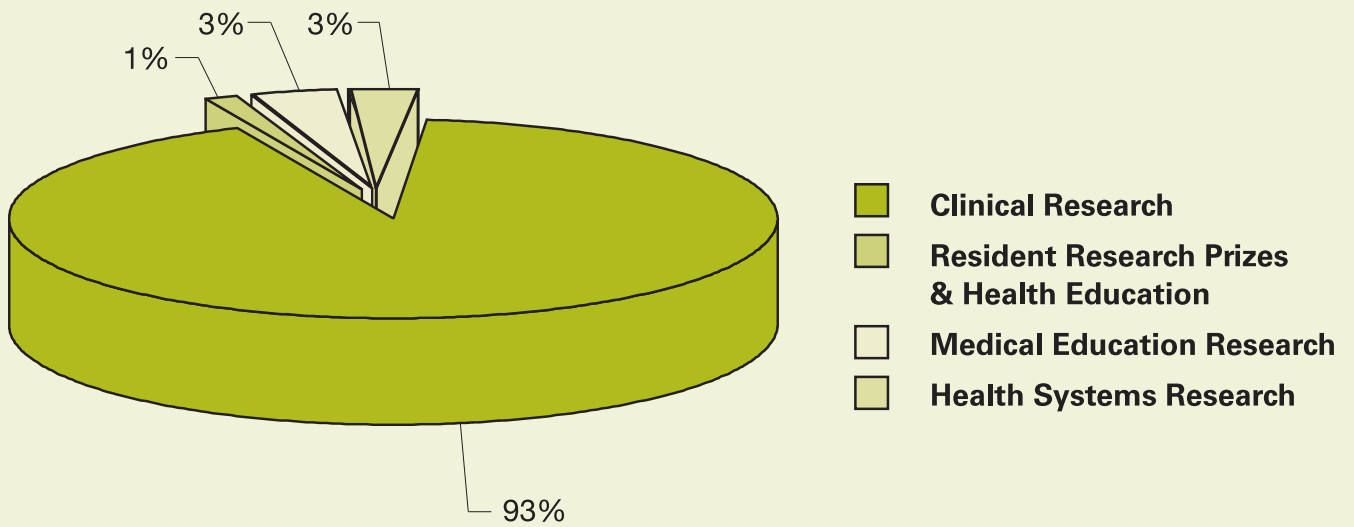
#### 10. COMPARATIVE FIGURES:

Certain 2009 comparative figures have been reclassified to conform with the financial presentation adopted in the current year.

2010 DISTRIBUTION OF ASSETS AT MARKET VALUE



2010 DISTRIBUTION OF GRANTS APPROVED



**THE  
PHYSICIANS'  
SERVICES  
INCORPORATED  
FOUNDATION**

**GRANTS APPROVED**

FOR THE YEAR ENDED DECEMBER 31, 2010

**AMOUNT  
APPROVED**

**HEALTH EDUCATION**

**Fellowships for Practising Physicians**

Dr. G. DiDiodato	\$	21,300
Dr. M. Levin	\$	3,000
Dr. A. Sharma	\$	12,850
Dr. R. Trenholm	\$	8,800

**Total Health Education**

**\$ 45,950**

**HEALTH SYSTEMS RESEARCH**

**Queen's University**

Dr. G. Evans		
Rural Well Water Contamination and Human Health: An Investigation in Eastern Ontario	\$	170,000
Dr. R. Ilan		
Video-Based Study of Communication During Handovers: How Do Intensive Care Physicians Use SBAR?	\$	25,400

**University of Ottawa**

Dr. L. Calder		
Improving the Safety of Patients Who Present to The Emergency Department With Respiratory Distress: An Analysis of Adverse Events	\$	39,800
Dr. A. Haligua*, Dr. L. Calder		
Handover in the Emergency Department: Assessment and Implementation of a Standardized Tool	\$	17,500

**Total Health Systems**

**\$ 252,700**

**MEDICAL EDUCATION RESEARCH**

**University of Ottawa**

Dr. W. Gofton		
The Ottawa Surgical Competency Operating Room Evaluation (O-SCORE) - Evaluation of a Tool to Assess Surgical Competence Across Specialties	\$	24,000

**Sunnybrook Health Sciences Centre**

Dr. D. Piquette		
Guided Acute Resuscitation: Does Education Depend on Trainees' Interactions and Participation? (The GUARDED TIP Study)	\$	43,200

**GRANTS APPROVED**

FOR THE YEAR ENDED DECEMBER 31, 2010 (CONTINUED)

AMOUNT  
APPROVED**MEDICAL EDUCATION RESEARCH (CONTINUED)****Toronto Western Hospital**

Dr. R. Niazi	
The Use of Web-Based Interactive 3D Anatomic Models for Teaching Ultrasound Guided Neuraxial Nerve Blocks	\$ 69,100

**Total Medical Education Research****\$ 136,300****CLINICAL RESEARCH****McMaster University**

Dr. P. Devereaux	
NeuroVISION Pilot Study	\$ 85,000
Dr. K.C.Y. To*, Dr. C.M. Clase	
Oral Cholecalciferol (Vitamin D3) Therapy in Prevalent Hemo-dialysis Patients: A Randomized Placebo Controlled Pilot Study	\$ 20,000

**Queen's University**

Dr. A.K. Ellis	
Predicting Allergic Risk at Birth Through Cord Blood Analysis	\$ 148,500
Dr. E. Petrof	
Harnessing the Healthy Gut Microbiota to Cure Patients with Recurrent C.difficile Infection	\$ 170,000

**University of Ottawa**

Dr. S. Dhanani	
Pilot Study for the Determination of Death After Cardiac Arrest	\$ 133,000
Dr. M. Lines*, Dr. K. Boycott	
Gaining Insight Into Human Craniofacial Development Through the Identification of a Novel Gene for Mandibulofacial Dysostosis	\$ 12,800
Dr. M. Prud'homme-Foster*, Dr. S. Papp	
Biomechanical Evaluation of the Long and Short Heads of the Distal Biceps Contribution to Elbow Flexion Strength and Forearm Supination Strength	\$ 17,500

**University of Toronto**

Dr. D. Rootman*, Dr. H. Yucal	
Cavernous Hemangioma of the Orbit as Vascular Malformation: Clinical Features, Imaging, Histology, Histogenesis and Flow Dynamics	\$ 18,000

**Holland Bloorview Kids Rehabilitation Hospital**

Dr. E. Anagnostou	
A Pilot, Does Finding Study of Pioglitazone in Children with ASD	\$ 127,700

**Hospital for Sick Children**

Dr. D. Bagli, Dr. A. Lorenzo	
Uropathogenic E.coli (UPEC) Infection-Induced Alterations of the Uroepithelial Cell Epigenome as a Marker for Urinary Tract Infection Risk	\$ 170,000

**GRANTS APPROVED**

FOR THE YEAR ENDED DECEMBER 31, 2010 (CONTINUED)

AMOUNT  
APPROVED**CLINICAL RESEARCH (CONTINUED)****Hospital for Sick Children (continued)**

Dr. C. Birken		
PROMOTE: Preschoolers at Risk-Obesity and Cardiometabolic Risk Factors: Towards Early Identification	\$	168,200
Dr. A. Doria, Dr. S. Schuh		
Diagnostic Accuracy of an Imaging Pathway in Suspected Pediatric Appendicitis	\$	169,500
Dr. A-F. El-Kuffash, Dr. P. McNamara		
The Use of Echocardiographic and Biochemical Markers to Predict Low Cardiac Output Following Patent Ductus Arteriosus Ligation in Preterm Infants	\$	15,900
Dr. S. Freedman		
Is Electrolyte Maintenance Solution Administration Required in Low-Risk Children with Gastroenteritis?	\$	169,200
Dr. J. Friedman		
Randomized, Double Blind, Controlled Trial of 0.9% NaCl/dextrose 5% vs 0.45% NaCl/dextrose 5% as Maintenance Intravenous Fluids in Hospitalized Children	\$	46,500
Dr. S. Gupta*, Dr. A. Punnett		
Tumour-Associated Macrophages as Predictors of Survival in Paediatric Hodgkins Lymphoma	\$	13,000
Dr. R.F. Spitzer		
Use of ACASI to Gather Information on Risk Behaviours in a Referral Population of Pregnant Canadian Adolescents	\$	37,800
Dr. K. W-Y. Wong*, Dr. C.R. Forrest		
CLEFT-Q: Development of a Patient-Reported Outcome Measure for Cleft Lip and Palate	\$	19,500

**Mount Sinai Hospital**

Dr. G. Fitzgerald*, Dr. S. Keating		
Placental Stereology in Complicated Monochorionic Diamniotic Twin Pregnancies	\$	15,500
Dr. G. Hirschfield		
Primary Biliary Cirrhosis-The Genomics of Treatment Response and Outcomes	\$	168,000
Dr. V. Shah		
Comparison of 2% Chlorhexidine in 70% Isopropyl Alcohol Versus 2% Aqueous Chlorhexidine for Skin Antisepsis Prior to Venepuncture in Very Low Birth Weight Infants: A Planned Non-Inferiority Trial	\$	136,000

**Princess Margaret Hospital**

Dr. K. Khalili		
Detection of Occult Bowel Hemorrhage Using Gadofosveset Trisodium-Enhanced MRI	\$	26,200

**St. Michael's Hospital**

Dr. T. Daniels		
Patients' Perspectives on Total Ankle Arthroplasty: A Qualitative Study Exploring Pre- and Postoperative Experiences	\$	85,500
Dr. C. De Mestral*, Dr. A. Nathens		
Early Versus Delayed Laparoscopic Cholecystectomy: A Population-Based Analysis of Safety, Efficacy and Cost Utility	\$	19,000
Dr. J. Hall, Dr. M. McKee		
A Multicentre, Randomized Trial of Conservative Treatment Versus Operative Plate Fixation for Acute, Displaced Fractures of the Distal Clavicle	\$	106,600

**GRANTS APPROVED**

FOR THE YEAR ENDED DECEMBER 31, 2010 (CONTINUED)

AMOUNT  
APPROVED**CLINICAL RESEARCH (CONTINUED)****St. Michael's Hospital (continued)**

Dr. W. Lee	
Pathogenesis of Serious Infections with Influenza: Role and Mechanisms of Microvascular Leak	\$ 170,000
Dr. R. Wald	
Renal Replacement Modality and Long-Term Outcomes in Patients with Acute Kidney Injury	\$ 57,500

**Sunnybrook Health Sciences Centre**

Dr. R. Holtby	
Impact of Autologous Platelet Rich Plasma on Enhancing Repair of Rotator Cuff Tendons: A Multicentre Randomized Controlled Trial	\$ 156,300
Dr. M. Jeschke	
Glucose Control in Severely Burned Patients: Mechanisms and Therapeutic Potential	\$ 165,000
Dr. N. Nasef, Dr. E. Ng	
Effects of Continuous Positive Airway Pressure (CPAP) Delivered by High Flow Nasal Cannula (HFNC) versus Nasal Continuous Positive Airway Pressure (NCPAP) on the Diaphragm Electrical Activity in Very Low Birth Weight Preterm Infants	\$ 24,500
Dr. S. Rizoli	
Catecholamines as Outcome Markers in Traumatic Brain Injury Study - (COMA in TBI Study)	\$ 162,500

**Toronto General Hospital**

Dr. H. Clarke	
The Phenomics and Genomics of Clinically Relevant Chronic Postsurgical Pain	\$ 170,000
Dr. S. Haykal*, Dr. T. Waddell	
Defining the Structural Integrity of Decellularized Tracheal Allografts	\$ 19,500
Dr. N. Paul, Dr. P. Rogalla	
The Impact of Obesity on Image Quality and Patient Radiation Dose During Thoracic Computed Tomography	\$ 109,200
Dr. M. Selzner	
Ex Vivo Human Liver Perfusion: Assessment and Repair of Marginal Liver Grafts for Transplantation	\$ 168,000
Dr. T. Waddell	
Determining the Immunogenicity of Decellularized Tracheal Allografts	\$ 155,000
Dr. V.T. Yin*, Dr. P. Kertes	
Antibiotic Resistance of Ocular Surface Flora After Continued Use of Topical Antibiotics Post Intravitreal Injection	\$ 20,000

**Toronto Western Hospital**

Dr. D. Cook*, Dr. M. Tymianski	
Differential Gene Expression in the Non-Human Primate and Rat: Whole Genome Differential Gene Expression in the Immediate Early Phase Following Stroke	\$ 20,000
Dr. M. Fehlings, M. Shoichet, Ph.D.	
A Bioengineered Approach to Enhance Recovery Following Severe Traumatic Spinal Cord Injury	\$ 154,800
Dr. S. Riazi	
Can Ultrasound Detect Diabetic Peripheral Neuropathy	\$ 19,000
Dr. R. Wennberg, Dr. C. Tator	
Post-Concussion Syndrome in Professional Athletes: A Multidisciplinary Study	\$ 170,000

**GRANTS APPROVED**

FOR THE YEAR ENDED DECEMBER 31, 2010 (CONTINUED)

AMOUNT  
APPROVED**CLINICAL RESEARCH (CONTINUED)****West Park Healthcare Centre**

Dr. R. Goldstein

Does Breathing Helium-Hyperoxia Increase the Tolerance of One-Legged Exercise  
in Ventilatory Limited Patients with Chronic Obstructive Pulmonary Disease?

\$ 54,800

**Women's College Hospital**

Dr. K. Davidge\*, Dr. J. Semple

Quality of Recovery in Women Undergoing Autogenous Breast Reconstruction  
in an Ambulatory Setting

\$ 13,500

**University of Western Ontario**

Dr. B. Alolabi\*, Dr. G. King

Coronoid Fracture Repair and Reconstruction of the Elbow

\$ 19,800

Dr. K. Forward\*, Dr. M. Rieder

In Vivo Prednisolone/Prednisone Pharmacokinetic Study in Children with  
Asthma Exacerbations

\$ 19,000

Dr. T. Joy, Dr. M. Beaton

Sitagliptin for the Treatment of Non-Alcoholic Steatohepatitis in Patients with  
Type 2 Diabetes

\$ 115,000

Dr. P. Luke

Dendritic Cell Therapy Combined with Soluble CD83 to Prevent Allograft Rejection

\$ 169,000

Dr. L. Moist, Dr. C.E. Lok

Effect of an Upper Arm Vascular Access on Left Ventricular Mass and Function

\$ 169,000

Dr. M. Nadeau\*, Dr. C.S. Bailey

Soft Tissue Injury Model of the Cervical Spine Following Unilateral Facet Dislocation

\$ 19,200

Dr. K.N. Vogt\*, Dr. N. Parry

The Use of Gentamicin-Impregnated Collagen Implants to Prevent Surgical Site  
Infection in Colorectal Surgery: A Randomized Controlled Trial

\$ 20,000

**Total Clinical Research****\$ 4,439,500****GRAND TOTAL****\$ 4,874,450**

\*Resident Research

## THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

## RESIDENT RESEARCH PRIZES

## FOR EXCELLENCE IN RESEARCH PAPERS 2010

TITLE OF PAPER	AWARDEE	DEPARTMENT
<b>Queen's University</b>		
Clinical Impact of Fibrosis in Hodgkin Lymphoma	Church, A.	Anatomical Pathology
Audit Filters for Improving Processes of Care and Clinical Outcomes in Trauma Systems	Evans, C.	Emergency Medicine
MicroRNA Profiles in Merkel Cell Carcinoma: Analysis via Microarray and Novel Cloning and Sequencing Method	Masry, P.	Anatomical Pathology
Abusive versus Non-Abusive Head Injury in Children: A Systematic Review	Piteau, S.	Pediatrics
Urine MicroRNA as a Biomarker for Urothelial Cancer: A Pilot Study	Snowdon, J.	Anatomical Pathology
<b>McMaster University</b>		
Using a Didactic Lecture and Live Field Simulation to Teach Disaster Medicine to Emergency Medicine Residents	Channan, P.	Emergency Medicine
The Utility of Multislice CT for the Detection of Parathyroid Adenomas	Dorota, L.	Radiology
Predictors of Severe Illness Among Hospitalized Pediatric Patients With 2009 Pandemic Influenza A (pH1N1) Infection in Canada	El Sayad, M. Zurairi, M. (shared award)	Pediatrics
Treating Generalized Anxiety Disorder With Second Generation Antipsychotics: A Systematic Review and Meta-Analysis	Lalonde, C.	Psychiatry and Behavioural Neurosciences
Randomized Trial of Fondaparinux versus Heparin to Prevent Graft Failure After Coronary Artery Bypass Grafting: The Fonda CABG Pilot Study	Sun, J.	Cardiac Surgery
<b>University of Western Ontario</b>		
An In-Depth Study of Extraprostatic Extension and Margin Status in Radical Prostatectomies for Prostate Cancer	Chan, S.	Anatomical Pathology
The Early Postoperative Course of Surgical Sleep Apnea: Patients Lay Summary	Hu, A.	Otolaryngology
Assessment of Hepatic Inflammation After Spinal Cord Injury Using Intravital Microscopy	Hundt, H.	Orthopaedic Surgery
Sleep Apnea, Daytime Somnolence and Idiopathic Dizziness – A Novel Association	Sowerby, L.	Otolaryngology

**RESIDENT RESEARCH PRIZES****FOR EXCELLENCE IN RESEARCH PAPERS 2010 (CONTINUED)**

<b>TITLE OF PAPER</b>	<b>AWARDEE</b>	<b>DEPARTMENT</b>
The Use of Trauma Transfusion Pathways for Blood Component Transfusion in the Civilian Population: A Systematic Review and Meta-Analysis	Vogt, K.	General Surgery
<b>University of Ottawa</b>		
Healing Time of Radial Forearm Free Flap Donor Sites after Pre-Operative Tissue Expansion: A Randomized Controlled Trial	Bonaparte, J.	Otolaryngology
The Gastroschisis Prognostic Score" Outcome Prediction in Gastroschisis	Cowan, K.	Pediatric General Surgery
Reamed versus Nonreamed Intramedullary Nailing of Femoral Diaphyseal Fractures: A Systematic Review	Goulding, K.	Orthopaetic Surgery
Postoperative Venous Thromboembolism Independently Predicts Disease Specific Survival in Cancer Patients	Scheer, A.	General Surgery
Evaluation of ThinkFirst for Kids Head Injury Prevention Curriculum for Grades 7/8	Shamji, M.	Neurosurgery
<b>Northern Ontario School of Medicine</b>		
Family Physicians' Strategies to Reduce Patients out-of-Pocket Medication Costs in Northern Ontario	Balec, R.	Family Medicine
Knowledge, Attitudes, and Beliefs of Thunder Bay Residents Regarding H1N1 Influenza	Goodman, E.	Family Medicine
<b>University of Toronto</b>		
The Effect of Regionalization on Outcome in Pulmonary Lobectomy: A Canadian National Study	Finley, C.	Thoracic Surgery
Long-Term Results of the Toronto Magnetic Resonance Imaging (MRI) Breast Surveillance Study for Women With BRCA1 or BRCA2 Mutations	Passaperuma, K.	Medical Oncology
Arginase and YKL-40 of Immunosuppressive Myeloid Cells, are Over-Expressed in the Bone Marrow of Most Chronic Myelomonocytic Leukemia Patients, and are Potential Prognostic Biomarkers in Myelodysplastic Syndromes	Rauh, M.	Haematological Pathology
Prolonged Serologically Active Clinically Quiescent (SACQ) Systemic Lupus Erythematosus: Frequency and Outcome	Steiman, A.	Rheumatology
NK-92 Preferentially Kills Acute Myeloid Leukemia Stem Cells	Williams, B.	Pediatrics

## THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

RECENTLY PUBLISHED PAPERS  
ON FOUNDATION FUNDED PROJECTS

TITLE	GRANTEE	JOURNAL
Randomized Trial of a Decision Aid for Patients With Cystic Fibrosis Considering Lung Transplantation	Aaron, S.	Am. J. Respir. Crit. Care Med., 180:761-768, 2009
Development of a Decision Aid for Adult Cystic Fibrosis Patients Considering Referral for Lung Transplantation	Aaron, S.	Progress in Transplantation 20(1):81-87, 2010
Cutting Your Nerve Changes Your Brain	Anastakis, D. Davis, K.	Brain, 132:3122-3133, 2009
Chronic Pain and Sensorimotor Deficits Following Peripheral Nerve Injury	Anastakis, D.	Pain, 151(3):561-562, 2010
Hypertonic Saline Resuscitation from Hemorrhagic Shock Does Not Impair the Neutrophil Response to Intra-Abdominal Infection	Cantos, M.	Surgery, 144(5):814-821, 2008
Remote Ischemic Preconditioning by Hindlimb Occlusion Prevents Liver Ischemic/Reperfusion Injury	Cantos, M.	Ann. Surgery, 251(2): 292-299, 2010
Bereavement Practices of Physicians in Oncology and Palliative Care	Chao, N. Krzyzanowska, M.	Arch. Intern. Med., 169(10):963-971, 2009
FISH Assay Development for the Detection of p16/CDKN2A Deletion in Malignant Pleural Mesothelioma	Chung, C. Tsao, M-S.	J. Clin. Pathol., 63:630-634, 2010
Adding Gabapentin to a Multimodal Regimen Does Not Reduce Acute Pain, Opioid Consumption or Chronic Pain After Total Hip Arthroplasty	Clarke, H. Kay, J.	Acta Anaesthesiol. Scand., 53(8):1073-1083, 2009
Acute Pain After Total Hip Arthroplasty Does Not Predict the Development of Chronic Postsurgical Pain 6 Months Later	Clarke, H. Kay, J.	J. Anesth., 24(4): 537-543, 2010
Fracture Risk Assessment in Chronic Kidney Disease, Prospective Testing Under Real World Environments (FRACTURE): A Prospective Study	Jamal, S.A.	BMC Nephrology, 11:17, 2010
Bone Mass Measurements in Men and Women With Chronic Kidney Disease	Jamal, S.A.	Curr Opin Nephrol Hypertens., 19:343-348, 2010
Effect of Inhaled Hypertonic Saline on Hospital Admission Rate in Children with Viral Bronchiolitis: A Randomized Trial	Kuzik, B.	CJEM; 12(6):477-84, 2010

## RECENTLY PUBLISHED PAPERS

## ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Indoleamine 2, 3-Dioxygenase Activation and Depressive Symptoms in Patients With Coronary Artery Disease	Lanctôt, K. Herrmann, N.	Psychoneuro- endocrinology, 34(10):1560-1566, 2009
A Meta-Analysis of Cytokines in Major Depression	Lanctôt, K. Herrmann, N.	Biol. Psychiatry, 67(5):446-457, 2010
A Meta-Analysis of Cytokines in Alzheimer's Disease	Lanctôt, K. Herrmann, N.	Biol. Psychiatry, 68(10):930-941, 2010
Efficacy and Tolerability of Antidepressants for Treatment of Depression in Coronary Artery Disease: A Meta-Analysis	Lanctôt, K. Herrmann, N.	Can. J. Psychiatry, 55(2):91-99, 2010
Cardiopulmonary Fitness is Associated with Cognitive Performance in Patients with Coronary Artery Disease	Lanctôt, K. Herrmann, N.	J. Am. Geriatric. Soc., 58(8):1519-1525, 2010
Carotid Endarterectomy Benefits Patients With CKD and Symptomatic High-Grade Stenosis	Mathew, A. Garg, A.	J. Am. Soc. Nephrol., 21:145-152, 2010
Threat and Challenge: Cognitive Appraisal and Stress Responses in Simulated Trauma Resuscitations	Nathens, A. Harvey, A.	Medical Education, 44:587-594, 2010
Effect of Donor Pneumoperitoneum on Early Allograft Perfusion Following Renal Transplantation in Pediatric Patients: An Intraoperative Doppler Ultrasound Study	Pace, K.	Pediatr. Transplant., 12(5):522-526, 2008
Impact of Arterial and Arteriovenous Renal Clamping With and Without Intrarenal Cooling on Renal Oxygenation and Temperature in a Porcine Model	Pace, K.	J. Endourol., 22(10):2367 2372, 2008
Validation of a Modified Version of the National Nosocomial Infections Surveillance System Risk Index for Health Services Research	Redelmeier, D.A. Daneman, N.	Infect. Control Hosp. Epidemiol., 30:563-569, 2009
Statin Use and the Risk of Surgical Site Infections in Elderly Patients Undergoing Elective Surgery	Redelmeier, D.A. Daneman, N.	Arch. Surg., 144(10): 938-945, 2009
Introducing a Methodology for Estimating Duration of Surgery in Health Services Research	Redelmeier, D.A. Daneman, N.	J. Clin. Epidemiol., 61:882-889, 2008
Delirium After Elective Surgery Among Elderly Patients Taking Statins	Redelmeier, D.A. Daneman, N.	CMAJ, 179(7):645-652, 2008
Personalized Oral Debriefing versus Standardized Multimedia Instruction After Patient Crisis Simulation	Welke, T. Naik, V.	Anesth. Analg., 109: 183-189, 2009
Topical Application of Tranexamic Acid Reduces Postoperative Blood Loss in Total Knee Arthroplasty: A Randomized, Controlled Trial	Wong, J.	J. Bone Joint Surg. Am., 92:2503-2513, 2010

**RECENTLY PUBLISHED PAPERS****ON FOUNDATION FUNDED PROJECTS (CONTINUED)**

<b>TITLE</b>	<b>GRANTEE</b>	<b>JOURNAL</b>
FUS-Immunoreactive Intranuclear Inclusions in Neurodegenerative Disease	Woulfe, J.	Brain Pathol., 20(3): 589-597, 2010
Depletion of Intranuclear Rodlets in Mouse Models Diabetes	Woulfe, J.	Endocr. Pathol., of 21(4):230-235, 2010

## SCIENTIFIC PRESENTATIONS FOR 2011 ANNUAL MEETING

At the annual Delegates meeting held in April, the membership is given an opportunity to hear from some of the researchers who have received grants from the Foundation, and to learn about the results of the research. Featured below are profiles of the two grantees invited to attend the 2011 meeting. These are just two examples of the many outstanding clinician scientists whose work the Foundation is proud to have funded.

### DR. DEBORAH COOK, MCMASTER UNIVERSITY

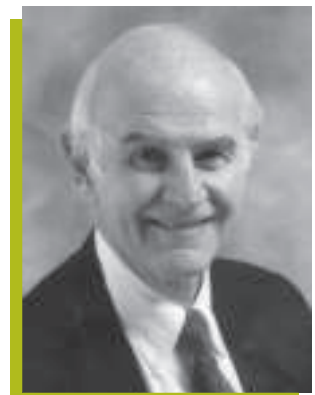
Dr. Deborah Cook is Professor of Medicine, Clinical Epidemiology and Biostatistics, and Academic Chair of Critical Care Medicine at McMaster University. She practices critical care medicine at St Joseph's Hospital in Hamilton, Ontario, Canada. She investigates the epidemiology, prevention, treatment and palliation of critical illness. Her work has advanced the design and conduct of multicenter studies. Dr. Cook engages in multimethod multidisciplinary research, translating knowledge into practice to prevent morbidity and mortality, particularly in the critically ill. She has also been active in the methodology of improving the design and reporting of randomized trials, systematic reviews and practice guidelines. She has published over 500 articles in peer-reviewed journals. Dr. Cook was Chair of the Canadian Critical Care Trials Group for 8 years. She has received many awards for her educational excellence, devoted mentorship, clinical research and academic leadership. Dr. Cook received the Distinguished Investigator Award from the American College of Critical Care Medicine in 2006 and the Elizabeth Rich Award from the American Thoracic Society in 2007. She holds a Canada Research Chair in Critical Care Knowledge Translation. Recently she was inducted as a Fellow of the Royal Society.



Dr. Deborah Cook

### DR. CHARLES H. TATOR, UNIVERSITY OF TORONTO

Dr. Charles H. Tator graduated from the faculty of Medicine at the University of Toronto, and trained there in research and neuropathology for which he received MA and PHD degrees. He then completed the Neurosurgery resident training program at the University of Toronto. In 1989, he became Chair of Neurosurgery, at the University of Toronto and Chief of Neurosurgery at the Toronto Western Hospital, and University Health Network. He has trained a large number of neurosurgical residents in the hospital, and many surgeon-scientists in his laboratory. In 1992, he founded ThinkFirst, Canada, a national brain and spinal cord injury foundation aimed at reducing the incidence of catastrophic brain and spinal cord injuries. He has published 321 papers in peer review journals and 85 book chapters, mostly in the field of brain and spinal cord injury. He developed the first acute spinal cord injury (SCI) unit in Canada in 1974 at Sunnybrook Medical Centre. He has performed research and written papers on the epidemiology, prevention and treatment of acute SCI. He has examined the role of spinal cord surgery and decompression in both clinical and experimental studies, and identified posttraumatic ischemia and other mechanisms of secondary injury in the pathophysiology of SCI. His acute cord clip compression model was one of the first clinically relevant SCI model in rodents. Currently, he is focused on the use of stem cells for regeneration of the spinal cord after trauma, ischemic or demyelinating disease. He initiated and has held two research chairs at the University of Toronto, the Dan Family Chair in Neurosurgery and the Campeau Family-Charles Tator Chair in Brain and Spinal Cord Research. He is a member of the Order of Canada, and an inductee into the Canadian Medical Hall of Fame. At present, he is a Senior Scientist in the Toronto Western Research Institute and a Professor of Neurosurgery at the University of Toronto. He is the Director of the Canadian Paraplegic Association Spinal Cord Injury Research Laboratory in the Krembil Neuroscience Centre at the Toronto Western Hospital. In 2010, he received the Lifetime Achievement Award, of the Canadian Neurosurgical Society and the Ken Langford Lifetime Award, of the Canadian Paraplegic Association.



Dr. Charles H. Tator



## VISION STATEMENT

### BACKGROUND

When the Foundation was established in 1970 it was agreed that it should primarily be a granting agency rather than an operating agency and it continues to be managed by the physicians of Ontario. It was mandated by the Board of the new foundation, and the participating physicians, that the Foundation's prime objective should be the provision of funds solely within the health field.

To meet this mandate the Board of the new Foundation agreed that a diversified portfolio should be held consisting of equities and income-producing securities to permit a consistent level of granting.

### THE VISION

The Foundation seeks to build upon its unique situation in the health research community, as a physician sponsored granting agency, and is based on the belief that continued support of peer reviewed, innovative research, will bring new and improved benefits to clinical practice.

The vision of the Foundation is to seek to address the unparalleled challenges that will face physicians in providing effective health care for their patients in the years to come.

The essential supporting structure of this vision is to encourage the research efforts of the new investigator, as well as providing funding for the education of practising physicians.





# EDUCATIONAL FELLOWSHIPS FOR PRACTISING PHYSICIANS IN ONTARIO

## PURPOSE

To encourage practising physicians to undertake training to acquire a clinical skill or knowledge currently lacking in the community or to undertake training in research methodology. The Foundation reserves the right to restrict the number of awards approved for physicians practising within the same community, who wish to undertake the same training.

## TERMS OF REFERENCE

1. The program is directed at Ontario physicians in established practice, preferably residing outside the teaching centres. It is not intended for extended support of a physician undertaking full time training leading to a degree or specialty, although the M.Sc. course will be considered for physicians undertaking training in research methodology.
2. The program is available to both general practitioners and specialists.
3. Preference is given to a training program involving active participation by the applicant rather than mere observation.
4. Training must be undertaken at the closest suitable centre. Funding is not provided for the physician residing in the same area as where the training will be undertaken.
5. The applicant must have the approval and support of the local medical society or the physicians within the community.
6. The need in the community for the skill to be acquired must be demonstrated to the satisfaction of the Foundation and a letter of endorsement should demonstrate this need.
7. Where the application of the skill or knowledge requires the use of new equipment, the Foundation requires a letter from the hospital administrator indicating the equipment is installed or on order for early delivery.

**NOTE: Conditions 5, 6 and 7 do not apply to research methodology training.**

8. The applicant must arrange for the Foundation to receive a letter from the institution at which the training will take place confirming acceptance of the applicant and outlining the training program and the tenure thereof.
9. Unless otherwise agreed to in writing by the Foundation, a fellowship will not be awarded to any applicant who has or will receive financial assistance for the same training from any other source.
10. The program does not apply to residency training or sabbatical leave and is not designed to assist physicians taking refresher courses.

## EXPENSES COVERED

1. Course fees.
2. Return transportation.
3. Room and board.

Applications are available on the Foundation's website.

